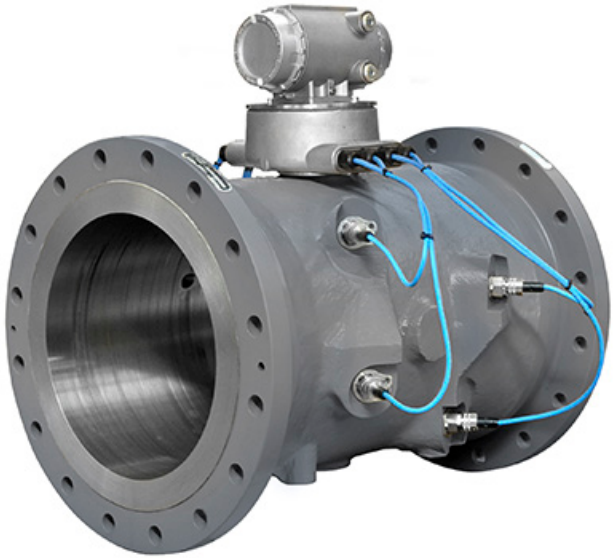
3810 Modbus Map

Reference Manual



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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40021	20	BaudPortA	Communication Port A baud rate The baud rate used for serial port A.	RW	Y	Y		long	bits/sec	bits/sec	uint32	bits/sec	1200 (1200) 2400 (2400) 9600 (9600) 19200 (19200) 38400 (38400) 57600 (57600) 115200 (115200)	19200	1200	115200
40023	22	ModbusIDPortA	Comm Port A Modbus address The Modbus address used by communication Port A. The Modbus address is also used as a basis for the meter's IP address in the form 172.16.17.ModbusID when the meter is running a PPP server on the serial port.	RW	Y	Y		long	-	-	uint8	-		32	1	247
40025	24	CommRspDlyPortA	Comm Port A response delay Communication Port A response delay. The communication port will wait the specified amount of time before sending a response.	RW	Y	Y		long	ms	ms	uint8	ms		0	0	100
40027	26	CommTimeoutPortA	Comm Port A communication timeout value The meter must respond to Modbus request messages within this time limit; if it cannot it will not respond at all.	RW	Y	Y		long	sec	sec	uint8	sec		4	0	255
40029	28	IsHWFlowControlEnabledPortA	Enables comm port A hardware flow control When TRUE (1), enables communication Port A hardware flow control (RTS/CTS).	RW	Y	Y		long	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40031	30	RTSOffDelayPortA	Comm Port A handshaking RTS off delay time Communication Port A handshaking RTS off delay time. The meter will hold RTS active for this amount of time after sending the reply.	RW	Y	Y		long	ms	ms	uint16	ms		0	0	1000
40033	32	RTSOnDelayPortA	Comm Port A handshaking RTS on delay time Communication Port A handshaking RTS on delay time. The meter will activate RTS for this amount of time before sending out the message.	RW	Y	Y		long	ms	ms	uint16	ms		0	0	1000
40035	34	SetPortAToOverride	Comm Port A parameter override indicator Set to TRUE (1) when the CPU Module's switch position 1 is moved from "OFF" to "ON" position. The meter automatically sets Port A to an override configuration (hardware protocol RS-232, baud rate 19200, Modbus address 32). Port A's normal configuration is restored after 2 minutes unless a PPP connection, established while override mode is in progress, in which case Port A's normal configuration is restored after the PPP connection ends.	R	Y			long	-	-	boolean	-	Use normal parameters (FALSE) Use override parameters (TRUE)			
40037	36	CommTCPTimeoutPortA	Inactivity timeout for PPP connections, port A Specifies the inactivity timeout (no TCP/IP packets) before the meter automatically disconnects a PPP connection (direct serial or modem connection) on Port A.	RW	Y	Y		long	sec	sec	uint8	sec		15	1	60
40039	38	DriverSelectionPortA	Hardware protocol on Port A Hardware protocol on Port A.	RW	Y	Y		long	-	-	uint8	-	RS-232 (0) RS-485 half-duplex (1) RS-485 full-duplex (2)	0	0	2
40041	40	BaudPortB	Communication Port B baud rate The baud rate used for serial port B.	RW	Y	Y		long	bits/sec	bits/sec	uint32	bits/sec	1200 (1200) 2400 (2400) 9600 (9600) 19200 (19200) 38400 (38400) 57600 (57600) 115200 (115200)	19200	1200	115200
40043	42	ModbusIDPortB	Comm Port B Modbus address The Modbus address used by communication Port B. The Modbus address is also used as a basis for the meter's IP address in the form 172.16.17.ModbusID when the meter is running a PPP server on the serial port.	RW	Y	Y		long	-	-	uint8	-		32	1	247
40045	44	CommRspDlyPortB	Comm Port B response delay Communication Port B response delay. The communication port will wait the specified amount of time before sending a response.	RW	Y	Y		long	ms	ms	uint8	ms		0	0	100
40047	46	CommTimeoutPortB	Comm Port B communication timeout value The meter must respond to Modbus request messages within this time limit; if it cannot it will not respond at all.	RW	Y	Y		long	sec	sec	uint8	sec		4	0	255
40049	48	Reserved		R				long								
40051	50	Reserved		R				long								
40053	52	Reserved		R				long								
40057	56	CommTCPTimeoutPortB	Inactivity timeout for PPP connections, port B Specifies the inactivity timeout (no TCP/IP packets) before the meter automatically disconnects a PPP connection (direct serial or modem connection) on Port B.	RW	Y	Y		long	sec	sec	uint8	sec		15	1	60
40059	58	DriverSelectionPortB	Hardware protocol on Port B Hardware protocol on Port B. This configuration is ignored when RS-232 or RS-485 Module is connected and needed when Expansion I/O Module is connected.	RW	Y	Y		long	-	-	uint8	-	RS-232 (0) RS-485 half-duplex (1)	0	0	1
40061	60	BaudPortC	Communication Port C Slave mode baud rate The baud rate used for serial port C.	RW	Y	Y		long	bits/sec	bits/sec	uint32	bits/sec	1200 (1200) 2400 (2400) 9600 (9600) 19200 (19200) 38400 (38400) 57600 (57600) 115200 (115200)	19200	1200	115200
40063	62	ModbusIDPortC	Comm Port C Slave mode Modbus address The Modbus address used by communication Port C. The Modbus address is also used as a basis for the meter's IP address in the form 172.16.17.ModbusID when the meter is running a PPP server on the serial port.	RW	Y	Y		long	-	-	uint8	-		32	1	247
40065	64	CommRspDlyPortC	Comm Port C response delay Communication Port C response delay. The communication port will wait the specified amount of time before sending a response.	RW	Y	Y		long	ms	ms	uint8	ms		0	0	100
40067	66	CommTimeoutPortC	Comm Port C communication timeout value The meter must respond to Modbus request messages within this time limit; if it cannot it will not respond at all.	RW	Y	Y		long	sec	sec	uint8	sec		4	0	255
40069	68	DriverSelectionPortC	Hardware protocol on Port C Hardware protocol on Port C. This configuration is ignored when RS-232 or RS-485 Module is connected and needed when Expansion I/O Module is connected.	RW	Y	Y		long	-	-	uint8	-	RS-232 (0) RS-485 half-duplex (1)	0	0	1
40075	74	HTTPServerPort	TCP port used for HTTP server The TCP/IP port used by the HTTP server. The port cannot be set to any of the reserved or well-known ports 1, 7, 20, 21, 23, 42, 53, 67, 68, 502, 10000, 10001, 10002, 10003, 11000, or 11001. Also the HTTP port cannot be set equal to Modbus TCP alternate port (Eth1AltModbusPort) or FTP server control port (FTPServerControlPort). The HTTP server restarts when the port number is changed. The HTTP server terminates if the port is set to zero.	RW	Y	Y	Y	long	-	-	uint16	-		80	0	65535
40077	76	CommTCPTimeoutPortC	Inactivity timeout for PPP connections, port C Specifies the inactivity timeout (no TCP/IP packets) before the meter automatically disconnects a PPP connection (direct serial or modem connection) on Port C.	RW	Y	Y		long	sec	sec	uint8	sec		15	1	60

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40079	78	Eth1AltModbusPort	Alternate TCP port used for Modbus TCP The TCP/IP port used for Modbus TCP in addition to port 502. The alternate port cannot be set to any of the reserved or well-known ports 1, 7, 20, 21, 23, 42, 53, 67, 68, 502, 10000, 10001, 10002, 10003, 11000 or 11001. The alternate port cannot be set equal to HTTP server port (HTTPServerPort) or FTP server control port (FTPServerControlPort). If the alternate port is changed while there are open connections on it, then the connections shall be closed. The alternate port cannot be set to zero when Modbus TCP alternate port slave read and write mode (Eth1AltModbusReadWriteMode) is set to a non-zero value.	RW	Y	Y		long	-	-	uint32	-		0	0	65535
40081	80	Eth1ModbusID	Ethernet port Modbus address The Modbus address for Modbus TCP/IP on the Ethernet port. This is the "unit identifier" that is used if the Modbus TCP/IP network has a bridge to a serial Modbus network.	RW	Y	Y		long	-	-	uint8	-		255	1	255
40083	82	CommTCPMaxDatagramSizePortA	Max datagram size port A The maximum MTU and MRU bytes in a datagram on serial port A.	RW	Y	Y		long	-	-	uint16	-		576	128	16384
40085	84	CommTCPMaxDatagramSizePortB	Max datagram size port B The maximum MTU and MRU bytes in a datagram on serial port B.	RW	Y	Y		long	-	-	uint16	-		576	128	16384
40087	86	CommTCPMaxDatagramSizePortC	Max datagram size port C The maximum MTU and MRU bytes in a datagram on serial port C.	RW	Y	Y		long	-	-	uint16	-		576	128	16384
40089	88	Reserved		R				long								
40091	90	ReadWriteModePortA	Serial port A read and write mode Indicate serial port A access level. When Read-write mode (0) is set, all valid read and write request will be performed. When Read-only mode (1) is set, all valid read requests will be performed and all write requests will be rejected. The serial port can be configured to allow PPP protocol only or to allow Modbus and PPP protocols (ProtocolPortA).	RW	Y	Y	Y	long	-	-	uint8	-	Read-write mode (0) Read-only mode (1)	0	0	1
40093	92	ReadWriteModePortB	Serial port B read and write mode Indicate serial port B access level. When Read-write mode (0) is set, all valid read and write request will be performed. When Read-only mode (1) is set, all valid read requests will be performed and all write requests will be rejected. The serial port can be configured to allow PPP protocol only or to allow Modbus and PPP protocols (ProtocolPortB).	RW	Y	Y	Y	long	-	-	uint8	-	Read-write mode (0) Read-only mode (1)	0	0	1
40095	94	ReadWriteModePortC	Serial port C read and write mode Indicate serial port C access level. When Read-write mode (0) is set, all valid read and write request will be performed. When Read-only mode (1) is set, all valid read requests will be performed and all write requests will be rejected. The serial port can be configured to allow PPP protocol only or to allow Modbus and PPP protocols (ProtocolPortC).	RW	Y	Y	Y	long	-	-	uint8	-	Read-write mode (0) Read-only mode (1)	0	0	1
40097	96	FTPServerControlPort	FTP server control port The port on which the FTP server listens for client connection requests. The port cannot be set to any of the reserved or well-known ports 1, 7, 20, 23, 42, 53, 67, 68, 502, 10000, 10001, 10002, 10003, 11000, or 11001. Also, the port cannot be set equal to Modbus TCP alternate port (Eth1AltModbusPort) or HTTP server port (HTTPServerPort). The FTP server restarts when the port is changed. The FTP server terminates if the port is set to zero.	RW	Y	Y	Y	long	-	-	uint16	-		21	0	65535
40101	100	UnitsSystem	Modbus and local display units system Selects the units for Modbus communications and for the local display. Available options are U.S. Customary and Metric. Also, these are the units used by the Field Setup Wizard in MeterLink™. US customary units is the default setting.	RW	Y	Y	Y	int	-	-	uint8	-	U.S. Customary (0) Metric (1)	0	0	1
40102	101	VolFlowRateTimeUnit	Volumetric flow rate time unit for Modbus communication Selects the Modbus communication volumetric flow rate time unit.	RW	Y	Y	Y	int	-	-	uint8	-	second (0) minute (3) hour (1) day (2)	1	0	3
40103	102	VolUnitMetric	Modbus metric volume unit Identifies the metric volume unit used for Modbus communication.	RW	Y	Y	Y	int	-	-	uint8	-	Cubic meters (0) Liters (1)	0	0	1
40104	103	VolUnitUS	Modbus U.S. Customary volume unit Identifies the U.S. Customary volume unit used for Modbus communication.	RW	Y	Y	Y	int	-	-	uint8	-	Barrels (1) Gallons (2)	1	1	2
40111	110	RTCSecondsSinceEpochSet	Used to set the system time This is used to set the system time in POSIX-compliant "time_t" format (seconds elapsed since midnight January 1, 1970 local time) within the range from the firmware release date to midnight January 19, 2038. Use the real-time clock read data point (RTCSecondsSinceEpochRead) to read the system time. When the system time is set then the meter's real-time clock is also updated. The system time might be adjusted for the following reasons: 1. Clock drift (the system time is different from the required time). 2. The meter is installed in a time zone that is different from the meter manufacturer's time zone or if a replacement CPU Module is installed in a time zone that is different from the meter manufacturer's time zone. 3. Adjustments for the start and end of daylight saving time. (This may cause two hourly logs to be generated with the same timestamp or may cause hourly logs for an hour to be skipped.)	RW				long	sec	sec	int32	Epoch sec		1041400800	1041400800	2147472000
40113	112	RTCMonth	Real-time clock month This is used to read and write system time's month. The system time of the meter can be adjusted by writing to real-time clock day (RTCDate), year (RTCYear), hour (RTCHour), minute (RTCMinute) and second (RTCSecond). When the system time is set then the meter's real-time clock is also updated.	RW				long	-	-	uint8	-	Jan (1) Feb (2) Mar (3) Apr (4) May (5) Jun (6) Jul (7) Aug (8) Sep (9) Oct (10) Nov (11) Dec (12)	1	1	12
40115	114	RTCDate	Real-time clock day This is used to read and write system time's day of the month. The system time of the meter can be adjusted by writing to real-time clock month (RTCMonth), year (RTCYear), hour (RTCHour), minute (RTCMinute) and second (RTCSecond). When the system time is set then the meter's real-time clock is also updated.	RW				long	-	-	uint8	-		1	1	31
40117	116	RTCYear	Real-time clock year (2 digit) This is used to read and write system time's year. This specifies the last two digits of the year, which are added to 2000 to derive the four-digit year. The year may be set to a value within the range of the firmware release year to 38. The system time of the meter can be adjusted by writing to real-time clock month (RTCMonth), day (RTCDate), hour (RTCHour), minute (RTCMinute) and second (RTCSecond). When the system time is set then the meter's real-time clock is also updated.	RW				long	-	-	uint8	-		3	0	99
40119	118	RTCHour	Real-time clock hour in 24-hour format This is used to read and write system time's hour (in military time). The system time of the meter can be adjusted by writing to real-time clock month (RTCMonth), day (RTCDate), year (RTCYear), minute (RTCMinute) and second (RTCSecond). When the system time is set then the meter's real-time clock is also updated.	RW				long	-	-	uint8	-		6	0	23
40121	120	RTCMinute	Real-time clock minute This is used to read and write system time's minute. The system time of the meter can be adjusted by writing to real-time clock month (RTCMonth), day (RTCDate), year (RTCYear), hour (RTCHour) and second (RTCSecond). When the system time is set then the meter's real-time clock is also updated.	RW				long	-	-	uint8	-		0	0	59

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40123	122	RTCSecond	Real-time clock second This is used to read and write system time's second. The system time of the meter can be adjusted by writing to real-time clock month (RTCMonth), day (RTCDate), year (RTCYear), hour (RTCHour) and minute (RTCMinute). When the system time is set then the meter's real-time clock is also updated.	RW				long	-	-	uint8	-		0	0	59
40131	130	ContractHour	Hour of day to log daily record in 24-hour format Hour of day to log the daily record. This is expressed using 24-hour format (military time): midnight is 0 hours, noon is 12 hours, 11PM is 23 hours.	RW	Y	Y	Y	int	hr	hr	uint8	-		0	0	23
40132	131	AlarmTurnOffHysterisisCount	Alarm log hysteresis filter number of occurrences Alarm log repetitive alarm filter count. This point, along with alarm log hysteresis filter time span (AlarmTurnOffHysterisisTimeSpan), is used to prevent the alarm log from filling up in the event of a very repetitive alarm (such as the flow temperature fluctuating around one of its alarm limits). If a data point being monitored for the alarm log has this number of alarms within a specified length of time (AlarmTurnOffHysterisisTimeSpan), then alarming is turned off for that point until no new alarms are received for that point within the specified length of time.	RW	Y	Y		int	-	-	uint16	-		4	2	20
40133	132	AlarmTurnOffHysterisisTimeSpan	Alarm log hysteresis filter time span Alarm log repetitive alarm filter time. This point, along with alarm log hysteresis filter number of occurrences (AlarmTurnOffHysterisisCount), is used to prevent the alarm log from filling up in the event of a very repetitive alarm (such as the flow temperature fluctuating around one of its alarm limits). If a data point being monitored for the alarm log has alarm log hysteresis filter number of occurrences (AlarmTurnOffHysterisisCount) alarms within this specified length of time, then alarming is turned off for that point until no new alarms are received for that point for this length of time.	RW	Y	Y		int	sec	sec	uint16	sec		600	1	3600
40134	133	DoOverwriteUnreadAlarmLog	Old unread alarm log records can be overwritten by new records when TRUE Old (unread) alarm log records can be overwritten by new records when TRUE (1). If FALSE (0) and the log becomes full, logging will stop until oldest log records are marked as read to make room for new records.	RW	Y	Y		int	-	-	boolean	-	Do not overwrite old records (FALSE) Overwrite old records (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40135	134	DoOverwriteUnreadAuditLog	Old unread audit log records can be overwritten by new records when TRUE Old (unread) audit log records can be overwritten by new records when TRUE (1). If FALSE (0) and the log becomes full, logging will stop until oldest log records are marked as read to make room for new records.	RW	Y	Y		int	-	-	boolean	-	Do not overwrite old records (FALSE) Overwrite old records (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40136	135	DoOverwriteUnreadDailyLog	Old unread daily log records can be overwritten by new records when TRUE Old (unread) daily log records can be overwritten by new records when TRUE (1). If FALSE (0) and the log becomes full, logging will stop until oldest log records are marked as read to make room for new records.	RW	Y	Y		int	-	-	boolean	-	Do not overwrite old records (FALSE) Overwrite old records (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40137	136	DoOverwriteUnreadHourlyLog	Old unread hourly log records can be overwritten by new records when TRUE Old (unread) hourly log records can be overwritten by new records when TRUE (1). If FALSE (0) and the log becomes full, logging will stop until oldest log records are marked as read to make room for new records.	RW	Y	Y		int	-	-	boolean	-	Do not overwrite old records (FALSE) Overwrite old records (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40138	137	DoOverwriteUnreadSystemLog	Old unread system log records can be overwritten by new records when TRUE Old (unread) system log records can be overwritten by new records when TRUE (1). If FALSE (0) and the log becomes full, logging will stop until oldest log records are marked as read to make room for new records.	RW	Y	Y		int	-	-	boolean	-	Do not overwrite old records (FALSE) Overwrite old records (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40201	200	Freq1Content	Frequency Output 1 pair content Selects the data to be represented by the Frequency Output 1 pair (Freq1A (Freq1ChnlA) and Freq1B (Freq1ChnlB)) to be directed to Frequency/Digital Output 1 (FODO1Source), Frequency/Digital Output 2 (FODO2Source), Frequency/Digital Output 3 (FODO3Source), Frequency/Digital Output 4 (FODO4Source), Frequency/Digital Output 5 (FODO5Source) or Frequency/Digital Output 6 (FODO6Source). See Liquid Ultrasonic Installation, Operations or Maintenance and Troubleshooting manuals.	RW	Y	Y	Y	float	-	-	int32	-	Uncorrected volume flow rate (0) Profile factor (6)	0	0	6
40203	202	Freq1Dir	Selects the flow direction represented by the Frequency Output 1 pair (Freq1A, Freq1B) Selects the flow direction represented by the Frequency Output 1 pair (Freq1A (Freq1ChnlA) and Freq1B (Freq1ChnlB)). When set to "Reverse" or "Forward", both channels A and B represent the specified content when the flow is in selected direction. When set to "Absolute", both channels A and B represent the specified content regardless of the flow direction. When set to "Bidirectional", channel A represents the specified content when the flow is in the forward direction and channel B represents the specified content when flow is in the reverse direction. See Liquid Ultrasonic Installation, Operations or Maintenance and Troubleshooting manuals.	RW	Y	Y	Y	float	-	-	int32	-	Reverse (0) Forward (1) Absolute (2) Bidirectional (3)	1	0	3
40205	204	Freq1MaxFrequency	Frequency Output 1 pair maximum (full-scale) frequency Selects the Frequency Output 1 pair maximum (full-scale) frequency used in determining the K-factor and inverse K-factor.	RW	Y	Y	Y	float	Hz	Hz	uint16	Hz	1000 (1000) 5000 (5000)	1000	1000	5000
40207	206	Freq1FullScaleVolFlowRate	Frequency Output 1 pair volumetric flow rate corresponding to the maximum frequency Specifies the Frequency Output 1 pair volumetric flow rate corresponding to the maximum frequency selected (Freq1MaxFrequency) when Frequency Output 1 pair content (Freq1Content) is set to a volumetric flow rate.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		200000	0	3.40E+38
40217	216	Freq1BPhase	Frequency Output 1B phase relative to 1A Selects the Frequency Output 1 pair channel B phase relative to the channel A phase based on the flow direction.	RW	Y	Y	Y	float	-	-	int32	-	Lag forward, Lead reverse (0) Lead forward, Lag reverse (1)	0	0	1
40219	218	IsFreq1BZeroedOnErr	Frequency Output 1B forced to zero when invalid control When TRUE (1), forces the Frequency Output 1 channel B frequency to zero when the frequency pair's data is invalid.	RW	Y	Y	Y	float	-	-	boolean	-	Not forced to zero on error (FALSE) Forced to zero on error (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40221	220	Freq1FeedbackCorrectionPcnt	Frequency Output 1 pair volume feedback percentage Specifies the Frequency Output 1 pair percentage of error (determined by frequency feedback) to adjust for per batch. This only applies when the frequency pair content is selected to be a rate.	RW	Y	Y	Y	float	%	%	uint8	%		1	0	100
40223	222	DO1AContent	Digital Output 1A content selector Selects the content (Freq1 Validity (0), Flow Direction (2), or Dual-Configuration meter flow rate range validity (3)) for Digital Output 1A to be directed to Frequency/Digital Output 1 (FODO1Source), Frequency/Digital Output 2 (FODO2Source), Frequency/Digital Output 3 (FODO3Source), Frequency/Digital Output 4 (FODO4Source), Frequency/Digital Output 5 (FODO5Source) or Frequency/Digital Output 6 (FODO6Source). Freq1 Validity is Freq1DataValidity. Flow Direction is FlowDir. Dual-Configuration meter flow rate range validity is the inverse of IsColocMeterQFlowRangeErr.	RW	Y	Y	Y	float	-	-	int32	-	Frequency Output 1 validity (0) Flow direction (2) Dual-Configuration meter flow rate range validity (3)	0	0	3
40225	224	DO1AIsInvPolarity	Digital Output 1A polarity control Selects the Digital Output 1A polarity as "Normal" or "Inverted". For "Normal" polarity, a high output indicates either valid frequency data or forward flow (depending upon the Digital Output 1A content selector (DO1AContent)). For "Inverted" polarity, a low output indicates either valid frequency data or forward flow.	RW	Y	Y	Y	float	-	-	boolean	-	Normal (FALSE) Inverted (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40227	226	DO1BContent	Digital Output 1B content selector Selects the content (Freq1 Validity (0), Flow Direction (2), or Dual-Configuration meter flow rate range validity (3)) for Digital Output 1B to be directed to Frequency/Digital Output 1 (FODO1Source), Frequency/Digital Output 2 (FODO2Source), Frequency/Digital Output 3 (FODO3Source), Frequency/Digital Output 4 (FODO4Source), Frequency/Digital Output 5 (FODO5Source) or Frequency/Digital Output 6 (FODO6Source). Freq1 Validity is Freq1DataValidity. Flow Direction is FlowDir. Dual-Configuration meter flow rate range validity is the inverse of IsColocMeterQFlowRangeErr.	RW	Y	Y	Y	float	-	-	int32	-	Frequency Output 1 validity (0) Flow direction (2) Dual-Configuration meter flow rate range validity (3)	2	0	3
40229	228	DO1BIsInvPolarity	Digital Output 1B polarity control Selects the Digital Output 1B polarity as "Normal" or "Inverted". For "Normal" polarity, a high output indicates either valid frequency data or forward flow (depending upon the Digital Output 1B content selector (DO1BContent)). For "Inverted" polarity, a low output indicates either valid frequency data or forward flow.	RW	Y	Y	Y	float	-	-	boolean	-	Normal (FALSE) Inverted (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40251	250	Freq2Content	Frequency Output 2 pair content Selects the data to be represented by the Frequency Output 2 pair (Freq2A (Freq2ChnlA) and Freq2B (Freq2ChnlB)) to be directed to Frequency/Digital Output 1 (FODO1Source), Frequency/Digital Output 2 (FODO2Source), Frequency/Digital Output 3 (FODO3Source), Frequency/Digital Output 4 (FODO4Source), Frequency/Digital Output 5 (FODO5Source) or Frequency/Digital Output 6 (FODO6Source). See Liquid Ultrasonic Installation, Operations or Maintenance and Troubleshooting manuals.	RW	Y	Y	Y	float	-	-	int32	-	Uncorrected volume flow rate (0) Profile factor (6)	0	0	6

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40253	252	Freq2Dir	Selects the flow direction represented by the Frequency Output 2 pair (Freq2A, Freq2B) Selects the flow direction represented by the Frequency Output 2 pair (Freq2A (Freq2ChnlA) and Freq2B (Freq2ChnlB)). When set to "Reverse" or "Forward", both channels A and B represent the specified content when the flow is in selected direction. When set to "Absolute", both channels A and B represent the specified content regardless of the flow direction. When set to "Bidirectional", channel A represents the specified content when the flow is in the forward direction and channel B represents the specified content when flow is in the reverse direction. See Liquid Ultrasonic Installation, Operations or Maintenance and Troubleshooting manuals.	RW	Y	Y	Y	float	-	-	int32	-	Reverse (0) Forward (1) Absolute (2) Bidirectional (3)	1	0	3
40255	254	Freq2MaxFrequency	Frequency Output 2 pair maximum (full-scale) frequency Selects the Frequency Output 2 pair maximum (full-scale) frequency used in determining the K-factor and inverse K-factor.	RW	Y	Y	Y	float	Hz	Hz	uint16	Hz	1000 (1000) 5000 (5000)	1000	1000	5000
40257	256	Freq2FullScaleVolFlowRate	Frequency Output 2 pair volumetric flow rate corresponding to the maximum frequency Specifies the Frequency Output 2 pair volumetric flow rate corresponding to the maximum frequency selected (Freq2MaxFrequency) when the Frequency Output 2 pair content (Freq2Content) is set to a volumetric flow rate.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		200000	0	3.40E+38
40267	266	Freq2BPhase	Frequency Output 2B phase relative to 2A Selects the Frequency Output 2 pair channel B phase relative to the channel A phase based on the flow direction.	RW	Y	Y	Y	float	-	-	int32	-	Lag forward, Lead reverse (0) Lead forward, Lag reverse (1)	0	0	1
40269	268	IsFreq2BZeroedOnErr	Frequency Output 2B forced to zero when invalid control When TRUE (1), forces the Frequency Output 2 channel B frequency to zero when the frequency pair's data is invalid.	RW	Y	Y	Y	float	-	-	boolean	-	Not forced to zero on error (FALSE) Forced to zero on error (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40271	270	Freq2FeedbackCorrectionPcnt	Frequency Output 2 pair volume feedback percentage Specifies the Frequency Output 2 pair percentage of error (determined by frequency feedback) to adjust for per batch. This only applies when the frequency pair content is selected to be a rate.	RW	Y	Y	Y	float	%	%	uint8	%		1	0	100
40273	272	DO2AContent	Digital Output 2A content selector Selects the content (Freq2 Validity (1), Flow Direction (2), or Dual-Configuration meter flow rate range validity (3)) for Digital Output 2A to be directed to Frequency/Digital Output 1 (FODO1Source), Frequency/Digital Output 2 (FODO2Source), Frequency/Digital Output 3 (FODO3Source), Frequency/Digital Output 4 (FODO4Source), Frequency/Digital Output 5 (FODO5Source) or Frequency/Digital Output 6 (FODO6Source). Freq2 Validity is Freq2DataValidity. Flow Direction is FlowDir. Dual-Configuration meter flow rate range validity is the inverse of IsColocMeterQFlowRangeErr.	RW	Y	Y	Y	float	-	-	int32	-	Frequency Output 2 validity (1) Flow direction (2) Dual-Configuration meter flow rate range validity (3)	1	1	3
40275	274	DO2AIsInvPolarity	Digital Output 2A polarity control Selects the Digital Output 2A polarity as "Normal" or "Inverted". For "Normal" polarity, a high output indicates either valid frequency data or forward flow (depending upon the content DO2AContent). For "Inverted" polarity, a low output indicates either valid frequency data or forward flow.	RW	Y	Y	Y	float	-	-	boolean	-	Normal (FALSE) Inverted (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40277	276	DO2BContent	Digital Output 2B content selector Selects the content (Freq2 Validity (1), Flow Direction (2), or Dual-Configuration meter flow rate range validity (3)) for Digital Output 2B to be directed to Frequency/Digital Output 1 (FODO1Source), Frequency/Digital Output 2 (FODO2Source), Frequency/Digital Output 3 (FODO3Source), Frequency/Digital Output 4 (FODO4Source), Frequency/Digital Output 5 (FODO5Source) or Frequency/Digital Output 6 (FODO6Source). Freq2 Validity is Freq2DataValidity. Flow Direction is FlowDir. Dual-Configuration meter flow rate range validity is the inverse of IsColocMeterQFlowRangeErr.	RW	Y	Y	Y	float	-	-	int32	-	Frequency Output 2 validity (1) Flow direction (2) Dual-Configuration meter flow rate range validity (3)	2	1	3
40279	278	DO2BIsInvPolarity	Digital Output 2B polarity control Selects the Digital Output 2B polarity as "Normal" or "Inverted". For "Normal" polarity, a high output indicates either valid frequency data or forward flow (depending upon the content selected via the Digital Output 2B content (DO2BContent) data point). For "Inverted" polarity, a low output indicates either valid frequency data or forward flow.	RW	Y	Y	Y	float	-	-	boolean	-	Normal (FALSE) Inverted (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40281	280	FODO1Source	Source for Frequency/Digital Output 1 Selects the source for Frequency/Digital Output 1 if Frequency/Digital Output 1 available (IsFODO1Avail) is TRUE (1). The sources may be: Frequency Output 1A based on Freq1Content Frequency Output 1B based on Freq1Content and Freq1BPhase Frequency Output 2A based on Freq2Content Frequency Output 2B based on Freq2Content and Freq2BPhase Digital Output 1A based on DO1AContent Digital Output 1B based on DO1BContent Digital Output 2A based on DO2AContent Digital Output 2B based on DO2BContent The output levels are selected by FODO1Mode.	RW	Y	Y	Y	float	-	-	uint8	-	Frequency Output 1A (0) Frequency Output 1B (1) Frequency Output 2A (2) Frequency Output 2B (3) Digital Output 1A (4) Digital Output 1B (5) Digital Output 2A (6) Digital Output 2B (7)	0	0	7
40283	282	FODO2Source	Source for Frequency/Digital Output 2 Selects the source for Frequency/Digital Output 2 if Frequency/Digital Output 2 available (IsFODO2Avail) is TRUE (1). The sources may be: Frequency Output 1A based on Freq1Content Frequency Output 1B based on Freq1Content and Freq1BPhase Frequency Output 2A based on Freq2Content Frequency Output 2B based on Freq2Content and Freq2BPhase Digital Output 1A based on DO1AContent Digital Output 1B based on DO1BContent Digital Output 2A based on DO2AContent Digital Output 2B based on DO2BContent The output levels are selected by FODO2Mode.	RW	Y	Y	Y	float	-	-	uint8	-	Frequency Output 1A (0) Frequency Output 1B (1) Frequency Output 2A (2) Frequency Output 2B (3) Digital Output 1A (4) Digital Output 1B (5) Digital Output 2A (6) Digital Output 2B (7)	2	0	7
40285	284	FODO3Source	Source for Frequency/Digital Output 3 Selects the source for Frequency/Digital Output 3 if Frequency/Digital Output 3 available (IsFODO3Avail) is TRUE (1). The sources may be: Frequency Output 1A based on Freq1Content Frequency Output 1B based on Freq1Content and Freq1BPhase Frequency Output 2A based on Freq2Content Frequency Output 2B based on Freq2Content and Freq2BPhase Digital Output 1A based on DO1AContent Digital Output 1B based on DO1BContent Digital Output 2A based on DO2AContent Digital Output 2B based on DO2BContent The output levels are selected by FODO3Mode.	RW	Y	Y	Y	float	-	-	uint8	-	Frequency Output 1A (0) Frequency Output 1B (1) Frequency Output 2A (2) Frequency Output 2B (3) Digital Output 1A (4) Digital Output 1B (5) Digital Output 2A (6) Digital Output 2B (7)	3	0	7
40287	286	FODO1Mode	Mode for Frequency/Digital Output 1 Selects the output levels for Frequency/Digital Output 1 (FODO1Source) when Frequency/Digital Output 1 available (IsFODO1Avail) is TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-	TTL (0) Open Collector (1)	1	0	1
40289	288	FODO2Mode	Mode for Frequency/Digital Output 2 Selects the output levels for Frequency/Digital Output 2 (FODO2Source) when Frequency/Digital Output 2 available (IsFODO2Avail) is TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-	TTL (0) Open Collector (1)	1	0	1
40291	290	FODO3Mode	Mode for Frequency/Digital Output 3 Selects the output levels for Frequency/Digital Output 3 (FODO3Source) when Frequency/Digital Output 3 available (IsFODO3Avail) is TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-	TTL (0) Open Collector (1)	1	0	1

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40293	292	FODO4Source	Source for Frequency/Digital Output 4 Selects the source for Frequency/Digital Output 4 if Frequency/Digital Output 4 available (IsFODO4Avail) is TRUE (1). The sources may be: Frequency Output 1A based on Freq1Content Frequency Output 1B based on Freq1Content and Freq1BPhase Frequency Output 2A based on Freq2Content Frequency Output 2B based on Freq2Content and Freq2BPhase Digital Output 1A based on DO1AContent Digital Output 1B based on DO1BContent Digital Output 2A based on DO2AContent Digital Output 2B based on DO2BContent The output levels are selected by FODO4Mode.	RW	Y	Y	Y	float	-	-	uint8	-	Frequency Output 1A (0) Frequency Output 1B (1) Frequency Output 2A (2) Frequency Output 2B (3) Digital Output 1A (4) Digital Output 1B (5) Digital Output 2A (6) Digital Output 2B (7)	6	0	7
40295	294	FODO5Source	Source for Frequency/Digital Output 5 Selects the source for Frequency/Digital Output 5 if Frequency/Digital Output 5 available (IsFODO5Avail) is TRUE (1). The sources may be: Frequency Output 1A based on Freq1Content Frequency Output 1B based on Freq1Content and Freq1BPhase Frequency Output 2A based on Freq2Content Frequency Output 2B based on Freq2Content and Freq2BPhase Digital Output 1A based on DO1AContent Digital Output 1B based on DO1BContent Digital Output 2A based on DO2AContent Digital Output 2B based on DO2BContent The output levels are selected by FODO5Mode.	RW	Y	Y	Y	float	-	-	uint8	-	Frequency Output 1A (0) Frequency Output 1B (1) Frequency Output 2A (2) Frequency Output 2B (3) Digital Output 1A (4) Digital Output 1B (5) Digital Output 2A (6) Digital Output 2B (7)	7	0	7
40297	296	FODO6Source	Source for Frequency/Digital Output 6 Selects the source for Frequency/Digital Output 6 if Frequency/Digital Output 6 available (IsFODO6Avail) is TRUE (1). The sources may be: Frequency Output 1A based on Freq1Content Frequency Output 1B based on Freq1Content and Freq1BPhase Frequency Output 2A based on Freq2Content Frequency Output 2B based on Freq2Content and Freq2BPhase Digital Output 1A based on DO1AContent Digital Output 1B based on DO1BContent Digital Output 2A based on DO2AContent Digital Output 2B based on DO2BContent The output levels are selected by FODO6Mode.	RW	Y	Y	Y	float	-	-	uint8	-	Frequency Output 1A (0) Frequency Output 1B (1) Frequency Output 2A (2) Frequency Output 2B (3) Digital Output 1A (4) Digital Output 1B (5) Digital Output 2A (6) Digital Output 2B (7)	4	0	7
40301	300	AO1Content	Analog Output 1 content (and HART primary variable) Selects the data to be represented by Analog Output 1. Is used for HART communication as the Primary Variable content.	RW	Y	Y	Y	float	-	-	int32	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3)	0	0	3
40303	302	AO1Dir	Selects the flow direction represented by the Analog Output 1 Selects the flow direction represented by Analog Output 1. When set to "Reverse" or "Forward", the analog output represents the specified content when the flow is in selected direction. When set to "Absolute", the analog output represents the specified content regardless of the flow direction.	RW	Y	Y	Y	float	-	-	int32	-	Reverse (0) Forward (1) Absolute (2)	2	0	2
40305	304	AO1FullScaleVolFlowRate	Analog Output 1 volumetric flow rate corresponding to the maximum current (20 mA) Specifies the Analog Output 1 volumetric flow rate corresponding to the maximum current (20 mA) when the Analog Output 1 (AO1Content) is set to uncorrected volume flow rate (QFlow) or corrected volume flow rate (QBase).	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		200000	0	3.40E+38
40307	306	FODO4Mode	Mode for Frequency/Digital Output 4 Selects the output levels for Frequency/Digital Output 4 (FODO4Source) when Frequency/Digital Output 4 available (IsFODO4Avail) is TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-	TTL (0) Open Collector (1)	1	0	1
40309	308	FODO5Mode	Mode for Frequency/Digital Output 5 Selects the output levels for Frequency/Digital Output 5 (FODO5Source) when Frequency/Digital Output 5 available (IsFODO5Avail) is TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-	TTL (0) Open Collector (1)	1	0	1
40311	310	FODO6Mode	Mode for Frequency/Digital Output 6 Selects the output levels for Frequency/Digital Output 6 (FODO6Source) when Frequency/Digital Output 6 available (IsFODO6Avail) is TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-	TTL (0) Open Collector (1)	1	0	1
40315	314	AO1ActionUponInvalidContent	Analog Output 1 current action upon invalid content Specifies the action for Analog Output 1 current when the content is invalid. No special action is taken when set to None.	RW	Y	Y	Y	float	-	-	uint8	-	High - 20 mA (0) Low - 4 mA (1) Hold last value (239) Very low - 3.5 mA (240) Very high - 20.5 mA (241) None (251)	240	0	251
40321	320	AO1TrimCurrent	Analog Output 1 fixed current value (for trim) Specifies the Analog Output 1 Fixed Current Mode value for trimming the output. A value of zero causes the Fixed Current Mode to be exited. Cycling power also causes the Fixed Current Mode to be exited.	RW			Y	float	ma	ma	float32	ma		0	0	21
40323	322	AO1TrimZeroExtMeasCurrent	Analog Output 1 zero trim externally measured current Analog Output 1 zero trim externally measured current.	RW			Y	float	ma	ma	float32	ma		4	3	5
40325	324	AO1TrimGainExtMeasCurrent	Analog Output 1 gain trim externally measured current Analog Output 1 gain trim externally measured current.	RW			Y	float	ma	ma	float32	ma		20	19	21
40341	340	AO2Content	Analog Output 2 content (and HART secondary variable) Selects the data to be represented by Analog Output 2.Is used for HART communication as the Secondary Variable content.	RW	Y	Y	Y	float	-	-	int32	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3)	0	0	3
40343	342	AO2Dir	Selects the flow direction represented by the Analog Output 2 Selects the flow direction represented by Analog Output 2. When set to "Reverse" or "Forward", the analog output represents the specified content when the flow is in selected direction. When set to "Absolute", the analog output represents the specified content regardless of the flow direction.	RW	Y	Y	Y	float	-	-	int32	-	Reverse (0) Forward (1) Absolute (2)	2	0	2
40345	344	AO2FullScaleVolFlowRate	Analog Output 2 volumetric flow rate corresponding to the maximum current (20 mA) Specifies the Analog Output 2 volumetric flow rate corresponding to the maximum current (20 mA) when the AO2Content data point is set to "Uncorrected volume flow rate" (QFlow) or "Corrected volume flow rate" (QBase).	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		200000	0	3.40E+38
40355	354	AO2ActionUponInvalidContent	Analog Output 2 current action upon invalid content Specifies the action for Analog Output 2 current when the content is invalid. No special action is taken when set to None.	RW	Y	Y	Y	float	-	-	uint8	-	High - 20 mA (0) Low - 4 mA (1) Hold last value (239) Very low - 3.5 mA (240) Very high - 20.5 mA (241) None (251)	240	0	251
40361	360	AO2TrimCurrent	Analog Output 2 fixed current value (for trim) Specifies the Analog Output 2 Fixed Current Mode value for trimming the output. A value of zero causes the Fixed Current Mode to be exited. Cycling power also causes the Fixed Current Mode to be exited.	RW			Y	float	ma	ma	float32	ma		0	0	21

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40363	362	AO2TrimZeroExtMeasCurrent	Analog Output 2 zero trim externally measured current Analog Output 2 zero trim externally measured current.	RW			Y	float	ma	ma	float32	ma		4	3	5
40365	364	AO2TrimGainExtMeasCurrent	Analog Output 2 gain trim externally measured current Analog Output 2 gain trim externally measured current.	RW			Y	float	ma	ma	float32	ma		20	19	21
40419	418	Reserved		R				float								
40421	420	EnablePressureInput	Flow-condition pressure input selector Selects the flow-condition pressure input. When set to "Live", the flow-condition pressure is read from an analog input signal. When set to "Fixed", the flow-condition pressure is specified (fixed) via the SpecFlowPressure data point. When set to "Transmitter Head 1", the flow-condition pressure is read from Transmitter Head 1 of a Dual-Configuration meter (ColocMeterIPAddress). The flow-condition pressure input selector can be "Transmitter Head 1" only on Transmitter Head 2 (ColocMeterMode) of a data sharing Dual-Configuration meter. The flow-condition pressure is used for pressure expansion correction (if enabled). This value cannot be set to "None" if pressure expansion correction is enabled (EnableExpCorrPress).	RW	Y	Y	Y	float	-	-	uint8	-	None (0) Live (1) Fixed (2) Transmitter Head 1 (3)	0	0	3
40423	422	InputPressureUnit	Input pressure absolute/gage selector Specifies whether the input pressure is "Absolute" or "Gage" . If the input pressure is gage, then the absolute pressure is calculated as the sum of the input gage pressure and the atmospheric pressure (AtmosphericPress). When writing the flow-condition absolute pressure values via the ISO 17089 Modbus register then the input pressure unit has no effect and value is always considered as absolute pressure.	RW	Y	Y	Y	float	-	-	boolean	-	Gage (FALSE) Absolute (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40425	424	AtmosphericPress	Atmospheric pressure Specifies the atmospheric pressure. This value is required when the input pressure absolute/gage selector (InputPressureUnit) is Gage, so that flow-condition absolute pressure (AbsFlowPressure) can be calculated.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		0.101325	0.03	0.1084
40427	426	LowPressureAlarm	Pressure alarm low limit Pressure alarm low limit. The pressure is invalid (PressureValidity) when the input flow pressure (SpecFlowPressure, LiveFlowPressure) is at or below this limit.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		0.001	0	280
40433	432	HighPressureAlarm	Pressure alarm high limit Pressure alarm high limit. The pressure is invalid (PressureValidity) when the input flow pressure (SpecFlowPressure, LiveFlowPressure) is at or above this limit.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		8.3	0	280
40435	434	MinInputPressure	Live flow pressure value corresponding to 4 mA input signal Specifies the input flow pressure value that corresponds to the minimum (4 mA) input signal.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		0	0	280
40437	436	MaxInputPressure	Live flow pressure value corresponding to 20 mA input signal Specifies the input flow pressure value that corresponds to the maximum (20 mA) input signal.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		100	0	280
40439	438	Reserved		R				float								
40441	440	EnableTemperatureInput	Flow-condition temperature input selector Selects the flow-condition temperature input. When set to "Live", the flow-condition temperature is read from an analog input signal. When set to "Fixed", the flow-condition temperature is specified (fixed) via the SpecFlowTemperature data point. When set to "Transmitter Head 1", the flow-condition temperature is read from Transmitter Head 1 of a Dual-Configuration meter (ColocMeterIPAddress). The flow-condition temperature input selector can be "Transmitter Head 1" only on Transmitter Head 2 (ColocMeterMode) of a data sharing Dual-Configuration meter. The flow-condition temperature is used for temperature-expansion correction (if enabled). This value cannot be set to "None" if temperature expansion correction (EnableExpCorrTemp) is enabled.	RW	Y	Y	Y	float	-	-	uint8	-	None (0) Live (1) Fixed (2) Transmitter Head 1 (3)	0	0	3
40443	442	LowTemperatureAlarm	Temperature alarm low limit Temperature alarm low limit. The temperature is invalid (TemperatureValidity) when the input flow temperature is at or below this limit.	RW	Y	Y	Y	float	deg C	deg F	float32	K		233.15	60.15	473.15
40449	448	HighTemperatureAlarm	Temperature alarm high limit Temperature alarm high limit. The temperature is invalid (TemperatureValidity) when the input flow temperature is at or above this limit.	RW	Y	Y	Y	float	deg C	deg F	float32	K		473.15	60.15	523.15
40451	450	MinInputTemperature	Live temperature value corresponding to 4 mA input signal Specifies the input flow temperature value that corresponds to the minimum (4 mA) input signal.	RW	Y	Y	Y	float	deg C	deg F	float32	K		233.15	0	473.15
40453	452	MaxInputTemperature	Live temperature value corresponding to 20 mA input signal Specifies the input flow temperature value that corresponds to the maximum (20 mA) input signal.	RW	Y	Y	Y	float	deg C	deg F	float32	K		473.15	0	523.15
40455	454	FlowPOrTSrcUponAlarm	Flow pressure and/or temperature source when in alarm Selects the flow-condition pressure and/or temperature source when the corresponding input is in alarm. Either the last good (i.e., non-alarm) value or a fixed (specified) value is used. To fix (specify) a value, use the appropriate data point: SpecFlowPressure or SpecFlowTemperature.	RW	Y	Y	Y	float	-	-	uint8	-	Use last good value (0) Use fixed value (1)	0	0	1
40461	460	EnableExpCorrPress	Enable pressure expansion correction Enables volumetric flow rate pressure expansion correction when set to TRUE (1). This requires the flow-condition pressure to be "Fixed" or "Live" or "Transmitter Head 1" (EnablePressureInput and SpecFlowPressure) and the pipe outside diameter (PipeOutsideDiameter), Young's Modulus (YoungsModulus) and Poisson's Ratio (PoissonsRatio) to be specified.	RW	Y	Y	Y	float	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40463	462	PipeOutsideDiameter	Pipe outside diameter Pipe outside diameter. This is used to calculate the pressure expansion correction factor (when the correction is enabled via the enable pressure expansion correction (EnableExpCorrPress)).	RW	Y	Y	Y	float	m	ft	float32	m		2	0	3
40465	464	YoungsModulus	Young's Modulus value (tensile stress to tensile strain ratio) Young's Modulus value (tensile stress to tensile strain ratio). This is used to calculate the strain per unit stress (StrainPerUnitStress) when expansion correction (EnableExpCorrPress) is enabled.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		202000	137895	310264
40467	466	PoissonsRatio	Poisson's Ratio value (absolute ratio of lateral strain to axial strain) Poisson's Ratio value (absolute ratio of lateral strain to axial strain). This is used to calculate the strain per unit stress (StrainPerUnitStress) when expansion correction (EnableExpCorrPress) is enabled.	RW	Y	Y	Y	float	-	-	float32	-		0.3	0.2	0.4
40469	468	EnableExpCorrTemp	Enable temperature expansion correction Enables volumetric flow rate temperature expansion correction when set to TRUE (1). This requires the flow-condition temperature to be "Fixed" or "Live" or "Transmitter Head 1" (EnableTemperatureInput and SpecFlowTemperature) and the pipe material linear expansion coefficient with reference temperature (LinearExpansionCoef and RefTempLinearExpCoef) to be specified.	RW	Y	Y	Y	float	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40471	470	LinearExpansionCoef	Linear expansion coefficient Linear expansion coefficient. This is used to calculate the temperature expansion correction factor (when the correction is enabled via the enable temperature expansion correction (EnableExpCorrTemp)).	RW	Y	Y	Y	float	1/deg C	1/deg F	float32	1/K		0.0000115	0.00001	0.000018
40473	472	RefTempLinearExpCoef	Reference temperature for linear expansion Reference temperature for linear expansion. This is used to calculate the temperature expansion correction factor (when the correction is enabled via the enable temperature expansion correction (EnableExpCorrTemp)).	RW	Y	Y	Y	float	deg C	deg F	float32	K		293.15	60.15	473.15
40475	474	AO1MinVel	Analog Output 1 velocity corresponding to the minimum current (4 mA) Specifies the Analog Output 1 velocity corresponding to the minimum current (4 mA) when the Analog Output 1 (AO1Content) is set to average flow velocity (AvgFlow) or average speed of sound (AvgSndVel).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0	0	3000

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40477	476	AO1MaxVel	Analog Output 1 velocity corresponding to the maximum current (20 mA) Specifies the Analog Output 1 velocity corresponding to the maximum current (20 mA) when the Analog Output 1 (AO1Content) is set to average flow velocity (AvgFlow) or average speed of sound (AvgSndVel).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		50	0	3000
40479	478	AO2MinVel	Analog Output 2 velocity corresponding to the minimum current (4 mA) Specifies the Analog Output 2 velocity corresponding to the minimum current (4 mA) when the AO2Content data point is set to Average flow velocity (AvgFlow) or Average speed of sound (AvgSndVel).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0	0	3000
40481	480	AO2MaxVel	Analog Output 2 velocity corresponding to the maximum current (20 mA) Specifies the Analog Output 2 velocity corresponding to the maximum current (20 mA) when the Analog Output 2 (AO2Content) is set to average flow velocity (AvgFlow) or average speed of sound (AvgSndVel).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		50	0	3000
40503	502	IsWarmStartReq	Meter warm start (restart) required The meter configuration has changed and requires a restart for the change to take effect. Recommended Actions: 1. If you are unaware of changes made to the meter's configuration, collect the Audit log using Archive Logs in MeterLink™ to review the configuration changes. If the changes are valid, momentarily remove power from the meter to allow it to restart which will clear this alarm. 2. If the Audit log shows no changes, contact your local area Emerson Flow service representative for assistance.	R				int	-	-	boolean	-	No warm start required (FALSE) Warm start required (TRUE)			
40507	506	LiveFlowPressureCalCtrl	Selects the value to use when calibrating the live pressure input source This turns the live pressure input calibration mode on or off. This point also specifies which pressure value to use when calibrating (FlowPressureWhileCal) by either choosing the source to be the last live input value prior to entering the calibration mode (freezing) or using a specified (fixed) flow-condition pressure (SpecFlowPressure). When the pressure value source is selected, the meter remains in the calibration mode for a period of time set by non-normal operation timeout (NonNormalModeTimeout) unless the mode is explicitly exited by setting this point to Off (0).	RW				float	-	-	uint8	-	Off (0) Cal - Freeze input (1) Cal - Use fixed (2)	0	0	2
40509	508	LiveFlowPressureOffset	Live flow-condition pressure calibration offset value Live flow-condition pressure calibration offset value. The calibrated live pressure is calculated by multiplying the raw live pressure sample by the live flow-condition pressure calibration gain value (LiveFlowPressureGain) and then adding this offset.	RW	Y	Y	Y	float	MPa	psi	float32	MPa		0	-280	280
40511	510	LiveFlowPressureGain	Live flow-condition pressure calibration gain value Live flow-condition pressure calibration gain value. The calibrated live pressure is calculated by multiplying the raw live pressure sample by this gain and then adding the live flow-condition pressure calibration offset value (LiveFlowPressureOffset).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
40513	512	LiveFlowTemperatureCalCtrl	Selects the value to use when calibrating the live temperature input source This turns the live temperature input calibration mode on or off. This point also specifies which temperature value to use when calibrating (FlowTemperatureWhileCal) by either choosing the source to be the last live input value prior to entering the calibration mode (freezing) or using a specified (fixed) flow-condition temperature (SpecFlowTemperature). When the temperature value source is selected, the meter remains in the calibration mode for a period of time set by non-normal operation timeout (NonNormalModeTimeout) unless the mode is explicitly exited by setting this point to Off (0).	RW				float	-	-	uint8	-	Off (0) Cal - Freeze input (1) Cal - Use fixed (2)	0	0	2
40515	514	LiveFlowTemperatureOffset	Live flow-condition temperature calibration offset value Live flow-condition temperature calibration offset value. The calibrated live temperature is calculated by multiplying the raw live temperature by the live flow-condition temperature calibration gain value (LiveFlowTemperatureGain) and then adding this offset. This value is applied to the temperature in Kelvin. Due to temperature conversion factors, use the MeterLink™ to set this parameter. MODIFYING THIS POINT VIA MODBUS IS NOT RECOMMENDED.	RW	Y	Y	Y	float	deg C	deg F	float32	K		0	-273.15	473.15
40517	516	LiveFlowTemperatureGain	Live flow-condition temperature calibration gain value Live flow-condition temperature calibration gain value. The calibrated live temperature is calculated by multiplying the raw live temperature by this gain and then adding the live flow-condition temperature calibration offset value (LiveFlowTemperatureOffset).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
40601	600	StackSize	Stack size This indicates the number of transducer firings to be point-by-point averaged to generate a signal for a single transit time measurement. A value of 1 This indicates no stacking. When stacking is used, the batch period can differ from the user-specified value (SpecBatchUpdtPeriod). Stacking is primarily used to reduce random (white) noise on the received signal.	RW	Y	Y		int	-	-	uint8	-	None (1) 2 (2) 4 (4) 8 (8) 16 (16)	1	1	16
40602	601	Filter	Bandpass filter switch Bandpass filter switch. When set to TRUE (1) the bandpass filter is used on the received transducer signal to remove unwanted frequencies.	RW	Y	Y	Y	int	-	-	boolean	-	Filter off (FALSE) Filter on (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
40603	602	VelHold	Number of batches to hold velocity constant when re-acquiring The number of batches the average flow velocity (AvgFlow) is held at the last measured value when meter is in acquisition mode (IsAcqMode).	RW	Y	Y	Y	int	-	-	uint8	-		0	0	255
40604	603	MinChord	Minimum number of operating chords for valid measurement The minimum number of operating chords for a valid measurement. If the number of operating chords is less than this value, then the too few operating chords (IsTooFewOperChords) status is set. The range of values and default value are dependent upon the meter device number (DeviceNumber).	RW	Y	Y	Y	int	-	-	uint8	-		1	1	4
40605	604	AlarmDef	Number of consecutive batches before an alarm is set active The number of consecutive batches with active alarm condition before an alarm is set to active. This is used to activate chord A hard failed alarm (IsHardFailedA), chord B hard failed alarm (IsHardFailedB), chord C hard failed alarm (IsHardFailedC), chord D hard failed alarm (IsHardFailedD) and transducer firing synchronization alarm (IsXdcrFiringSyncError).	RW	Y	Y	Y	int	-	-	uint16	-		100	1	1000
40606	605	PerfStatusSuppressLmt	Chord performance status suppression limit Minimum percentage of chord performance to suppress chordal performance statuses. If the chord performance (PctGoodA..PctGoodD) is above this limit then the chordal performance statuses for the chord (DidDltTmChkFailA..DidDltTmChkFailD, IsSigQltyBadA..IsSigQltyBadD, DidExceedMaxNoiseA..DidExceedMaxNoiseD, IsSNRTooLowA..IsSNRTooLowD, DidTmDevChkFailA..DidTmDevChkFailD, IsSigDistortedA..IsSigDistortedD, IsPeakSwitchDetectedA..IsPeakSwitchDetectedD, IsSigClippedA..IsSigClippedD and IsStackingIncompleteA..IsStackingIncompleteD) are suppressed. This limit cannot be set less than or equal to percentage good threshold (MinPctGood).	RW	Y	Y		int	%	%	uint8	%		95	0	100
40607	606	MinPctGood	Minimum percentage of good measurements for working chord The minimum percentage of good measurements for a working chord. A chord with a percentage of good measurements less than this threshold is considered failed and its corresponding IsFailedForBatchA, IsFailedForBatchB, IsFailedForBatchC, IsFailedForBatchD is set to TRUE (1). The percentage of good measurements for a chord may vary slightly from the individual path good measurements (PctGoodA1, PctGoodA2, PctGoodB1, PctGoodB2, PctGoodC1, PctGoodC2, PctGoodD1, PctGoodD2) since both the upstream and downstream paths must be good at the same time for a chord to be considered good.	RW	Y	Y	Y	int	%	%	uint8	%		65	0	90
40608	607	SpecBatchUpdtPeriod	Specified batch update period (may be overridden if stacking is selected) Specifies the minimum batch update period when there is no stacking (StackSize).	RW	Y	Y	Y	int	ms	ms	uint16	ms	Standard - 1000 ms (1000) Rapid - 250 ms (250)	1000	250	1000

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40609	608	BatchPercentSmoothing	Batch smoothing factor: specifies percentage total data to be taken from previous data Batch smoothing factor. This is used to "smooth" the velocity measurement by averaging "new" and "old" data. This specifies the percentage of a batch's total data to be taken from previous batch period(s). When set to zero, then only new data will be used for a batch update. For example, if the batch smoothing factor is set to 20% and there are 32 new data sequences (BatchNewSeq), then 8 sequences from the most recent batch(es) (BatchOldSeq) will also be used for the current batch (8=20% of (32+8)).	RW	Y	Y		int	%	%	uint8	%	0 (0) 20 (20) 40 (40) 60 (60) 80 (80)	0	0	80
40610	609	PropUpdtBatches	Number of consecutive batches without chord failures required for updating chord proportions Number of consecutive batches without chord failures required for updating chord proportions. It is computed from the time that must elapse without chord failures required for updating chord proportions (PropUpdtSeconds) divided by the batch update period (BatchUpdatePeriod).	R	Y			int	-	-	uint16	-				
40611	610	NumVals	Chord proportion update factor Chord proportion update factor. This controls how quickly the chord proportions change relative to the current velocity proportion values. The lower the factor, the more quickly the proportions change.	RW	Y	Y	Y	int	-	-	uint16	-		10	1	1000
40612	611	Pk1Thrsh	First peak amplitude threshold The minimum amplitude of first peak of the signal required for it to be used.	RW	Y	Y	Y	int	-	-	uint8	-		30	0	255
40613	612	TspfMatch	Track parameter auto reset threshold: 0=always reset, 100=disable auto reset When the differences between the magnitudes of the computed upstream and downstream TSPF to exceed this percentage, they are reset to the default tracking target Pf distance (Tspf). When the differences between signal tracking targets (TspfA1..TspfD2) and target Tspf (Tspf) value exceeds this percentage, then the tracking targets are reset to the default tracking target Pf distance (Tspf). A value of 100 forces the calculated values to never reset to the defaults. A value of zero forces them to remain at the defaults.	RW	Y	Y	Y	int	%	%	uint8	%		30	0	100
40614	613	SNRatio	Minimum signal-to-noise threshold The minimum signal-to-noise threshold. Conversion of this value to decibels is 10 * log10 (SNRatio). If the ratio of the signal energy to the noise energy is below this threshold, then the measurement is discarded. Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). If, in a batch, a chord has at least one signal discarded due to too low SNR, the chord's signal-to-noise low alarm, IsSNRTooLowA, IsSNRTooLowB, IsSNRTooLowC, IsSNRTooLowD, is set to TRUE (1).	RW	Y	Y	Y	int	-	-	uint8	-		30	5	255
40615	614	FireSeq	Transducer firing sequence selector The order in which the transducers fire. The meter fires at the fastest possible rate only when each chord's upstream/downstream transducers are not fired successively.	RW	Y	Y	Y	int	-	-	uint8	-	A1-B1-C1-D1-A2-B2-C2-D2 (2)	2	2	2
40616	615	BatchSize	Sequences between gain/hold time/tracking updates Number of completed firing sequences between updating the signal gain, hold time and tracking values. The default value is 20 firing sequences (minimum is 5 and maximum is 120).	RW	Y	Y	Y	int	-	-	uint8	-		20	5	120
40617	616	MaxNoDataBatches	Maximum number of consecutive batches without new data Maximum number of consecutive batches without new data before no data received by batch System log is generated. This can be caused if the Acquisition Module is disconnected or not communicating with the CPU Module (IsAcqModuleError).	RW	Y	Y	Y	int	-	-	uint8	-		20	1	255
40618	617	FlowDir	Meter installed backwards control The meter installed backwards control used in setting the current flow direction indicator (FlowDirection). Set the meter installed backwards control to TRUE (1) if the meter is installed backwards from the normal (forward) flow direction.	RW	Y	Y	Y	int	-	-	boolean	-	Meter in normal direction (FALSE) Meter in reverse direction (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40619	618	ChordInactvA	Chord A inactive control Chord A inactive control. When TRUE (1), Chord A is set to inactive and IsBatchInactiveA is set to TRUE (1). The chord's transducers are not fired. When made active (TRUE (1) to FALSE (0) transition) the meter will re-acquire.	RW	Y	Y	Y	int	-	-	boolean	-	Chord active (FALSE) Chord inactive (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40620	619	ChordInactvB	Chord B inactive control Chord B inactive control. When TRUE (1), Chord B is set to inactive and IsBatchInactiveB is set to TRUE (1). The chord's transducers are not fired. When made active (TRUE (1) to FALSE (0) transition) the meter will re-acquire.	RW	Y	Y	Y	int	-	-	boolean	-	Chord active (FALSE) Chord inactive (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40621	620	ChordInactvC	Chord C inactive control Chord C inactive control. When TRUE (1), Chord C is set to inactive and IsBatchInactiveC is set to TRUE (1). The chord's transducers are not fired. When made active (TRUE (1) to FALSE (0) transition) the meter will re-acquire.	RW	Y	Y	Y	int	-	-	boolean	-	Chord active (FALSE) Chord inactive (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40622	621	ChordInactvD	Chord D inactive control Chord D inactive control. When TRUE (1), Chord D is set to inactive and IsBatchInactiveD is set to TRUE (1). The chord's transducers are not fired. When made active (TRUE (1) to FALSE (0) transition) the meter will re-acquire.	RW	Y	Y	Y	int	-	-	boolean	-	Chord active (FALSE) Chord inactive (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
40623	622	DltChkSI	Maximum delta time check in sample intervals The maximum amount of time, in sample interval, allowed for delta times (the difference between the up stream and down stream signal transit time). Usually adjusted by setting the transducer type (SetXdcrType). When a chord's delta check value exceeds this limit, the chord's time check error status, DidDltTmChkFailA, DidDltTmChkFailB, DidDltTmChkFailC, DidDltTmChkFailD is set to TRUE (1).	RW	Y	Y	Y	int	sample intervals	sample intervals	uint16	sample intervals		7	4	320
40624	623	NegSpanSI	Minimum negative pulse width in sample intervals The minimum time, in sample interval, the signal must remain negative adjacent to a zero crossing. Usually adjusted by setting the transducer type (SetXdcrType). This parameter is used to detect distorted waveforms and incorrect measurements. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	int	sample intervals	sample intervals	uint16	sample intervals		3	1	100
40625	624	PosSpanSI	Minimum positive pulse width in sample intervals The minimum time, in sample interval, the signal must remain positive adjacent to a zero crossing. Usually adjusted by setting the transducer type (SetXdcrType). This parameter is used to detect distorted waveforms and incorrect measurements. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	int	sample intervals	sample intervals	uint16	sample intervals		4	1	100
40626	625	PkPlsWdthSI	Maximum selected peak pulse width in sample intervals Maximum selected peak pulse width in sample interval units. This value is converted internally to usec units (Pk1Wdth). Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	int	sample intervals	sample intervals	uint16	sample intervals		7	1	100
40627	626	TmDevLow1SI	Transit time standard deviation threshold for measurement quality check in sample intervals The minimum standard deviation value of the transit time in sample interval. It is converted to usec units (TmDevLow1) internally for use by the meter. Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	int	sample intervals	sample intervals	uint16	sample intervals		2	0	100
40628	627	TmDevFctr1	Measurement Quality check deviation factor Measurement Quality check transit time standard deviation factor. When a path's transit time is more than this number of standard deviations from the path's median transit time for the batch, the individual measurement is flagged as bad and the corresponding chord's DidTmDevChkFailA, DidTmDevChkFailB, DidTmDevChkFailC and DidTmDevChkFailD are set to TRUE (1). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	int	-	-	float32	-		2	1	100
40629	628	DitherEnable	Enables dithering (progressive jitter after each transducer firing) Turns dithering on when set to TRUE (1) which minutely alters the firing time to prevent problems associated with resonance from building up.	RW	Y	Y	Y	int	-	-	uint8	-	Disable (0) Enable (1)	1	0	1
40630	629	AsyncEnable	Enables asynchronous firing sequences (progressive jitter after each firing sequence) Enables asynchronous firing sequences (progressive jitter after each firing sequence).	RW	Y		Y	int	-	-	uint8	-	Disable (0) Enable (1)	0	0	1
40631	630	DampEnable	Enables firing transducer dampening Enables firing transducer dampening.	RW	Y		Y	int	-	-	uint8	-	Disable (0) Enable (1)	0	0	1

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40651	650	ZeroCut	Flow velocity below which the flow rate is considered zero This value is used along with the pipe area (PipeArea) to compute the volumetric flow cutoff (QCutOff) below which the flow-condition volumetric flow rate (QFlow) is considered zero, chord turbulence values are not calculated (TurbulenceA..TurbulenceD) and "flow gated" (FLOW_GATED) values are not accumulated. Also, when the average weighted flow velocity (AvgWtdFlowVel) is below this threshold the flow direction (FlowDirection) will not change. The flow analysis lower limit (FlowAnalysisLowFlowLmt) may not be set lower than this value.	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0.1	0	1
40653	652	SSMin	Minimum speed of sound Minimum speed of sound. This is used to define the area to search for a signal when in acquisition mode and is also used in emission rate determination. This minimum and the maximum speed of sound (SSMax) may need to be adjusted to prevent problems acquiring the signal.	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		350	350	3000
40655	654	SSMax	Maximum speed of sound Maximum speed of sound. This is used to define the area to search for a signal when in Acquisition mode. The minimum (SSMin) and this maximum speed of sound may need to be adjusted to prevent problems acquiring the signal.	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		1600	350	3000
40657	656	AvgSoundVelLoLmt	Speed of sound lo-alarm limit The low limit for the average speed of sound range error (IsAvgSoundVelRangeErr) alarm. It is used strictly for alarming purposes and does not impact any other meter functionality. This is different from the minimum acquisition mode speed of sound (SSMin).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		1000	0	3000
40659	658	AvgSoundVelHiLmt	Speed of sound hi-alarm limit The high limit for the average speed of sound range error (IsAvgSoundVelRangeErr) alarm. It is used strictly for alarming purposes and does not impact any other meter functionality. This is different from the maximum acquisition mode speed of sound (SSMax).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		2000	0	3000
40661	660	SndSpdChkMinVel	Minimum flow velocity for CRange test Minimum flow velocity for performing the inter-chord speed of sound check (CRange) and calculating speed of sound path spread (SpdSndSpread).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		1	0.1	50
40663	662	SndSpdChkMaxVel	Maximum flow velocity for CRange test Maximum flow velocity for performing the inter-chord speed of sound check (CRange) and calculating speed of sound path spread (SpdSndSpread).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		15	1	50
40665	664	CRange	Maximum percentage chord speed of sound deviation Maximum percentage chord speed of sound deviation. If a chord's speed of sound measurement relative to the average speed of sound is above this threshold, IsMeasSndSpdRangeA, IsMeasSndSpdRangeB, IsMeasSndSpdRangeC, IsMeasSndSpdRangeD, is set to TRUE (1).	RW	Y	Y	Y	float	%	%	float32	%		0.25	0	10
40667	666	MeterMaxVel	Maximum meter velocity The maximum for the meter's average flow velocity (AvgFlow). This limit is used to generate an alarm meter velocity above maximum limit (IsMeterVelAboveMaxLmt), when the average flow velocity magnitude is above this limit. Note, however, that this limit does not affect the meter's measurement.	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		15	1	50
40669	668	LowFlowLmt	Minimum velocity for updating chord proportions Minimum velocity for updating chord proportions. Chord proportions are not updated when the flow velocity is below this value.	RW	Y	Y	Y	float	m/s	ft/s	uint8	m/s		1	1	30
40673	672	GainLowLmt	Minimum gain limit The minimum gain applied to the received signal. On power-up, this value is set to the minimum gain for the Acquisition Module (DSPBdRevNum).	RW	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)		8.72101	0	3.40E+38
40675	674	GainHighLmt	Maximum gain limit The maximum gain applied to the received signal. On power-up, this value is set to the maximum gain for the Acquisition Module (DSPBdRevNum).	RW	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)		17400.5	0	3.40E+38
40677	676	MinHoldTime	Minimum sampling hold time The minimum sampling hold time limit. This is the minimum amount of time the meter waits after firing a transducer before sampling the receiving transducer's signal. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	us	us	float32	us		32	32	32000
40679	678	MaxHoldTm	Maximum sampling hold time The maximum sampling hold time limit. This is the maximum amount of time the meter waits after firing a transducer before sampling the receiving transducer's signal. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	us	us	float32	us		3600	16	32000
40681	680	MaxNoise	Maximum noise energy threshold Maximum noise energy threshold. If the signal's noise energy is above this threshold, the signal for that transducer firing is discarded. If a chord has at least one signal for a batch discarded due to too large noise energy, the chord's max noise alarm, DidExceedMaxNoiseA, DidExceedMaxNoiseB, DidExceedMaxNoiseC, DidExceedMaxNoiseD is set to TRUE (1).	RW	Y	Y	Y	float	energy	energy	uint32	energy		195	24	391
40683	682	Pk1Pct	Parameter used to locate the signal start The percentage of the maximum signal amplitude used as a threshold to find the first peak which is then used to determine the starting position of the sampled waveform. If conditions exist that make the start of the signal difficult to detect (peak switching) this level may be adjusted to get a stable signal.	RW	Y	Y	Y	float	%	%	uint8	%		60	40	100
40685	684	MinSigQlty	Minimum acceptable signal quality The minimum acceptable signal quality based on signal and noise energies. When either path in a chord's signal quality (as measured by signal to noise ratios) is below this threshold, the chord's signal quality status, IsSigQltyBadA, IsSigQltyBadB, IsSigQltyBadC, IsSigQltyBadD is set to TRUE (1).	RW	Y	Y	Y	float	-	-	uint8	-		25	5	30
40751	750	TspfLo	Tracking target Pf distance low limit The lower limit or floor for the default (Tspf) and the individual path (TspfA1, TspfA2, TspfB1, TspfB2, TspfC1, TspfC2, TspfD1, TspfD2) computed values. Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	uint8	sample intervals		8	0	37
40753	752	TspeLo	Tracking target Pe distance low limit The lower limit or floor for the default (Tspe) and the individual path (TspeA1, TspeA2, TspeB1, TspeB2, TspeC1, TspeC2, TspeD1, TspeD2) computed values. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	int8	sample intervals		-8	-25	25
40755	754	TampLo	Tracking target normalized amplitude low limit The lower limit or floor for the magnitude (absolute value of) the default (Tamp) and the individual path (TampA1, TampA2, TampB1, TampB2, TampC1, TampC2, TampD1, TampD2) computed values. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	%	%	uint8	%		30	0	100
40757	756	Tspf	Default tracking target Pf distance The default for the targeted SPF which is the time in sample intervals (SI) or distance between the first motion (Pf) and the signal the zero crossing detection point (P1). When the meter is first started or when ResetTrkParam is set TRUE (1) this value is used as the initial value used to compute TspfA1, TspfA2, TspfB1, TspfB2, TspfC1, TspfC2, TspfD1 and TspfD2. It is also the value used for inactive paths. Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support. See also (TspfLo) and (TspfHi).	RW	Y	Y	Y	float	sample intervals	sample intervals	uint8	sample intervals		20	0	37

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40759	758	Tspe	Default tracking target Pe distance The default for the targeted SPE which is the time in sample intervals (SI) or distance between the first energy position (Pe) and the signal the zero crossing detection point (P1). When the meter is first started or when ResetTrkParam is set TRUE (1) this value is used as the initial value used to compute TspeA1, TspeA2, TspeB1, TspeB2, TspeC1, TspeC2, TspeD1, TspeD2. It is also the value used for inactive paths. Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support. See also (TspeLo) and (TspeHi).	RW	Y	Y	Y	float	sample intervals	sample intervals	int8	sample intervals		8	-25	25
40761	760	Tamp	Default tracking target normalized amplitude The default for the targeted Amp which is the value of the peak following the zero crossing detection point (P1). When the meter is first started or when ResetTrkParam is set TRUE (1) this value is used as the initial value used to compute TampA1, TampA2, TampB1, TampB2, TampC1, TampC2, TampD1, TampD2. It is also the value used for inactive paths. Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support. See also (TampLo) and (TampHi).	RW	Y	Y	Y	float	%	%	int8	%		-70	-100	100
40763	762	TspfSen	Tracking target Pf sensitivity The sensitivity applied to the comparison of the individual peaks SPF to the paths targeted SPF, TspfA1, TspfA2, TspfB1, TspfB2, TspfC1, TspfC2, TspfD1, TspfD2. The sensitivity is used to generate similar magnitudes to the SPE and Amp comparisons used to score peaks in the process of selecting P1. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	uint8	sample intervals		10	6	37
40765	764	TspeSen	Tracking target Pe sensitivity The sensitivity applied to the comparison of the individual peaks SPE to the paths targeted SPE, TspeA1, TspeA2, TspeB1, TspeB2, TspeC1, TspeC2, TspeD1, TspeD2. The sensitivity is used to generate similar magnitudes to the SPF and Amp comparisons used to score peaks in the process of selecting P1. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	uint8	sample intervals		18	6	37
40767	766	TampSen	Tracking target normalized amplitude sensitivity The sensitivity applied to the comparison of the individual peaks Amp to the paths targeted Amp, TampA1, TampA2, TampB1, TampB2, TampC1, TampC2, TampD1. The sensitivity is used to generate similar magnitudes to the SPE and SPF comparisons used to score peaks in the process of selecting P1. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	%	%	uint8	%		30	5	100
40769	768	TspfWt	Tracking target Pf weighting factor The weighting applied to the score generated by TspfSen when summed with TspeWt * TspeSen score and TampWt * TampSen score to generate an overall rating to select P1. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	-	-	float32	-		2	0	3
40771	770	TspeWt	Tracking target Pe weighting factor The weighting applied to the score generated by TspeSen when summed with TspfWt * TspfSen score and TampWt * TampSen score to generate an overall rating to select P1. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	-	-	float32	-		0	0	3
40773	772	TampWt	Tracking target normalized amplitude weighting factor The weighting applied to the score generated by TampSen when summed with TspeWt * TspeSen score and TspfWt * TspfSen score to generate an overall rating to select P1. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	-	-	float32	-		0.5	0	3
40775	774	TspfHi	Tracking target Pf distance high limit The upper limit or ceiling for the default (Tspf) and the individual path (TspfA1, TspfA2, TspfB1, TspfB2, TspfC1, TspfC2, TspfD1, TspfD2) computed values. Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	uint8	sample intervals		25	0	37
40777	776	TspeHi	Tracking target Pe distance high limit The upper limit or ceiling for the default (Tspe) and the individual path (TspeA1, TspeA2, TspeB1, TspeB2, TspeC1, TspeC2, TspeD1, TspeD2) computed values. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	int8	sample intervals		20	-25	25
40779	778	TampHi	Tracking target normalized amplitude high limit The upper limit or ceiling for the magnitude (absolute value of) the default (Tamp) and the individual path (TampA1, TampA2, TampB1, TampB2, TampC1, TampC2, TampD1) computed values. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	%	%	uint8	%		100	0	100
40781	780	TspeLmt	Tracking target abs(Pe-Pf) limit The Tspf and Tspe calculations are not performed if the distance (in SI) between Pe and Pf exceed this amount. This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	sample intervals	sample intervals	uint16	sample intervals		25	0	30
40801	800	EmRateDesired	Desired transducer firing (emission) rate The desired emission rate or time between the firing of two transducers in sequence based on the firing order (FireSeq). The actual emission rate used (EmRateActual) will not be less than the meter's calculated minimum based on the meter's geometry (pipe diameter (PipeDiam)), distance between transducers (LA, LB, LC, LD), axial distance between transducers (XA, XB, XC, XD), the minimum speed of sound (SSMin) and the physical characteristics of the transducers themselves. The actual emission rate used may also be impacted by stacking (StackEmRateActual). A value of (0) ensures the use of fastest available rate determined by the meter.	RW	Y	Y	Y	float	ms	ms	float32	ms		0	0	64
40803	802	StackEmRateDesired	Desired stacking transducer firing (emission) rate The desired emission rate or time between firing of the same transducer when stacking is turned on, that is the stack size (StackSize) is not equal to (1). The actual emission rate used (StackEmRateActual) will not be less than the meter's calculated minimum based on the meter's geometry (pipe diameter (PipeDiam)), distance between transducers (LA, LB, LC, LD), axial distance between transducers (XA, XB, XC, XD), the minimum speed of sound (SSMin) and the physical characteristics of the transducers themselves. This value may impact the overall transducer to transducer emission rate selected by the emission rate desired (EmRateDesired). A value of (0) ensures the use of fastest available rate determined by the meter.	RW	Y	Y	Y	float	ms	ms	float32	ms		0	0	64
40805	804	XdcrFreq	Transducer frequency The output frequency of the transducers. Usually adjusted by setting the transducer type (SetXdcrType).	RW	Y	Y	Y	float	KHz	KHz	float32	KHz		1000	430	1000
40807	806	SampInterval	Sampling (rate) interval. Changing this value requires re-booting the meter The duration in nanoseconds of the signal sampling period. It is also used to compute the system delay (SystemDelay). Usually adjusted by setting the transducer type (SetXdcrType).	RW	Y	Y	Y	float	ns	ns	float32	ns		100	100	200
40809	808	SetXdcrType	Set transducer type Sets the type of transducer installed. Changing this data point will overwrite transducer configuration parameters (XdcrFreq, XdcrNumDriveCycles, DltChkSI, NegSpanSI, PkPlsWdthSI, PosSpanSI, SampPerCycle, SampInterval, TmDevLow1, Tspf, TspfLo, TspfHi, Tspe and Tamp) with default values. Once these transducer configuration values are written, the value of this data point is saved in the transducer type data point (XdcrType), and then set transducer type is set to zero.	RW	Y		Y	float	-	-	uint8	-	Automatically reset by the meter (0) LT-01/LT-03/LT-06/LT-07/LT-08/LT-09/LT-14/LT-15 (1) LT-04 (2) LT-05 (3) LT-10/LT-11/LT-16/LT-17 (4)	0	0	4
40811	810	XdcrNumDriveCycles	Number of cycles for transducer Number of cycles for transducer. Will be overwritten when transducer type (SetXdcrType) changes.	RW	Y	Y	Y	float	-	-	uint8	-		1	1	2
40813	812	SampPerCycle	Samples per cycle The number of times the waveform is sampled between two zero crossings with the same slope (one cycle). Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	float	-	-	uint8	-	8 (8) 10 (10) 12 (12)	10	8	12

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40901	900	PipeDiam	Pipe inside diameter The pipe inside diameter used to calculate the pipe area (PipeArea) and port angle (PortAngle).	RW	Y	Y	Y	float	m	ft	float32	m		0.1524	0.0254	2
40903	902	XA	Chord A "X" dimension Chord A "X" dimension (component of LA in the direction of flow within the meter bore). The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.1778	0	2
40905	904	XB	Chord B "X" dimension Chord B "X" dimension (component of LB in the direction of flow within the meter bore). The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.28575	0	2
40907	906	XC	Chord C "X" dimension Chord C "X" dimension (component of LC in the direction of flow within the meter bore). The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.28575	0	2
40909	908	XD	Chord D "X" dimension Chord D "X" dimension (component of LD in the direction of flow within the meter bore). The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.1778	0	2
40911	910	LA	Chord A length ("L" dimension) The distance between the transducer faces on chord A. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.3175	0	5
40913	912	LB	Chord B length ("L" dimension) The distance between the transducer faces on chord B. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.4445	0	5
40915	914	LC	Chord C length ("L" dimension) The distance between the transducer faces on chord C. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.4445	0	5
40917	916	LD	Chord D length ("L" dimension) The distance between the transducer faces on chord D. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.3175	0	5
40919	918	AvgDlyA	Chord A average delay time The chord-specific delay for chord A primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
40921	920	AvgDlyB	Chord B average delay time The chord-specific delay for chord B primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
40923	922	AvgDlyC	Chord C average delay time The chord-specific delay for chord C primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
40925	924	AvgDlyD	Chord D average delay time The chord-specific delay for chord D primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
40927	926	DltDlyA	Chord A difference in upstream and downstream delay times The adjustment to the chord A delta times (the individual times used for DltTmA (DltTmA)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
40929	928	DltDlyB	Chord B difference in upstream and downstream delay times The adjustment to the chord B delta times (the individual times used for DltTmB (DltTmB)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
40931	930	DltDlyC	Chord C difference in upstream and downstream delay times The adjustment to the chord C delta times (the individual times used for DltTmC (DltTmC)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
40933	932	DltDlyD	Chord D difference in upstream and downstream delay times The adjustment to the chord D delta times (the individual times used for DltTmD (DltTmD)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
40935	934	SystemDelay	System delay time The portion of the signal transit time due to the physical characteristics of the electronics. It is computed as seven times the sample interval (SampInterval) plus an electronics delay constant. It is used in conjunction with the chord specific delay times (AvgDlyA, AvgDlyB, AvgDlyC or AvgDlyD).	R	Y			float	us	us	float32	us				
40951	950	FwdA0	Factory calibration forward flow A0 coefficient The forward flow A0 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0	-1	1
40953	952	FwdA1	Factory calibration forward flow A1 coefficient The forward flow A1 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
40955	954	FwdA2	Factory calibration forward flow A2 coefficient The forward flow A2 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	s/m	sec/ft	float32	s/m		0	-0.1	0.1
40957	956	FwdA3	Factory calibration forward flow A3 coefficient The forward flow A3 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	s2/m2	sec2/ft2	float32	s2/m2		0	-0.1	0.1
40959	958	RevA0	Factory calibration reverse flow A0 coefficient The reverse flow A0 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0	-1	1
40961	960	RevA1	Factory calibration reverse flow A1 coefficient The reverse flow A1 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
40963	962	RevA2	Factory calibration reverse flow A2 coefficient The reverse flow A2 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	s/m	sec/ft	float32	s/m		0	-0.1	0.1

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
40965	964	RevA3	Factory calibration reverse flow A3 coefficient The reverse flow A3 coefficient used for factory calibration. The factory calibration "A" coefficients are applied to the average weighted flow velocity (AvgWtdFlowVel) to generate the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method selector (HighViscosityMethod) is set to "Disabled".	RW	Y	Y	Y	float	s2/m2	sec2/ft2	float32	s2/m2		0	-0.1	0.1
40967	966	HARTPercentRange	HART percent range The percent range of the primary variable is calculated every time the primary variable is updated. The calculated value depends on the device variable assigned to the analog output 1 content (AO1Content) and its lower and upper range values.	R	Y			float	%	%	float32	%				
40969	968	HARTPercentRangeAO2	Analog output 2 HART percent range The percent range of the secondary variable is calculated every time the secondary variable is updated. The calculated value depends on the device variable assigned to the analog output 2 content (AO2Content) and its lower and upper range values.	R	Y			float	%	%	float32	%				
41000	999	DI1Mode	Digital Input 1 mode Specifies the Digital Input 1 (DI1) operating mode. If Digital Input/Calibration Input is selected, general input or calibration is determined by the Digital Input 1 calibration control flag (IsDI1UsedForCal). I/O board type (IOBdType) 4 and above is required to select Frequency/Digital Output 6.	RW	Y	Y	Y	int	-	-	uint8	-	Digital Input/Calibration Input (0) Frequency/Digital Output 6 (2)	2	0	2
41001	1000	DI1IsInvPolarity	Digital Input 1 polarity control This value sets the polarity of Digital Input 1 (DI1). A TRUE (1) value is normal polarity (default). A FALSE (0) value is inverted polarity.	RW	Y	Y	Y	int	-	-	boolean	-	Normal (FALSE) Inverted (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41002	1001	IsDI1UsedForCal	Determines digital input 1 functionality Specifies whether digital input 1 (DI1) is used for general purpose when set to FALSE (0) or for synchronizing calibration when set to TRUE (1). If used for calibration, the polarity is determined by the IsDI1ForCalActiveLow data point and the gating edge is determined by the IsDI1ForCalStateGated data point.	RW				int	-	-	boolean	-	General purpose (FALSE) Used for calibration (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41003	1002	IsDI1ForCalActiveLow	Determines digital input 1 polarity for calibration use This point specifies the polarity for digital input 1 (DI1) when it is configured via IsDI1UsedForCal for use in synchronizing a calibration. See also IsDI1ForCalStateGated.	RW	Y	Y		int	-	-	boolean	-	Digital Input 1 calibrate active high (FALSE) Digital Input 1 calibrate active low (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
41004	1003	IsDI1ForCalStateGated	Determines digital input 1 gating for calibration use This point specifies the calibration gating for digital input 1 (DI1) when it is configured via IsDI1UsedForCal for use in synchronizing a calibration. When FALSE (0), the calibration is started/stopped via an inactive->active edge; when TRUE (1), the calibration is started via an inactive->active state change and stopped via an active->inactive state change. The active edge/state is specified via IsDI1ForCalActiveLow.	RW	Y	Y		int	-	-	boolean	-	Digital Input 1 calibrate edge gated (FALSE) Digital Input 1 calibrate state gated (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41005	1004	CalFlag	Flow calibration switch: calibration started on FALSE-to-TRUE transition and stopped on TRUE-to-FALSE transition Calibration function switch. When changed from FALSE (0) to TRUE (1), the calibration accumulated uncorrected volume CalVol and calibration elapsed time CalTime data points are reset. While TRUE (1), the flow volume and time are accumulated into the CalVol and CalTime data points.	RW				int	-	-	boolean	-	Stop calibration (FALSE) Start calibration (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41021	1020	ZeroFlowCalReqControl	Zero-flow calibration requested control Specifies the desired zero-flow calibration action. A zero-flow calibration process must be inactive in order to be started. The "Accept Result and Exit" selection is only valid when the status indicates "Completed Successfully."	RW			Y	int	-	-	uint8	-	Exit/Abort (0) Start (1) Accept result and exit (2)	0	0	2
41022	1021	ZeroFlowCalReqDuration	Zero-flow calibration requested duration Specifies the zero-flow calibration duration.	RW	Y	Y	Y	int	min	min	uint8	min		4	2	10
41023	1022	HARTIsTemperatureGood	HART temperature calculated indicator This is used internally in determining the HART device variable status for the flow temperature (FlowTemperature).	R				int	-	-	boolean	-	Bad (FALSE) Good (TRUE)			
41024	1023	HARTIsPressureGood	HART pressure calculated indicator This is used internally in determining the HART device variable status for the flow pressure (FlowPressure).	R				int	-	-	boolean	-	Bad (FALSE) Good (TRUE)			
41025	1024	HARTConfigChangeCounter	HART configuration change counter HART configuration change counter maintains the count of how many times HART config data points changed. When a block of data comes for write which consists of one or more configuration data points, configuration change counter will increment once.	R	Y			int	-	-	uint16	-				
41026	1025	HARTDidPrimaryConfigChange	HART primary master configuration changed HART primary master configuration changed. It is set to TRUE when configuration writable via HART is modified. It is reset to FALSE when command 38 is issued by primary master and received configuration changed counter matches the device configuration change counter.	R	Y			int	-	-	boolean	-	HART Primary Config Change reset (FALSE) HART Primary Config Change set (TRUE)			
41027	1026	HARTDidSecondaryConfigChange	HART secondary master configuration changed HART secondary master configuration changed. It is set to TRUE when configuration writable via HART is modified. It is reset to FALSE when command 38 is issued by secondary master and received configuration changed counter matches the device configuration change counter.	R	Y			int	-	-	boolean	-	HART Secondary Config Change reset (FALSE) HART Secondary Config Change set (TRUE)			
41028	1027	HARTIsMaintenanceReq	HART maintenance required This indicates (to a HART master) whether or not the device requires maintenance.	R				int	-	-	boolean	-	Maintenance not required (FALSE) Maintenance required (TRUE)			
41029	1028	HARTIsDeviceVarAlert	HART device status alert This indicates that, when one or more HART device variables are invalid. The host should identify the device variables causing this to be set using device variable calculated indicator status.	R				int	-	-	boolean	-	Not (FALSE) Yes (TRUE)			
41030	1029	HARTLoopCurrentMode	HART loop current mode It determines whether current signaling is being used by field device. Only HART can disable or enable the loop current mode, loop current is disabled when polling address is set to non-zero (i.e. field device is in multi-drop).	R	Y			int	-	-	uint8	-	Disabled (0) Enabled (1)			
41031	1030	HARTDidPowerFailPrimary	HART primary master power fail status This indicates the power fail status to the primary master. It is set to TRUE when the device is power cycled or reset.	R				int	-	-	boolean	-	Did not fail (FALSE) Did fail (TRUE)			
41032	1031	HARTDidPowerFailSecondary	HART secondary master power fail status Indicate the power fail status to the secondary master. It is set to TRUE when the device is power cycled or reset.	R				int	-	-	boolean	-	Did not fail (FALSE) Did fail (TRUE)			
41051	1050	CalMethod	Customer-calibration method selector Selects whether or not to apply a meter factor for a customer calibration to the measurement.	RW	Y	Y	Y	float	-	-	uint8	-	None (0) Meter factor (3)	3	0	3
41053	1052	FwdMtrFctr	Calibration forward flow meter factor Calibration forward flow meter factor. The meter factor is applied when the customer-calibration method selector (CalMethod) is set to Meter Factor.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41055	1054	RevMtrFctr	Calibration reverse flow meter factor Calibration reverse flow meter factor. The meter factor is applied when the customer-calibration method selector (CalMethod) is set to Meter Factor.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41057	1056	FwdFlwRt1	Piecewise linearization fwd vol flow rate 1 The first and highest forward flow rate used for piecewise linearization. It is paired with forward meter factor 1 (FwdMtrFctr1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero. Flow rates above this point will simply apply forward meter factor 1 (FwdMtrFctr1) as the linear meter factor (LinearMtrFctr).	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41059	1058	FwdFlwRt2	Piecewise linearization fwd vol flow rate 2 The second forward flow rate used for piecewise linearization. It is paired with forward meter factor 2 (FwdMtrFctr2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000

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Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41061	1060	FwdFlwRt3	Piecewise linearization fwd vol flow rate 3 The third forward flow rate used for piecewise linearization. It is paired with forward meter factor 3 (FwdMtrFctr3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41063	1062	FwdFlwRt4	Piecewise linearization fwd vol flow rate 4 The fourth forward flow rate used for piecewise linearization. It is paired with forward meter factor 4 (FwdMtrFctr4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41065	1064	FwdFlwRt5	Piecewise linearization fwd vol flow rate 5 The fifth forward flow rate used for piecewise linearization. It is paired with forward meter factor 5 (FwdMtrFctr5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41067	1066	FwdFlwRt6	Piecewise linearization fwd vol flow rate 6 The sixth forward flow rate used for piecewise linearization. It is paired with forward meter factor 6 (FwdMtrFctr6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41069	1068	FwdFlwRt7	Piecewise linearization fwd vol flow rate 7 The seventh forward flow rate used for piecewise linearization. It is paired with forward meter factor 7 (FwdMtrFctr7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41071	1070	FwdFlwRt8	Piecewise linearization fwd vol flow rate 8 The eighth forward flow rate used for piecewise linearization. It is paired with forward meter factor 8 (FwdMtrFctr8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41073	1072	FwdFlwRt9	Piecewise linearization fwd vol flow rate 9 The ninth forward flow rate used for piecewise linearization. It is paired with forward meter factor 9 (FwdMtrFctr9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41075	1074	FwdFlwRt10	Piecewise linearization fwd vol flow rate 10 The tenth forward flow rate used for piecewise linearization. It is paired with forward meter factor 10 (FwdMtrFctr10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41077	1076	FwdFlwRt11	Piecewise linearization fwd vol flow rate 11 The eleventh forward flow rate used for piecewise linearization. It is paired with forward meter factor 11 (FwdMtrFctr11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41079	1078	FwdFlwRt12	Piecewise linearization fwd vol flow rate 12 The twelfth and lowest forward flow rate used for piecewise linearization. It is paired with forward meter factor 12 (FwdMtrFctr12) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41081	1080	FwdMtrFctr1	Piecewise linearization forward meter factor 1 The first forward meter factor used for piecewise linearization. It is paired with forward flow rate 1 (FwdFlwRt1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41083	1082	FwdMtrFctr2	Piecewise linearization forward meter factor 2 The second forward meter factor used for piecewise linearization. It is paired with forward flow rate 2 (FwdFlwRt2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41085	1084	FwdMtrFctr3	Piecewise linearization forward meter factor 3 The third forward meter factor used for piecewise linearization. It is paired with forward flow rate 3 (FwdFlwRt3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41087	1086	FwdMtrFctr4	Piecewise linearization forward meter factor 4 The fourth forward meter factor used for piecewise linearization. It is paired with forward flow rate 4 (FwdFlwRt4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41089	1088	FwdMtrFctr5	Piecewise linearization forward meter factor 5 The fifth forward meter factor used for piecewise linearization. It is paired with forward flow rate 5 (FwdFlwRt5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41091	1090	FwdMtrFctr6	Piecewise linearization forward meter factor 6 The sixth forward meter factor used for piecewise linearization. It is paired with forward flow rate 6 (FwdFlwRt6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41093	1092	FwdMtrFctr7	Piecewise linearization forward meter factor 7 The seventh forward meter factor used for piecewise linearization. It is paired with forward flow rate 7 (FwdFlwRt7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41095	1094	FwdMtrFctr8	Piecewise linearization forward meter factor 8 The eighth forward meter factor used for piecewise linearization. It is paired with forward flow rate 8 (FwdFlwRt8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41097	1096	FwdMtrFctr9	Piecewise linearization forward meter factor 9 The ninth forward meter factor used for piecewise linearization. It is paired with forward flow rate 9 (FwdFlwRt9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41099	1098	FwdMtrFctr10	Piecewise linearization forward meter factor 10 The tenth forward meter factor used for piecewise linearization. It is paired with forward flow rate 10 (FwdFlwRt10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41101	1100	FwdMtrFctr11	Piecewise linearization forward meter factor 11 The eleventh forward meter factor used for piecewise linearization. It is paired with forward flow rate 11 (FwdFlwRt11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41103	1102	FwdMtrFctr12	Piecewise linearization forward meter factor 12 The twelfth forward meter factor used for piecewise linearization. It is paired with forward flow rate 12 (FwdFlwRt12) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41105	1104	RevFlwRt1	Piecewise linearization rev vol flow rate 1 The first and highest reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 1 (RevMtrFctr1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero. Flow rates above this point will simply apply reverse meter factor 1 (RevMtrFctr1) as the linear meter factor (LinearMtrFctr).	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41107	1106	RevFlwRt2	Piecewise linearization rev vol flow rate 2 The second reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 2 (RevMtrFctr2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41109	1108	RevFlwRt3	Piecewise linearization rev vol flow rate 3 The third reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 3 (RevMtrFctr3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41111	1110	RevFlwRt4	Piecewise linearization rev vol flow rate 4 The fourth reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 4 (RevMtrFctr4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41113	1112	RevFlwRt5	Piecewise linearization rev vol flow rate 5 The fifth reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 5 (RevMtrFctr5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41115	1114	RevFlwRt6	Piecewise linearization rev vol flow rate 6 The sixth reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 6 (RevMtrFctr6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41117	1116	RevFlwRt7	Piecewise linearization rev vol flow rate 7 The seventh reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 7 (RevMtrFctr7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41119	1118	RevFlwRt8	Piecewise linearization rev vol flow rate 8 The eighth reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 8 (RevMtrFctr8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41121	1120	RevFlwRt9	Piecewise linearization rev vol flow rate 9 The ninth reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 9 (RevMtrFctr9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41123	1122	RevFlwRt10	Piecewise linearization rev vol flow rate 10 The tenth reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 10 (RevMtrFctr10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41125	1124	RevFlwRt11	Piecewise linearization rev vol flow rate 11 The eleventh reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 11 (RevMtrFctr11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41127	1126	RevFlwRt12	Piecewise linearization rev vol flow rate 12 The twelfth and lowest reverse flow rate used for piecewise linearization. It is paired with reverse meter factor 12 (RevMtrFctr12) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to zero.	RW	Y	Y	Y	float	volume/time	volume/time	float32	m3/hr		0	0	200000
41129	1128	RevMtrFctr1	Piecewise linearization reverse meter factor 1 The first reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 1 (RevFlwRt1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41131	1130	RevMtrFctr2	Piecewise linearization reverse meter factor 2 The second reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 2 (RevFlwRt2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41133	1132	RevMtrFctr3	Piecewise linearization reverse meter factor 3 The third reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 3 (RevFlwRt3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41135	1134	RevMtrFctr4	Piecewise linearization reverse meter factor 4 The fourth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 4 (RevFlwRt4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41137	1136	RevMtrFctr5	Piecewise linearization reverse meter factor 5 The fifth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 5 (RevFlwRt5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41139	1138	RevMtrFctr6	Piecewise linearization reverse meter factor 6 The sixth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 6 (RevFlwRt6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41141	1140	RevMtrFctr7	Piecewise linearization reverse meter factor 7 The seventh reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 7 (RevFlwRt7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41143	1142	RevMtrFctr8	Piecewise linearization reverse meter factor 8 The eighth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 8 (RevFlwRt8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41145	1144	RevMtrFctr9	Piecewise linearization reverse meter factor 9 The ninth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 9 (RevFlwRt9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41147	1146	RevMtrFctr10	Piecewise linearization reverse meter factor 10 The tenth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 10 (RevFlwRt10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41149	1148	RevMtrFctr11	Piecewise linearization reverse meter factor 11 The eleventh reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 11 (RevFlwRt11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41151	1150	RevMtrFctr12	Piecewise linearization reverse meter factor 12 The twelfth reverse meter factor used for piecewise linearization. It is paired with reverse flow rate 12 (RevFlwRt12) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the linear meter factor (LinearMtrFctr) based on the dry calibration flow velocity. If it is unused it should be set to unity (1).	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
41253	1252	SpecFlowPressure	Specified (fixed) flow-condition pressure Specifies the flow-condition pressure used in calculations when the enable pressure input (EnablePressureInput) is set to Fixed (2). This value is also required if the flow-condition pressure and/or temperature source when the corresponding input is in alarm (FlowPOrTSrcUponAlarm) is set to Use fixed value (1).	RW	Y	Y		float	MPa	psi	float32	MPa		0.10156	0	280
41255	1254	SpecFlowTemperature	Specified (fixed) flow-condition temperature Specifies the flow-condition temperature used in calculations when the enable temperature input (EnableTemperatureInput) is set to Fixed (2). This value is also required if the flow-condition pressure and/or temperature source when the corresponding input is in alarm (FlowPOrTSrcUponAlarm) is set to Use fixed value (1).	RW	Y	Y		float	deg C	deg F	float32	K		273.15	60.15	473.15
41257	1256	SpecRhoMixFlow	Specified (fixed) flow-condition fluid mass density Specifies the flow-condition fluid mass density.	RW	Y	Y		float	kg/m3	lbm/ft3	float32	kg/m3		0	0	2000
41265	1264	Viscosity	Liquid dynamic viscosity Liquid dynamic viscosity used for Reynolds Number calculation.	RW	Y	Y		float	Pa.s	cPoise	float32	Pa.s		0.000012	0	3.40E+38
41299	1298	DidResetUsers	User database reset, latched until acknowledged The user database has been reset to a single user "administrator" with the privilege to perform user management and default password as "Administrator-<CPUBdSerialNumber>". The default password is based on CPU Module serial number (CPUBdSerialNumber) mentioned on a label on the CPU Module. Recommended Actions: 1. Reconfigure the meter's users. It is recommended that the default Administrator password should be changed. Other users can be reconfigured manually or imported from a previously exported encrypted user database file. 2. The alarm must be acknowledged to clear it from the list of alarms. 3. If facing any user management related issue, then contact your local area Emerson Flow service representative.	RW	Y	Y		int	-	-	boolean	-	Reset users cleared (FALSE) Reset users indicated (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41300	1299	DidWarmStart	Meter warm started, latched until acknowledged The meter has warm started due to a Program Download, configuration data point change requiring meter warm start or due to a user-initiated meter warm start (DoWarmStart). The Audit log in the meter will indicate the meter reset time (MeterResetTime). Recommended Actions: 1. If this is due to Program Download, configuration change requiring meter warm start or user-initiated meter warm start just acknowledge this alarm. 2. The alarm must be acknowledged to clear it from the list of alarms. 3. If this was an unexpected restart of the meter, collect a complete Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	RW	Y	Y		int	-	-	boolean	-	Did not warm start or warm start acknowledged (FALSE) Did warm start (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41301	1300	DidColdStart	Meter cold started, latched until acknowledged The meter has performed a cold start. The meter configuration has reset to default values, meter archive logs are erased, user database is reset, and Smart Meter Verification reports are deleted. The meter is not configured correctly to measure flow. The user database has been reset to a single user "administrator" with the privilege to perform user management and default password is "Administrator-<CPUBdSerialNumber>". The default password is based on CPU Module serial number (CPUBdSerialNumber) mentioned on the label on the CPU Module. Recommended Actions: 1. If the cold start occurred unexpectedly, i.e. not due to firmware upgrade/downgrade or user-initiated in meter reset mode, we recommend replacing the CPU Module. Contact your local area Emerson Flow service representative. 2. If the cold start occurred after a firmware upgrade or is done using MeterLink™ to cold start the CPU Module, you must fully re-configure the meter from a previously saved configuration using Edit/Compare Configuration in MeterLink™ and reconfigure the meter's users using Manage Users in MeterLink™. 3. The alarm must be acknowledged to clear it from the list of alarms. 4. If the issue is unresolved, contact your local area Emerson Flow service representative.	RW	Y	Y		int	-	-	boolean	-	Cold start cleared (FALSE) Cold start indicated (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
41302	1301	DidPowerFail	Power failure, latched until acknowledged The meter has had power removed for a period of time. The Audit log in the meter will indicate the meter reset time (MeterResetTime). Recommended Actions: 1. If this was a known power fail of the meter, simply acknowledge this alarm. 2. If this was an unexpected power failure, verify the integrity of the power to the meter and make sure that the voltage level is in the range of 11-36 VDC at the meter. A long cable distance between power source and meter can induce a significant voltage drop at the meter. 3. The alarm must be acknowledged to clear it from the list of alarms. 4. If the issue is unresolved, collect a complete Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	RW	Y	Y		int	-	-	boolean	-	Did not fail or failure acknowledged (FALSE) Did fail (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41303	1302	DidCnfgChksumChg	Configuration changed, latched until acknowledged The configuration checksum value (CnfgChksumValue) has changed. This indicates that one or more parameters have been modified in the meter's configuration. The timestamp of the most recent change is in the configuration checksum date (CnfgChksumDate). Recommended Actions: 1. Collect an Audit log using MeterLink™ to see what configuration parameters changed and when they changed. 2. The alarm must be acknowledged to clear it from the list of alarms.	RW	Y	Y		int	-	-	boolean	-	Unchanged or change acknowledged (FALSE) Changed (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
41304	1303	IsCorePresent	Diagnostic core file generated, latched until acknowledged A diagnostic core file has been generated which may indicate a problem with the meter. Recommended Actions: 1. The alarm must be acknowledged to clear it from the list of alarms. 2. Collect an Archive Log using MeterLink™ and contact your local area Emerson Flow service representative.	RW	Y	Y		int	-	-	boolean	-	No diagnostic file (FALSE) Diagnostic file present (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41305	1304	Reserved		R				int								
41306	1305	WatchDogReset	Watchdog reset, latched until acknowledged The software watchdog initiated a meter warm start. The watchdog keeps track of the performance of all metrology processes in the meter to ensure reliable measurement. When a process stops responding, the watchdog forces the meter to restart. The Audit log in the meter will indicate the meter reset time (MeterResetTime). Recommended Actions: 1. Collect a complete Archive Log using MeterLink™ and contact your local area Emerson Flow service representative. 2. The alarm must be acknowledged to clear it from the list of alarms.	RW	Y	Y		int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
41321	1320	ResetTrkParam	Forces reset of tracking targets to defaults when TRUE Forces the signal tracking targets (TspfA1..TspfD2, TspeA1..TspeD2 and TampA1..TampD2) to be reset to the default values (Tspf, Tspe and Tamp) when TRUE (1). Once these values are reset, the value of this point is automatically reset to FALSE (0).	RW	Y			int	-	-	boolean	-	Do not reset tracking (FALSE) Do reset tracking (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
41322	1321	ResetProp	Resets chord proportions to default values when TRUE Forces the chord proportion bins (FwdPropABin1..FwdPropDBin10, RevPropABin1..RevPropDBin10, FwdPropVelABin1..FwdPropVelDBin10 and RevPropVelABin1..RevPropVelDBin10) to be reset to the default values when TRUE (1). The default values are based on the meter type, indicated by the device number (DeviceNumber). Once the chord proportion bin values are reset, the value of this data point is automatically reset to zero and proportion bin updates will not begin (IsPropUpdtActive) until the required amount of time without chord failures has elapsed (PropUpdtSeconds).	RW	Y			int	-	-	boolean	-	Do not reset proportions (FALSE) Do reset proportions (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
41331	1330	DoUpdtTrigDeltaVols	Trigger for updating "triggered" delta volumes Trigger for updating "triggered" delta volumes. When set to TRUE (1), the triggered delta volume points, TrigDeltaPosVolFlow, TrigDeltaNegVolFlow, TrigDeltaPosVolBase, TrigDeltaNegVolBase, TrigPrevPosVolFlow, TrigPrevNegVolFlow, TrigPrevPosVolBase and TrigPrevNegVolBase are updated with the appropriate volume since the previous trigger. The meter clears this point to FALSE (0) when the triggered delta volume points have been updated.	RW				int	-	-	boolean	-	Do not update (FALSE) Do update (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41332	1331	DoWarmStart	Forces the system to perform a warm-start This selection forces the system to perform a warm-start. A warm start differs from a cold start (DidColdStart) in that the nonvolatile configuration points retain their values. A warm start is required (IsWarmStartReq) when changes are made to the transducer characteristics, sample rates, the device number . See also: XdcrFreq SetXdcrType XdcrNumDriveCycles SampInterval SampPerCycle DeviceNumber ColocMeterMode	RW				int	-	-	boolean	-	Do not warm start (FALSE) Do warm start (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41333	1332	IsAuditLogFixedDataPointsEnabled	Enables or disables audit log for fixed value configuration data points When set to TRUE (1), audit logging of fixed value configuration data point is enabled. Enables audit logging of SpecFlowPressure, SpecFlowTemperature and SpecRhoMixFlow.	RW	Y	Y		int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41351	1350	NonNormalModeTimeout	Non-normal operation timeout Non-normal operation timeout. The maximum length of time that a frequency output pair, digital output pair, analog output or calibration can remain in the test mode. In the event communications are lost between the Ultrasonic meter software and the meter (before a test mode is stopped), the meter will automatically end the test mode after the non-normal operation timeout has expired. This can be from 1 to 30 minutes depending on its settings. By default, the timeout is set to two minutes.	RW	Y	Y	Y	int	min	min	uint8	min		2	1	30
41352	1351	IsFreq1EnableTest	Frequency Output 1 pair test enable Frequency Output 1 is in test mode which means the pulses output do not reflect the process flow through the meter. Test mode allows the connection from this output to a flow computer to be verified. When the frequency output is in test mode, the frequency outputs are fixed at the percentage of full scale specified by the test mode output percentage configuration point (Freq1TestModeOutputPercent). If a frequency pair remains in test mode for the length of time configured by the normal mode timeout (NonNormalModeTimeout), the test mode is automatically exited and the frequency output returns to normal operation. Recommended Actions: 1. Use the Meter Outputs screen in MeterLink™ to disable the test mode for Frequency Output 1 to clear this alarm and return the meter back to its normal mode of operation. 2. Unless MeterLink™ or another application through Modbus is re-enabling the test mode, the output will revert back to the normal mode of operation in a user configured timeout period (NonNormalModeTimeout) which can be up to 30 minutes.	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41353	1352	Freq1TestModeOutputPercent	Frequency Output 1 pair test mode percentage of full-scale Specifies the Frequency Output 1 pair test mode percentage of full-scale. This specifies the frequency (as a percentage of the full-scale frequency (Freq1MaxFrequency)) to force Freq1A (Freq1ChnlA) and Freq1B (Freq1ChnlB) when in the frequency test mode (IsFreq1EnableTest).	RW				int	%	%	uint8	%		50	0	150

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Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41354	1353	DO1PairTestEnable	Enables test mode for Digital Output 1 pair Used to enable the test mode for Digital Output 1 pair (DO1A and DO1B). When set to TRUE (1), the test mode is enabled and digital outputs 1A and 1B are set to the levels specified by DO1A test mode value (DO1ATestVal) and DO1B test mode value (DO1BTestVal). When this point is set to TRUE (1), the digital output pair remains in the test mode for a period of time set by non-normal operation timeout (NonNormalModeTimeout) unless the test mode is explicitly exited by setting this point to FALSE (0).	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41355	1354	DO1ATestVal	Digital Output 1A test mode value Specifies the value (state) of Digital Output 1A when in the test mode (DO1PairTestEnable).	RW				int	-	-	uint8	-	Test low (0) Test high (1)	0	0	1
41356	1355	DO1BTestVal	Digital Output 1B test mode value Specifies the value (state) of Digital Output 1B when in the test mode (DO1PairTestEnable).	RW				int	-	-	uint8	-	Test low (0) Test high (1)	0	0	1
41357	1356	IsFreq2EnableTest	Frequency Output 2 pair test enable Frequency Output 2 is in test mode which means the pulses output do not reflect the process flow through the meter. Test mode allows the connection from this output to a flow computer to be verified. When the frequency output is in test mode, the frequency outputs are fixed at the percentage of full scale specified by the test mode output percentage configuration point (Freq2TestModeOutputPercent). If a frequency pair remains in test mode for the length of time configured by the normal mode timeout (NonNormalModeTimeout), the test mode is automatically exited and the frequency output returns to normal operation. Recommended Actions: 1. Use the Meter Outputs screen in MeterLink™ to disable the test mode for Frequency Output 2 to clear this alarm and return the meter back to its normal mode of operation. 2. Unless MeterLink™ or another application through Modbus is re-enabling the test mode, the output will revert back to the normal mode of operation in a user configured timeout period (NonNormalModeTimeout) which can be up to 30 minutes.	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41358	1357	Freq2TestModeOutputPercent	Frequency Output 2 pair test mode percentage of full-scale Specifies the Frequency Output 2 pair test mode percentage of full-scale. This specifies the frequency (as a percentage of the full-scale frequency (Freq2MaxFrequency)) to force Freq2A (Freq2ChnlA) and Freq2B (Freq2ChnlB) when in the frequency test mode (IsFreq2EnableTest).	RW				int	%	%	uint8	%		50	0	150
41359	1358	DO2PairTestEnable	Enables test mode for Digital Output 2 pair Used to enable the test mode for Digital Output 2 pair (DO2A and DO2B). When set to TRUE, the test mode is enabled and digital outputs 2A and 2B are set to the levels specified by DO2A test mode value (DO2ATestVal) and DO2B test mode value (DO2BTestVal). When this point is set to TRUE (1), the digital output pair remains in the test mode for a period of time set by non-normal operation timeout (NonNormalModeTimeout) unless the test mode is explicitly exited by setting this point to FALSE (0).	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41360	1359	DO2ATestVal	Digital Output 2A test mode value Specifies the value (state) of Digital Output 2A when in the test mode (DO2PairTestEnable).	RW				int	-	-	uint8	-	Test low (0) Test high (1)	0	0	1
41361	1360	DO2BTestVal	Digital Output 2B test mode value Specifies the value (state) of Digital Output 2B when in the test mode (DO2PairTestEnable).	RW				int	-	-	uint8	-	Test low (0) Test high (1)	0	0	1
41362	1361	IsAO1EnableTest	Analog Output 1 test enable Enables the Analog Output Test mode for Analog Output 1. When in the Analog Output Test mode, Analog Output 1 is fixed at the percentage of full scale specified via the Analog Output 1 test mode output percent configuration point (AO1TestModeOutputPercent) (regardless of the actual data content value). If Analog Output 1 remains in Analog Output Test mode for longer than the non-normal mode timeout (NonNormalModeTimeout), Analog Output 1 automatically exits Analog Output Test mode and returns to normal operation.	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41363	1362	AO1TestModeOutputPercent	Analog Output 1 test mode percentage of full-scale Specifies the Analog Output 1 Test mode percentage of full-scale. This specifies the analog current (as a percentage of the current output range, 4-20 mA) to force Analog Output 1 when in the Analog Output Test mode enabled via the IsAO1EnableTest data point.	RW				int	%	%	uint8	%		50	0	105
41364	1363	IsAO2EnableTest	Analog Output 2 test enable Enables the Analog Output Test mode for Analog Output 2. When in the Analog Output Test mode, Analog Output 2 is fixed at the percentage of full scale specified via the Analog Output 2 test mode output percent configuration point (AO2TestModeOutputPercent) (regardless of the actual data content value). If Analog Output 2 remains in Analog Output Test mode for longer than the non-normal mode timeout (NonNormalModeTimeout), Analog Output 2 automatically exits Analog Output Test mode and returns to normal operation.	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41365	1364	AO2TestModeOutputPercent	Analog Output 2 test mode percentage of full-scale Specifies the Analog Output 2 test mode percentage of full-scale. This specifies the analog current (as a percentage of the current output range, 4-20 mA) to force Analog Output 2 when in the Analog Output Test mode (enabled via the IsAO2EnableTest data point).	RW				int	%	%	uint8	%		50	0	105
41401	1400	HARTNumPreambleBytesFromSlave	HART (via AO1) number of Slave response preamble bytes HART, via AO1, number of Slave response preamble bytes.	RW	Y	Y	Y	int	-	-	uint8	-		5	5	20
41404	1403	HARTSlot0Content	HART Command 33 Slot 0 content Specifies the Device Variable mapped to the HART Command 33 Slot 0.	RW	Y	Y	Y	int	-	-	uint8	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3) Pressure (6) Temperature (7) Not Used (250)	250	0	250
41405	1404	HARTSlot1Content	HART Command 33 Slot 1 content Specifies the Device Variable mapped to the HART Command 33 Slot 1.	RW	Y	Y	Y	int	-	-	uint8	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3) Pressure (6) Temperature (7) Not Used (250)	250	0	250
41406	1405	HARTSlot2Content	HART Command 33 Slot 2 content Specifies the Device Variable mapped to the HART Command 33 Slot 2.	RW	Y	Y	Y	int	-	-	uint8	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3) Pressure (6) Temperature (7) Not Used (250)	250	0	250
41407	1406	HARTSlot3Content	HART Command 33 Slot 3 content Specifies the Device Variable mapped to the HART Command 33 Slot 3.	RW	Y	Y	Y	int	-	-	uint8	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3) Pressure (6) Temperature (7) Not Used (250)	250	0	250
41411	1410	AO2Content	Analog Output 2 content (and HART secondary variable) Selects the data to be represented by Analog Output 2.Is used for HART communication as the Secondary Variable content.	RW	Y	Y	Y	int	-	-	int32	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3)	0	0	3

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Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41412	1411	Reserved		R				int								
41413	1412	HARTTVContent	HART Third Variable content HART Third Variable content.	RW	Y	Y	Y	int	-	-	uint8	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3) Pressure (6) Temperature (7)	0	0	7
41414	1413	HARTQVContent	HART Fourth Variable content HART Fourth Variable content.	RW	Y	Y	Y	int	-	-	uint8	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3) Pressure (6) Temperature (7)	0	0	7
41415	1414	HARTMinNumPreambles	HART (via AO1) minimum number of Master command preamble bytes HART, via AO1, minimum number of Master command preamble bytes.	RW	Y	Y	Y	int	-	-	uint8	-		5	5	20
41421	1420	HARTVolUnit	HART volume unit Selects the HART communication volume unit. The volumetric flow rate unit (HARTVolFlowRateUnit) is derived from this.	RW	Y	Y	Y	int	-	-	uint8	-	m3 (43) L (41) bbl (46) gal (40)	43	40	46
41422	1421	HARTRateTimeUnit	HART flow rate time unit Selects the HART communication time unit for volumetric flow rate (HARTVolFlowRateUnit).	RW	Y	Y	Y	int	-	-	uint8	-	sec (51) min (50) hour (52) day (53)	52	50	53
41423	1422	HARTPressureUnit	HART pressure unit Selects the HART communication unit for pressure.	RW	Y	Y	Y	int	-	-	uint8	-	Pa (11) KPa (12) MPa (237) psi (6)	237	6	237
41424	1423	HARTTemperatureUnit	HART temperature unit Selects the HART communication unit for temperature.	RW	Y	Y	Y	int	-	-	uint8	-	C (32) K (35) F (33)	32	32	35
41425	1424	HARTVelUnit	HART velocity unit Selects the HART communication unit for flow velocity.	RW	Y	Y	Y	int	-	-	uint8	-	m/s (21) ft/s (20)	21	20	21
41426	1425	HARTLengthUnit	HART length unit Selects the HART communication unit for length.	RW	Y	Y	Y	int	-	-	uint8	-	m (45) in (47)	45	45	47
41427	1426	HARTViscosityUnit	HART viscosity unit Selects the HART communication unit for dynamic viscosity.	RW	Y	Y	Y	int	-	-	uint8	-		55	55	170
41428	1427	HARTYoungsModulusPressureUnit	HART Young's modulus pressure unit Selects the HART communication unit for Young's Modulus (YoungsModulus).	RW	Y	Y	Y	int	-	-	uint8	-	KPa (12) MPa (237) 1E6 psi (180)	180	12	237
41441	1440	HARTDeviceFinalAssyNum	HART device final assembly number HART device final assembly number. The final assembly number is used for identifying the materials and electronics that comprise the field device.	RW	Y	Y	Y	long	-	-	uint32	-		0	0	16777215
41443	1442	HARTPollingAddress	HART (via AO1) polling address Specifies the HART polling address for Analog Output 1.	RW	Y	Y	Y	long	-	-	uint8	-		0	0	63
41445	1444	HARTDate	HART date code used by the master for record keeping HART date code used by the master for record keeping (such as last or next calibration date).	RW	Y	Y	Y	long	-	-	uint32	-		65792	0	16777215
41447	1446	HARTQFlowUpdateTime	HART flow-condition volumetric flow rate update time The flow-condition volumetric flow rate (QFlow) timestamp. It updates every time the flow-condition volumetric flow rate (QFlow) is updated and status is good within 24 hours. timestamp is set to 0 if it is not updated within 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41451	1450	HARTPressureUpdateTime	HART flow pressure update time The Flow pressure (FlowPressure) timestamp. It updates every time the flow pressure (FlowPressure) is calculated and status is good within 24 hours. timestamp is set to 0 if it is not updated within the last 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41453	1452	HARTTemperatureUpdateTime	HART flow temperature update time The Flow Temperature (FlowTemperature) timestamp. It updates every time the flow Temperature (FlowTemperature) is calculated and status is good within 24 hours. timestamp is set to 0 if it is not updated within the last 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41455	1454	HARTAO1OutputUpdateTime	HART analog output 1 update time The Analog Output 1 current value (AO1Output) timestamp. It updates every time the analog output 1 current value (AO1Output) is calculated and status is good within 24 hours. timestamp is set to 0 if it is not updated within the last 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41457	1456	HARTPercentRangeUpdateTime	HART percent range update time The percent range (HARTPercentRange) timestamp. It updates every time the HART percent range (HARTPercentRange) is calculated and status is good within 24 hours. Timestamp is set to 0 if it is not updated within the last 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41459	1458	Reserved		R				long								
41461	1460	HARTAvgFlowUpdateTime	HART average flow velocity update time The Average flow velocity (AvgFlow) timestamp. It updates every time the average flow velocity (AvgFlow) is calculated and status is good within 24 hours. timestamp is set to 0 if it is not updated within the last 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41463	1462	HARTAvgSndVelUpdateTime	HART average speed of sound update time The Average speed of sound (AvgSndVel) timestamp. It updates every time the average speed of sound (AvgSndVel) is calculated and status is good within 24 hours. timestamp is set to 0 if it is not updated within the last 24 hours or it is updated but status is not good.	R				long	ms	ms	uint32	ms				
41501	1500	IsLocalDisplayAvail	Local display is available When TRUE (1) the system has detected the presence of the local display.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
41502	1501	IsLocalDisplayEnableTest	Test mode for local display When set TRUE (1) the local display will perform a series of tests to exercise all the segments of the display. This value will automatically return to FALSE (0) when the test is complete.	RW				int	-	-	boolean	-	Disable test (FALSE) Enable test (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
41503	1502	LocalDisplayScrollDelay	Scroll delay time for local display The time interval in seconds used to change which item (LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10) is shown on the local display.	RW	Y	Y	Y	int	sec	sec	uint8	sec		5	1	100

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41504	1503	LocalDisplayFlowRateTimeUnit	Local display time units The time units used by the local display, if applicable, to display the current item (LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	second (0) minute (3) hour (1) day (2)	1	0	3
41505	1504	LocalDisplayVolUnitUS	Local display U.S. Customary volume unit The volumetric units used by the local display, if applicable, to display the current item (LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10) when the units system (UnitsSystem) is selected to U.S. Customary (0). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	Barrels (1) Gallons (2)	1	1	2
41506	1505	LocalDisplayVolUnitMetric	Local display metric volume unit The volumetric units used by the local display, if applicable, to display the current item (LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10) when the units system (UnitsSystem) is selected to Metric (1). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	Cubic meters (0) Liters (1) Thousand cubic meters (2)	0	0	2
41507	1506	LocalDisplayItem1	Local display item 1 This selects the first value to be shown on the local display. Other display items (LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	1	0	25
41508	1507	LocalDisplayItem2	Local display item 2 This selects the second value to be shown on the local display. Other display items (LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	6	0	25
41509	1508	LocalDisplayItem3	Local display item 3 This selects the third value to be shown on the local display. Other display items (LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	14	0	25

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41510	1509	LocalDisplayItem4	Local display item 4 This selects the fourth value to be shown on the local display. Other display items (LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25
41511	1510	LocalDisplayItem5	Local display item 5 This selects the fifth value to be shown on the local display. Other display items (LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25
41512	1511	LocalDisplayItem6	Local display item 6 This selects the sixth value to be shown on the local display. Other display items (LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25
41513	1512	LocalDisplayItem7	Local display item 7 This selects the seventh value to be shown on the local display. Other display items (LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41514	1513	LocalDisplayItem8	Local display item 8 This selects the eighth value to be shown on the local display. Other display items (LocalDisplayItem9, LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25
41515	1514	LocalDisplayItem9	Local display item 9 This selects the ninth value to be shown on the local display. Other display items (LocalDisplayItem10, LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25
41516	1515	LocalDisplayItem10	Local display item 10 This selects the tenth value to be shown on the local display. Other display items (LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9) will be displayed in sequence at a rate determined by the delay time (LocalDisplayScrollDelay). When selected as None (0), this item will be skipped. The units this item is displayed in are determined by the units system (UnitsSystem), the corresponding volume units (LocalDisplayVolUnitUS, LocalDisplayVolUnitMetric) and/or the time units (LocalDisplayFlowRateTimeUnit). This data point is only applicable when local display mode (LocalDisplayMode) is set to "Scroll items 1-10".	RW	Y	Y	Y	int	-	-	uint8	-	None (0) QFLOW - Uncorrected volume flow rate (1) TDYVL - Current day's forward uncorrected volume (2) TDYVL - Current day's reverse uncorrected volume (3) YSTVL - Previous day's forward uncorrected volume (4) YSTVL - Previous day's reverse uncorrected volume (5) TOTVL - Forward uncorrected volume (6) TOTVL - Reverse uncorrected volume (7) VEL - Average flow velocity (8) SOS - Average speed of sound (9) TEMP - flow-condition temperature (10) PRESS - flow-condition pressure (11) FRQ1A - Frequency channel 1A (12) FRQ1B - Frequency channel 1B (13) KFCT1 - Frequency 1 K-factor (14) FRQ2A - Frequency channel 2A (15) FRQ2B - Frequency channel 2B (16) KFCT2 - Frequency 2 K-factor (17) AO1 - Analog Output 1 Current (24) AO2 - Analog Output 2 Current (25)	0	0	25
41517	1516	LocalDisplaySquawkMode	Local display squawk mode When squawk mode is set to Squawk On (1) the local display will display the pattern O-O-O-O until squawk mode is set to Squawk Off (0). When squawk mode is set to Squawk Once (2) the local display will display the pattern O-O-O-O for 60 seconds.	RW	Y			int	-	-	uint8	-	Squawk Off (0) Squawk On (1) Squawk Once (2)	0	0	2
41518	1517	LocalDisplayMode	Local display mode When set to "Uncorrected volume only", the local display alternately shows the forward flow-condition volume (PosVolFlow) and the reverse flow-condition volume (NegVolFlow) in m3 or ft3/gal depending on the units system (UnitsSystem). The non-resettable running totals will be displayed as multiplier of 10 or 100 (depending upon the meter size) and only 7 least significant digits will be displayed. When set to "Scroll items 1-10", the local display will display items configured by local display items 1-10 (LocalDisplayItem1, LocalDisplayItem2, LocalDisplayItem3, LocalDisplayItem4, LocalDisplayItem5, LocalDisplayItem6, LocalDisplayItem7, LocalDisplayItem8, LocalDisplayItem9, LocalDisplayItem10). In both modes, items will be updated on the local display using the scroll delay time interval (LocalDisplayScrollDelay).	RW	Y	Y	Y	int	-	-	uint8	-	Scroll items 1-10 (0) Uncorrected volume only (1)	0	0	1
41522	1521	PeakSwitchDetectMode	Peak switch detection mode Determines what action to take if a peak switch is detected by the pattern of computed eta values (EtaBA, EtaBD, EtaCA, EtaCD). Both the "Status Only" and the "Status and Discard" modes set the peak switch detection indicators (IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC, IsPeakSwitchDetectedD). If "Status and Discard" is selected the waveforms with peak switching detected will not be included in the flow calculations. Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). If "Disabled" no status will be updated nor waveforms discarded.	RW	Y	Y	Y	int	-	-	uint8	-	Disabled (0) Status Only (1) Status and Discard (2)	0	0	2
41523	1522	IsPeakSwitchDetected	Peak switch detected A peak switch timing error was detected on at least one chord (IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC, IsPeakSwitchDetectedD).	R				int	-	-	boolean	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41524	1523	IsPeakSwitchDetectedA	Peak switch detected for chord A A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodA1, PctGoodA2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
41525	1524	IsPeakSwitchDetectedB	Peak switch detected for chord B A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodB1, PctGoodB2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
41526	1525	IsPeakSwitchDetectedC	Peak switch detected for chord C A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodC1, PctGoodC2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
41527	1526	IsPeakSwitchDetectedD	Peak switch detected for chord D A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodD1, PctGoodD2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017

The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41528	1527	IsXdcrMaintenanceRequired A	Transducer maintenance required for chord A At least one of the paths for chord A has been outside the maintenance gain range (XdcrMaintenanceGainRange) or the maintenance SNR range (XdcrMaintenanceSNRRange) for a time period longer than the number of failure free seconds required for updating the chord proportions (PropUpdtSeconds). If this value is TRUE (1), the chord proportion bin will not be updated and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). This alarm is not set when the average weighted flow velocity (AvgWtdFlowVel) or the flow velocity of the chord (FlowVelA .. FlowVelD) is below the low flow limit value (LowFlowLmt). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify that the meter run is not partially full where this top transducer pair is not submerged in the process fluid. 3. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 4. If transducer the cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly and there could be a problem with either the cabling or the acquisition board. If this alarm clears but the chord that was swapped now fails, the issue is with the transducers. 5. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative.	R	Y	Y		int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
41529	1528	IsXdcrMaintenanceRequired B	Transducer maintenance required for chord B At least one of the paths for chord B has been outside the maintenance gain range (XdcrMaintenanceGainRange) or the maintenance SNR range (XdcrMaintenanceSNRRange) for a time period longer than the number of failure free seconds required for updating the chord proportions (PropUpdtSeconds). If this value is TRUE (1), the chord proportion bin will not be updated and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). This alarm is not set when the average weighted flow velocity (AvgWtdFlowVel) or the flow velocity of the chord (FlowVelA .. FlowVelD) is below the low flow limit value (LowFlowLmt). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify that the meter run is not partially full where this top transducer pair is not submerged in the process fluid. 3. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 4. If transducer the cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly and there could be a problem with either the cabling or the acquisition board. If this alarm clears but the chord that was swapped now fails, the issue is with the transducers. 5. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative.	R	Y	Y		int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
41530	1529	IsXdcrMaintenanceRequired C	Transducer maintenance required for chord C At least one of the paths for chord C has been outside the maintenance gain range (XdcrMaintenanceGainRange) or the maintenance SNR range (XdcrMaintenanceSNRRange) for a time period longer than the number of failure free seconds required for updating the chord proportions (PropUpdtSeconds). If this value is TRUE (1), the chord proportion bin will not be updated and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). This alarm is not set when the average weighted flow velocity (AvgWtdFlowVel) or the flow velocity of the chord (FlowVelA .. FlowVelD) is below the low flow limit value (LowFlowLmt). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify that the meter run is not partially full where this top transducer pair is not submerged in the process fluid. 3. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 4. If transducer the cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly and there could be a problem with either the cabling or the acquisition board. If this alarm clears but the chord that was swapped now fails, the issue is with the transducers. 5. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative.	R	Y	Y		int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
41531	1530	IsXdcrMaintenanceRequiredD	Transducer maintenance required for chord D At least one of the paths for chord D has been outside the maintenance gain range (XdcrMaintenanceGainRange) or the maintenance SNR range (XdcrMaintenanceSNRRange) for a time period longer than the number of failure free seconds required for updating the chord proportions (PropUpdtSeconds). If this value is TRUE (1), the chord proportion bin will not be updated and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). This alarm is not set when the average weighted flow velocity (AvgWtdFlowVel) or the flow velocity of the chord (FlowVelA .. FlowVelD) is below the low flow limit value (LowFlowLmt). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify that the meter run is not partially full where this top transducer pair is not submerged in the process fluid. 3. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 4. If transducer the cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly and there could be a problem with either the cabling or the acquisition board. If this alarm clears but the chord that was swapped now fails, the issue is with the transducers. 5. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative.	R	Y	Y		int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
41532	1531	IsXdcrMaintenanceRequired	Transducer maintenance required One or more of the chords requires transducer maintenance (IsXdcrMaintenanceRequiredA, IsXdcrMaintenanceRequiredB, IsXdcrMaintenanceRequiredC, IsXdcrMaintenanceRequiredD).	R				int	-	-	boolean	-				
42001	2000	PortAngle	Meter port angle for speed of sound correction The meter port angle for the speed of sound port angle factor correction. The port angle is computed from chord "X" dimension (XA) and pipe ID dimension (PipeDiam). See also the speed of sound correction factor (SOSGeometryCorrFctrA, SOSGeometryCorrFctrB, SOSGeometryCorrFctrC, SOSGeometryCorrFctrD) data points.	R				float	deg	deg	float32	deg				
42003	2002	WtA	Chord A weight for calculating average weighted velocity Chord A weight for calculating average weighted velocity (set by the meter based on the device number (DeviceNumber)).	R	Y			float	-	-	float32	-				
42005	2004	WtB	Chord B weight for calculating average weighted velocity Chord B weight for calculating average weighted velocity (set by the meter based on the device number (DeviceNumber)).	R	Y			float	-	-	float32	-				
42007	2006	WtC	Chord C weight for calculating average weighted velocity Chord C weight for calculating average weighted velocity (set by the meter based on the device number (DeviceNumber)).	R	Y			float	-	-	float32	-				
42009	2008	WtD	Chord D weight for calculating average weighted velocity Chord D weight for calculating average weighted velocity (set by the meter based on the device number (DeviceNumber)).	R	Y			float	-	-	float32	-				
42011	2010	FlowVelA	Flow velocity for chord A Chord A flow velocity.	R				float	m/s	ft/s	float32	m/s				
42013	2012	FlowVelB	Flow velocity for chord B Chord B flow velocity.	R				float	m/s	ft/s	float32	m/s				
42015	2014	FlowVelC	Flow velocity for chord C Chord C flow velocity.	R				float	m/s	ft/s	float32	m/s				
42017	2016	FlowVelD	Flow velocity for chord D Chord D flow velocity.	R				float	m/s	ft/s	float32	m/s				
42019	2018	AvgWtdFlowVel	Average weighted flow velocity (no calibration applied) Average weighted flow velocity (per batch). When all active chords are non-failed, the average weighted flow velocity is a weighted sum of the chord velocity measurements, WtA, WtB, WtC, WtD, where the chord weights are determined by the meter geometry. See also FlowVelA, FlowVelB, FlowVelC, FlowVelD.	R				float	m/s	ft/s	float32	m/s				
42021	2020	DryCalVel	Factory calibrated flow velocity (customer cal not applied) If the high viscosity calibration method selector (HighViscosityMethod) is "Disabled", then this is the result of applying the factory calibration coefficients (A coefficients FwdA0, FwdA1, FwdA2, FwdA3, RevA0, RevA1, RevA2 and RevA3) to the average weighted flow velocity (AvgWtdFlowVel). If the high viscosity calibration method selector (HighViscosityMethod) is "Enabled", then this is the result of applying the zero calibration high viscosity flow offset (FwdA0HighViscosity or RevA0HighViscosity) to the average weighted flow velocity (AvgWtdFlowVel).	R				float	m/s	ft/s	float32	m/s				
42025	2024	AvgFlow	Average flow velocity (factory and customer cal applied) Average flow velocity (per batch). This is the dry cal velocity (DryCalVel) with any selected flow calibration method (CalMethod) as well as linear meter factor (LinearMtrFctr) when high viscosity method (HighViscosityMethod) is "Disabled" or linear meter factor high viscosity (LinearMtrFctrHighViscosity) when high viscosity method (HighViscosityMethod) is "Enabled" applied.	R				float	m/s	ft/s	float32	m/s				
42027	2026	SndVelA	Speed of sound for chord A Speed of sound for chord A including any adjustment for speed of sound correction factor (SOSGeometryCorrFctrA).	R				float	m/s	ft/s	float32	m/s				
42029	2028	SndVelB	Speed of sound for chord B Speed of sound for chord B including any adjustment for speed of sound correction factor (SOSGeometryCorrFctrB).	R				float	m/s	ft/s	float32	m/s				
42031	2030	SndVelC	Speed of sound for chord C Speed of sound for chord C including any adjustment for speed of sound correction factor (SOSGeometryCorrFctrC).	R				float	m/s	ft/s	float32	m/s				
42033	2032	SndVelD	Speed of sound for chord D Speed of sound for chord D including any adjustment for speed of sound correction factor (SOSGeometryCorrFctrD).	R				float	m/s	ft/s	float32	m/s				
42035	2034	AvgSndVel	Average speed of sound Average speed of sound (per batch) of all non-failed velocity measurement chords.	R	Y			float	m/s	ft/s	float32	m/s				
42041	2040	QCutOff	Volumetric flow rate threshold below which the flow rate is considered zero The volumetric flow rate below which the flow-condition volumetric flow rate (QFlow) is considered zero, chord turbulence values are not calculated (TurbulenceA..TurbulenceD) and "flow gated" (FLOW_GATED) values are not accumulated. This value is computed by multiplying the flow velocity low cutoff (ZeroCut) by the meter inside pipe area (PipeArea). When the flow rate is above this threshold, the cutoff indicator (IsFlowAboveCutoff) is TRUE (1).	R				float	volume/time	volume/time	float32	m3/hr				
42043	2042	QMeter	Volumetric flow rate (no expansion correction) Volumetric flow rate (no expansion correction). Computed as average flow (AvgFlow) times pipe area (PipeArea).	R				float	volume/time	volume/time	float32	m3/hr				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42045	2044	QMeterValidity	Uncorrected flow-condition volumetric flow rate invalid The volumetric flow rate (no expansion correction) is invalid. The meter is either not in measurement mode (i.e. no chords acquired) or the number of operating chords is below the minimum number required (MinChord)) or, for a measurement chord, the in-use chord length does not match the calculated chord length (IsChordLengthMismatched). If the high viscosity calibration method selector (HighViscosityMethod) is enabled, then either the profile factor measurement (ProfileFactor) cannot be reliably calculated due to one or more chord failures or the average weighted flow velocity (AvgWtdFlowVel) is below the zero cutoff threshold (ZeroCut). Recommended Actions: 1. From the alarm list, determine which chords are failed and resolve these alarm(s) first. Resolving the chord failures will clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log with MeterLink™ and contact your local area Emerson Flow service representative. See also: IsAcqMode, IsTooFewOperChords	R	Y			float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42047	2046	StrainPerUnitStress	Calculated strain per unit stress due to pressure Calculated strain per unit stress due to pressure. This is calculated if pressure expansion correction (ExpCorrPressure) is enabled via the Enable for pressure expansion correction (EnableExpCorrPress).	R				float	1/MPa	1/psi	float32	1/MPa				
42049	2048	ExpCorrPressure	Pressure expansion correction factor Pressure expansion correction factor. If pressure expansion correction is enabled via the Enable for pressure expansion correction (EnableExpCorrPress), then this value, is computed as (1.0 + (3.0 x strain per unit stress (StrainPerUnitStress) x (absolute flow pressure (AbsFlowPressure) - reference pressure (RefPressExpCoef)))), otherwise this value is unity (1.0) Along with temperature expansion correction factor (ExpCorrTemperature), this value is used to compute the corrected flow (QExpCorr) from the uncorrected flow (QMeter).	R				float	-	-	float32	-				
42051	2050	ExpCorrTemperature	Temperature expansion correction factor in three dimensions The temperature expansion correction factor used to correct volumes. If temperature expansion correction is enabled (EnableExpCorrTemp), then this value is calculated, otherwise it is set to 1. This correction factor is computed from the linear expansion coefficient (LinearExpansionCoef), the reference temperature (RefTempLinearExpCoef) and the flow temperature (FlowTemperature) as: (1 + 3 * linear expansion coefficient * (flow temperature - reference temperature)) Typically, this correction factor is applied to the volumetric flows (QExpCorr and those derived from it, QFlow and QBase).	R				float	-	-	float32	-				
42053	2052	QExpCorr	Expansion corrected (flow-condition) vol flow Expansion corrected (flow-condition) volumetric flow rate, the volumetric flow rate with no expansion correction (QMeter) with pressure expansion correction (ExpCorrPressure) and temperature expansion correction (ExpCorrTemperature) applied.	R				float	volume/time	volume/time	float32	m3/hr				
42055	2054	RefPressExpCoef	Pressure expansion correction reference coefficient Reference coefficient used to compute pressure expansion correction (ExpCorrPressure). Normally this is one atmosphere.	R	Y	Y	Y	float	MPa	psi	float32	MPa		0.101325	-3.40E+38	3.40E+38
42057	2056	QFlow	Volumetric flow rate at flow condition Flow-condition volumetric flow rate, corrected for flow-condition expansion (QExpCorr).	R				float	volume/time	volume/time	float32	m3/hr				
42059	2058	QFlowValidity	Flow-condition volumetric flow rate invalid The meter either has not collected enough information from the chords to make an accurate measurement or the pressure and/or temperature are invalid and meter is performing pressure or temperature expansion corrections on the meter internal diameter. This is an alarm condition that shows the validity of the flow-condition volumetric flow rate (QFlow). The flow-condition volumetric flow rate (QFlow) becomes invalid if the uncorrected flow-condition volumetric flow rate validity (QMeterValidity), temperature expansion correction validity (ExpCorrTempValidity), and/or pressure expansion correction validity (ExpCorrPressValidity) is invalid. Recommended Actions: 1. If the pressure expansion correction validity alarm is present, correcting it may clear this alarm. 2. If the temperature expansion correction validity alarm is present, correcting it may clear this alarm. 3. If the uncorrected flow-condition volumetric flow rate validity alarm is present, correcting it may clear this alarm. 4. If the issue is unresolved, collect a Maintenance Log with MeterLink™ and contact your local area Emerson Flow service representative.	R	Y			float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42061	2060	ExpCorrTemperatureForVel	Temperature expansion correction factor in a single dimension The temperature expansion correction factor for linear measurements. If temperature expansion correction is enabled (EnableExpCorrTemp), then this value is calculated, otherwise it is set to 1. This correction factor is computed from the linear expansion coefficient (LinearExpansionCoef), the reference temperature (RefTempLinearExpCoef) and the flow temperature (FlowTemperature) as: (1 + linear expansion coefficient * (flow temperature - reference temperature)) Typically, this correction factor is applied to the speeds of sound (SndVelA, SndVelB, SndVelC, SndVelD) to correct for changes in the L distances (LA, LB, LC, LD) .	R				float	-	-	float32	-				
42065	2064	FlowPressure	Flow-condition pressure This is either gage or absolute pressure depending upon input pressure absolute/gage selector (InputPressureUnit). If flow-condition pressure input selector (EnablePressureInput) is "Fixed", flow-condition pressure = specified (fixed) flow-condition pressure (SpecFlowPressure) when written via a non-ISO 17089 Modbus register or via the HART Command-132 or via DB API protocol. When the flow-condition absolute pressure is written via the ISO 17089 Modbus register and the input pressure absolute/gage selector is set to "Gage", flow-condition pressure = specified (fixed) flow-condition pressure - Atmospheric pressure (AtmosphericPress). If flow-condition pressure input selector is "Live", flow-condition pressure = average of live flow-condition pressure (LiveFlowPressure) values for the past five seconds. If flow-condition pressure input selector is "Transmitter Head 1", flow-condition pressure is read from Transmitter Head 1 of a Dual-Configuration meter (ColocMeterIPAddress).	R	Y			float	MPa	psi	float32	MPa				
42067	2066	AbsFlowPressure	Flow-condition absolute pressure Flow-condition absolute pressure. If input pressure absolute/gage selector (InputPressureUnit) is "Gage", flow-condition absolute pressure = flow-condition pressure (FlowPressure) + specified atmospheric pressure (AtmosphericPress). Otherwise, if input pressure absolute/gage selector (InputPressureUnit) is "Absolute", flow-condition absolute pressure = flow-condition pressure (FlowPressure).	R				float	MPa	psi	float32	MPa				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42069	2068	PressureValidity	Flow pressure invalid Pressure is invalid if the flow pressure (FlowPressure) is outside the limits defined by the low and high pressure alarm limits (LowPressureAlarm, HighPressureAlarm). Pressure is invalid if the meter is configured to read the flow-condition pressure from Transmitter Head 1 of a Dual-Configuration meter and Dual-Configuration meters are not communicating (IsColocMeterCommErr), either due to incorrect configuration or the Transmitter Head 1 is not reachable. Recommended Actions: First Time Startup Issues: 1. Verify that there is voltage to the pressure sensor, either from the terminal on the meter's power supply board or from an external power supply. 2. If using an analog pressure device, verify that the pressure sensor is properly wired to the connector TB2-B pins 1 & 2 (ANALOG IN PT- & PT+). 3. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 4. If using an external source to write pressure to the meter, verify that it is properly writing to fixed flow pressure (SpecFlowPressure) in the proper units. The current value will be displayed as Fixed pressure in the Field Setup Wizard in MeterLink™. 5. If the meter is configured to read flow-condition pressure from Transmitter Head 1 of a Dual-Configuration meter, make sure that Ethernet connection between the Dual-Configuration meters is setup correctly and the Dual-Configuration meter IP address (ColocMeterIPAddress) on head 1 is same as the Ethernet IP address (Eth1IPAddr) of head 2 and vice versa. Check if flow-condition pressure is invalid on Transmitter Head 1 of a Dual-Configuration meter. 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative. Run Time Issues: 1. Adjust the pressure of the process fluid to within alarm limits. 2. If using an analog pressure device and the input reading is 0, check if IsAI2Avail is equal to 1 in the Meter Information dialog in MeterLink™. If it is not 1, either the I/O Board has been removed or is damaged. Reinstall or replace the board if this value is 0. 3. If using an analog pressure device, verify that the pressure sensor is working properly. 4. If using an analog pressure device, recheck wiring and switch settings as noted above under First Time Setup Issues. 5. If the external source is writing values to the fixed flow pressure (SpecFlowPressure), verify that the external source is still writing valid values without Modbus write errors. 6. Rerun the Field Setup Wizard in MeterLink™ to verify that the configuration for the pressure input has not changed. 7. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) and Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42071	2070	FlowTemperature	Flow-condition temperature If flow-condition temperature input selector (EnableTemperatureInput) is "Fixed", flow-condition temperature = specified (fixed) flow-condition temperature (SpecFlowTemperature) when written via a Modbus register or via the HART Command-132 or via DB API protocol. Otherwise, if flow-condition temperature input selector is "Live", flow-condition temperature = average of live flow-condition temperature (LiveFlowTemperature) values for the past five seconds. If flow-condition temperature input selector is "Transmitter Head 1", flow-condition temperature is read from Transmitter Head 1 of a Dual-Configuration meter (ColocMeterIPAddress).	R	Y			float	deg C	deg F	float32	K				
42073	2072	TemperatureValidity	Flow temperature invalid Temperature is invalid if the flow-condition temperature (FlowTemperature) is outside the limits defined by the low and high temperature alarm limits (LowTemperatureAlarm, HighTemperatureAlarm). Temperature is invalid if the meter is configured to read the flow-condition temperature from Transmitter Head 1 of a Dual-Configuration meter and Dual-Configuration meters are not communicating (IsColocMeterCommErr), either due to incorrect configuration or the Transmitter Head 1 is not reachable. Recommended Actions: First Time Startup Issues: 1. Verify that there is voltage to the temperature sensor, either from the terminal on the meter's power supply board or from an external power supply. 2. If using an analog temperature device, verify that the temperature sensor is properly wired to connector TB2-B pins 3 & 4 (ANALOG IN TT- & TT+). 3. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 4. If using an external source to write temperature to the meter, verify that it is properly writing the fixed flow temperature (SpecFlowTemperature) in the proper units. The current value will be displayed as Fixed temperature in the Field Setup Wizard in MeterLink™. 5. If the meter is configured to read the flow-condition temperature from Transmitter Head 1 of a Dual-Configuration meter, make sure that the Ethernet connection between the Dual-Configuration meters is setup correctly and the Dual-Configuration meter IP address (ColocMeterIPAddress) on head 1 is same as the Ethernet IP address (Eth1IPAddr) of head 2 and vice versa. Check if the flow-condition temperature is invalid on Transmitter Head 1 of a Dual-Configuration meter. 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative. Run Time Issues: 1. Adjust the temperature of the process fluid to within alarm limits. 2. If using an analog temperature device and input reading is 0, check if IsAI1Avail is equal to 1 in the Meter Information dialog in MeterLink™. If it is not 1, either the I/O Board has been removed or it is damaged. Reinstall or replace I/O board if this value is 0. 3. If using an analog temperature device, verify that the temperature sensor is working properly. 4. If using an analog temperature device, recheck the wiring and switch settings as noted above under First Time Setup Issues. 5. If an external source is writing values to the fixed flow temperature (SpecFlowTemperature), verify that the external source is still writing valid values without Modbus write errors. 6. Rerun the Field Setup Wizard in MeterLink™ to verify that the configuration for the temperature input has not changed. 7. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) and Maintenance Log using MeterLink™	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42075	2074	ReynoldsNumber	Reynolds Number (measure of turbulence) The Reynolds Number is the ratio of inertial forces to viscous forces. A low values indicates laminar flow while a high value indicates turbulent flow.	R				float	-	-	float32	-				
42077	2076	Reserved		R				float								
42079	2078	Reserved		R				float								
42081	2080	SpdSndSpread	Speed of sound path spread The difference between the maximum and minimum speeds of sound of the velocity measurement chords (SndVelA..SndVelD). It is not calculated when the average flow velocity (AvgFlow) is not between the minimum flow velocity for CRange test (SndSpdChkMinVel) and the maximum flow velocity for CRange test (SndSpdChkMaxVel).	R				float	m/s	ft/s	float32	m/s				
42083	2082	SndVelDiffA	Chord A speed of sound difference from average speed of sound The chord A speed of sound (SndVelA) difference from the average speed of sound (AvgSndVel).	R				float	m/s	ft/s	float32	m/s				
42085	2084	SndVelDiffB	Chord B speed of sound difference from average speed of sound The chord B speed of sound (SndVelB) difference from the average speed of sound (AvgSndVel).	R				float	m/s	ft/s	float32	m/s				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42087	2086	SndVelDiffC	Chord C speed of sound difference from average speed of sound The chord C speed of sound (SndVelC) difference from the average speed of sound (AvgSndVel).	R				float	m/s	ft/s	float32	m/s				
42089	2088	SndVelDiffD	Chord D speed of sound difference from average speed of sound The chord D speed of sound (SndVelD) difference from the average speed of sound (AvgSndVel).	R				float	m/s	ft/s	float32	m/s				
42091	2090	FlowVelRatioA	Chord A flow velocity ratio Ratio of chord A flow velocity (FlowVelA) to the average flow velocity (AvgFlow). It is calculated as 0 when the uncorrected volumetric flow rate (QMeter) is below the volumetric flow rate threshold (QCutOff).	R				float	-	-	float32	-				
42093	2092	FlowVelRatioB	Chord B flow velocity ratio Ratio of chord B flow velocity (FlowVelB) to the average flow velocity (AvgFlow). It is calculated as 0 when the uncorrected volumetric flow rate (QMeter) is below the volumetric flow rate threshold (QCutOff).	R				float	-	-	float32	-				
42095	2094	FlowVelRatioC	Chord C flow velocity ratio Ratio of chord C flow velocity (FlowVelC) to the average flow velocity (AvgFlow). It is calculated as 0 when the uncorrected volumetric flow rate (QMeter) is below the volumetric flow rate threshold (QCutOff).	R				float	-	-	float32	-				
42097	2096	FlowVelRatioD	Chord D flow velocity ratio Ratio of chord D flow velocity (FlowVelD) to the average flow velocity (AvgFlow). It is calculated as 0 when the uncorrected volumetric flow rate (QMeter) is below the volumetric flow rate threshold (QCutOff).	R				float	-	-	float32	-				
42105	2104	AccumFlowTime	Accumulated flow time Accumulated time when flow is greater than the cutoff.	R				float	sec	sec	uint32	sec				
42107	2106	CurrHourFlowTime	Current hour's flow time Amount of time during the current hour that flow is above the cutoff value.	R	Y			float	min	min	float32	min				
42109	2108	CurrDayFlowTime	Current day's flow time Amount of time during the current day that flow is above the cutoff value. The start of the day is defined by the 'ContractHour' data point.	R	Y			float	min	min	float32	min				
42111	2110	Symmetry	Symmetry measurement Meter measure of symmetry. This compares the upper chord velocities (FlowVelA + FlowVelB) to the lower chord velocities (FlowVelC+ FlowVelD). For perfectly symmetrical flow, this value equals 1.0. See also CrossFlow and ProfileFactor. This is only applicable when meter device number (DeviceNumber) is 3814.	R				float	-	-	float32	-				
42113	2112	CrossFlow	Cross-flow measurement Measure of cross-flow. This compares the flow velocities from one side of the meter (FlowVelA + FlowVelC) to the other side (FlowVelB + FlowVelD). This value is equal to 1.0 when there is no cross-flow. See also Symmetry and ProfileFactor. This is only applicable when meter device number (DeviceNumber) is 3814.	R				float	-	-	float32	-				
42115	2114	TurbulenceA	Chord A turbulence measurement Meter turbulence A is the standard deviation of delta time (SDevDltTmA) as a percentage of delta time (DltTmA) for chord A. The turbulence value for chord is calculated when the volumetric flow rate (QMeter) is above the cutoff (QCutOff). A value of 0% indicates no turbulence.	R				float	%	%	float32	%				
42117	2116	TurbulenceB	Chord B turbulence measurement Meter turbulence B is the standard deviation of delta time (SDevDltTmB) as a percentage of delta time (DltTmB) for chord B. The turbulence value for chord is calculated when the volumetric flow rate (QMeter) is above the cutoff (QCutOff). A value of 0% indicates no turbulence.	R				float	%	%	float32	%				
42119	2118	TurbulenceC	Chord C turbulence measurement Meter turbulence C is the standard deviation of delta time (SDevDltTmC) as a percentage of delta time (DltTmC) for chord C. The turbulence value for chord is calculated when the volumetric flow rate (QMeter) is above the cutoff (QCutOff). A value of 0% indicates no turbulence.	R				float	%	%	float32	%				
42121	2120	TurbulenceD	Chord D turbulence measurement Meter turbulence D is the standard deviation of delta time (SDevDltTmD) as a percentage of delta time (DltTmD) for chord D. The turbulence value for chord is calculated when the volumetric flow rate (QMeter) is above the cutoff (QCutOff). A value of 0% indicates no turbulence.	R				float	%	%	float32	%				
42123	2122	ProfileFactor	Profile factor measurement The ratio of the sum of the velocities of the inner chords (FlowVelB and FlowVelC) to the sum of the velocities of the outer chords (FlowVelA and FlowVelD). This ratio is a numerical representation of the velocities taken in cross section in the direction of flow. This is only applicable when meter device number (DeviceNumber) is 3814.	R				float	-	-	float32	-				
42125	2124	SwirlAngle	Swirl angle measurement The arctangent of the ratio of the tangential velocity, computed from the individual chordal velocities (FlowVelA, FlowVelB, FlowVelC and FlowVelD), to the average flow velocity (AvgFlow). See also CrossFlow, Symmetry and ProfileFactor. This is only applicable when meter device number (DeviceNumber) is 3814 and the high viscosity calibration method selector (HighViscosityMethod) is disabled.	R				float	deg	deg	int8	deg				
42129	2128	Reserved		R				float								
42131	2130	Reserved		R				float								
42133	2132	Reserved		R				float								
42135	2134	EtaStatusBA	Peak switch detection status - BA (3814 meters only) Peak switch detection status - BA (3814 meters only).	R				float	-	-	uint8	-	Success (0) Not a BG style meter (1) Invalid chord lengths (2) Chord inactive (3) Speed of sound unusable (4) No valid sequences (5)			
42137	2136	EtaStatusCA	Peak switch detection status - CA (3814 meters only) Peak switch detection status - CA (3814 meters only).	R				float	-	-	uint8	-	Success (0) Not a BG style meter (1) Invalid chord lengths (2) Chord inactive (3) Speed of sound unusable (4) No valid sequences (5)			
42139	2138	EtaStatusBD	Peak switch detection status - BD (3814 meters only) Peak switch detection status - BD (3814 meters only).	R				float	-	-	uint8	-	Success (0) Not a BG style meter (1) Invalid chord lengths (2) Chord inactive (3) Speed of sound unusable (4) No valid sequences (5)			
42141	2140	EtaStatusCD	Peak switch detection status - CD (3814 meters only) Peak switch detection status - CD (3814 meters only).	R				float	-	-	uint8	-	Success (0) Not a BG style meter (1) Invalid chord lengths (2) Chord inactive (3) Speed of sound unusable (4) No valid sequences (5)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42203	2202	LiveFlowPressure	Live flow-condition pressure This is the live flow pressure calculated from analog input 2 (AI2Input) and applying the calibration coefficients (LiveFlowPressureOffset and LiveFlowPressureGain). The flow-condition pressure (FlowPressure) can be set to this value depending on the selector (EnablePressureInput). This value is logged in the alarm log depending on the low and high pressure alarm limits (LowPressureAlarm, HighPressureAlarm). The connectors for this input are designated as ANALOG IN PT- and PT+.	R	Y			float	MPa	psi	float32	MPa				
42205	2204	LiveFlowTemperature	Live flow-condition temperature This is the live flow temperature calculated from analog input 1 (AI1Input) and applying the calibration coefficients (LiveFlowTemperatureOffset and LiveFlowTemperatureGain). The flow-condition temperature (FlowTemperature) can be set to this value depending on the selector (EnableTemperatureInput). This value is logged in the alarm log depending on the low and high temperature alarm limits (LowTemperatureAlarm, HighTemperatureAlarm). The connectors for this input are designated as ANALOG IN TT- and TT+.	R	Y			float	deg C	deg F	float32	K				
42207	2206	Reserved		R				float								
42209	2208	Reserved		R				float								
42217	2216	IsCalOn	Identifies when the meter is in the calibration mode Identifies when the meter is in the calibration mode.	R				float	-	-	boolean	-	Off (FALSE) On (TRUE)			
42219	2218	IsCalOnBatch	Identifies when the CalVol and CalTime data points are being updated Identifies when the CalVol and CalTime data points are being updated.	R				float	-	-	boolean	-	Batch calibration off (FALSE) Batch calibration on (TRUE)			
42221	2220	CalTime	Calibration elapsed time Calibration elapsed time. This is the elapsed time while the CalFlag data point is set to TRUE (1) or the DI1 gates the calibration with IsDI1UsedForCal as indicated by IsCalOnBatch. Note that while the native units UNIT_MKIII_PULSES are counted in 1000 pulses/second the Modbus UNIT_MKIII_PULSE_SEC are returned as seconds in floating point format.	R				float	sec	sec	float32	Time pulses				
42223	2222	CalVol	Calibration accumulated uncorrected volume Calibration accumulated uncorrected volume. This is the accumulation of the uncorrected volume while the CalFlag data point is set to TRUE (1) or the DI1 gates the calibration with IsDI1UsedForCal as indicated by IsCalOnBatch.	R				float	volume	volume	float32	m3				
42241	2240	ZeroFlowCalStatus	Zero-flow calibration status Current zero-flow calibration status indicator.	R				float	-	-	uint8	-	Inactive (0) In progress (1) Completed successfully (2) Failed - Chord failure (3) Failed - Too large offset (4) Failed - Too large estimated maximum deviation (5) Failed - Calibration method change (6)			
42243	2242	ZeroFlowCalProgress	Zero-flow calibration progress (percent complete) Zero-flow calibration progress (percent complete).	R				float	%	%	uint8	%				
42245	2244	ZeroFlowCalResult	Zero-flow calibration result (proposed offset) Zero-flow calibration result. This value is only valid and can only be accepted when the zero-flow calibration status (ZeroFlowCalStatus) is "Completed Successfully." When accepted, this value is used to update the dry calibration forward and reverse flow A0 coefficients (FwdA0, RevA0). This value is not retained through a power cycle.	R				float	m/s	ft/s	float32	m/s				
42247	2246	SndVelDiffPctA	Percentage of chord A speed of sound difference from average speed of sound The percentage of chord A speed of sound (SndVelA) difference from the average speed of sound (AvgSndVel).	R				float	%	%	float32	%				
42249	2248	SndVelDiffPctB	Percentage of chord B speed of sound difference from average speed of sound The percentage of chord B speed of sound (SndVelB) difference from the average speed of sound (AvgSndVel).	R				float	%	%	float32	%				
42251	2250	SndVelDiffPctC	Percentage of chord C speed of sound difference from average speed of sound The percentage of chord C speed of sound (SndVelC) difference from the average speed of sound (AvgSndVel).	R				float	%	%	float32	%				
42253	2252	SndVelDiffPctD	Percentage of chord D speed of sound difference from average speed of sound The percentage of chord D speed of sound (SndVelD) difference from the average speed of sound (AvgSndVel).	R				float	%	%	float32	%				
42261	2260	SNRatioDB	Minimum signal-to-noise threshold in decibels Represents the conversion of the minimum signal-to-noise threshold (SNRatio) to decibels by multiplying ten times the log base ten.	R				float	dB	dB	float32	dB				
42269	2268	PeakSwitchDetectMode	Peak switch detection mode Determines what action to take if a peak switch is detected by the pattern of computed eta values (EtaBA, EtaBD, EtaCA, EtaCD). Both the "Status Only" and the "Status and Discard" modes set the peak switch detection indicators (IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC, IsPeakSwitchDetectedD). If "Status and Discard" is selected the waveforms with peak switching detected will not be included in the flow calculations. Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). If "Disabled" no status will be updated nor waveforms discarded.	RW	Y	Y	Y	float	-	-	uint8	-	Disabled (0) Status Only (1) Status and Discard (2)	0	0	2
42271	2270	IsPeakSwitchDetected	Peak switch detected A peak switch timing error was detected on at least one chord (IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC, IsPeakSwitchDetectedD).	R				float	-	-	boolean	-				
42273	2272	IsPeakSwitchDetectedA	Peak switch detected for chord A A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodA1, PctGoodA2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-				

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Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42275	2274	IsPeakSwitchDetectedB	Peak switch detected for chord B A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodB1, PctGoodB2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-				
42277	2276	IsPeakSwitchDetectedC	Peak switch detected for chord C A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodC1, PctGoodC2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-				
42279	2278	IsPeakSwitchDetectedD	Peak switch detected for chord D A peak switch timing error was detected in the measurement data, if the peak switch detect mode (PeakSwitchDetectMode) is set to display status. If the peak switch detect mode (PeakSwitchDetectMode) is configured to discard data, then this value indicates measurement data from one or more transducer firing was discarded due to a peak switch timing error. If this value is TRUE (1), the chord proportion bin update will not be allowed and the proportional update indicator (IsPropUpdtActive) will be FALSE (0). Discarded measurement data may cause a chord to be considered failed if the percentage of good measurements falls below the minimum percentage good threshold (MinPctGood). The indication is suppressed if the average of path performance (PctGoodD1, PctGoodD2) is above the chord performance status suppression limit (PerfStatusSuppressLmt). Recommended Actions: 1. This alarm is typically disabled. If it was enabled unintentionally then the peak switch detect mode (PeakSwitchDetectMode) should be set to disable the alarm again. 2. Verify that the transducers are working properly. All chords should have similar dB gains and low noise levels. If the meter is reporting SNR below minimum or noise exceeded limit for any chords, address those alarms first. 3. Adjusting the tracking parameters may address this issue but we do not recommend changes without input from a Emerson Flow service representative. Collect a Maintenance Log, a Waveform stream file and configuration file with MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-				
42281	2280	EtaBA	Chord B to chord A peak switch detector value Value computed by comparing chords A and B which is used to detect peak switching as indicated by IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC and IsPeakSwitchDetectedD. The status of this comparison is found in EtaStatusBA. This value is computed for BG style meters only. Note: Starting with firmware version (CPUBdSwVer) 1.18 the value is normalized based on the transducer frequency (XdcrFreq) and may be substantially different from the value reported by earlier firmware versions.	R				float	-	-	float32	-				
42283	2282	EtaCA	Chord C to chord A peak switch detector value Value computed by comparing chords A and C which is used to detect peak switching as indicated by IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC and IsPeakSwitchDetectedD. The status of this comparison is found in EtaStatusCA. This value is computed for BG style meters only. Note: Starting with firmware version (CPUBdSwVer) 1.18 the value is normalized based on the transducer frequency (XdcrFreq) and may be substantially different from the value reported by earlier firmware versions.	R				float	-	-	float32	-				
42285	2284	EtaBD	Chord B to chord D peak switch detector value Value computed by comparing chords B and D which is used to detect peak switching as indicated by IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC and IsPeakSwitchDetectedD. The status of this comparison is found in EtaStatusBD. This value is computed for BG style meters only. Note: Starting with firmware version (CPUBdSwVer) 1.18 the value is normalized based on the transducer frequency (XdcrFreq) and may be substantially different from the value reported by earlier firmware versions.	R				float	-	-	float32	-				
42287	2286	EtaCD	Chord C to chord D peak switch detector value Value computed by comparing chords C and D which is used to detect peak switching as indicated by IsPeakSwitchDetectedA, IsPeakSwitchDetectedB, IsPeakSwitchDetectedC and IsPeakSwitchDetectedD. The status of this comparison is found in EtaStatusCD. This value is computed for BG style meters only. Note: Starting with firmware version (CPUBdSwVer) 1.18 the value is normalized based on the transducer frequency (XdcrFreq) and may be substantially different from the value reported by earlier firmware versions.	R				float	-	-	float32	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42289	2288	XdcrMaintenanceGainRange	Gain range for transducer maintenance The maximum allowed difference between a path's gain (GainA1..GainD2) in dB from the lowest gain path. If chordal configuration (ChordalConfig) set to "BG", the gain value of inner chord path is compared with lowest path gain from the inner chords (Chord B, Chord C) and the gain value of outer chord path is compared with lowest gain from the other chords (Chord A, Chord D). If chordal configuration set to "Dual-X" or "N/A", the path gain is compared with the lowest gain path from all meter type chords. This check is used to set the chord's transducer maintenance required indicator (IsXdcrMaintenanceRequiredA..IsXdcrMaintenanceRequiredD).	RW	Y	Y	Y	float	gain (dB)	gain (dB)	float32	gain (dB)		20	1	40
42291	2290	XdcrMaintenanceSNRRange	SNR range for transducer maintenance The maximum allowed difference between a path's SNR (SNRA1..SNRD2) in dB from the highest SNR of any other path. If chordal configuration (ChordalConfig) set to "BG", the SNR value of inner chord path is compared with highest path SNR from the inner chords (Chord B, Chord C) and the SNR value of outer chord path is compared with highest SNR from the other chords (Chord A, Chord D). If chordal configuration set to "Dual-X" or "N/A", the path SNR is compared with the highest SNR path from all meter type chords. This check is used to set the chord's transducer maintenance required indicator (IsXdcrMaintenanceRequiredA..IsXdcrMaintenanceRequiredD).	RW	Y	Y	Y	float	dB	dB	float32	dB		20	1	3.40E+38
42301	2300	DataQlty	Flow data quality Flow data quality indicator. This is a bitfield consisting of multiple Boolean data point values and indicates the meter is operating at less than optimal performance.	R	*	*	*	long	-	-	bitfield	-	0 IsHardFailedA (NV) 1 IsHardFailedB (NV) 2 IsHardFailedC (NV) 3 IsHardFailedD (NV) 16 IsTooFewOperChords (NV) 17 IsMeterVelAboveMaxLmt (NV)			
42303	2302	TimeLapse2	Accumulated time pulses (1000 pulses/sec) Accumulated time pulses (1000 pulses/sec).	R	Y			long	sec	sec	uint64	Time pulses				
42305	2304	PosVolUncorr	Forward uncorrected volume Accumulation of uncorrected volume in the forward direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (lower)	volume (lower)	uint64	L				
42307	2306	PosVolUncorr	Forward uncorrected volume Accumulation of uncorrected volume in the forward direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (overflow)	volume (overflow)	uint64	L				
42309	2308	NegVolUncorr	Reverse uncorrected volume Accumulation of uncorrected volume in the reverse direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (lower)	volume (lower)	uint64	L				
42311	2310	NegVolUncorr	Reverse uncorrected volume Accumulation of uncorrected volume in the reverse direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (overflow)	volume (overflow)	uint64	L				
42313	2312	PosVolFlow	Forward flow-condition volume Accumulation of flow-condition volume in the forward direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (lower)	volume (lower)	uint64	L				
42315	2314	PosVolFlow	Forward flow-condition volume Accumulation of flow-condition volume in the forward direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (overflow)	volume (overflow)	uint64	L				
42317	2316	NegVolFlow	Reverse flow-condition volume Accumulation of flow-condition volume in the reverse direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (lower)	volume (lower)	uint64	L				
42319	2318	NegVolFlow	Reverse flow-condition volume Accumulation of flow-condition volume in the reverse direction. Note that this value is incremented using internal units which may be different than those displayed and rolls over at an unsigned 64 bit integer (18,446,744,073,709,551,615 liters). However, when read via Modbus, the value rolls from 999,999,999 to 0.	R	Y			long	volume (overflow)	volume (overflow)	uint64	L				
42361	2360	TrigDeltaPosVolFlow	Amount of forward flow-condition volume between the last two delta volume triggers The value is updated only while the update triggered delta volumes control (DoUpdtTrigDeltaVols) is TRUE (1).	R	Y			long	volume (lower)	volume (lower)	float64	L				
42363	2362	TrigDeltaPosVolFlow	Amount of forward flow-condition volume between the last two delta volume triggers The value is updated only while the update triggered delta volumes control (DoUpdtTrigDeltaVols) is TRUE (1).	R	Y			long	volume (overflow)	volume (overflow)	float64	L				
42365	2364	TrigDeltaNegVolFlow	Amount of reverse flow-condition volume between the last two delta volume triggers The value is updated only while the update triggered delta volumes control (DoUpdtTrigDeltaVols) is TRUE (1).	R	Y			long	volume (lower)	volume (lower)	float64	L				
42367	2366	TrigDeltaNegVolFlow	Amount of reverse flow-condition volume between the last two delta volume triggers The value is updated only while the update triggered delta volumes control (DoUpdtTrigDeltaVols) is TRUE (1).	R	Y			long	volume (overflow)	volume (overflow)	float64	L				
42401	2400	TrigDeltaPosVolFlow	Amount of forward flow-condition volume between the last two delta volume triggers The value is updated only while the update triggered delta volumes control (DoUpdtTrigDeltaVols) is TRUE (1).	R	Y			float	volume	volume	float64	L				
42403	2402	TrigDeltaNegVolFlow	Amount of reverse flow-condition volume between the last two delta volume triggers The value is updated only while the update triggered delta volumes control (DoUpdtTrigDeltaVols) is TRUE (1).	R	Y			float	volume	volume	float64	L				
42442	2441	AvgPctGood	Performance of active measurement chords The average performance of the paths of active velocity measurement chords (PctGoodA1, PctGoodA2, PctGoodB1, PctGoodB2, PctGoodC1, PctGoodC2, PctGoodD1, and PctGoodD2). Any diagnostic chord is not included in the average.	R				int	%	%	uint8	%				
42443	2442	PctGoodA	Average performance of chord A The average performance of chord A indicated as the percentage of good signals in those received from upstream and downstream transducers in a batch. It is calculated as average of performance of path A1 (PctGoodA1) and performance of path A2 (PctGoodA2).	R				int	%	%	uint8	%				
42444	2443	PctGoodB	Average performance of chord B The average performance of chord B indicated as the percentage of good signals in those received from upstream and downstream transducers in a batch. It is calculated as average of performance of path B1 (PctGoodB1) and performance of path B2 (PctGoodB2).	R				int	%	%	uint8	%				
42445	2444	PctGoodC	Average performance of chord C The average performance of chord C indicated as the percentage of good signals in those received from upstream and downstream transducers in a batch. It is calculated as average of performance of path C1 (PctGoodC1) and performance of path C2 (PctGoodC2).	R				int	%	%	uint8	%				
42446	2445	PctGoodD	Average performance of chord D The average performance of chord D indicated as the percentage of good signals in those received from upstream and downstream transducers in a batch. It is calculated as average of performance of path D1 (PctGoodD1) and performance of path D2 (PctGoodD2).	R				int	%	%	uint8	%				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42451	2450	PctGoodA1	Performance of path A1 The performance of path A1 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42452	2451	PctGoodA2	Performance of path A2 The performance of path A2 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42453	2452	PctGoodB1	Performance of path B1 The performance of path B1 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42454	2453	PctGoodB2	Performance of path B2 The performance of path B2 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42455	2454	PctGoodC1	Performance of path C1 The performance of path C1 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42456	2455	PctGoodC2	Performance of path C2 The performance of path C2 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42457	2456	PctGoodD1	Performance of path D1 The performance of path D1 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42458	2457	PctGoodD2	Performance of path D2 The performance of path D2 indicated as the percentage of good signals in those received from that transducer in a batch. See also the minimum percentage of good measurements for working chord (MinPctGood).	R				int	%	%	uint8	%				
42459	2458	StatusA	Chord A status Chord A status indicator. This is a bitfield consisting of multiple Boolean data point values.	R	*	*	*	int	-	-	bitfield	-	0 DidExceedMaxNoiseA (NV) 1 IsSNRTooLowA (NV) 2 DidTmDevChkFailA (NV) 4 DidDltTmChkFailA (NV) 5 IsXdcrMaintenanceRequiredA (NV, Cnfg) 6 IsStackingIncompleteA (NV) 7 IsChordLengthMismatchedA (NV) 8 IsSigClippedA (NV) 9 IsSigQltyBadA (NV) 10 IsSigDistortedA (NV) 11 IsPeakSwitchDetectedA (NV) 12 IsMeasSndSpdRangeA (NV) 13 IsBatchInactiveA (NV) 14 IsFailedForBatchA (NV) 15 IsAcqMode (NV)			
42460	2459	StatusB	Chord B status Chord B status indicator. This is a bitfield consisting of multiple Boolean data point values.	R	*	*	*	int	-	-	bitfield	-	0 DidExceedMaxNoiseB (NV) 1 IsSNRTooLowB (NV) 2 DidTmDevChkFailB (NV) 4 DidDltTmChkFailB (NV) 5 IsXdcrMaintenanceRequiredB (NV, Cnfg) 6 IsStackingIncompleteB (NV) 7 IsChordLengthMismatchedB (NV) 8 IsSigClippedB (NV) 9 IsSigQltyBadB (NV) 10 IsSigDistortedB (NV) 11 IsPeakSwitchDetectedB (NV) 12 IsMeasSndSpdRangeB (NV) 13 IsBatchInactiveB (NV) 14 IsFailedForBatchB (NV) 15 IsAcqMode (NV)			
42461	2460	StatusC	Chord C status Chord C status indicator. This is a bitfield consisting of multiple Boolean data point values.	R	*	*	*	int	-	-	bitfield	-	0 DidExceedMaxNoiseC (NV) 1 IsSNRTooLowC (NV) 2 DidTmDevChkFailC (NV) 4 DidDltTmChkFailC (NV) 5 IsXdcrMaintenanceRequiredC (NV, Cnfg) 6 IsStackingIncompleteC (NV) 7 IsChordLengthMismatchedC (NV) 8 IsSigClippedC (NV) 9 IsSigQltyBadC (NV) 10 IsSigDistortedC (NV) 11 IsPeakSwitchDetectedC (NV) 12 IsMeasSndSpdRangeC (NV) 13 IsBatchInactiveC (NV) 14 IsFailedForBatchC (NV) 15 IsAcqMode (NV)			
42462	2461	StatusD	Chord D status Chord D status indicator. This is a bitfield consisting of multiple Boolean data point values.	R	*	*	*	int	-	-	bitfield	-	0 DidExceedMaxNoiseD (NV) 1 IsSNRTooLowD (NV) 2 DidTmDevChkFailD (NV) 4 DidDltTmChkFailD (NV) 5 IsXdcrMaintenanceRequiredD (NV, Cnfg) 6 IsStackingIncompleteD (NV) 7 IsChordLengthMismatchedD (NV) 8 IsSigClippedD (NV) 9 IsSigQltyBadD (NV) 10 IsSigDistortedD (NV) 11 IsPeakSwitchDetectedD (NV) 12 IsMeasSndSpdRangeD (NV) 13 IsBatchInactiveD (NV) 14 IsFailedForBatchD (NV) 15 IsAcqMode (NV)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42463	2462	SystemStatus	General system status General system status indicator. This is a bitfield consisting of multiple Boolean data point values.	R	*	*	*	int	-	-	bitfield	-	1 AreSwComponentsIncompatible (NV) 2 DidPowerFail (NV, Cnfg) 3 IsAcqModuleIncompatible (NV) 4 IsXdcrFiringSyncError (NV) 5 IsEstimatedFlowVelocityInUse (NV) 6 DidWarmStart (NV, Cnfg) 7 IsColocMeterQFlowRangeErr (NV) 8 IsTooFewOperChords (NV) 9 IsMeterVelAboveMaxLmt (NV) 14 IsReverseFlowDetected (NV) 15 WatchDogReset (NV, Cnfg)			
42464	2463	FlowDirection	Flow direction Flow direction indicator.	R				int	-	-	boolean	-	Reverse (FALSE) Forward (TRUE)			
42465	2464	QMeterValidity	Uncorrected flow-condition volumetric flow rate invalid The volumetric flow rate (no expansion correction) is invalid. The meter is either not in measurement mode (i.e. no chords acquired) or the number of operating chords is below the minimum number required (MinChord)) or, for a measurement chord, the in-use chord length does not match the calculated chord length (IsChordLengthMismatched). If the high viscosity calibration method selector (HighViscosityMethod) is enabled, then either the profile factor measurement (ProfileFactor) cannot be reliably calculated due to one or more chord failures or the average weighted flow velocity (AvgWtdFlowVel) is below the zero cutoff threshold (ZeroCut). Recommended Actions: 1. From the alarm list, determine which chords are failed and resolve these alarm(s) first. Resolving the chord failures will clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log with MeterLink™ and contact your local area Emerson Flow service representative. See also: IsAcqMode, IsTooFewOperChords	R	Y			int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42466	2465	QFlowValidity	Flow-condition volumetric flow rate invalid The meter either has not collected enough information from the chords to make an accurate measurement or the pressure and/or temperature are invalid and meter is performing pressure or temperature expansion corrections on the meter internal diameter. This is an alarm condition that shows the validity of the flow-condition volumetric flow rate (QFlow). The flow-condition volumetric flow rate (QFlow) becomes invalid if the uncorrected flow-condition volumetric flow rate validity (QMeterValidity), temperature expansion correction validity (ExpCorrTempValidity), and/or pressure expansion correction validity (ExpCorrPressValidity) is invalid. Recommended Actions: 1. If the pressure expansion correction validity alarm is present, correcting it may clear this alarm. 2. If the temperature expansion correction validity alarm is present, correcting it may clear this alarm. 3. If the uncorrected flow-condition volumetric flow rate validity alarm is present, correcting it may clear this alarm. 4. If the issue is unresolved, collect a Maintenance Log with MeterLink™ and contact your local area Emerson Flow service representative.	R	Y			int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42467	2466	MeterStatusLevel	Overall meter status indication This indicates the highest meter status, green (0), yellow(1) or red (2) currently in the meter.	R				int	-	-	uint8	-	Green (0) Yellow (1) Red (2)			
42468	2467	IsQFlowInvalid	Flow-condition volumetric flow rate invalid This indicates when the flow-condition volumetric flow rate (QFlow) is invalid. See also: QFlowValidity	R				int	-	-	boolean	-	Invalid (TRUE) Valid (FALSE)			
42471	2470	PressureValidity	Flow pressure invalid Pressure is invalid if the flow pressure (FlowPressure) is outside the limits defined by the low and high pressure alarm limits (LowPressureAlarm, HighPressureAlarm). Pressure is invalid if the meter is configured to read the flow-condition pressure from Transmitter Head 1 of a Dual-Configuration meter and Dual-Configuration meters are not communicating (IsColocMeterCommErr), either due to incorrect configuration or the Transmitter Head 1 is not reachable. Recommended Actions: First Time Startup Issues: 1. Verify that there is voltage to the pressure sensor, either from the terminal on the meter's power supply board or from an external power supply. 2. If using an analog pressure device, verify that the pressure sensor is properly wired to the connector TB2-B pins 1 & 2 (ANALOG IN PT- & PT+). 3. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 4. If using an external source to write pressure to the meter, verify that it is properly writing to fixed flow pressure (SpecFlowPressure) in the proper units. The current value will be displayed as Fixed pressure in the Field Setup Wizard in MeterLink™. 5. If the meter is configured to read flow-condition pressure from Transmitter Head 1 of a Dual-Configuration meter, make sure that Ethernet connection between the Dual-Configuration meters is setup correctly and the Dual-Configuration meter IP address (ColocMeterIPAddress) on head 1 is same as the Ethernet IP address (Eth1IPAddr) of head 2 and vice versa. Check if flow-condition pressure is invalid on Transmitter Head 1 of a Dual-Configuration meter. 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative. Run Time Issues: 1. Adjust the pressure of the process fluid to within alarm limits. 2. If using an analog pressure device and the input reading is 0, check if IsAI2Avail is equal to 1 in the Meter Information dialog in MeterLink™. If it is not 1, either the I/O Board has been removed or is damaged. Reinstall or replace the board if this value is 0. 3. If using an analog pressure device, verify that the pressure sensor is working properly. 4. If using an analog pressure device, recheck wiring and switch settings as noted above under First Time Setup Issues. 5. If the external source is writing values to the fixed flow pressure (SpecFlowPressure), verify that the external source is still writing valid values without Modbus write errors. 6. Rerun the Field Setup Wizard in MeterLink™ to verify that the configuration for the pressure input has not changed. 7. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) and Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42472	2471	TemperatureValidity	Flow temperature invalid Temperature is invalid if the flow-condition temperature (FlowTemperature) is outside the limits defined by the low and high temperature alarm limits (LowTemperatureAlarm, HighTemperatureAlarm). Temperature is invalid if the meter is configured to read the flow-condition temperature from Transmitter Head 1 of a Dual-Configuration meter and Dual-Configuration meters are not communicating (IsColocMeterCommErr), either due to incorrect configuration or the Transmitter Head 1 is not reachable. Recommended Actions: First Time Startup Issues: 1. Verify that there is voltage to the temperature sensor, either from the terminal on the meter's power supply board or from an external power supply. 2. If using an analog temperature device, verify that the temperature sensor is properly wired to connector TB2-B pins 3 & 4 (ANALOG IN TT- & TT+). 3. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 4. If using an external source to write temperature to the meter, verify that it is properly writing the fixed flow temperature (SpecFlowTemperature) in the proper units. The current value will be displayed as Fixed temperature in the Field Setup Wizard in MeterLink™. 5. If the meter is configured to read the flow-condition temperature from Transmitter Head 1 of a Dual-Configuration meter, make sure that the Ethernet connection between the Dual-Configuration meters is setup correctly and the Dual-Configuration meter IP address (ColocMeterIPAddress) on head 1 is same as the Ethernet IP address (Eth1IPAddr) of head 2 and vice versa. Check if the flow-condition temperature is invalid on Transmitter Head 1 of a Dual-Configuration meter. 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative. Run Time Issues: 1. Adjust the temperature of the process fluid to within alarm limits. 2. If using an analog temperature device and input reading is 0, check if IsAI1Avail is equal to 1 in the Meter Information dialog in MeterLink™. If it is not 1, either the I/O Board has been removed or it is damaged. Reinstall or replace I/O board if this value is 0. 3. If using an analog temperature device, verify that the temperature sensor is working properly. 4. If using an analog temperature device, recheck the wiring and switch settings as noted above under First Time Setup Issues. 5. If an external source is writing values to the fixed flow temperature (SpecFlowTemperature), verify that the external source is still writing valid values without Modbus write errors. 6. Rerun the Field Setup Wizard in MeterLink™ to verify that the configuration for the temperature input has not changed. 7. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) and Maintenance Log using MeterLink™	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42475	2474	ExpCorrPressValidity	Pressure expansion correction invalid This indicates the validity of the pressure expansion correction equation used to correct the internal diameter of the meter for changes in pressure.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42476	2475	ExpCorrTempValidity	Temperature expansion correction invalid This indicates the validity of the temperature expansion correction equation used to correct the internal diameter of the meter for changes in temperature.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42477	2476	IsEstimatedFlowVelocityInUse	Using estimated flow velocity The meter is using non-failed chordal flow velocities and associated chord proportions to calculate the average weighted flow velocity (AvgWtdFlowVel). Recommended Actions: 1. Check that if a chord is manually set to inactive (IsBatchInactiveA, IsBatchInactiveB, IsBatchInactiveC, IsBatchInactiveD) using the Status Summary from the Meter Monitor in MeterLink™. If a chord is manually set to inactive then use Edit/Compare Configuration dialog in MeterLink™ to set chord active. 2. Check that if a chord has failed for batch (IsFailedForBatchA, IsFailedForBatchB, IsFailedForBatchC, IsFailedForBatchD) using the Status Summary from the Meter Monitor in MeterLink™. If failed, try to resolve the issue. 3. If this issue is unresolved, collect a Maintenance Log, Configuration file, and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Flow velocity estimation is in use (TRUE) Flow velocity estimation is not in use (FALSE)			
42478	2477	IsMeterVelAboveMaxLmt	Meter velocity is above the maximum limit Velocity is above the meter maximum velocity (MeterMaxVel) limit. Recommended Actions: 1. This alarm indicates that you are running above a safe velocity limit which could damage the meter run or it could indicate that you are running above your upper calibration limit where the meter uncertainty could increase. Lower the velocity of the meter. 2. Use the Edit/Compare configuration screen in MeterLink™ to change the value of the meter maximum velocity (MeterMaxVel) if desired. It is recommended to set this either to the maximum calibrated velocity of the meter or to the maximum safe operating velocity of the meter run. The maximum safe operating velocity is typically meant to prevent erosion of the internal diameter of the pipe and to prevent damage to protrusions such as thermal wells.	R				int	-	-	boolean	-	Meter velocity not above maximum limit (FALSE) Meter velocity above maximum limit (TRUE)			
42479	2478	IsAvgSoundVelRangeErr	Average speed of sound out of limits The average speed of sound (AvgSndVel) measured by the meter is outside the user determined high or low speed of sound limits (AvgSoundVelLoLmt, AvgSoundVelHiLmt). Recommended Actions: 1. Compare the average speed of sound of the meter to a typical speed of sound for the process fluid to make sure the meter is measuring a reasonable value. If the values match, it is recommended that you move the limits to position the average speed of sound within the limits. Use the Edit/Compare Configuration in MeterLink™ to modify AvgSoundVelHiLmt and AvgSoundVelLoLmt. 2. If the issue is unresolved, collect a Maintenance Log with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	SOS within range (FALSE) SOS out of range (TRUE)			
42480	2479	IsSNRTooLow	Logical OR of SNR of active chords This alarm indicates Signal-to-noise ratio is below the minimum threshold for at least one chord. See also IsSNRTooLowA, IsSNRTooLowB, IsSNRTooLowC, IsSNRTooLowD.	R				int	-	-	boolean	-	SNR is acceptable (FALSE) SNR is too low (TRUE)			
42481	2480	IsMeasSndSpdRange	Logical OR of active chords SOS out of range errors Logical ORing of measurement speed of sound out of range error for chords A, B, C, D. See also: IsMeasSndSpdRangeA, IsMeasSndSpdRangeB, IsMeasSndSpdRangeC, IsMeasSndSpdRangeD.	R				int	-	-	boolean	-	Chords SOS in range (FALSE) Chord SOS out of range (TRUE)			
42482	2481	IsBatchDataRcvFailed	No data received by "batch" processing task This is used internally to reset the Acquisition Module when the "batch" processing task does not receive waveforms. Acquisition Module error (IsAcqModuleError) will always be present when this is set to TRUE (1).	R	Y			int	-	-	boolean	-	Batch receiving data (FALSE) Batch not receiving data (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42483	2482	IsHardFailedA	Chord A hard failed The meter is unable to obtain measurement data from this pair of transducers for multiple consecutive batches (AlarmDef). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify that the meter run is not partially full where this top transducer pair is not submerged in the process fluid. 3. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 4. If the transducer cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly. If this alarm clears but the chord that was swapped now fails, the issue is with the transducer. 5. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative. See also (DataQlty).	R				int	-	-	boolean	-	Chord not hard failed (FALSE) Chord hard failed (TRUE)			
42484	2483	IsHardFailedB	Chord B hard failed The meter is unable to obtain measurement data from this pair of transducers for multiple consecutive batches (AlarmDef). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 3. If the transducer cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly. If this alarm clears but the chord that was swapped now fails, the issue is with the transducer. 4. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative. See also (DataQlty).	R				int	-	-	boolean	-	Chord not hard failed (FALSE) Chord hard failed (TRUE)			
42485	2484	IsHardFailedC	Chord C hard failed The meter is unable to obtain measurement data from this pair of transducers for multiple consecutive batches (AlarmDef). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 3. If the transducer cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly. If this alarm clears but the chord that was swapped now fails, the issue is with the transducer. 4. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative. See also (DataQlty).	R				int	-	-	boolean	-	Chord not hard failed (FALSE) Chord hard failed (TRUE)			
42486	2485	IsHardFailedD	Chord D hard failed The meter is unable to obtain measurement data from this pair of transducers for multiple consecutive batches (AlarmDef). Recommended Actions: 1. If no other transducers are failed or are reporting status alarms, the issue is most likely isolated to this pair of transducers or its cabling. Check the transducer wiring for this pair of transducers to make sure connections are secure and wired correctly. 2. Verify the average gain of this transducer pair is not above 90dB. The gain value can be read on the Meter Monitor of MeterLink™. If so, remove the transducers, clean and reapply the coupling fluid to the front face of the transducers. If this does not correct the issue, at least one of the transducers in the pair should be replaced. 3. If the transducer cabling allows, swap the cabling of the failed transducer pair with a pair with equal path lengths. If the alarm remains active for this chord, then the transducers are working properly. If this alarm clears but the chord that was swapped now fails, the issue is with the transducer. 4. If this issue is unresolved, collect a Maintenance Log, Configuration file and Waveform stream file with MeterLink™ and contact your local area Emerson Flow service representative. See also (DataQlty).	R				int	-	-	boolean	-	Chord not hard failed (FALSE) Chord hard failed (TRUE)			
42487	2486	IsTooFewOperChords	Too few operating chords The number of operating chords is less than the minimum number required for a valid measurement (MinChord). Operating chords are those which are not manually set to inactive and not marked as failed. Recommended Actions: 1. Check the other alarms that indicate why a chord is hard failed (IsHardFailedA, IsHardFailedB, IsHardFailedC, IsHardFailedD). Resolving these should resolve this issue. 2. If this issue is unresolved, collect a Maintenance Log and Archive Log and contact your local area Emerson Flow service representative. See also MinChord and SystemStatus.	R				int	-	-	boolean	-	No error (FALSE) Error (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42489	2488	PressureInvalid	Flow pressure invalid Pressure is invalid if the flow pressure (FlowPressure) is outside the limits defined by the low and high pressure alarm limits (LowPressureAlarm, HighPressureAlarm). Pressure is invalid if the meter is configured to read the flow-condition pressure from Transmitter Head 1 of a Dual-Configuration meter and Dual-Configuration meters are not communicating (IsColocMeterCommErr), either due to incorrect configuration or the Transmitter Head 1 is not reachable. Recommended Actions: First Time Startup Issues: 1. Verify that there is voltage to the pressure sensor, either from the terminal on the meter's power supply board or from an external power supply. 2. If using an analog pressure device, verify that the pressure sensor is properly wired to the connector TB2-B pins 1 & 2 (ANALOG IN PT- & PT+). 3. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 4. If using an external source to write pressure to the meter, verify that it is properly writing to fixed flow pressure (SpecFlowPressure) in the proper units. The current value will be displayed as Fixed pressure in the Field Setup Wizard in MeterLink™. 5. If the meter is configured to read flow-condition pressure from Transmitter Head 1 of a Dual-Configuration meter, make sure that Ethernet connection between the Dual-Configuration meters is setup correctly and the Dual-Configuration meter IP address (ColocMeterIPAddress) on head 1 is same as the Ethernet IP address (Eth1IPAddr) of head 2 and vice versa. Check if flow-condition pressure is invalid on Transmitter Head 1 of a Dual-Configuration meter. 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative. Run Time Issues: 1. Adjust the pressure of the process fluid to within alarm limits. 2. If using an analog pressure device and the input reading is 0, check if IsAI2Avail is equal to 1 in the Meter Information dialog in MeterLink™. If it is not 1, either the I/O Board has been removed or is damaged. Reinstall or replace the board if this value is 0. 3. If using an analog pressure device, verify that the pressure sensor is working properly. 4. If using an analog pressure device, recheck wiring and switch settings as noted above under First Time Setup Issues. 5. If the external source is writing values to the fixed flow pressure (SpecFlowPressure), verify that the external source is still writing valid values without Modbus write errors. 6. Rerun the Field Setup Wizard in MeterLink™ to verify that the configuration for the pressure input has not changed. 7. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) and Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Pressure valid (FALSE) Pressure invalid (TRUE)			
42490	2489	TemperatureInvalid	Flow temperature invalid Temperature is invalid if the flow-condition temperature (FlowTemperature) is outside the limits defined by the low and high temperature alarm limits (LowTemperatureAlarm, HighTemperatureAlarm). Temperature is invalid if the meter is configured to read the flow-condition temperature from Transmitter Head 1 of a Dual-Configuration meter and Dual-Configuration meters are not communicating (IsColocMeterCommErr), either due to incorrect configuration or the Transmitter Head 1 is not reachable. Recommended Actions: First Time Startup Issues: 1. Verify that there is voltage to the temperature sensor, either from the terminal on the meter's power supply board or from an external power supply. 2. If using an analog temperature device, verify that the temperature sensor is properly wired to connector TB2-B pins 3 & 4 (ANALOG IN TT- & TT+). 3. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 4. If using an external source to write temperature to the meter, verify that it is properly writing the fixed flow temperature (SpecFlowTemperature) in the proper units. The current value will be displayed as Fixed temperature in the Field Setup Wizard in MeterLink™. 5. If the meter is configured to read the flow-condition temperature from Transmitter Head 1 of a Dual-Configuration meter, make sure that the Ethernet connection between the Dual-Configuration meters is setup correctly and the Dual-Configuration meter IP address (ColocMeterIPAddress) on head 1 is same as the Ethernet IP address (Eth1IPAddr) of head 2 and vice versa. Check if the flow-condition temperature is invalid on Transmitter Head 1 of a Dual-Configuration meter. 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative. Run Time Issues: 1. Adjust the temperature of the process fluid to within alarm limits. 2. If using an analog temperature device and input reading is 0, check if IsAI1Avail is equal to 1 in the Meter Information dialog in MeterLink™. If it is not 1, either the I/O Board has been removed or it is damaged. Reinstall or replace I/O board if this value is 0. 3. If using an analog temperature device, verify that the temperature sensor is working properly. 4. If using an analog temperature device, recheck the wiring and switch settings as noted above under First Time Setup Issues. 5. If an external source is writing values to the fixed flow temperature (SpecFlowTemperature), verify that the external source is still writing valid values without Modbus write errors. 6. Rerun the Field Setup Wizard in MeterLink™ to verify that the configuration for the temperature input has not changed. 7. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) and Maintenance Log using MeterLink™	R				int	-	-	boolean	-	Temperature valid (FALSE) Temperature invalid (TRUE)			
42491	2490	Reserved		R				int								
42492	2491	Reserved		R				int								
42493	2492	SystemStatusLatched	General system status General system status indicator. This is a bitfield consisting of multiple Boolean data point values.	R	*	*	*	int	-	-	bitfield	-	7 IsColocMeterQFlowRangeErrLatched (NV) 8 IsTooFewOperChordsLatched (NV) 9 IsMeterVelAboveMaxLmtLatched (NV) 14 IsReverseFlowDetectedLatched (NV)			
42494	2493	FieldIOStatusLatched	Latched status of field IO Latched field IO indicator. This is a bitfield consisting of multiple latched Boolean data point values corresponding to the field I/O status (FieldIOStatus).	R	*	*	*	int	-	-	bitfield	-	0 IsColocMeterCommErrLatched (NV) 1 PressureInvalidLatched (NV) 2 TemperatureInvalidLatched (NV)			
42496	2495	ChordInactv	Chord inactive Chord inactive indicator. Used to set one or more chords to be inactive. At least one chord must be active. The range and default value are dependent upon the meter type (indicated by the DeviceNumber). If a chord is set to be inactive, its corresponding IsBatchInactiveA, IsBatchInactiveB, IsBatchInactiveC, IsBatchInactiveD, data point(s) is set to TRUE (1).	R	*	*	*	int	-	-	bitfield	-	0 ChordInactvA (NV, Cnfg, Prot) 1 ChordInactvB (NV, Cnfg, Prot) 2 ChordInactvC (NV, Cnfg, Prot) 3 ChordInactvD (NV, Cnfg, Prot)			
42497	2496	SOSCompareStatus	Status of SOS comparison Speed of sound comparison indicator. This is a bitfield consisting of multiple Boolean data point values corresponding to the speed of sound comparison group.	R	*	*	*	int	-	-	bitfield	-	3 IsColocMeterSndSpdRangeErr (NV)			
42498	2497	SOSCompareStatusLatched	Latched status of SOS comparison Latched speed of sound comparison status indicator. This is a bitfield consisting of multiple latched Boolean data point values corresponding to the speed of sound compare status (SOSCompareStatus).	R	*	*	*	int	-	-	bitfield	-	3 IsColocMeterSndSpdRangeErrLatched (NV)			
42501	2500	FlowDirection	Flow direction Flow direction indicator.	R				float	-	-	boolean	-	Reverse (FALSE) Forward (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42503	2502	Freq1DataValidity	Frequency Output 1 data invalid The parameter which the Frequency Output 1 is configured to represent is invalid or the output is currently in test mode. Recommended Actions: 1. You can determine whether the output is in test mode by using Meter Outputs in MeterLink™. 2. If the parameter for which Frequency Output 1 is configured is invalid, other alarms will be present that will help you resolve the issue. 3. If the issue is unresolved, collect a Maintenance Log and Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42505	2504	Freq1ChnlA	Frequency Output 1A value Frequency Output 1 channel A value.	R				float	Hz	Hz	float32	Hz				
42507	2506	Freq1ChnlB	Frequency Output 1B value Frequency Output 1 channel B value.	R				float	Hz	Hz	float32	Hz				
42509	2508	DO1A	Digital Output 1A value Digital Output 1A value. This value is based on the selected content (DO1AContent) and polarity (DO1AIsInvPolarity).	R				float	-	-	uint8	-				
42511	2510	DO1B	Digital Output 1B value Digital Output 1B value. This value is based on the selected content (DO1BContent) and polarity (DO1BIsInvPolarity).	R				float	-	-	uint8	-				
42513	2512	AO1Output	Analog Output 1 current value Analog Output 1 current value.	R				float	ma	ma	float32	ma				
42515	2514	DI1	Digital Input 1 value Digital Input 1 value.	R				float	-	-	boolean	-				
42517	2516	Freq1KFactor	Frequency Output 1 pair K-Factor Frequency Output 1 pair K-Factor.	R				float	pulses/volume	pulses/volume	float32	pulses/m3				
42519	2518	Freq1InvKFactor	Frequency Output 1 pair inverse K-Factor Frequency Output 1 pair inverse K-Factor.	R				float	volume/pulse	volume/pulse	float32	m3/pulse				
42521	2520	Freq1OutputVFR	Frequency Output 1 pair output volumetric flow rate Frequency Output 1 pair output volumetric flow rate. This includes frequency feedback correction if applicable.	R				float	volume/time	volume/time	float32	m3/hr				
42523	2522	AO1IsFixed	Analog Output 1 (HART PV) is fixed Analog Output 1 current is in test mode and fixed. The current can be fixed by using the Outputs Test dialog of MeterLink™ by placing the output in test mode. Recommended Actions: 1. Once the Analog Output 1 is removed from test mode, this alarm will clear. See also IsAO1EnableTest data point.	R				float	-	-	boolean	-	Current not fixed (FALSE) Current fixed (TRUE)			
42525	2524	AO1IsSaturated	Analog Output 1 (HART PV) is saturated Analog Output 1 is saturated (i.e. the loop current has reached its upper or lower endpoint and cannot increase or decrease any further). Recommended Actions: 1. The analog output may need to be rescaled to prevent it from saturating. Use the Field Setup Wizard in MeterLink™ to configure Analog Output 1.	R				float	-	-	boolean	-	Current not saturated (FALSE) Current saturated (TRUE)			
42527	2526	AO2Output	Analog Output 2 current value Analog Output 2 current value.	R				float	ma	ma	float32	ma				
42529	2528	AO2IsFixed	Analog Output 2 (HART SV) is fixed Analog Output 2 current is in test mode and fixed. The current can be fixed by using the Outputs Test dialog of MeterLink™ by placing the output in test mode. Recommended Actions: 1. Once the Analog Output 2 is removed from test mode, this alarm will clear. See also IsAO2EnableTest data point.	R				float	-	-	boolean	-	Current not fixed (FALSE) Current fixed (TRUE)			
42531	2530	AO2IsSaturated	Analog Output 2 (HART SV) is saturated Analog Output 2 is saturated (i.e. the loop current has reached its upper or lower endpoint and cannot increase or decrease any further). Recommended Actions: 1. The analog output may need to be rescaled to prevent it from saturating. Use the Field Setup Wizard in MeterLink™ to configure Analog Output 2.	R				float	-	-	boolean	-	Current not saturated (FALSE) Current saturated (TRUE)			
42533	2532	AO1DataValidity	Analog Output 1 data invalid Analog Output 1 (AO1) is invalid. The analog output is considered invalid if the analog output is in test mode or the content the analog output is trying to drive is invalid or the loop current mode is disabled via HART. The content of AO1 is specified by AO1Content. Recommended Actions: 1. If an alarm exists for the content selected to be output on Analog Output 1 (AO1Content), resolving that issue should clear this alarm. 2. If the content selected for Analog Output 1 is not in alarm, then verify that the output is not fixed or set in test mode or the loop current mode has been not been disabled via HART. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42535	2534	AO2DataValidity	Analog Output 2 data invalid Analog Output 2 (AO2) is invalid. The analog output is considered invalid if the analog output is in test mode or the content the analog output is trying to drive is invalid. The content of AO2 is specified by AO2Content. Recommended Actions: 1. If an alarm exists for the content selected to be output on Analog Output 2 (AO2Content), resolving that issue should clear this alarm. 2. If the content selected for Analog Output 2 is not in alarm, then verify that the output is not fixed or set in test mode. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42551	2550	FlowDirection	Flow direction Flow direction indicator.	R				float	-	-	boolean	-	Reverse (FALSE) Forward (TRUE)			
42553	2552	Freq2DataValidity	Frequency Output 2 data invalid The parameter which the Frequency Output 2 is configured to represent is invalid or the output is currently in test mode. Recommended Actions: 1. You can determine whether the output is in test mode by using Meter Outputs in MeterLink™. 2. If the parameter for which Frequency Output 2 is configured is invalid, other alarms will be present that will help you resolve the issue. 3. If the issue is unresolved, collect a Maintenance Log and Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42555	2554	Freq2ChnlA	Frequency Output 2A value Frequency Output 2 channel A value.	R				float	Hz	Hz	float32	Hz				
42557	2556	Freq2ChnlB	Frequency Output 2B value Frequency Output 2 channel B value.	R				float	Hz	Hz	float32	Hz				
42559	2558	DO2A	Digital Output 2A value Digital Output 2A value. This value is based on the selected content (DO2AContent) and polarity (DO2AIsInvPolarity).	R				float	-	-	uint8	-				
42561	2560	DO2B	Digital Output 2B value Digital Output 2B value. This value is based on the selected content (DO2BContent) and polarity (DO2BIsInvPolarity).	R				float	-	-	uint8	-				
42563	2562	AO1Output	Analog Output 1 current value Analog Output 1 current value.	R				float	ma	ma	float32	ma				
42565	2564	DI1	Digital Input 1 value Digital Input 1 value.	R				float	-	-	boolean	-				
42567	2566	Freq2KFactor	Frequency Output 2 pair K-Factor Frequency Output 2 pair K-Factor.	R				float	pulses/volume	pulses/volume	float32	pulses/m3				
42569	2568	Freq2InvKFactor	Frequency Output 2 pair inverse K-Factor Frequency Output 2 pair inverse K-Factor.	R				float	volume/pulse	volume/pulse	float32	m3/pulse				
42571	2570	Freq2OutputVFR	Frequency Output 2 pair output volumetric flow rate Frequency Output 2 pair output volumetric flow rate. This includes frequency feedback correction if applicable.	R				float	volume/time	volume/time	float32	m3/hr				
42573	2572	AO1IsFixed	Analog Output 1 (HART PV) is fixed Analog Output 1 current is in test mode and fixed. The current can be fixed by using the Outputs Test dialog of MeterLink™ by placing the output in test mode. Recommended Actions: 1. Once the Analog Output 1 is removed from test mode, this alarm will clear. See also IsAO1EnableTest data point.	R				float	-	-	boolean	-	Current not fixed (FALSE) Current fixed (TRUE)			
42575	2574	AO1IsSaturated	Analog Output 1 (HART PV) is saturated Analog Output 1 is saturated (i.e. the loop current has reached its upper or lower endpoint and cannot increase or decrease any further). Recommended Actions: 1. The analog output may need to be rescaled to prevent it from saturating. Use the Field Setup Wizard in MeterLink™ to configure Analog Output 1.	R				float	-	-	boolean	-	Current not saturated (FALSE) Current saturated (TRUE)			
42577	2576	AO2Output	Analog Output 2 current value Analog Output 2 current value.	R				float	ma	ma	float32	ma				
42579	2578	AO2IsFixed	Analog Output 2 (HART SV) is fixed Analog Output 2 current is in test mode and fixed. The current can be fixed by using the Outputs Test dialog of MeterLink™ by placing the output in test mode. Recommended Actions: 1. Once the Analog Output 2 is removed from test mode, this alarm will clear. See also IsAO2EnableTest data point.	R				float	-	-	boolean	-	Current not fixed (FALSE) Current fixed (TRUE)			
42581	2580	AO2IsSaturated	Analog Output 2 (HART SV) is saturated Analog Output 2 is saturated (i.e. the loop current has reached its upper or lower endpoint and cannot increase or decrease any further). Recommended Actions: 1. The analog output may need to be rescaled to prevent it from saturating. Use the Field Setup Wizard in MeterLink™ to configure Analog Output 2.	R				float	-	-	boolean	-	Current not saturated (FALSE) Current saturated (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42583	2582	AO1DataValidity	Analog Output 1 data invalid Analog Output 1 (AO1) is invalid. The analog output is considered invalid if the analog output is in test mode or the content the analog output is trying to drive is invalid or the loop current mode is disabled via HART. The content of AO1 is specified by AO1Content. Recommended Actions: 1. If an alarm exists for the content selected to be output on Analog Output 1 (AO1Content), resolving that issue should clear this alarm. 2. If the content selected for Analog Output 1 is not in alarm, then verify that the output is not fixed or set in test mode or the loop current mode has been not been disabled via HART. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42585	2584	AO2DataValidity	Analog Output 2 data invalid Analog Output 2 (AO2) is invalid. The analog output is considered invalid if the analog output is in test mode or the content the analog output is trying to drive is invalid. The content of AO2 is specified by AO2Content. Recommended Actions: 1. If an alarm exists for the content selected to be output on Analog Output 2 (AO2Content), resolving that issue should clear this alarm. 2. If the content selected for Analog Output 2 is not in alarm, then verify that the output is not fixed or set in test mode. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				float	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
42601	2600	GainA1	Gain when transducer A1 is receiving a signal Gain when transducer A1 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42603	2602	GainA2	Gain when transducer A2 is receiving a signal Gain when transducer A2 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42605	2604	GainB1	Gain when transducer B1 is receiving a signal Gain when transducer B1 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42607	2606	GainB2	Gain when transducer B2 is receiving a signal Gain when transducer B2 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42609	2608	GainC1	Gain when transducer C1 is receiving a signal Gain when transducer C1 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42611	2610	GainC2	Gain when transducer C2 is receiving a signal Gain when transducer C2 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42613	2612	GainD1	Gain when transducer D1 is receiving a signal Gain when transducer D1 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42615	2614	GainD2	Gain when transducer D2 is receiving a signal Gain when transducer D2 is receiving a signal. Gain is applied to the received signal in hardware in volts/volt (hardware gain units). Conversion from hardware gain to decibels is gain (db) = 20 * log10(gain(hw)). Alarm limits for gain alarms are GainLowLmt and GainHighLmt.	R	Y			float	gain (dB)	gain (dB)	float32	gain (h/w)				
42617	2616	HoldTmA1	Hold time (A1) Hold time (A1).	R				float	us	us	float32	us				
42619	2618	HoldTmA2	Hold time (A2) Hold time (A2).	R				float	us	us	float32	us				
42621	2620	HoldTmB1	Hold time (B1) Hold time (B1).	R				float	us	us	float32	us				
42623	2622	HoldTmB2	Hold time (B2) Hold time (B2).	R				float	us	us	float32	us				
42625	2624	HoldTmC1	Hold time (C1) Hold time (C1).	R				float	us	us	float32	us				
42627	2626	HoldTmC2	Hold time (C2) Hold time (C2).	R				float	us	us	float32	us				
42629	2628	HoldTmD1	Hold time (D1) Hold time (D1).	R				float	us	us	float32	us				
42631	2630	HoldTmD2	Hold time (D2) Hold time (D2).	R				float	us	us	float32	us				
42651	2650	SEA1	Batch average signal energy (A1) Average batch signal energy (A1).	R				float	energy	energy	float32	energy				
42653	2652	SEA2	Batch average signal energy (A2) Average batch signal energy (A2).	R				float	energy	energy	float32	energy				
42655	2654	SEB1	Batch average signal energy (B1) Average batch signal energy (B1).	R				float	energy	energy	float32	energy				
42657	2656	SEB2	Batch average signal energy (B2) Average batch signal energy (B2).	R				float	energy	energy	float32	energy				
42659	2658	SEC1	Batch average signal energy (C1) Average batch signal energy (C1).	R				float	energy	energy	float32	energy				
42661	2660	SEC2	Batch average signal energy (C2) Average batch signal energy (C2).	R				float	energy	energy	float32	energy				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42663	2662	SED1	Batch average signal energy (D1) Average batch signal energy (D1).	R				float	energy	energy	float32	energy				
42665	2664	SED2	Batch average signal energy (D2) Average batch signal energy (D2).	R				float	energy	energy	float32	energy				
42667	2666	NEA1	Batch average noise energy (A1) Average batch noise energy (A1).	R				float	energy	energy	float32	energy				
42669	2668	NEA2	Batch average noise energy (A2) Average batch noise energy (A2).	R				float	energy	energy	float32	energy				
42671	2670	NEB1	Batch average noise energy (B1) Average batch noise energy (B1).	R				float	energy	energy	float32	energy				
42673	2672	NEB2	Batch average noise energy (B2) Average batch noise energy (B2).	R				float	energy	energy	float32	energy				
42675	2674	NEC1	Batch average noise energy (C1) Average batch noise energy (C1).	R				float	energy	energy	float32	energy				
42677	2676	NEC2	Batch average noise energy (C2) Average batch noise energy (C2).	R				float	energy	energy	float32	energy				
42679	2678	NED1	Batch average noise energy (D1) Average batch noise energy (D1).	R				float	energy	energy	float32	energy				
42681	2680	NED2	Batch average noise energy (D2) Average batch noise energy (D2).	R				float	energy	energy	float32	energy				
42683	2682	SNRA1	Average signal-to-noise ratio (A1) Average signal-to-noise ratio (A1).	R				float	dB	dB	float32	dB				
42685	2684	SNRA2	Average signal-to-noise ratio (A2) Average signal-to-noise ratio (A2).	R				float	dB	dB	float32	dB				
42687	2686	SNRB1	Average signal-to-noise ratio (B1) Average signal-to-noise ratio (B1).	R				float	dB	dB	float32	dB				
42689	2688	SNRB2	Average signal-to-noise ratio (B2) Average signal-to-noise ratio (B2).	R				float	dB	dB	float32	dB				
42691	2690	SNRC1	Average signal-to-noise ratio (C1) Average signal-to-noise ratio (C1).	R				float	dB	dB	float32	dB				
42693	2692	SNRC2	Average signal-to-noise ratio (C2) Average signal-to-noise ratio (C2).	R				float	dB	dB	float32	dB				
42695	2694	SNRD1	Average signal-to-noise ratio (D1) Average signal-to-noise ratio (D1).	R				float	dB	dB	float32	dB				
42697	2696	SNRD2	Average signal-to-noise ratio (D2) Average signal-to-noise ratio (D2).	R				float	dB	dB	float32	dB				
42701	2700	MeanTmA1	Average transit time upstream for chord A Mean batch transit time (A1).	R				float	us	us	float32	us				
42703	2702	MeanTmA2	Average transit time downstream for chord A Mean batch transit time (A2).	R				float	us	us	float32	us				
42705	2704	MeanTmB1	Average transit time upstream for chord B Mean batch transit time (B1).	R				float	us	us	float32	us				
42707	2706	MeanTmB2	Average transit time downstream for chord B Mean batch transit time (B2).	R				float	us	us	float32	us				
42709	2708	MeanTmC1	Average transit time upstream for chord C Mean batch transit time (C1).	R				float	us	us	float32	us				
42711	2710	MeanTmC2	Average transit time downstream for chord C Mean batch transit time (C2).	R				float	us	us	float32	us				
42713	2712	MeanTmD1	Average transit time upstream for chord D Mean batch transit time (D1).	R				float	us	us	float32	us				
42715	2714	MeanTmD2	Average transit time downstream for chord D Mean batch transit time (D2).	R				float	us	us	float32	us				
42717	2716	DltTmA	Mean batch delta time for chord A Mean batch delta time for chord A.	R				float	us	us	float32	us				
42719	2718	DltTmB	Mean batch delta time for chord B Mean batch delta time for chord B.	R				float	us	us	float32	us				
42721	2720	DltTmC	Mean batch delta time for chord C Mean batch delta time for chord C.	R				float	us	us	float32	us				
42723	2722	DltTmD	Mean batch delta time for chord D Mean batch delta time for chord D.	R				float	us	us	float32	us				
42725	2724	SDevTmA1	Std. deviation of transit times for chord A upstream Batch transit time standard deviation (A1). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42727	2726	SDevTmA2	Std. deviation of transit times for chord A downstream Batch transit time standard deviation (A2). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42729	2728	SDevTmB1	Std. deviation of transit times for chord B upstream Batch transit time standard deviation (B1). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42731	2730	SDevTmB2	Std. deviation of transit times for chord B downstream Batch transit time standard deviation (B2). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42733	2732	SDevTmC1	Std. deviation of transit times for chord C upstream Batch transit time standard deviation (C1). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42735	2734	SDevTmC2	Std. deviation of transit times for chord C downstream Batch transit time standard deviation (C2). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42737	2736	SDevTmD1	Std. deviation of transit times for chord D upstream Batch transit time standard deviation (D1). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42739	2738	SDevTmD2	Std. deviation of transit times for chord D downstream Batch transit time standard deviation (D2). It is calculated from transit times of waveforms used for measurement.	R				float	ns	ns	float32	us				
42741	2740	SDevDltTmA	Batch delta time standard deviation for chord A Batch delta time standard deviation for chord A.	R				float	ns	ns	float32	us				
42743	2742	SDevDltTmB	Batch delta time standard deviation for chord B Batch delta time standard deviation for chord B.	R				float	ns	ns	float32	us				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
42745	2744	SDevDltTmC	Batch delta time standard deviation for chord C Batch delta time standard deviation for chord C.	R				float	ns	ns	float32	us				
42747	2746	SDevDltTmD	Batch delta time standard deviation for chord D Batch delta time standard deviation for chord D.	R				float	ns	ns	float32	us				
42749	2748	MinTmA1	Minimum batch transit time (A1) Minimum batch transit time (A1).	R				float	us	us	float32	us				
42751	2750	MinTmA2	Minimum batch transit time (A2) Minimum batch transit time (A2).	R				float	us	us	float32	us				
42753	2752	MinTmB1	Minimum batch transit time (B1) Minimum batch transit time (B1).	R				float	us	us	float32	us				
42755	2754	MinTmB2	Minimum batch transit time (B2) Minimum batch transit time (B2).	R				float	us	us	float32	us				
42757	2756	MinTmC1	Minimum batch transit time (C1) Minimum batch transit time (C1).	R				float	us	us	float32	us				
42759	2758	MinTmC2	Minimum batch transit time (C2) Minimum batch transit time (C2).	R				float	us	us	float32	us				
42761	2760	MinTmD1	Minimum batch transit time (D1) Minimum batch transit time (D1).	R				float	us	us	float32	us				
42763	2762	MinTmD2	Minimum batch transit time (D2) Minimum batch transit time (D2).	R				float	us	us	float32	us				
42765	2764	MaxTmA1	Maximum batch transit time (A1) Maximum batch transit time (A1).	R				float	us	us	float32	us				
42767	2766	MaxTmA2	Maximum batch transit time (A2) Maximum batch transit time (A2).	R				float	us	us	float32	us				
42769	2768	MaxTmB1	Maximum batch transit time (B1) Maximum batch transit time (B1).	R				float	us	us	float32	us				
42771	2770	MaxTmB2	Maximum batch transit time (B2) Maximum batch transit time (B2).	R				float	us	us	float32	us				
42773	2772	MaxTmC1	Maximum batch transit time (C1) Maximum batch transit time (C1).	R				float	us	us	float32	us				
42775	2774	MaxTmC2	Maximum batch transit time (C2) Maximum batch transit time (C2).	R				float	us	us	float32	us				
42777	2776	MaxTmD1	Maximum batch transit time (D1) Maximum batch transit time (D1).	R				float	us	us	float32	us				
42779	2778	MaxTmD2	Maximum batch transit time (D2) Maximum batch transit time (D2).	R				float	us	us	float32	us				
42781	2780	MinDltTmA	Minimum batch delta time for chord A Minimum batch delta time for chord A.	R				float	us	us	float32	us				
42783	2782	MinDltTmB	Minimum batch delta time for chord B Minimum batch delta time for chord B.	R				float	us	us	float32	us				
42785	2784	MinDltTmC	Minimum batch delta time for chord C Minimum batch delta time for chord C.	R				float	us	us	float32	us				
42787	2786	MinDltTmD	Minimum batch delta time for chord D Minimum batch delta time for chord D.	R				float	us	us	float32	us				
42789	2788	MaxDltTmA	Maximum batch delta time for chord A Maximum batch delta time for chord A.	R				float	us	us	float32	us				
42791	2790	MaxDltTmB	Maximum batch delta time for chord B Maximum batch delta time for chord B.	R				float	us	us	float32	us				
42793	2792	MaxDltTmC	Maximum batch delta time for chord C Maximum batch delta time for chord C.	R				float	us	us	float32	us				
42795	2794	MaxDltTmD	Maximum batch delta time for chord D Maximum batch delta time for chord D.	R				float	us	us	float32	us				
43003	3002	BatchTimeSec	Elapsed time for all firing sequences processed in batch cycle This is calculated as difference of the timestamps of the last sequence of previous batch cycle and the last sequence of current batch cycle. This will vary from batch to batch around the desired duration (BatchUpdatePeriod) and depends on number of new sequences received by batch (BatchNewSeq).	R				float	sec	sec	float32	sec				
43005	3004	AvgBatchTimeHours	Average batch time Average batch time. The average is computed over the previous 8 batches.	R				float	hr	hr	float32	hr				
43007	3006	Freq1FeedbackStatus	Frequency Output 1 pair feedback status Frequency Output 1 pair feedback status.	R				float	-	-	uint8	-	Forward (0) Reverse (1)			
43009	3008	Freq1FeedbackPulseCnt	Frequency Output 1 pair feedback pulse count Frequency Output 1 pair feedback pulse count.	R				float	Time pulses	Time pulses	uint16	Time pulses				
43011	3010	Freq1InvKFactor	Frequency Output 1 pair inverse K-Factor Frequency Output 1 pair inverse K-Factor.	R				float	volume/pulse	volume/pulse	float32	m3/pulse				
43013	3012	Freq1FeedbackVol	Frequency Output 1 pair feedback volume Frequency Output 1 pair feedback volume.	R				float	volume	volume	float32	m3				
43015	3014	Freq1FeedbackPrevDesiredVol	Frequency Output 1 pair previous desired volume Frequency Output 1 pair previous desired volume.	R				float	volume	volume	float32	m3				
43017	3016	Freq1FeedbackVolErr	Frequency Output 1 pair feedback volume error Frequency Output 1 pair feedback volume error.	R				float	volume	volume	float32	m3				
43019	3018	Freq1FeedbackDesiredVol	Frequency Output 1 pair desired volume Frequency Output 1 pair desired volume.	R				float	volume	volume	float32	m3				
43021	3020	Freq1TTLVFRErr	Frequency Output 1 pair total volumetric flow rate error Frequency Output 1 pair total volumetric flow rate error.	R				float	volume/time	volume/time	float32	m3/hr				
43023	3022	Freq1VFRErrComp	Frequency Output 1 pair volumetric flow rate error compensation Frequency Output 1 pair volumetric flow rate error compensation.	R				float	volume/time	volume/time	float32	m3/hr				
43025	3024	Freq1AbsVFR	Frequency Output 1 pair absolute volumetric flow rate Frequency Output 1 pair absolute volumetric flow rate. This is the absolute value of the volumetric flow rate represented by the Frequency Output 1 pair and does not include any feedback error compensation.	R				float	volume/time	volume/time	float32	m3/hr				
43027	3026	Freq1OutputVFR	Frequency Output 1 pair output volumetric flow rate Frequency Output 1 pair output volumetric flow rate. This includes frequency feedback correction if applicable.	R				float	volume/time	volume/time	float32	m3/hr				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43103	3102	BatchTimeSec	Elapsed time for all firing sequences processed in batch cycle This is calculated as difference of the timestamps of the last sequence of previous batch cycle and the last sequence of current batch cycle. This will vary from batch to batch around the desired duration (BatchUpdatePeriod) and depends on number of new sequences received by batch (BatchNewSeq).	R				float	sec	sec	float32	sec				
43105	3104	AvgBatchTimeHours	Average batch time Average batch time. The average is computed over the previous 8 batches.	R				float	hr	hr	float32	hr				
43107	3106	Freq2FeedbackStatus	Frequency Output 2 pair feedback status Frequency Output 2 pair feedback status.	R				float	-	-	uint8	-	Forward (0) Reverse (1)			
43109	3108	Freq2FeedbackPulseCnt	Frequency Output 2 pair feedback pulse count Frequency Output 2 pair feedback pulse count.	R				float	Time pulses	Time pulses	uint16	Time pulses				
43111	3110	Freq2InvKFactor	Frequency Output 2 pair inverse K-Factor Frequency Output 2 pair inverse K-Factor.	R				float	volume/pulse	volume/pulse	float32	m3/pulse				
43113	3112	Freq2FeedbackVol	Frequency Output 2 pair feedback volume Frequency Output 2 pair feedback volume.	R				float	volume	volume	float32	m3				
43115	3114	Freq2FeedbackPrevDesiredVol	Frequency Output 2 pair previous desired volume Frequency Output 2 pair previous desired volume.	R				float	volume	volume	float32	m3				
43117	3116	Freq2FeedbackVolErr	Frequency Output 2 pair feedback volume error Frequency Output 2 pair feedback volume error.	R				float	volume	volume	float32	m3				
43119	3118	Freq2FeedbackDesiredVol	Frequency Output 2 pair desired volume Frequency Output 2 pair desired volume.	R				float	volume	volume	float32	m3				
43121	3120	Freq2TTLVFRErr	Frequency Output 2 pair total volumetric flow rate error Frequency Output 2 pair total volumetric flow rate error.	R				float	volume/time	volume/time	float32	m3/hr				
43123	3122	Freq2VFRErrComp	Frequency Output 2 pair volumetric flow rate error compensation Frequency Output 2 pair volumetric flow rate error compensation.	R				float	volume/time	volume/time	float32	m3/hr				
43125	3124	Freq2AbsVFR	Frequency Output 2 pair absolute volumetric flow rate Frequency Output 2 pair absolute volumetric flow rate. This is the absolute value of the volumetric flow rate represented by the Frequency Output 2 pair and does not include any feedback error compensation.	R				float	volume/time	volume/time	float32	m3/hr				
43127	3126	Freq2OutputVFR	Frequency Output 2 pair output volumetric flow rate Frequency Output 2 pair output volumetric flow rate. This includes frequency feedback correction if applicable.	R				float	volume/time	volume/time	float32	m3/hr				
43201	3200	TspfA1	Tracking target Pf value (A1) Tracking target Pf value (A1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43203	3202	TspfA2	Tracking target Pf value (A2) Tracking target Pf value (A2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43205	3204	TspfB1	Tracking target Pf value (B1) Tracking target Pf value (B1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43207	3206	TspfB2	Tracking target Pf value (B2) Tracking target Pf value (B2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43209	3208	TspfC1	Tracking target Pf value (C1) Tracking target Pf value (C1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43211	3210	TspfC2	Tracking target Pf value (C2) Tracking target Pf value (C2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43213	3212	TspfD1	Tracking target Pf value (D1) Tracking target Pf value (D1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43215	3214	TspfD2	Tracking target Pf value (D2) Tracking target Pf value (D2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43217	3216	TspeA1	Tracking target Pe value (A1) Tracking target Pe value (A1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43219	3218	TspeA2	Tracking target Pe value (A2) Tracking target Pe value (A2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43221	3220	TspeB1	Tracking target Pe value (B1) Tracking target Pe value (B1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43223	3222	TspeB2	Tracking target Pe value (B2) Tracking target Pe value (B2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43225	3224	TspeC1	Tracking target Pe value (C1) Tracking target Pe value (C1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43227	3226	TspeC2	Tracking target Pe value (C2) Tracking target Pe value (C2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43229	3228	TspeD1	Tracking target Pe value (D1) Tracking target Pe value (D1).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43231	3230	TspeD2	Tracking target Pe value (D2) Tracking target Pe value (D2).	R	Y			float	sample intervals	sample intervals	float32	sample intervals				
43233	3232	TampA1	Tracking target normalized amplitude value (A1) Tracking target normalized amplitude value (A1).	R	Y			float	%	%	float32	%				
43235	3234	TampA2	Tracking target normalized amplitude value (A2) Tracking target normalized amplitude value (A2).	R	Y			float	%	%	float32	%				
43237	3236	TampB1	Tracking target normalized amplitude value (B1) Tracking target normalized amplitude value (B1).	R	Y			float	%	%	float32	%				
43239	3238	TampB2	Tracking target normalized amplitude value (B2) Tracking target normalized amplitude value (B2).	R	Y			float	%	%	float32	%				
43241	3240	TampC1	Tracking target normalized amplitude value (C1) Tracking target normalized amplitude value (C1).	R	Y			float	%	%	float32	%				
43243	3242	TampC2	Tracking target normalized amplitude value (C2) Tracking target normalized amplitude value (C2).	R	Y			float	%	%	float32	%				
43245	3244	TampD1	Tracking target normalized amplitude value (D1) Tracking target normalized amplitude value (D1).	R	Y			float	%	%	float32	%				
43247	3246	TampD2	Tracking target normalized amplitude value (D2) Tracking target normalized amplitude value (D2).	R	Y			float	%	%	float32	%				
43501	3500	IsFwdPropADfltBin1	Fwd chord A bin 1 default proportion indicator Forward direction chord A bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43503	3502	FwdPropVelABin1	Proportion update fwd direction chord A bin 1 velocity Proportion update forward direction chord A bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43505	3504	FwdPropABin1	Fwd direction chord A bin 1 proportion Forward direction chord A bin 1 proportion.	R	Y			float	-	-	float32	-				
43507	3506	IsFwdPropBDfltBin1	Fwd chord B bin 1 default proportion indicator Forward direction chord B bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43509	3508	FwdPropVelBBin1	Proportion update fwd direction chord B bin 1 velocity Proportion update forward direction chord B bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43511	3510	FwdPropBBin1	Fwd direction chord B bin 1 proportion Forward direction chord B bin 1 proportion.	R	Y			float	-	-	float32	-				
43513	3512	IsFwdPropCDfltBin1	Fwd chord C bin 1 default proportion indicator Forward direction chord C bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43515	3514	FwdPropVelCBin1	Proportion update fwd direction chord C bin 1 velocity Proportion update forward direction chord C bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43517	3516	FwdPropCBin1	Fwd direction chord C bin 1 proportion Forward direction chord C bin 1 proportion.	R	Y			float	-	-	float32	-				
43519	3518	IsFwdPropDDfltBin1	Fwd chord D bin 1 default proportion indicator Forward direction chord D bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43521	3520	FwdPropVelDBin1	Proportion update fwd direction chord D bin 1 velocity Proportion update forward direction chord D bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43523	3522	FwdPropDBin1	Fwd direction chord D bin 1 proportion Forward direction chord D bin 1 proportion.	R	Y			float	-	-	float32	-				
43525	3524	IsFwdPropADfltBin2	Fwd chord A bin 2 default proportion indicator Forward direction chord A bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43527	3526	FwdPropVelABin2	Proportion update fwd direction chord A bin 2 velocity Proportion update forward direction chord A bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43529	3528	FwdPropABin2	Fwd direction chord A bin 2 proportion Forward direction chord A bin 2 proportion.	R	Y			float	-	-	float32	-				
43531	3530	IsFwdPropBDfltBin2	Fwd chord B bin 2 default proportion indicator Forward direction chord B bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43533	3532	FwdPropVelBBin2	Proportion update fwd direction chord B bin 2 velocity Proportion update forward direction chord B bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43535	3534	FwdPropBBin2	Fwd direction chord B bin 2 proportion Forward direction chord B bin 2 proportion.	R	Y			float	-	-	float32	-				
43537	3536	IsFwdPropCDfltBin2	Fwd chord C bin 2 default proportion indicator Forward direction chord C bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43539	3538	FwdPropVelCBin2	Proportion update fwd direction chord C bin 2 velocity Proportion update forward direction chord C bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43541	3540	FwdPropCBin2	Fwd direction chord C bin 2 proportion Forward direction chord C bin 2 proportion.	R	Y			float	-	-	float32	-				
43543	3542	IsFwdPropDDfltBin2	Fwd chord D bin 2 default proportion indicator Forward direction chord D bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43545	3544	FwdPropVelDBin2	Proportion update fwd direction chord D bin 2 velocity Proportion update forward direction chord D bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43547	3546	FwdPropDBin2	Fwd direction chord D bin 2 proportion Forward direction chord D bin 2 proportion.	R	Y			float	-	-	float32	-				
43549	3548	IsFwdPropADfltBin3	Fwd chord A bin 3 default proportion indicator Forward direction chord A bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43551	3550	FwdPropVelABin3	Proportion update fwd direction chord A bin 3 velocity Proportion update forward direction chord A bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43553	3552	FwdPropABin3	Fwd direction chord A bin 3 proportion Forward direction chord A bin 3 proportion.	R	Y			float	-	-	float32	-				
43555	3554	IsFwdPropBDfltBin3	Fwd chord B bin 3 default proportion indicator Forward direction chord B bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43557	3556	FwdPropVelBBin3	Proportion update fwd direction chord B bin 3 velocity Proportion update forward direction chord B bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43559	3558	FwdPropBBin3	Fwd direction chord B bin 3 proportion Forward direction chord B bin 3 proportion.	R	Y			float	-	-	float32	-				
43561	3560	IsFwdPropCDfltBin3	Fwd chord C bin 3 default proportion indicator Forward direction chord C bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43563	3562	FwdPropVelCBin3	Proportion update fwd direction chord C bin 3 velocity Proportion update forward direction chord C bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43565	3564	FwdPropCBin3	Fwd direction chord C bin 3 proportion Forward direction chord C bin 3 proportion.	R	Y			float	-	-	float32	-				
43567	3566	IsFwdPropDDfltBin3	Fwd chord D bin 3 default proportion indicator Forward direction chord D bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43569	3568	FwdPropVelDBin3	Proportion update fwd direction chord D bin 3 velocity Proportion update forward direction chord D bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43571	3570	FwdPropDBin3	Fwd direction chord D bin 3 proportion Forward direction chord D bin 3 proportion.	R	Y			float	-	-	float32	-				
43573	3572	IsFwdPropADfltBin4	Fwd chord A bin 4 default proportion indicator Forward direction chord A bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43575	3574	FwdPropVelABin4	Proportion update fwd direction chord A bin 4 velocity Proportion update forward direction chord A bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43577	3576	FwdPropABin4	Fwd direction chord A bin 4 proportion Forward direction chord A bin 4 proportion.	R	Y			float	-	-	float32	-				
43579	3578	IsFwdPropBDfltBin4	Fwd chord B bin 4 default proportion indicator Forward direction chord B bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43581	3580	FwdPropVelBBin4	Proportion update fwd direction chord B bin 4 velocity Proportion update forward direction chord B bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43583	3582	FwdPropBBin4	Fwd direction chord B bin 4 proportion Forward direction chord B bin 4 proportion.	R	Y			float	-	-	float32	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43585	3584	IsFwdPropCDfltBin4	Fwd chord C bin 4 default proportion indicator Forward direction chord C bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43587	3586	FwdPropVelCBin4	Proportion update fwd direction chord C bin 4 velocity Proportion update forward direction chord C bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43589	3588	FwdPropCBin4	Fwd direction chord C bin 4 proportion Forward direction chord C bin 4 proportion.	R	Y			float	-	-	float32	-				
43591	3590	IsFwdPropDDfltBin4	Fwd chord D bin 4 default proportion indicator Forward direction chord D bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43593	3592	FwdPropVelDBin4	Proportion update fwd direction chord D bin 4 velocity Proportion update forward direction chord D bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43595	3594	FwdPropDBin4	Fwd direction chord D bin 4 proportion Forward direction chord D bin 4 proportion.	R	Y			float	-	-	float32	-				
43597	3596	IsFwdPropADfltBin5	Fwd chord A bin 5 default proportion indicator Forward direction chord A bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43599	3598	FwdPropVelABin5	Proportion update fwd direction chord A bin 5 velocity Proportion update forward direction chord A bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43601	3600	FwdPropABin5	Fwd direction chord A bin 5 proportion Forward direction chord A bin 5 proportion.	R	Y			float	-	-	float32	-				
43603	3602	IsFwdPropBDfltBin5	Fwd chord B bin 5 default proportion indicator Forward direction chord B bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43605	3604	FwdPropVelBBin5	Proportion update fwd direction chord B bin 5 velocity Proportion update forward direction chord B bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43607	3606	FwdPropBBin5	Fwd direction chord B bin 5 proportion Forward direction chord B bin 5 proportion.	R	Y			float	-	-	float32	-				
43609	3608	IsFwdPropCDfltBin5	Fwd chord C bin 5 default proportion indicator Forward direction chord C bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43611	3610	FwdPropVelCBin5	Proportion update fwd direction chord C bin 5 velocity Proportion update forward direction chord C bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43613	3612	FwdPropCBin5	Fwd direction chord C bin 5 proportion Forward direction chord C bin 5 proportion.	R	Y			float	-	-	float32	-				
43615	3614	IsFwdPropDDfltBin5	Fwd chord D bin 5 default proportion indicator Forward direction chord D bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43617	3616	FwdPropVelDBin5	Proportion update fwd direction chord D bin 5 velocity Proportion update forward direction chord D bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43619	3618	FwdPropDBin5	Fwd direction chord D bin 5 proportion Forward direction chord D bin 5 proportion.	R	Y			float	-	-	float32	-				
43621	3620	IsFwdPropADfltBin6	Fwd chord A bin 6 default proportion indicator Forward direction chord A bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43623	3622	FwdPropVelABin6	Proportion update fwd direction chord A bin 6 velocity Proportion update forward direction chord A bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43625	3624	FwdPropABin6	Fwd direction chord A bin 6 proportion Forward direction chord A bin 6 proportion.	R	Y			float	-	-	float32	-				
43627	3626	IsFwdPropBDfltBin6	Fwd chord B bin 6 default proportion indicator Forward direction chord B bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43629	3628	FwdPropVelBBin6	Proportion update fwd direction chord B bin 6 velocity Proportion update forward direction chord B bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43631	3630	FwdPropBBin6	Fwd direction chord B bin 6 proportion Forward direction chord B bin 6 proportion.	R	Y			float	-	-	float32	-				
43633	3632	IsFwdPropCDfltBin6	Fwd chord C bin 6 default proportion indicator Forward direction chord C bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43635	3634	FwdPropVelCBin6	Proportion update fwd direction chord C bin 6 velocity Proportion update forward direction chord C bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43637	3636	FwdPropCBin6	Fwd direction chord C bin 6 proportion Forward direction chord C bin 6 proportion.	R	Y			float	-	-	float32	-				
43639	3638	IsFwdPropDDfltBin6	Fwd chord D bin 6 default proportion indicator Forward direction chord D bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43641	3640	FwdPropVelDBin6	Proportion update fwd direction chord D bin 6 velocity Proportion update forward direction chord D bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43643	3642	FwdPropDBin6	Fwd direction chord D bin 6 proportion Forward direction chord D bin 6 proportion.	R	Y			float	-	-	float32	-				
43645	3644	IsFwdPropADfltBin7	Fwd chord A bin 7 default proportion indicator Forward direction chord A bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				
43647	3646	FwdPropVelABin7	Proportion update fwd direction chord A bin 7 velocity Proportion update forward direction chord A bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43649	3648	FwdPropABin7	Fwd direction chord A bin 7 proportion Forward direction chord A bin 7 proportion.	R	Y			float	-	-	float32	-				
43651	3650	IsFwdPropBDfltBin7	Fwd chord B bin 7 default proportion indicator Forward direction chord B bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				
43653	3652	FwdPropVelBBin7	Proportion update fwd direction chord B bin 7 velocity Proportion update forward direction chord B bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43655	3654	FwdPropBBin7	Fwd direction chord B bin 7 proportion Forward direction chord B bin 7 proportion.	R	Y			float	-	-	float32	-				
43657	3656	IsFwdPropCDfltBin7	Fwd chord C bin 7 default proportion indicator Forward direction chord C bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				
43659	3658	FwdPropVelCBin7	Proportion update fwd direction chord C bin 7 velocity Proportion update forward direction chord C bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43661	3660	FwdPropCBin7	Fwd direction chord C bin 7 proportion Forward direction chord C bin 7 proportion.	R	Y			float	-	-	float32	-				
43663	3662	IsFwdPropDDfltBin7	Fwd chord D bin 7 default proportion indicator Forward direction chord D bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43665	3664	FwdPropVelDBin7	Proportion update fwd direction chord D bin 7 velocity Proportion update forward direction chord D bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43667	3666	FwdPropDBin7	Fwd direction chord D bin 7 proportion Forward direction chord D bin 7 proportion.	R	Y			float	-	-	float32	-				
43669	3668	IsFwdPropADfltBin8	Fwd chord A bin 8 default proportion indicator Forward direction chord A bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43671	3670	FwdPropVelABin8	Proportion update fwd direction chord A bin 8 velocity Proportion update forward direction chord A bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43673	3672	FwdPropABin8	Fwd direction chord A bin 8 proportion Forward direction chord A bin 8 proportion.	R	Y			float	-	-	float32	-				
43675	3674	IsFwdPropBDfltBin8	Fwd chord B bin 8 default proportion indicator Forward direction chord B bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43677	3676	FwdPropVelBBin8	Proportion update fwd direction chord B bin 8 velocity Proportion update forward direction chord B bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43679	3678	FwdPropBBin8	Fwd direction chord B bin 8 proportion Forward direction chord B bin 8 proportion.	R	Y			float	-	-	float32	-				
43681	3680	IsFwdPropCDfltBin8	Fwd chord C bin 8 default proportion indicator Forward direction chord C bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43683	3682	FwdPropVelCBin8	Proportion update fwd direction chord C bin 8 velocity Proportion update forward direction chord C bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43685	3684	FwdPropCBin8	Fwd direction chord C bin 8 proportion Forward direction chord C bin 8 proportion.	R	Y			float	-	-	float32	-				
43687	3686	IsFwdPropDDfltBin8	Fwd chord D bin 8 default proportion indicator Forward direction chord D bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43689	3688	FwdPropVelDBin8	Proportion update fwd direction chord D bin 8 velocity Proportion update forward direction chord D bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43691	3690	FwdPropDBin8	Fwd direction chord D bin 8 proportion Forward direction chord D bin 8 proportion.	R	Y			float	-	-	float32	-				
43693	3692	IsFwdPropADfltBin9	Fwd chord A bin 9 default proportion indicator Forward direction chord A bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
43695	3694	FwdPropVelABin9	Proportion update fwd direction chord A bin 9 velocity Proportion update forward direction chord A bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43697	3696	FwdPropABin9	Fwd direction chord A bin 9 proportion Forward direction chord A bin 9 proportion.	R	Y			float	-	-	float32	-				
43699	3698	IsFwdPropBDfltBin9	Fwd chord B bin 9 default proportion indicator Forward direction chord B bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
43701	3700	FwdPropVelBBin9	Proportion update fwd direction chord B bin 9 velocity Proportion update forward direction chord B bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43703	3702	FwdPropBBin9	Fwd direction chord B bin 9 proportion Forward direction chord B bin 9 proportion.	R	Y			float	-	-	float32	-				
43705	3704	IsFwdPropCDfltBin9	Fwd chord C bin 9 default proportion indicator Forward direction chord C bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
43707	3706	FwdPropVelCBin9	Proportion update fwd direction chord C bin 9 velocity Proportion update forward direction chord C bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43709	3708	FwdPropCBin9	Fwd direction chord C bin 9 proportion Forward direction chord C bin 9 proportion.	R	Y			float	-	-	float32	-				
43711	3710	IsFwdPropDDfltBin9	Fwd chord D bin 9 default proportion indicator Forward direction chord D bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
43713	3712	FwdPropVelDBin9	Proportion update fwd direction chord D bin 9 velocity Proportion update forward direction chord D bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43715	3714	FwdPropDBin9	Fwd direction chord D bin 9 proportion Forward direction chord D bin 9 proportion.	R	Y			float	-	-	float32	-				
43717	3716	IsFwdPropADfltBin10	Fwd chord A bin 10 default proportion indicator Forward direction chord A bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
43719	3718	FwdPropVelABin10	Proportion update fwd direction chord A bin 10 velocity Proportion update forward direction chord A bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43721	3720	FwdPropABin10	Fwd direction chord A bin 10 proportion Forward direction chord A bin 10 proportion.	R	Y			float	-	-	float32	-				
43723	3722	IsFwdPropBDfltBin10	Fwd chord B bin 10 default proportion indicator Forward direction chord B bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
43725	3724	FwdPropVelBBin10	Proportion update fwd direction chord B bin 10 velocity Proportion update forward direction chord B bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43727	3726	FwdPropBBin10	Fwd direction chord B bin 10 proportion Forward direction chord B bin 10 proportion.	R	Y			float	-	-	float32	-				
43729	3728	IsFwdPropCDfltBin10	Fwd chord C bin 10 default proportion indicator Forward direction chord C bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
43731	3730	FwdPropVelCBin10	Proportion update fwd direction chord C bin 10 velocity Proportion update forward direction chord C bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43733	3732	FwdPropCBin10	Fwd direction chord C bin 10 proportion Forward direction chord C bin 10 proportion.	R	Y			float	-	-	float32	-				
43735	3734	IsFwdPropDDfltBin10	Fwd chord D bin 10 default proportion indicator Forward direction chord D bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
43737	3736	FwdPropVelDBin10	Proportion update fwd direction chord D bin 10 velocity Proportion update forward direction chord D bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43739	3738	FwdPropDBin10	Fwd direction chord D bin 10 proportion Forward direction chord D bin 10 proportion.	R	Y			float	-	-	float32	-				
43801	3800	IsRevPropADfltBin1	Rev chord A bin 1 default proportion indicator Reverse direction chord A bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43803	3802	RevPropVelABin1	Proportion update rev direction chord A bin 1 velocity Proportion update reverse direction chord A bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43805	3804	RevPropABin1	Rev direction chord A bin 1 proportion Reverse direction chord A bin 1 proportion.	R	Y			float	-	-	float32	-				
43807	3806	IsRevPropBDfltBin1	Rev chord B bin 1 default proportion indicator Reverse direction chord B bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43809	3808	RevPropVelBBin1	Proportion update rev direction chord B bin 1 velocity Proportion update reverse direction chord B bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43811	3810	RevPropBBin1	Rev direction chord B bin 1 proportion Reverse direction chord B bin 1 proportion.	R	Y			float	-	-	float32	-				
43813	3812	IsRevPropCDfltBin1	Rev chord C bin 1 default proportion indicator Reverse direction chord C bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43815	3814	RevPropVelCBin1	Proportion update rev direction chord C bin 1 velocity Proportion update reverse direction chord C bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43817	3816	RevPropCBin1	Rev direction chord C bin 1 proportion Reverse direction chord C bin 1 proportion.	R	Y			float	-	-	float32	-				
43819	3818	IsRevPropDDfltBin1	Rev chord D bin 1 default proportion indicator Reverse direction chord D bin 1 default proportion indicator.	R	Y			float	-	-	boolean	-				
43821	3820	RevPropVelDBin1	Proportion update rev direction chord D bin 1 velocity Proportion update reverse direction chord D bin 1 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43823	3822	RevPropDBin1	Rev direction chord D bin 1 proportion Reverse direction chord D bin 1 proportion.	R	Y			float	-	-	float32	-				
43825	3824	IsRevPropADfltBin2	Rev chord A bin 2 default proportion indicator Reverse direction chord A bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43827	3826	RevPropVelABin2	Proportion update rev direction chord A bin 2 velocity Proportion update reverse direction chord A bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43829	3828	RevPropABin2	Rev direction chord A bin 2 proportion Reverse direction chord A bin 2 proportion.	R	Y			float	-	-	float32	-				
43831	3830	IsRevPropBDfltBin2	Rev chord B bin 2 default proportion indicator Reverse direction chord B bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43833	3832	RevPropVelBBin2	Proportion update rev direction chord B bin 2 velocity Proportion update reverse direction chord B bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43835	3834	RevPropBBin2	Rev direction chord B bin 2 proportion Reverse direction chord B bin 2 proportion.	R	Y			float	-	-	float32	-				
43837	3836	IsRevPropCDfltBin2	Rev chord C bin 2 default proportion indicator Reverse direction chord C bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43839	3838	RevPropVelCBin2	Proportion update rev direction chord C bin 2 velocity Proportion update reverse direction chord C bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43841	3840	RevPropCBin2	Rev direction chord C bin 2 proportion Reverse direction chord C bin 2 proportion.	R	Y			float	-	-	float32	-				
43843	3842	IsRevPropDDfltBin2	Rev chord D bin 2 default proportion indicator Reverse direction chord D bin 2 default proportion indicator.	R	Y			float	-	-	boolean	-				
43845	3844	RevPropVelDBin2	Proportion update rev direction chord D bin 2 velocity Proportion update reverse direction chord D bin 2 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43847	3846	RevPropDBin2	Rev direction chord D bin 2 proportion Reverse direction chord D bin 2 proportion.	R	Y			float	-	-	float32	-				
43849	3848	IsRevPropADfltBin3	Rev chord A bin 3 default proportion indicator Reverse direction chord A bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43851	3850	RevPropVelABin3	Proportion update rev direction chord A bin 3 velocity Proportion update reverse direction chord A bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43853	3852	RevPropABin3	Rev direction chord A bin 3 proportion Reverse direction chord A bin 3 proportion.	R	Y			float	-	-	float32	-				
43855	3854	IsRevPropBDfltBin3	Rev chord B bin 3 default proportion indicator Reverse direction chord B bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43857	3856	RevPropVelBBin3	Proportion update rev direction chord B bin 3 velocity Proportion update reverse direction chord B bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43859	3858	RevPropBBin3	Rev direction chord B bin 3 proportion Reverse direction chord B bin 3 proportion.	R	Y			float	-	-	float32	-				
43861	3860	IsRevPropCDfltBin3	Rev chord C bin 3 default proportion indicator Reverse direction chord C bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43863	3862	RevPropVelCBin3	Proportion update rev direction chord C bin 3 velocity Proportion update reverse direction chord C bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43865	3864	RevPropCBin3	Rev direction chord C bin 3 proportion Reverse direction chord C bin 3 proportion.	R	Y			float	-	-	float32	-				
43867	3866	IsRevPropDDfltBin3	Rev chord D bin 3 default proportion indicator Reverse direction chord D bin 3 default proportion indicator.	R	Y			float	-	-	boolean	-				
43869	3868	RevPropVelDBin3	Proportion update rev direction chord D bin 3 velocity Proportion update reverse direction chord D bin 3 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43871	3870	RevPropDBin3	Rev direction chord D bin 3 proportion Reverse direction chord D bin 3 proportion.	R	Y			float	-	-	float32	-				
43873	3872	IsRevPropADfltBin4	Rev chord A bin 4 default proportion indicator Reverse direction chord A bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43875	3874	RevPropVelABin4	Proportion update rev direction chord A bin 4 velocity Proportion update reverse direction chord A bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43877	3876	RevPropABin4	Rev direction chord A bin 4 proportion Reverse direction chord A bin 4 proportion.	R	Y			float	-	-	float32	-				
43879	3878	IsRevPropBDfltBin4	Rev chord B bin 4 default proportion indicator Reverse direction chord B bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43881	3880	RevPropVelBBin4	Proportion update rev direction chord B bin 4 velocity Proportion update reverse direction chord B bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43883	3882	RevPropBBin4	Rev direction chord B bin 4 proportion Reverse direction chord B bin 4 proportion.	R	Y			float	-	-	float32	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43885	3884	IsRevPropCDfltBin4	Rev chord C bin 4 default proportion indicator Reverse direction chord C bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43887	3886	RevPropVelCBin4	Proportion update rev direction chord C bin 4 velocity Proportion update reverse direction chord C bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43889	3888	RevPropCBin4	Rev direction chord C bin 4 proportion Reverse direction chord C bin 4 proportion.	R	Y			float	-	-	float32	-				
43891	3890	IsRevPropDDfltBin4	Rev chord D bin 4 default proportion indicator Reverse direction chord D bin 4 default proportion indicator.	R	Y			float	-	-	boolean	-				
43893	3892	RevPropVelDBin4	Proportion update rev direction chord D bin 4 velocity Proportion update reverse direction chord D bin 4 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43895	3894	RevPropDBin4	Rev direction chord D bin 4 proportion Reverse direction chord D bin 4 proportion.	R	Y			float	-	-	float32	-				
43897	3896	IsRevPropADfltBin5	Rev chord A bin 5 default proportion indicator Reverse direction chord A bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43899	3898	RevPropVelABin5	Proportion update rev direction chord A bin 5 velocity Proportion update reverse direction chord A bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43901	3900	RevPropABin5	Rev direction chord A bin 5 proportion Reverse direction chord A bin 5 proportion.	R	Y			float	-	-	float32	-				
43903	3902	IsRevPropBDfltBin5	Rev chord B bin 5 default proportion indicator Reverse direction chord B bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43905	3904	RevPropVelBBin5	Proportion update rev direction chord B bin 5 velocity Proportion update reverse direction chord B bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43907	3906	RevPropBBin5	Rev direction chord B bin 5 proportion Reverse direction chord B bin 5 proportion.	R	Y			float	-	-	float32	-				
43909	3908	IsRevPropCDfltBin5	Rev chord C bin 5 default proportion indicator Reverse direction chord C bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43911	3910	RevPropVelCBin5	Proportion update rev direction chord C bin 5 velocity Proportion update reverse direction chord C bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43913	3912	RevPropCBin5	Rev direction chord C bin 5 proportion Reverse direction chord C bin 5 proportion.	R	Y			float	-	-	float32	-				
43915	3914	IsRevPropDDfltBin5	Rev chord D bin 5 default proportion indicator Reverse direction chord D bin 5 default proportion indicator.	R	Y			float	-	-	boolean	-				
43917	3916	RevPropVelDBin5	Proportion update rev direction chord D bin 5 velocity Proportion update reverse direction chord D bin 5 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43919	3918	RevPropDBin5	Rev direction chord D bin 5 proportion Reverse direction chord D bin 5 proportion.	R	Y			float	-	-	float32	-				
43921	3920	IsRevPropADfltBin6	Rev chord A bin 6 default proportion indicator Reverse direction chord A bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43923	3922	RevPropVelABin6	Proportion update rev direction chord A bin 6 velocity Proportion update reverse direction chord A bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43925	3924	RevPropABin6	Rev direction chord A bin 6 proportion Reverse direction chord A bin 6 proportion.	R	Y			float	-	-	float32	-				
43927	3926	IsRevPropBDfltBin6	Rev chord B bin 6 default proportion indicator Reverse direction chord B bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43929	3928	RevPropVelBBin6	Proportion update rev direction chord B bin 6 velocity Proportion update reverse direction chord B bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43931	3930	RevPropBBin6	Rev direction chord B bin 6 proportion Reverse direction chord B bin 6 proportion.	R	Y			float	-	-	float32	-				
43933	3932	IsRevPropCDfltBin6	Rev chord C bin 6 default proportion indicator Reverse direction chord C bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43935	3934	RevPropVelCBin6	Proportion update rev direction chord C bin 6 velocity Proportion update reverse direction chord C bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43937	3936	RevPropCBin6	Rev direction chord C bin 6 proportion Reverse direction chord C bin 6 proportion.	R	Y			float	-	-	float32	-				
43939	3938	IsRevPropDDfltBin6	Rev chord D bin 6 default proportion indicator Reverse direction chord D bin 6 default proportion indicator.	R	Y			float	-	-	boolean	-				
43941	3940	RevPropVelDBin6	Proportion update rev direction chord D bin 6 velocity Proportion update reverse direction chord D bin 6 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43943	3942	RevPropDBin6	Rev direction chord D bin 6 proportion Reverse direction chord D bin 6 proportion.	R	Y			float	-	-	float32	-				
43945	3944	IsRevPropADfltBin7	Rev chord A bin 7 default proportion indicator Reverse direction chord A bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				
43947	3946	RevPropVelABin7	Proportion update rev direction chord A bin 7 velocity Proportion update reverse direction chord A bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43949	3948	RevPropABin7	Rev direction chord A bin 7 proportion Reverse direction chord A bin 7 proportion.	R	Y			float	-	-	float32	-				
43951	3950	IsRevPropBDfltBin7	Rev chord B bin 7 default proportion indicator Reverse direction chord B bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				
43953	3952	RevPropVelBBin7	Proportion update rev direction chord B bin 7 velocity Proportion update reverse direction chord B bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43955	3954	RevPropBBin7	Rev direction chord B bin 7 proportion Reverse direction chord B bin 7 proportion.	R	Y			float	-	-	float32	-				
43957	3956	IsRevPropCDfltBin7	Rev chord C bin 7 default proportion indicator Reverse direction chord C bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				
43959	3958	RevPropVelCBin7	Proportion update rev direction chord C bin 7 velocity Proportion update reverse direction chord C bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43961	3960	RevPropCBin7	Rev direction chord C bin 7 proportion Reverse direction chord C bin 7 proportion.	R	Y			float	-	-	float32	-				
43963	3962	IsRevPropDDfltBin7	Rev chord D bin 7 default proportion indicator Reverse direction chord D bin 7 default proportion indicator.	R	Y			float	-	-	boolean	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
43965	3964	RevPropVelDBin7	Proportion update rev direction chord D bin 7 velocity Proportion update reverse direction chord D bin 7 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43967	3966	RevPropDBin7	Rev direction chord D bin 7 proportion Reverse direction chord D bin 7 proportion.	R	Y			float	-	-	float32	-				
43969	3968	IsRevPropADfltBin8	Rev chord A bin 8 default proportion indicator Reverse direction chord A bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43971	3970	RevPropVelABin8	Proportion update rev direction chord A bin 8 velocity Proportion update reverse direction chord A bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43973	3972	RevPropABin8	Rev direction chord A bin 8 proportion Reverse direction chord A bin 8 proportion.	R	Y			float	-	-	float32	-				
43975	3974	IsRevPropBDfltBin8	Rev chord B bin 8 default proportion indicator Reverse direction chord B bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43977	3976	RevPropVelBBin8	Proportion update rev direction chord B bin 8 velocity Proportion update reverse direction chord B bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43979	3978	RevPropBBin8	Rev direction chord B bin 8 proportion Reverse direction chord B bin 8 proportion.	R	Y			float	-	-	float32	-				
43981	3980	IsRevPropCDfltBin8	Rev chord C bin 8 default proportion indicator Reverse direction chord C bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43983	3982	RevPropVelCBin8	Proportion update rev direction chord C bin 8 velocity Proportion update reverse direction chord C bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43985	3984	RevPropCBin8	Rev direction chord C bin 8 proportion Reverse direction chord C bin 8 proportion.	R	Y			float	-	-	float32	-				
43987	3986	IsRevPropDDfltBin8	Rev chord D bin 8 default proportion indicator Reverse direction chord D bin 8 default proportion indicator.	R	Y			float	-	-	boolean	-				
43989	3988	RevPropVelDBin8	Proportion update rev direction chord D bin 8 velocity Proportion update reverse direction chord D bin 8 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43991	3990	RevPropDBin8	Rev direction chord D bin 8 proportion Reverse direction chord D bin 8 proportion.	R	Y			float	-	-	float32	-				
43993	3992	IsRevPropADfltBin9	Rev chord A bin 9 default proportion indicator Reverse direction chord A bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
43995	3994	RevPropVelABin9	Proportion update rev direction chord A bin 9 velocity Proportion update reverse direction chord A bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
43997	3996	RevPropABin9	Rev direction chord A bin 9 proportion Reverse direction chord A bin 9 proportion.	R	Y			float	-	-	float32	-				
43999	3998	IsRevPropBDfltBin9	Rev chord B bin 9 default proportion indicator Reverse direction chord B bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
44001	4000	RevPropVelBBin9	Proportion update rev direction chord B bin 9 velocity Proportion update reverse direction chord B bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44003	4002	RevPropBBin9	Rev direction chord B bin 9 proportion Reverse direction chord B bin 9 proportion.	R	Y			float	-	-	float32	-				
44005	4004	IsRevPropCDfltBin9	Rev chord C bin 9 default proportion indicator Reverse direction chord C bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
44007	4006	RevPropVelCBin9	Proportion update rev direction chord C bin 9 velocity Proportion update reverse direction chord C bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44009	4008	RevPropCBin9	Rev direction chord C bin 9 proportion Reverse direction chord C bin 9 proportion.	R	Y			float	-	-	float32	-				
44011	4010	IsRevPropDDfltBin9	Rev chord D bin 9 default proportion indicator Reverse direction chord D bin 9 default proportion indicator.	R	Y			float	-	-	boolean	-				
44013	4012	RevPropVelDBin9	Proportion update rev direction chord D bin 9 velocity Proportion update reverse direction chord D bin 9 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44015	4014	RevPropDBin9	Rev direction chord D bin 9 proportion Reverse direction chord D bin 9 proportion.	R	Y			float	-	-	float32	-				
44017	4016	IsRevPropADfltBin10	Rev chord A bin 10 default proportion indicator Reverse direction chord A bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
44019	4018	RevPropVelABin10	Proportion update rev direction chord A bin 10 velocity Proportion update reverse direction chord A bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44021	4020	RevPropABin10	Rev direction chord A bin 10 proportion Reverse direction chord A bin 10 proportion.	R	Y			float	-	-	float32	-				
44023	4022	IsRevPropBDfltBin10	Rev chord B bin 10 default proportion indicator Reverse direction chord B bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
44025	4024	RevPropVelBBin10	Proportion update rev direction chord B bin 10 velocity Proportion update reverse direction chord B bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44027	4026	RevPropBBin10	Rev direction chord B bin 10 proportion Reverse direction chord B bin 10 proportion.	R	Y			float	-	-	float32	-				
44029	4028	IsRevPropCDfltBin10	Rev chord C bin 10 default proportion indicator Reverse direction chord C bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
44031	4030	RevPropVelCBin10	Proportion update rev direction chord C bin 10 velocity Proportion update reverse direction chord C bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44033	4032	RevPropCBin10	Rev direction chord C bin 10 proportion Reverse direction chord C bin 10 proportion.	R	Y			float	-	-	float32	-				
44035	4034	IsRevPropDDfltBin10	Rev chord D bin 10 default proportion indicator Reverse direction chord D bin 10 default proportion indicator.	R	Y			float	-	-	boolean	-				
44037	4036	RevPropVelDBin10	Proportion update rev direction chord D bin 10 velocity Proportion update reverse direction chord D bin 10 velocity.	R	Y			float	m/s	ft/s	float32	m/s				
44039	4038	RevPropDBin10	Rev direction chord D bin 10 proportion Reverse direction chord D bin 10 proportion.	R	Y			float	-	-	float32	-				
44101	4100	HourlyMacro1	Hourly log macro 1 Hourly log macro status indicator 1. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
44103	4102	HourlyMacro2	Hourly log macro 2 Hourly log macro status indicator 2. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44105	4104	PrevHourFlowTime	Previous hour's flow time Amount of time during the previous hour that flow was above the cutoff value.	R	Y			long	ms	ms	float32	min				
44107	4106	Reserved		R				long								
44109	4108	Reserved		R				long								
44111	4110	PrevHourFlowPosVol	Previous hour's forward volume at flow condition Previous hour's flow-condition positive volume (int).	R	Y			long	volume	volume	uint32	L				
44113	4112	PrevHourFlowNegVol	Previous hour's reverse volume at flow condition Previous hour's flow-condition negative volume (int).	R	Y			long	volume	volume	uint32	L				
44115	4114	HourlyMacro1	Hourly log macro 1 Hourly log macro status indicator 1. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44117	4116	HourlyMacro2	Hourly log macro 2 Hourly log macro status indicator 2. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44119	4118	HourlyMacro3	Hourly log macro 3 Hourly log macro status indicator 3. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44121	4120	HourlyMacro4	Hourly log macro 4 Hourly log macro status indicator 4. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44123	4122	HourlyMacro5	Hourly log macro 5 Hourly log macro status indicator 5. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44125	4124	HourlyMacro6	Hourly log macro 6 Hourly log macro status indicator 6. This is a bitfield that contains a variety of alarms bits that were active in the last logging hour. Each bit is "sticky" for the logging period and clears for the next hour if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44129	4128	DailyMacro1	Daily log macro 1 Daily log macro status indicator 1. This is a bitfield that contains a variety of alarms bits that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44131	4130	DailyMacro2	Daily log macro 2 Daily log macro status indicator 2. This is a bitfield that contains a variety of alarms bits not contained in status 1 that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44133	4132	DailyMacro3	Daily log macro 3 Daily log macro status indicator 3. This is a bitfield that contains a variety of alarms bits that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44135	4134	DailyMacro4	Daily log macro 4 Daily log macro status indicator 4. This is a bitfield that contains a variety of alarms bits not contained in status 1 that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44137	4136	DailyMacro5	Daily log macro 5 Daily log macro status indicator 5. This is a bitfield that contains a variety of alarms bits that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44139	4138	DailyMacro6	Daily log macro 6 Daily log macro status indicator 6. This is a bitfield that contains a variety of alarms bits not contained in status 1 that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44151	4150	DailyMacro1	Daily log macro 1 Daily log macro status indicator 1. This is a bitfield that contains a variety of alarms bits that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44153	4152	DailyMacro2	Daily log macro 2 Daily log macro status indicator 2. This is a bitfield that contains a variety of alarms bits not contained in status 1 that were active in the last logging day. Each bit is "sticky" for the logging period and clears for the next day if the condition cleared in that period. Consult the alarm log for further information.	R	Y			long	-	-	uint32	-				
44155	4154	PrevDayFlowTime	Previous day's flow time Amount of time during the previous day that flow was above the cutoff value.	R	Y			long	ms	ms	float32	min				
44157	4156	Reserved		R				long								
44159	4158	Reserved		R				long								
44161	4160	PrevDayFlowPosVol	Previous day's forward volume at flow condition Previous day's flow-condition positive volume (int).	R	Y			long	volume	volume	uint32	L				
44163	4162	PrevDayFlowNegVol	Previous day's reverse volume at flow condition Previous day's flow-condition negative volume (int).	R	Y			long	volume	volume	uint32	L				
44205	4204	CurrHourFlowTime	Current hour's flow time Amount of time during the current hour that flow is above the cutoff value.	R	Y			long	ms	ms	float32	min				
44207	4206	Reserved		R				long								
44209	4208	Reserved		R				long								
44211	4210	CurrHourFlowPosVol	Current hour's flow-condition positive volume (int) Current hour's flow-condition positive volume (int).	R	Y			long	volume	volume	uint32	L				
44213	4212	CurrHourFlowNegVol	Current hour's flow-condition negative volume (int) Current hour's flow-condition negative volume (int).	R	Y			long	volume	volume	uint32	L				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
44255	4254	CurrDayFlowTime	Current day's flow time Amount of time during the current day that flow is above the cutoff value. The start of the day is defined by the 'ContractHour' data point.	R	Y			long	ms	ms	float32	min				
44257	4256	Reserved		R				long								
44259	4258	Reserved		R				long								
44261	4260	CurrDayFlowPosVol	Current day's flow-condition positive volume (int) Current day's flow-condition positive volume (int).	R	Y			long	volume	volume	uint32	L				
44263	4262	CurrDayFlowNegVol	Current day's flow-condition negative volume (int) Current day's flow-condition negative volume (int).	R	Y			long	volume	volume	uint32	L				
44265	4264	FieldIOStatus	Ancillary devices and device status Externally connected devices and device status	R	*	*	*	long	-	-	bitfield	-	0 IsColocMeterCommErr (NV) 1 PressureInvalid (NV) 2 TemperatureInvalid (NV) 8 DidResetUsers (NV, Cnfg) 18 IsCorePresent (NV, Cnfg)			
44267	4266	AcqModuleErrorReasons	Reason for Acquisition Module error Reason for Acquisition Module error when (IsAcqModuleError) is indicated. A value of zero indicates no error. Bit Value Description: 0x00000001 AcqModuleExtendedStatusAvailable - Acquisition Module extended status is available. Check the further data in AcqModuleExtendedStatus 0x00000002 AcqModuleReprogrammingFailed - Acquisition Module reprogramming error. Check the AcqModuleMaxReprogramFail bit (below) to see if all attempts have failed. 0x00000004 AcqModuleCommNoLink - No Ethernet connection to the Acquisition Module. Check the interconnect cable between the Acquisition Module and the CPU Module. 0x00000008 AcqModuleCommNoComm - No communications to the Acquisition Module / unable to ping. Check the interconnect cable between the Acquisition Module and the CPU Module and/or cycle power to the meter. 0x00000010 AcqModuleCommFail - Acquisition Module communications failure. A command or response has failed. Check the interconnect cable between the Acquisition Module and the CPU Module and/or cycle power to the meter. 0x00000200 AcqModuleImageFailure - Acquisition Module loader file is corrupted. Download new firmware to the meter using Program Download in MeterLink™. 0x00000400 AcqModuleMaxReprogramFail - The maximum number of Acquisition Module reprogramming retries has been exceeded. Replace the Acquisition Module. If the issue is unresolved, contact your local area Emerson Flow service representative.	R				long	-	-	uint32	-				
44269	4268	AcqModuleExtendedStatus	Extended status returned from Acquisition Module Status returned from Acquisition Module when the reason for the Acquisition Module error (AcqModuleErrorReasons) is ExtendedStatusAvailable (0x01) Bit Value Description: 0x00000000 ACQUISITION_NO_EXTENDED_ERROR 0x00000001 Not used 0x00000002 ACQUISITION_FLASH_POLL_TIMEOUT_ERROR 0x00000004 ACQUISITION_FLASH_INVALID_SECTOR_ERROR 0x00000008 ACQUISITION_FLASH_PROCESS_COMMAND_ERR_ERROR 0x00000010 ACQUISITION_FLASH_BUFFER_IS_NULL_ERROR 0x00000020 Not used 0x00000040 ACQUISITION_FLASH_VERIFY_WRITE_ERROR 0x00000080 ACQUISITION_FLASH_UNKNOWN_COMMAND_ERROR 0x00000100 ACQUISITION_FLASH_NO_ACCESS_SECTOR_ERROR 0x00000200 Not used 0x00000400 Not used 0x00000800 Not used 0x00001000 Not used 0x00002000 Not used 0x00004000 Not used 0x00008000 Not used 0x00010000 ACQUISITION_FPGA_LOAD_FAIL 0x00020000 Not used 0x00040000 ACQUISITION_RAM_FAIL 0x00080000 ACQUISITION_FLASH_FAIL 0x00100000 ACQUISITION_UPTIME_TEST_FAIL 0x00200000 ACQUISITION_ACQ_REPROGRAM_FAIL 0x00400000 Not used 0x00800000 Not used 0x01000000 ACQUISITION_WATCHDOG_OCCURRED 0x02000000 ACQUISITION_WAVEFORM_SEQUENCE_ERROR (Reserved for engineering) 0x04000000 Not used 0x08000000 Not used 0x10000000 Not used	R				long	-	-	uint32	-				
44501	4500	EmRateActual	Actual transducer firing (emission) rate Actual transducer firing (emission) rate. This is the time between firing two different transducers.	R	Y			float	ms	ms	float32	ms				
44503	4502	StackEmRateActual	Actual stacking transducer firing (emission) rate Actual stacking transducer firing (emission) rate. The meter will wait this amount of time before firing the same transducer if stacking is set to >1.	R	Y			float	ms	ms	float32	ms				
44505	4504	BatchUpdatePeriod	Desired batch update period Desired batch update period based on the configured batch update period (SpecBatchUpdtPeriod) and stack size (StackSize). The actual duration (BatchTimeSec) will vary slightly around this value from batch to batch.	R				float	ms	ms	float32	sec				
44521	4520	BatchNewSeq	Number of new sequences in a batch The number of firing sequences since the previous Batch.	R				long	-	-	uint16	-				
44523	4522	BatchOldSeq	Number of old sequences in a batch The number of firing sequences from previous Batches used by (BatchPercentSmoothing).	R				long	-	-	uint16	-				
44525	4524	SeqPerUpdateNew	Expected number of new sequences per update Expected number of new sequences per batch update period (BatchUpdatePeriod). This value is determined from the (actual) emission rate (EmRateActual), (actual) stack emission rate (StackEmRateActual), stack size (StackSize) and active chords.	R	Y			long	-	-	uint16	-				
44527	4526	SeqPerUpdateTotal	Expected number of total sequences (new+old) per update Expected number of total sequences per batch update period (BatchUpdatePeriod). It is the sum of new sequences (BatchNewSeq) and number of old sequences (BatchOldSeq) in a batch.	R	Y			long	-	-	uint16	-				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
44529	4528	PropUpdtBatches	Number of consecutive batches without chord failures required for updating chord proportions Number of consecutive batches without chord failures required for updating chord proportions. It is computed from the time that must elapse without chord failures required for updating chord proportions (PropUpdtSeconds) divided by the batch update period (BatchUpdatePeriod).	R	Y			long	-	-	uint16	-				
44531	4530	PropUpdtSeconds	Time that must elapse without chord failures required for updating chord proportions The number of seconds that must elapse without any chord failures before changes to the chord proportion bins for velocity estimation will occur ((IsPropUpdtActive) set to TRUE). This time is converted to the number of equivalent batch cycles (PropUpdtBatches) for comparison to the number of consecutive batches without chord failures (CurrPropUpdateBatches). This also specifies the number of seconds that must elapse while transducer maintenance is suspected (IsXdcrMaintenanceSuspectedA..IsXdcrMaintenanceSuspectedD) before the transducer maintenance required alarm is activated ((IsXdcrMaintenanceRequired) is set to TRUE).	RW	Y	Y	Y	long	sec	sec	uint16	sec		3600	10	3600
44533	4532	PropUpdtSecondsOverride	Override time required for updating chord proportions When enabled, the number of failure free seconds required (PropUpdtSeconds) is overridden such that chord proportion bins shall be updated (IsPropUpdtActive) whenever the number of consecutive batches without chord failures (CurrPropUpdateBatches) is greater than 24. The purpose of this override is to allow testing of chord proportions before the required time has elapsed since the last chord failure (PropUpdtSeconds). This should only be enabled under the direction of Emerson Flow Support.	RW			Y	long	-	-	uint16	-		0	0	65535
44601	4600	DampingValue	Damping value (outputs and data points) Specifies the damping value for all outputs and measurement data points. The damping value is the (worst case) time for the outputs and measurement data points to reach 63% of the steady-state value in response to a step input. This is a function of the desired batch update period (BatchUpdatePeriod).	R				float	sec	sec	float32	sec				
44603	4602	AO1CurrentTrimZero	Analog Output 1 current calibration zero (offset) Analog Output 1 current calibration zero (offset).	R	Y			float	ma	ma	float32	ma				
44605	4604	AO1CurrentTrimGain	Analog Output 1 current calibration gain Analog Output 1 current calibration gain.	R	Y			float	-	-	float32	-				
44607	4606	AO2CurrentTrimZero	Analog Output 2 current calibration zero (offset) Analog Output 2 current calibration zero (offset).	R	Y			float	ma	ma	float32	ma				
44609	4608	AO2CurrentTrimGain	Analog Output 2 current calibration gain Analog Output 2 current calibration gain.	R	Y			float	-	-	float32	-				
44611	4610	Reserved		R				float								
44613	4612	Reserved		R				float								
44651	4650	HARTVolUnit	HART volume unit Selects the HART communication volume unit. The volumetric flow rate unit (HARTVolFlowRateUnit) is derived from this.	R	Y	Y	Y	int	-	-	uint8	-	m3 (43) L (41) bbl (46) gal (40)	43	40	46
44652	4651	HARTRateTimeUnit	HART flow rate time unit Selects the HART communication time unit for volumetric flow rate (HARTVolFlowRateUnit).	R	Y	Y	Y	int	-	-	uint8	-	sec (51) min (50) hour (52) day (53)	52	50	53
44653	4652	HARTPressureUnit	HART pressure unit Selects the HART communication unit for pressure.	R	Y	Y	Y	int	-	-	uint8	-	Pa (11) KPa (12) MPa (237) psi (6)	237	6	237
44654	4653	HARTTemperatureUnit	HART temperature unit Selects the HART communication unit for temperature.	R	Y	Y	Y	int	-	-	uint8	-	C (32) K (35) F (33)	32	32	35
44655	4654	HARTVelUnit	HART velocity unit Selects the HART communication unit for flow velocity.	R	Y	Y	Y	int	-	-	uint8	-	m/s (21) ft/s (20)	21	20	21
44658	4657	HARTVolFlowRateUnit	HART volumetric flow rate unit Specifies the HART communication unit for volumetric flow rate. This unit is derived from the volume unit (HARTVolUnit) and the flow rate time unit (HARTRateTimeUnit).	R				int	-	-	uint8	-	m3/sec (28) m3/min (131) m3/hr (19) m3/day (29) L/s (24) L/min (17) L/hr (138) L/day (246) bbl/s (132) bbl/min (133) bbl/hr (134) bbl/day (135) gal/s (22) gal/min (16) gal/hr (136) gal/day (235)			
44701	4700	Reserved		R				int								
44703	4702	Reserved		R				int								
44704	4703	Reserved		R				int								
44705	4704	Reserved		R				int								
44706	4705	Reserved		R				int								
44707	4706	Reserved		R				int								
44708	4707	Reserved		R				int								
44751	4750	Reserved		R				int								
44753	4752	Reserved		R				int								
44754	4753	Reserved		R				int								
44755	4754	Reserved		R				int								
44756	4755	Reserved		R				int								
44757	4756	Reserved		R				int								
44758	4757	Reserved		R				int								

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45001	5000	IsConfigProtected	Indicates the state of the write protect switch This indicates the state of the write protect switch (CPU Module switch position 3). When CPU Module switch position 3 is in the "ON" position, data points protected by the switch (Write Protected by Switch=Yes) cannot be written to the meter and this data point is TRUE (1). This is also applied to write protecting HART parameters.	R	Y			int	-	-	boolean	-	Configuration not protected (FALSE) Configuration protected (TRUE)			
45002	5001	DhcpServerEnabledStatus	Is the DHCP Server enabled Shows the current status of the DHCP server switch (CPU Module switch position 2). When the switch is in the "ON" position, the meter has IP address 192.168.135.100 and is enabled to act as a DHCP server for DHCP clients connected to the Ethernet port. A maximum of 10 DHCP clients can connect to the meter and the range of client IP addresses assigned is 192.168.135.35 to 192.168.135.44. This can be used for direct or stand alone local network connections between the meter and client PCs.	R				int	-	-	boolean	-	DHCP disabled (FALSE) DHCP enabled (TRUE)			
45004	5003	IsClkInvalid	Clock is not set correctly The meter's real-time clock is set to a date in the past. Recommended Actions: 1. The real-time clock has a power backup of about 2 weeks. If the meter has been without power for more than 2 weeks, the real-time clock will first stop updating and later reset back to January 1, 2000. If this is the issue, use either the Field Setup Wizard or the Meter Monitor in MeterLink™ to set the correct date and time. If this does not correct the problem, the real-time clock or its backup power source may be damaged, and the CPU Module should be replaced. 2. The real-time clock has been set to a date that is older than the CPU Module's firmware, i.e. a date in the past. Use either the Field Setup Wizard or the Meter Monitor in MeterLink™ to set the correct date and time. 3. Contact your local area Emerson Flow service representative for assistance in getting a replacement CPU Module.	R				int	-	-	boolean	-	Clock is valid (FALSE) Clock is invalid (TRUE)			
45005	5004	IsAcqModuleError	Acquisition Module error An Acquisition Module-related error has been detected. The CPU Module's measurement LED (MEAS) will flash green when proper communications with the Acquisition Module are restored. Recommended Actions: 1. If the CPU Module's measurement LED (MEAS) is not flashing green, check the acquisition cable between the Acquisition Module and the CPU Module. This is the cable that runs from the CPU Module up in the cylindrical enclosure down to the Acquisition Module in the lower enclosure to which all the transducer cables attach. Use a screwdriver to verify all the connections are secure. 2. If the CPU Module's measurement LED (MEAS) is still not flashing green, check the Acquisition Module error reasons (AcqModuleErrorReasons). 3. Replace the Acquisition Module. Contact your local area Emerson Flow service representative for a replacement module if a spare is not available. 4. If the issue is unresolved, collect a complete Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	No Acquisition Module error (FALSE) Acquisition Module error detected (TRUE)			
45006	5005	IsAlarmLogFull	Alarm archive log is full The alarm archive log is full and the log is not configured to be overwritten automatically. This feature is configured using DoOverwriteUnreadAlarmLog. Recommended Actions: 1. Collect the alarm archive log records using MeterLink™ and allow MeterLink™ to mark them as read which will allow them to be overwritten. 2. If it is desirable to let the meter automatically overwrite the oldest log record once the log is full, use the Edit/Compare configuration in MeterLink™ to change DoOverwriteUnreadAlarmLog to overwrite old records.	R				int	-	-	boolean	-	Log not full (FALSE) Log full (TRUE)			
45007	5006	IsAuditLogFull	Audit archive log is full The audit archive log is full and the log is not configured to be overwritten automatically. This feature is configured using DoOverwriteUnreadAuditLog. Recommended Actions: 1. Collect the audit archive log records using MeterLink™ and allow MeterLink™ to mark them as read which will allow them to be overwritten. 2. If it is desirable to let the meter automatically overwrite the oldest log record once the log is full, use the Edit/Compare configuration in MeterLink™ to change DoOverwriteUnreadAuditLog to overwrite old records.	R				int	-	-	boolean	-	Log not full (FALSE) Log full (TRUE)			
45008	5007	IsDailyLogFull	Daily archive log is full The daily archive log is full and the log is not configured to be overwritten automatically. This feature is configured using DoOverwriteUnreadDailyLog. Recommended Actions: 1. Collect the daily archive log records using MeterLink™ and allow MeterLink™ to mark them as read which will allow them to be overwritten. 2. If it is desirable to let the meter automatically overwrite the oldest log record once the log is full, use the Edit/Compare configuration in MeterLink™ to change DoOverwriteUnreadDailyLog to overwrite old records.	R				int	-	-	boolean	-	Log not full (FALSE) Log full (TRUE)			
45009	5008	IsHourlyLogFull	Hourly archive log is full The hourly archive log is full and the log is not configured to be overwritten automatically. This feature is configured using DoOverwriteUnreadHourlyLog. Recommended Actions: 1. Collect the hourly archive log records using MeterLink™ and allow MeterLink™ to mark them as read which will allow them to be overwritten. 2. If it is desirable to let the meter automatically overwrite the oldest log record once the log is full, use the Edit/Compare configuration in MeterLink™ to change DoOverwriteUnreadHourlyLog to overwrite old records.	R				int	-	-	boolean	-	Log not full (FALSE) Log full (TRUE)			
45010	5009	IsSystemLogFull	System archive log is full The system archive log is full and the log is not configured to be overwritten automatically. This feature is configured using DoOverwriteUnreadSystemLog. Recommended Actions: 1. Collect the system archive log records using MeterLink™ and allow MeterLink™ to mark them as read which will allow them to be overwritten. 2. If it is desirable to let the meter automatically overwrite the oldest log record once the log is full, use the Edit/Compare configuration in MeterLink™ to change DoOverwriteUnreadSystemLog to overwrite old records.	R				int	-	-	boolean	-	Log not full (FALSE) Log full (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45011	5010	IsElecTempOutOfRange	Electronics temperature is out of nominal range The temperature of the electronics is out of its nominal operating range. There are separate limits for the CPU and Acquisition Modules. For the CPU Module, the range is from the CPU temperature low limit (SysTempLoLmt) to the CPU temperature high limit (SysTempHiLmt). For the Acquisition Module, the range is from the Acquisition Module temperature low limit (SysTempAcqModuleLoLmt) to the Acquisition Module temperature high limit (SysTempAcqModuleHiLmt). Operating outside the nominal operating range could lead to a system failure. Recommended Actions: 1. Attempt to warm or cool the meter electronics housing. 2. If the electronics is mounted to the meter and the process fluid in the meter is over 65 °C, you must remote mount the electronics off from the meter body. 3. Collect a Maintenance Log using MeterLink™ while the meter is experiencing the issue, collect an Archive Log (Daily/Hourly/Alarm/Audit/System) using MeterLink™ from the meter and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Electronics temperature within range (FALSE) Electronics temperature out of range (TRUE)			
45012	5011	IsElecVoltOutOfRange	Electronics voltage out of range The CPU Module system voltages or the Acquisition Module system voltages are out-of-range. Valid CPU Module voltages are SysVoltage1V, SysVoltage1V2, SysVoltage2V5, SysVoltage3V3 and valid Acquisition Module System voltages are SysVoltageAcqModule1V2, SysVoltageAcqModule2V5, SysVoltageAcqModule3V3. Recommended Actions: 1. Replace the CPU Module if one or more of the CPU voltages (SysVoltage1V, SysVoltage1V2, SysVoltage2V5 or SysVoltage3V3) is out-of-range. 2. Replace the Acquisition Module if one or more of the Acquisition Module voltages (SysVoltageAcqModule1V2, SysVoltageAcqModule2V5 or SysVoltageAcqModule3V3) is out-of-range. 3. If the issue is unresolved, contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	All electronics voltages within range (FALSE) One or more electronics voltages out of range (TRUE)			
45048	5047	IsFODO4Avail	Frequency/Digital Output 4 available Frequency/Digital Output 4 available indicator based on the CPU Module's I/O board revision. The content is selected by the Frequency/Digital Output 4 source selector (FODO4Source) and the output levels by the Frequency/Digital Output 4 mode selector (FODO4Mode).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45049	5048	IsFODO5Avail	Frequency/Digital Output 5 available Frequency/Digital Output 5 available indicator based on the CPU Module's I/O board revision. The content is selected by the Frequency/Digital Output 5 source selector (FODO5Source) and the output levels by the Frequency/Digital Output 5 mode selector (FODO5Mode).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45050	5049	IsFODO6Avail	Frequency/Digital Output 6 available Frequency/Digital Output 6 available indicator based on the CPU Module's I/O board revision. The content is selected by the Frequency/Digital Output 6 source selector (FODO6Source) and the output levels by the Frequency/Digital Output 6 mode selector (FODO6Mode).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45051	5050	IsPortAAvail	Communication port A available Communication port A available indicator based on the CPU Module's I/O board revision.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45052	5051	IsPortBAvail	Communication port B available Communication port B available indicator based on the optional I/O Module (OptIOModule1Type) configuration.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45053	5052	IsPortCAvail	Communication port C available Communication port C available indicator based on the optional I/O Module (OptIOModule2Type) configuration.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45054	5053	IsFODO1Avail	Frequency/Digital Output 1 available Frequency/Digital Output 1 available indicator based on the CPU Module's I/O board revision. The content is selected by the Frequency/Digital Output 1 source selector (FODO1Source) and the output levels by the Frequency/Digital Output 1 mode selector (FODO1Mode).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45055	5054	IsEth1Avail	Ethernet port 1 available Ethernet port 1 available indicator based on the CPU Module's I/O Board revision.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45056	5055	MaxConnDBAPI	Maximum number of DB API connections This is the upper limit to the number of DB API connections.	RW	Y	Y		int	-	-	uint8	-		10	10	40
45057	5056	Reserved		R				int								
45058	5057	Reserved		R				int								
45059	5058	Reserved		R				int								
45060	5059	Reserved		R				int								
45061	5060	Reserved		R				int								
45062	5061	IsFODO2Avail	Frequency/Digital Output 2 available Frequency/Digital Output 2 available indicator based on the CPU Module's I/O board revision. The content is selected by the Frequency/Digital Output 2 source selector (FODO2Source) and the output levels by the Frequency/Digital Output 2 mode selector (FODO2Mode).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45063	5062	IsFODO3Avail	Frequency/Digital Output 3 available Frequency/Digital Output 3 available indicator based on the CPU Module's I/O board revision. The content is selected by the Frequency/Digital Output 3 source selector (FODO3Source) and the output levels by the Frequency/Digital Output 3 mode selector (FODO3Mode).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45064	5063	IsAO1Avail	Analog Output 1 available Analog Output 1 available indicator based on the CPU Module's I/O board revision.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45065	5064	IsAI1Avail	Analog Input 1 (temperature) available Analog Input 1, live flow-condition temperature (LiveFlowTemperature), available indicator based on the CPU Module's I/O board revision. The connectors for this input are designated as ANALOG IN TT- and TT+.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45066	5065	IsAI2Avail	Analog Input 2 (pressure) available Analog Input 2, live flow-condition pressure (LiveFlowPressure), available indicator based on the CPU Module's I/O board revision. The connectors for this input are designated as ANALOG IN PT- and PT+.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45067	5066	IsAI3Avail	Analog input 3 available Analog input 3 available indicator based on the Optional I/O Module (OptIOModule1Type, OptIOModule2Type) configuration. The connectors for this input are designated as ANALOG IN AI3- and AI3+.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45068	5067	IsDI1Avail	Digital Input 1 available Digital Input 1 available indicator based on the CPU Module's I/O board revision.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45069	5068	IsAO2Avail	Analog Output 2 available Analog Output 2 available indicator based on the CPU Module's I/O board revision.	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45070	5069	IsAO1HARTAvail	Analog Output 1 HART functionality available Indicates whether HART functionality is available on Analog Output 1. It is set to "Not available" when the HART slave is disabled (IsHARTSlaveEnabled) or Analog Output 1 is not available (IsAO1Avail).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45071	5070	IsAO2HARTAvail	Analog Output 2 HART functionality available Indicates whether HART functionality is available on Analog Output 2. It is set to "Not available" when the HART slave is disabled (IsHARTSlaveEnabled) or Analog Output 2 is not available (IsAO2Avail).	R				int	-	-	boolean	-	Not available (FALSE) Available (TRUE)			
45072	5071	Reserved		R				int								
45073	5072	Reserved		R				int								
45074	5073	IsPPPSupported	PPP connections are supported Boolean that indicates if PPP is supported or not. If variable does not exist on a meter, assumed that PPP is not supported.	R				int	-	-	boolean	-				
45075	5074	Reserved		R				int								
45076	5075	HARTTVValidity	HART Third Variable invalid The HART Third Variable value as defined by the HART device variable selection (HARTTVContent) is invalid. Recommended Actions: 1. If an alarm exists for the content selected to be output, resolving that issue should clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45077	5076	HARTQVValidity	HART Fourth Variable invalid The HART Fourth Variable value as defined by the HART device variable selection (HARTQVContent) is invalid. Recommended Actions: 1. If an alarm exists for the content selected to be output, resolving that issue should clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45078	5077	HARTSlot0Validity	HART Command 33 Slot 0 invalid The HART Slot 0 value as defined by the HART device variable selection (HARTSlot0Content) is invalid. Recommended Actions: 1. If an alarm exists for the content selected to be output, resolving that issue should clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45079	5078	HARTSlot1Validity	HART Command 33 Slot 1 invalid The HART Slot 1 value as defined by the HART device variable selection (HARTSlot1Content) is invalid. Recommended Actions: 1. If an alarm exists for the content selected to be output, resolving that issue should clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45080	5079	HARTSlot2Validity	HART Command 33 Slot 2 invalid The HART Slot 2 value as defined by the HART device variable selection (HARTSlot2Content) is invalid. Recommended Actions: 1. If an alarm exists for the content selected to be output, resolving that issue should clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45081	5080	HARTSlot3Validity	HART Command 33 Slot 3 invalid The HART Slot 3 value as defined by the HART device variable selection (HARTSlot3Content) is invalid. Recommended Actions: 1. If an alarm exists for the content selected to be output, resolving that issue should clear this alarm. 2. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45082	5081	IsAcqModuleIncompatible	Acquisition Module is not compatible with the firmware/configuration The firmware cannot work with the installed Acquisition Module. The Acquisition Module may be newer than the firmware and the firmware does not recognize it. The Acquisition Module may be installed on a meter running firmware for the opposite product (Gas/Liquid). The Acquisition Module may be installed on a meter configured with a transducer frequency (XdcrFreq) or sample interval (SampInterval) that is not supported by the module. Recommended Actions: 1. Verify that the transducer frequency and sample interval are set to values supported by the installed Acquisition Module. 2. Upgrade the firmware in the meter to the latest version using MeterLink™. Contact your local area Emerson Flow service representative to obtain the latest firmware. 3. If the latest firmware revision did not resolve the issue, replace the Acquisition Module. 4. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Compatible Acquisition Module (FALSE) Incompatible Acquisition Module (TRUE)			
45083	5082	AvgSndVelIsOutOfLimits	Average speed of sound out of limits (HART-specific) The meter's measured average speed of sound (AvgSndVel) is out of limits (SSMin, SSMax). This alarm is used for HART applications. The non-HART average speed of sound out of limits alarm (IsAvgSoundVelRangeErr) is used for other applications. Recommended Actions: 1. Verify that all chords are measuring the same Speed of Sound within about 0.15%. Look for alarms that indicate transducer problems and resolve any of these issues. This could include failing transducers, debris buildup on transducers or incorrectly entered path lengths in the configuration. 2. If the chords agree well, it is recommended that the minimum (SSMin) or maximum (SSMax) speed of sound be adjusted so the meter's average speed of sound falls within these limits. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Within limits (FALSE) Out of limits (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45084	5083	FlowPressureIsOutOfLimits	Flow-condition pressure out-of-limits The flow-condition pressure (FlowPressure) is outside the limits (MinInputPressure to MaxInputPressure). Recommended Actions: 1. If connected to a pressure transducer, verify that the transducer is functioning properly. Verify that the wiring is correctly connected to TB2-B pins 1 & 2 (ANALOG IN PT- and PT+). Verify that the current is between 4 mA and 20 mA. 2. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits (MinInputPressure and MaxInputPressure) corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 3. Adjust the gain and offset (LiveFlowPressureGain and LiveFlowPressureOffset) so the flow-condition pressure (FlowPressure) is correct. 4. If the issue is unresolved, collect a complete Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Within limits (FALSE) Out of limits (TRUE)			
45085	5084	FlowTemperatureIsOutOfLimits	Flow-condition temperature out-of-limits The flow-condition temperature (FlowTemperature) is outside the limits (MinInputTemperature to MaxInputTemperature). Recommended Actions: 1. If connected to a temperature transducer, verify that the transducer is functioning properly. Verify that the wiring is correctly connected to TB2-B pins 3 & 4 (ANALOG IN TT- and TT+). Verify that the current is between 4 mA and 20 mA. 2. Run the Field Setup Wizard in MeterLink™ to properly configure the input including: Source (Live Analog or Fixed), Min and Max input limits (MinInputTemperature and MaxInputTemperature) corresponding to 4 mA and 20 mA respectively and the Low and High alarm limits. 3. Adjust the gain and offset (LiveFlowTemperatureGain and LiveFlowTemperatureOffset) so the flow-condition temperature (FlowTemperature) is correct. 4. If the issue is unresolved, collect a complete Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Within limits (FALSE) Out of limits (TRUE)			
45086	5085	Reserved		R				int								
45087	5086	Reserved		R				int								
45088	5087	AO1IsFixed	Analog Output 1 (HART PV) is fixed Analog Output 1 current is in test mode and fixed. The current can be fixed by using the Outputs Test dialog of MeterLink™ by placing the output in test mode. Recommended Actions: 1. Once the Analog Output 1 is removed from test mode, this alarm will clear. See also IsAO1EnableTest data point.	R				int	-	-	boolean	-	Current not fixed (FALSE) Current fixed (TRUE)			
45089	5088	AO1IsSaturated	Analog Output 1 (HART PV) is saturated Analog Output 1 is saturated (i.e. the loop current has reached its upper or lower endpoint and cannot increase or decrease any further). Recommended Actions: 1. The analog output may need to be rescaled to prevent it from saturating. Use the Field Setup Wizard in MeterLink™ to configure Analog Output 1.	R				int	-	-	boolean	-	Current not saturated (FALSE) Current saturated (TRUE)			
45090	5089	AO1ActionUponInvalidContent	Analog Output 1 current action upon invalid content Specifies the action for Analog Output 1 current when the content is invalid. No special action is taken when set to None.	RW	Y	Y	Y	int	-	-	uint8	-	High - 20 mA (0) Low - 4 mA (1) Hold last value (239) Very low - 3.5 mA (240) Very high - 20.5 mA (241) None (251)	240	0	251
45091	5090	AO2IsFixed	Analog Output 2 (HART SV) is fixed Analog Output 2 current is in test mode and fixed. The current can be fixed by using the Outputs Test dialog of MeterLink™ by placing the output in test mode. Recommended Actions: 1. Once the Analog Output 2 is removed from test mode, this alarm will clear. See also IsAO2EnableTest data point.	R				int	-	-	boolean	-	Current not fixed (FALSE) Current fixed (TRUE)			
45092	5091	AO2IsSaturated	Analog Output 2 (HART SV) is saturated Analog Output 2 is saturated (i.e. the loop current has reached its upper or lower endpoint and cannot increase or decrease any further). Recommended Actions: 1. The analog output may need to be rescaled to prevent it from saturating. Use the Field Setup Wizard in MeterLink™ to configure Analog Output 2.	R				int	-	-	boolean	-	Current not saturated (FALSE) Current saturated (TRUE)			
45093	5092	AO2ActionUponInvalidContent	Analog Output 2 current action upon invalid content Specifies the action for Analog Output 2 current when the content is invalid. No special action is taken when set to None.	RW	Y	Y	Y	int	-	-	uint8	-	High - 20 mA (0) Low - 4 mA (1) Hold last value (239) Very low - 3.5 mA (240) Very high - 20.5 mA (241) None (251)	240	0	251
45094	5093	ZeroFlowCalStatus	Zero-flow calibration status Current zero-flow calibration status indicator.	R				int	-	-	uint8	-	Inactive (0) In progress (1) Completed successfully (2) Failed - Chord failure (3) Failed - Too large offset (4) Failed - Too large estimated maximum deviation (5) Failed - Calibration method change (6)			
45095	5094	ZeroFlowCalProgress	Zero-flow calibration progress (percent complete) Zero-flow calibration progress (percent complete).	R				int	%	%	uint8	%				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45096	5095	AO1DataValidity	Analog Output 1 data invalid Analog Output 1 (AO1) is invalid. The analog output is considered invalid if the analog output is in test mode or the content the analog output is trying to drive is invalid or the loop current mode is disabled via HART. The content of AO1 is specified by AO1Content. Recommended Actions: 1. If an alarm exists for the content selected to be output on Analog Output 1 (AO1Content), resolving that issue should clear this alarm. 2. If the content selected for Analog Output 1 is not in alarm, then verify that the output is not fixed or set in test mode or the loop current mode has been not been disabled via HART. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45097	5096	AO2DataValidity	Analog Output 2 data invalid Analog Output 2 (AO2) is invalid. The analog output is considered invalid if the analog output is in test mode or the content the analog output is trying to drive is invalid. The content of AO2 is specified by AO2Content. Recommended Actions: 1. If an alarm exists for the content selected to be output on Analog Output 2 (AO2Content), resolving that issue should clear this alarm. 2. If the content selected for Analog Output 2 is not in alarm, then verify that the output is not fixed or set in test mode. 3. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45098	5097	Freq1DataValidity	Frequency Output 1 data invalid The parameter which the Frequency Output 1 is configured to represent is invalid or the output is currently in test mode. Recommended Actions: 1. You can determine whether the output is in test mode by using Meter Outputs in MeterLink™. 2. If the parameter for which Frequency Output 1 is configured is invalid, other alarms will be present that will help you resolve the issue. 3. If the issue is unresolved, collect a Maintenance Log and Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45099	5098	Freq2DataValidity	Frequency Output 2 data invalid The parameter which the Frequency Output 2 is configured to represent is invalid or the output is currently in test mode. Recommended Actions: 1. You can determine whether the output is in test mode by using Meter Outputs in MeterLink™. 2. If the parameter for which Frequency Output 2 is configured is invalid, other alarms will be present that will help you resolve the issue. 3. If the issue is unresolved, collect a Maintenance Log and Archive Log from the meter using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
45101	5100	RTCSecondsSinceEpochRead	System time (read-only) This is used to read the system time in POSIX-compliant "time_t" format (seconds elapsed since midnight January 1, 1970 local time). Use the real-time clock set data point (RTCSecondsSinceEpochSet) to set the system time.	R	Y			long	sec	sec	int32	Epoch sec				
45103	5102	MeterResetTime	Time of the last meter reset Time of the last meter reset in POSIX-compliant "time_t" format (seconds elapsed since midnight January 1, 1970) due to power failure (DidPowerFail), meter warm start (DidWarmStart) or software watchdog reset (WatchDogReset).	R	Y			long	sec	sec	int32	Epoch sec				
45105	5104	CnfgChksumDate	Configuration checksum date Configuration checksum date. This is the date and time of the last configuration change in POSIX-compliant "time_t" format (seconds elapsed since midnight January 1, 1970).	R	Y			long	sec	sec	int32	Epoch sec				
45107	5106	CnfgChksumValue	Configuration checksum value This is the checksum of the meter's configuration. All non-STRING write-protected data points are included in the checksum. The timestamp of the most recent change is in configuration checksum date (CnfgChksumDate).	R	Y			long	-	-	uint32	-				
45151	5150	SysTemp	System temperature System temperature. The temperature is measured on the CPU Module and will read higher than the ambient due to internal heat rise. The alarm limits are system temperature low limit (SysTempLoLmt) and system temperature high limit (SysTempHiLmt). The alarm is IsElecTempOutOfRange.	R				float	deg C	deg F	float32	deg C				
45153	5152	SysVoltage2V5	System 2.5V reading Actual voltage of the system 2.5V supply. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage2V5LoLmt and SysVoltage2V5HiLmt.	R				float	V	V	float32	V				
45155	5154	SysVoltage3V3	System 3.3V reading Actual voltage of the system 3.3V supply. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage3V3LoLmt and SysVoltage3V3HiLmt.	R				float	V	V	float32	V				
45157	5156	Reserved		R				float								
45159	5158	SysVoltage1V	System 1.0V reading Actual voltage of the system 1.0V supply. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage1VLoLmt and SysVoltage1VHiLmt.	R				float	V	V	float32	V				
45161	5160	SysVoltage1V2	System 1.2V reading Actual voltage of the system 1.2V supply. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage1V2LoLmt and SysVoltage1V2HiLmt.	R				float	V	V	float32	V				
45163	5162	SysTempAcqModule	System temperature - Acquisition Module The temperature is measured in the Acquisition Module will read higher than the ambient due to internal heat rise. The alarm limits are system temperature low limit (SysTempAcqModuleLoLmt) and system temperature high limit (SysTempAcqModuleHiLmt). The alarm is IsElecTempOutOfRange.	R				float	deg C	deg F	float32	deg C				
45165	5164	SysVoltageAcqModule1V2	Acquisition Module 1.2V reading Actual voltage of the system 1.2V supply in the Acquisition Module. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage1V2LoLmt and SysVoltage1V2HiLmt.	R				float	V	V	float32	V				
45167	5166	SysVoltageAcqModule2V5	Acquisition Module 2.5V reading Actual voltage of the system 2.5V supply in the Acquisition Module. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage2V5LoLmt and SysVoltage2V5HiLmt.	R				float	V	V	float32	V				
45169	5168	SysVoltageAcqModule3V3	Acquisition Module 3.3V reading Actual voltage of the system 3.3V supply in the Acquisition Module. The alarm is IsElecVoltOutOfRange. The alarm limits are SysVoltage3V3LoLmt and SysVoltage3V3HiLmt.	R				float	V	V	float32	V				

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45201	5200	LinearMtrFctr	Piecewise linearization meter factor Piecewise linearization meter factor. This meter factor is applied to the flow velocity regardless of the selection of the calibration method (CalMethod) data point. It is computed from the piecewise velocities and the corresponding gains plus the offsets.	R				float	-	-	float32	-				
45203	5202	Reserved		R				float								
45205	5204	Reserved		R				float								
45207	5206	Reserved		R				float								
45209	5208	Reserved		R				float								
45211	5210	Reserved		R				float								
45213	5212	Reserved		R				float								
45215	5214	Reserved		R				float								
45217	5216	Reserved		R				float								
45219	5218	Reserved		R				float								
45221	5220	Reserved		R				float								
45223	5222	Reserved		R				float								
45225	5224	Reserved		R				float								
45227	5226	Reserved		R				float								
45229	5228	Reserved		R				float								
45231	5230	Reserved		R				float								
45233	5232	Reserved		R				float								
45235	5234	Reserved		R				float								
45237	5236	Reserved		R				float								
45239	5238	Reserved		R				float								
45241	5240	Reserved		R				float								
45243	5242	Reserved		R				float								
45245	5244	Reserved		R				float								
45247	5246	Reserved		R				float								
45249	5248	Reserved		R				float								
45251	5250	Reserved		R				float								
45253	5252	Reserved		R				float								
45255	5254	Reserved		R				float								
45257	5256	Reserved		R				float								
45259	5258	Reserved		R				float								
45261	5260	Reserved		R				float								
45263	5262	Reserved		R				float								
45265	5264	Reserved		R				float								
45267	5266	Reserved		R				float								
45269	5268	Reserved		R				float								
45271	5270	Reserved		R				float								
45273	5272	Reserved		R				float								
45275	5274	Reserved		R				float								
45277	5276	Reserved		R				float								
45279	5278	Reserved		R				float								
45281	5280	Reserved		R				float								
45283	5282	Reserved		R				float								
45285	5284	Reserved		R				float								
45287	5286	Reserved		R				float								
45289	5288	Reserved		R				float								
45291	5290	Reserved		R				float								
45293	5292	Reserved		R				float								
45295	5294	Reserved		R				float								
45297	5296	Reserved		R				float								
45299	5298	Reserved		R				float								
45301	5300	Reserved		R				float								
45303	5302	Reserved		R				float								
45305	5304	Reserved		R				float								
45307	5306	Reserved		R				float								
45309	5308	Reserved		R				float								
45311	5310	Reserved		R				float								
45313	5312	Reserved		R				float								
45315	5314	Reserved		R				float								
45317	5316	Reserved		R				float								
45319	5318	Reserved		R				float								
45321	5320	Reserved		R				float								
45323	5322	Reserved		R				float								
45325	5324	Reserved		R				float								
45327	5326	Reserved		R				float								
45329	5328	Reserved		R				float								
45331	5330	Reserved		R				float								
45333	5332	Reserved		R				float								
45335	5334	Reserved		R				float								
45337	5336	Reserved		R				float								
45339	5338	Reserved		R				float								
45341	5340	Reserved		R				float								

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45343	5342	Reserved		R				float								
45345	5344	Reserved		R				float								
45347	5346	Reserved		R				float								
45349	5348	Reserved		R				float								
45351	5350	Reserved		R				float								
45353	5352	Reserved		R				float								
45355	5354	Reserved		R				float								
45357	5356	Reserved		R				float								
45361	5360	HighViscosityMethod	High viscosity calibration method selector Selects the calibration method used to determine the flow velocity measurement. If set to disabled, then the linear flow velocity (LinearCalVel) is a result of applying the factory calibration flow coefficients (A coefficients FwdA0, FwdA1, FwdA2, FwdA3, RevA0, RevA1, RevA2 and RevA3) and piecewise linearization meter factor (LinearMtrFctr) to the average weighted flow velocity (AvgWtdFlowVel). If set to enabled, then the linear flow velocity (LinearCalVel) is a result of applying the zero calibration high viscosity flow offset (FwdA0HighViscosity or RevA0HighViscosity) and the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity) to the average weighted flow velocity (AvgWtdFlowVel).	RW	Y	Y		float	-	-	uint8	-	Disabled (0) Enabled (1)	0	0	1
45363	5362	FwdA0HighViscosity	Zero calibration high viscosity forward flow offset The forward flow offset used for high viscosity zero calibration. When the high viscosity method selector (HighViscosityMethod) is set to enabled, then this offset is applied to the average weighted flow velocity (AvgWtdFlowVel) to calculate the factory calibrated flow velocity (DryCalVel).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0	-1	1
45365	5364	RevA0HighViscosity	Zero calibration high viscosity reverse flow offset The reverse flow offset used for high viscosity zero calibration. When the high viscosity method selector (HighViscosityMethod) is set to enabled, then this offset is applied to the average weighted flow velocity (AvgWtdFlowVel) to calculate the factory calibrated flow velocity (DryCalVel).	RW	Y	Y	Y	float	-	-	float32	m/s		0	-1	1
45367	5366	FwdProfileFactor1	Piecewise linearization forward profile factor 1 The first and highest forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 1 (FwdMtrFctrHighViscosity1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero. For profile factors above this point the high viscosity forward meter factor 1 (FwdMtrFctrHighViscosity1) will be applied as the high viscosity linear meter factor (LinearMtrFctrHighViscosity).	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45369	5368	FwdProfileFactor2	Piecewise linearization forward profile factor 2 The second forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 2 (FwdMtrFctrHighViscosity2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45371	5370	FwdProfileFactor3	Piecewise linearization forward profile factor 3 The third forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 3 (FwdMtrFctrHighViscosity3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45373	5372	FwdProfileFactor4	Piecewise linearization forward profile factor 4 The fourth forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 4 (FwdMtrFctrHighViscosity4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45375	5374	FwdProfileFactor5	Piecewise linearization forward profile factor 5 The fifth forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 5 (FwdMtrFctrHighViscosity5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45377	5376	FwdProfileFactor6	Piecewise linearization forward profile factor 6 The sixth forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 6 (FwdMtrFctrHighViscosity6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45379	5378	FwdProfileFactor7	Piecewise linearization forward profile factor 7 The seventh forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 7 (FwdMtrFctrHighViscosity7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45381	5380	FwdProfileFactor8	Piecewise linearization forward profile factor 8 The eighth forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 8 (FwdMtrFctrHighViscosity8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45383	5382	FwdProfileFactor9	Piecewise linearization forward profile factor 9 The ninth forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 9 (FwdMtrFctrHighViscosity9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45385	5384	FwdProfileFactor10	Piecewise linearization forward profile factor 10 The tenth forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 10 (FwdMtrFctrHighViscosity10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45387	5386	FwdProfileFactor11	Piecewise linearization forward profile factor 11 The eleventh forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 11 (FwdMtrFctrHighViscosity11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45389	5388	FwdProfileFactor12	Piecewise linearization forward profile factor 12 The twelfth and lowest forward profile factor used for high viscosity piecewise linearization. It is paired with high viscosity forward meter factor 12 (FwdMtrFctrHighViscosity12) to form an endpoint of a line segment to the next highest endpoint. This line segment is used to interpolate the high viscosity linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero. For profile factors below this point the high viscosity forward meter factor 12 (FwdMtrFctrHighViscosity12) will be applied as the high viscosity linear meter factor (LinearMtrFctrHighViscosity).	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45391	5390	FwdMtrFctrHighViscosity1	Piecewise linearization forward high viscosity meter factor 1 The first forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 1 (FwdProfileFactor1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45393	5392	FwdMtrFctrHighViscosity2	Piecewise linearization forward high viscosity meter factor 2 The second forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 2 (FwdProfileFactor2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45395	5394	FwdMtrFctrHighViscosity3	Piecewise linearization forward high viscosity meter factor 3 The third forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 3 (FwdProfileFactor3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45397	5396	FwdMtrFctrHighViscosity4	Piecewise linearization forward high viscosity meter factor 4 The fourth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 4 (FwdProfileFactor4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45399	5398	FwdMtrFctrHighViscosity5	Piecewise linearization forward high viscosity meter factor 5 The fifth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 5 (FwdProfileFactor5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45401	5400	FwdMtrFctrHighViscosity6	Piecewise linearization forward high viscosity meter factor 6 The sixth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 6 (FwdProfileFactor6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45403	5402	FwdMtrFctrHighViscosity7	Piecewise linearization forward high viscosity meter factor 7 The seventh forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 7 (FwdProfileFactor7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45405	5404	FwdMtrFctrHighViscosity8	Piecewise linearization forward high viscosity meter factor 8 The eighth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 8 (FwdProfileFactor8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45407	5406	FwdMtrFctrHighViscosity9	Piecewise linearization forward high viscosity meter factor 9 The ninth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 9 (FwdProfileFactor9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45409	5408	FwdMtrFctrHighViscosity10	Piecewise linearization forward high viscosity meter factor 10 The tenth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 10 (FwdProfileFactor10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45411	5410	FwdMtrFctrHighViscosity11	Piecewise linearization forward high viscosity meter factor 11 The eleventh forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 11 (FwdProfileFactor11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45413	5412	FwdMtrFctrHighViscosity12	Piecewise linearization forward high viscosity meter factor 12 The twelfth forward meter factor used for high viscosity piecewise linearization. It is paired with forward profile factor 12 (FwdProfileFactor12) to form an endpoint of a line segment to the next highest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45415	5414	RevProfileFactor1	Piecewise linearization reverse profile factor 1 The first and highest reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 1 (RevMtrFctrHighViscosity1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero. For profile factors above this point the high viscosity reverse meter factor 1 (RevMtrFctrHighViscosity1) will be applied as the high viscosity linear meter factor (LinearMtrFctrHighViscosity).	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45417	5416	RevProfileFactor2	Piecewise linearization reverse profile factor 2 The second reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 2 (RevMtrFctrHighViscosity2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45419	5418	RevProfileFactor3	Piecewise linearization reverse profile factor 3 The third reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 3 (RevMtrFctrHighViscosity3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45421	5420	RevProfileFactor4	Piecewise linearization reverse profile factor 4 The fourth reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 4 (RevMtrFctrHighViscosity4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45423	5422	RevProfileFactor5	Piecewise linearization reverse profile factor 5 The fifth reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 5 (RevMtrFctrHighViscosity5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45425	5424	RevProfileFactor6	Piecewise linearization reverse profile factor 6 The sixth reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 6 (RevMtrFctrHighViscosity6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45427	5426	RevProfileFactor7	Piecewise linearization reverse profile factor 7 The seventh reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 7 (RevMtrFctrHighViscosity7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45429	5428	RevProfileFactor8	Piecewise linearization reverse profile factor 8 The eighth reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 8 (RevMtrFctrHighViscosity8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45431	5430	RevProfileFactor9	Piecewise linearization reverse profile factor 9 The ninth reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 9 (RevMtrFctrHighViscosity9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45433	5432	RevProfileFactor10	Piecewise linearization reverse profile factor 10 The tenth reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 10 (RevMtrFctrHighViscosity10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45435	5434	RevProfileFactor11	Piecewise linearization reverse profile factor 11 The eleventh reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 11 (RevMtrFctrHighViscosity11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linearization meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero.	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45437	5436	RevProfileFactor12	Piecewise linearization reverse profile factor 12 The twelfth and lowest reverse profile factor used for high viscosity piecewise linearization. It is paired with high viscosity reverse meter factor 12 (RevMtrFctrHighViscosity12) to form an endpoint of a line segment to the next highest endpoint. This line segment is used to interpolate the high viscosity linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to zero. For profile factors below this point the high viscosity reverse meter factor 12 (RevMtrFctrHighViscosity12) will be applied as the high viscosity linear meter factor (LinearMtrFctrHighViscosity).	RW	Y	Y	Y	float	-	-	float32	-		0	0	2.5
45439	5438	RevMtrFctrHighViscosity1	Piecewise linearization reverse high viscosity meter factor 1 The first reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 1 (RevProfileFactor1) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45441	5440	RevMtrFctrHighViscosity2	Piecewise linearization reverse high viscosity meter factor 2 The second reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 2 (RevProfileFactor2) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45443	5442	RevMtrFctrHighViscosity3	Piecewise linearization reverse high viscosity meter factor 3 The third reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 3 (RevProfileFactor3) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45445	5444	RevMtrFctrHighViscosity4	Piecewise linearization reverse high viscosity meter factor 4 The fourth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 4 (RevProfileFactor4) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45447	5446	RevMtrFctrHighViscosity5	Piecewise linearization reverse high viscosity meter factor 5 The fifth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 5 (RevProfileFactor5) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45449	5448	RevMtrFctrHighViscosity6	Piecewise linearization reverse high viscosity meter factor 6 The sixth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 6 (RevProfileFactor6) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45451	5450	RevMtrFctrHighViscosity7	Piecewise linearization reverse high viscosity meter factor 7 The seventh reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 7 (RevProfileFactor7) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45453	5452	RevMtrFctrHighViscosity8	Piecewise linearization reverse high viscosity meter factor 8 The eighth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 8 (RevProfileFactor8) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45455	5454	RevMtrFctrHighViscosity9	Piecewise linearization reverse high viscosity meter factor 9 The ninth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 9 (RevProfileFactor9) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
45457	5456	RevMtrFctrHighViscosity10	Piecewise linearization reverse high viscosity meter factor 10 The tenth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 10 (RevProfileFactor10) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45459	5458	RevMtrFctrHighViscosity11	Piecewise linearization reverse high viscosity meter factor 11 The eleventh reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 11 (RevProfileFactor11) to form an endpoint of a line segment to the next lowest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45461	5460	RevMtrFctrHighViscosity12	Piecewise linearization reverse high viscosity meter factor 12 The twelfth reverse meter factor used for high viscosity piecewise linearization. It is paired with reverse profile factor 12 (RevProfileFactor12) to form an endpoint of a line segment to the next highest endpoint. This line segment is used to interpolate the high viscosity piecewise linear meter factor (LinearMtrFctrHighViscosity). If it is unused it should be set to one.	RW	Y	Y	Y	float	-	-	float32	-		1	0.9	1.1
45463	5462	LinearMtrFctrHighViscosity	High viscosity piecewise linearization meter factor This meter factor is applied to the factory calibrated flow velocity (DryCalVel) when the high viscosity calibration method (HighViscosityMethod) is enabled. It is computed from the high viscosity piecewise linearization profile factors (FwdProfileFactor1..FwdProfileFactor12 or RevProfileFactor1..RevProfileFactor12) and the corresponding piecewise linearization high viscosity meter factors (FwdMtrFctrHighViscosity1..FwdMtrFctrHighViscosity12 or RevMtrFctrHighViscosity1..RevMtrFctrHighViscosity12).	R	Y			float	-	-	float32	-				
45465	5464	CalProfileFactor	Calibration average profile factor This is the average profile factor (ProfileFactor) while the timed calibration flag (CalFlag) is set to TRUE (1) or while the DI1 gates the calibration when DI1 is configured to synchronize calibration (IsDI1UsedForCal).	R				float	-	-	float32	-				
45467	5466	Freq1FullScaleProfileFactor	Frequency Output 1 pair profile factor corresponding to the maximum frequency Specifies the Frequency Output 1 pair profile factor corresponding to the maximum frequency selected (Freq1MaxFrequency) when the Frequency Output 1 pair content (Freq1Content) is set to profile factor (ProfileFactor).	RW	Y	Y	Y	float	-	-	float32	-		2.5	0	5
45469	5468	Freq2FullScaleProfileFactor	Frequency Output 2 pair profile factor corresponding to the maximum frequency Specifies the Frequency Output 2 pair profile factor corresponding to the maximum frequency selected (Freq2MaxFrequency) when the Frequency Output 2 pair content (Freq2Content) is set to profile factor (ProfileFactor).	RW	Y	Y	Y	float	-	-	float32	-		2.5	0	5
45471	5470	AI1Input	Analog input 1 (temperature) current value Analog input 1 (temperature) current value, represents live flow-condition temperature (LiveFlowTemperature).	R				float	ma	ma	float32	ma				
45473	5472	AI2Input	Analog input 2 (pressure) current value Analog input 2 (pressure) current value, represents live flow-condition pressure (LiveFlowPressure).	R				float	ma	ma	float32	ma				
45475	5474	AI3Input	Analog input 3 current value Analog input 3 current value, available when Expansion I/O Module is connected.	R				float	ma	ma	float32	ma				
48099	8098	OptIOModule2Type	Slot 2 Optional I/O Module type Optional I/O Module type present in slot 2 of the electronics backplane. If meter does not have a second slot then module type is Slot not present (255).	R				long	-	-	uint8	-	None (0) RS-232 (1) RS-485 (2) Expansion I/O (3) Slot not present (255)			
48999	8998	CPUBdSerialNumber	CPU Module serial number The CPU Module serial number is on a label on the CPU Module. Its minimum expected value is 0018000.	R				long	-	-	uint32	-				
49001	9000	DeviceNumber	Meter device number Changing this value requires warm-starting the meter. This value should only be changed at the factory or when replacing a CPU Module in the field.	R	Y	Y	Y	long	-	-	uint16	-	3814 - Four-path (3814) 3812 - Dual-path (3812)	3814	3812	3814
49003	9002	CPUBdSerialNumber	CPU Module serial number The CPU Module serial number is on a label on the CPU Module. Its minimum expected value is 0018000.	R				long	-	-	uint32	-				
49005	9004	CPUBdRevNum	CPU Module revision number The CPU Module hardware revision. The CPU Module and the I/O board (IOBdType) make up the CPU Module.	R				long	-	-	uint16	-				
49007	9006	CPUBdSwIntVer	CPU Module firmware version number as integer CPU Module firmware version number (CPUBdSwVer) (read as an integer for Modbus compatibility).	R				long	-	-	uint32	-				
49009	9008	CPUBdFPGAVer	CPU Module FPGA version The CPU Module FPGA (field-programmable gate array) version that correlates to the firmware version number (CPUBdSwVer).	R				long	-	-	uint16	-				
49011	9010	DSPBdRevNum	DSP Board revision number The revision number of the DSP board. Along with the transducer interface board (XdcrIntBdRevNum), the DSP board is one of the two boards in the Acquisition Module.	R	Y			long	-	-	uint16	-				
49013	9012	AcquisitionBdFPGAVer	Acquisition Module FPGA version The Acquisition Module FPGA (field-programmable gate array) version that correlates to the firmware version number (CPUBdSwVer).	R				long	-	-	uint16	-				
49015	9014	IOBdType	I/O board type number Type number of the I/O board. The I/O board and the CPU (CPUBdRevNum) make up the CPU Module.	R	Y			long	-	-	uint16	-				
49017	9016	XdcrIntBdRevNum	Transducer interface board revision number The revision number of the transducer interface board. Along with the DSP board (DSPBdRevNum), the transducer interface board is one of the two boards in the Acquisition Module.	R				long	-	-	uint16	-				
49019	9018	DatabaseConfigVersion	Database configuration version Sequentially numbered major changes to the database. Normally incremented only when structural changes are performed such as adding or removal of fields. Minor changes such as adding records (database points) are indicated by the build number (DatabaseBuildNumber). When taken together the version and the build number (DatabaseBuildNumber) uniquely describe a particular version of the database. This is often described using a decimal point to separate the major and minor numbers as XXX.YYY where XXX is the version and YYY is the build number (DatabaseBuildNumber). When the version is changed the meter will cold start.	R				long	-	-	uint16	-				
49021	9020	DatabaseBuildNumber	Database configuration build number Sequentially numbered revisions between major changes to the database (DatabaseConfigVersion).	R				long	-	-	uint8	-				
49023	9022	AcqBdSwIntVer	Acquisition Module firmware version number as integer Acquisition Module firmware version number (read as an integer for Modbus compatibility).	R				long	-	-	uint32	-				
49025	9024	OptIOModule1Type	Slot 1 Optional I/O Module type Optional I/O Module type present in slot 1 of the electronics backplane.	R				long	-	-	uint8	-	None (0) RS-232 (1) RS-485 (2) Expansion I/O (3)			
49027	9026	ElectronicsPlatform	Electronics platform on which the meter is running Electronics platform on which the meter is running.	R				long	-	-	uint8	-	3804 (0) 3810 Series (1)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49029	9028	ChordalConfig	Chordal configuration The arrangement of the chords on meters with four or more sets of transducers. The chord arrangement is determined by the X dimensions (XA, XB, XC and XD). Meter with fewer than four sets of transducers, as defined by the device number (DeviceNumber), are set to a chordal configuration of N/A (0).	R	Y			long	-	-	uint8	-	N/A (0) BG (2)			
49031	9030	HARTManufacturerIDCode	HART manufacturer ID code HART manufacturer ID code. HART slave devices are identified by their manufacturer ID, device type (HARTDeviceType) and device revision (HARTDeviceRevisionLevel).	R				long	-	-	uint8	-	Rosemount (38)			
49033	9032	HARTDeviceType	HART device type HART device type. HART slave devices are identified by their manufacturer ID (HARTManufacturerIDCode), device type and device revision (HARTDeviceRevisionLevel).	R				long	-	-	uint8	-	154 - Liquid 3810 Series meter (154)			
49035	9034	HARTMinNumPreambles	HART (via AO1) minimum number of Master command preamble bytes HART, via AO1, minimum number of Master command preamble bytes.	R	Y	Y	Y	long	-	-	uint8	-		5	5	20
49037	9036	HARTUnivCmdMajorRevision	HART universal command major revision number HART universal command major revision number.	R	Y			long	-	-	uint8	-				
49039	9038	HARTDeviceRevisionLevel	HART device revision level HART device revision level. HART slave devices are identified by their manufacturer ID (HARTManufacturerIDCode), device type (HARTDeviceType) and device revision level.	R				long	-	-	uint8	-				
49041	9040	HARTSoftwareRevisionLevel	HART device software revision level HART device software revision level.	R				long	-	-	uint8	-				
49043	9042	HARTHardwareRevisionLevel	HART device hardware revision level HART device hardware revision level. For the ultrasonic meter, this is the CPU Module's I/O board type (IOBdType).	R				long	-	-	uint8	-				
49045	9044	HARTPhysicalSignalingCode	HART physical signaling code HART physical signaling code.	R	Y			long	-	-	uint8	-	Bell 202 current (0)			
49047	9046	HARTFlagAssignments	HART flag assignments HART flag assignments.	R	Y			long	-	-	uint8	-	Multi-sensor field device (1)			
49049	9048	HARTDeviceID	Unique HART device ID Unique HART device ID. This number is different for every device manufactured by Rosemount with this device type. It is identical to CPUBdSerialNumber	R	Y			long	-	-	uint32	-				
49051	9050	ProgramChksum	Program checksum value This is the checksum of the meter's programs. All NOR flash program partitions are included in the checksum.	R	Y			long	-	-	uint32	-				
49061	9060	Reserved		R				long								
49063	9062	Reserved		R				long								
49065	9064	Reserved		R				long								
49067	9066	Reserved		R				long								
49069	9068	Reserved		R				long								
49071	9070	Reserved		R				long								
49073	9072	Reserved		R				long								
49075	9074	Reserved		R				long								
49077	9076	Reserved		R				long								
49079	9078	Reserved		R				long								
49091	9090	Reserved		R				long								
49093	9092	Reserved		R				long								
49095	9094	Reserved		R				long								
49097	9096	Reserved		R				long								
49099	9098	Reserved		R				long								
49101	9100	Reserved		R				long								
49103	9102	Reserved		R				long								
49105	9104	Reserved		R				long								
49107	9106	Reserved		R				long								
49109	9108	Reserved		R				long								
49111	9110	AO2Content	Analog Output 2 content (and HART secondary variable) Selects the data to be represented by Analog Output 2.Is used for HART communication as the Secondary Variable content.	RW	Y	Y	Y	long	-	-	int32	-	Uncorrected volume flow rate (0) Average flow velocity (2) Average speed of sound (3)	0	0	3
49113	9112	AO2Dir	Selects the flow direction represented by the Analog Output 2 Selects the flow direction represented by Analog Output 2. When set to "Reverse" or "Forward", the analog output represents the specified content when the flow is in selected direction. When set to "Absolute", the analog output represents the specified content regardless of the flow direction.	RW	Y	Y	Y	long	-	-	int32	-	Reverse (0) Forward (1) Absolute (2)	2	0	2
49115	9114	Reserved		R				long								
49117	9116	Reserved		R				long								
49151	9150	Reserved		R				float								
49153	9152	Reserved		R				float								
49155	9154	Reserved		R				float								
49157	9156	Reserved		R				float								
49159	9158	Reserved		R				float								
49161	9160	Reserved		R				float								
49163	9162	Reserved		R				float								
49165	9164	Reserved		R				float								
49167	9166	Reserved		R				float								
49169	9168	Reserved		R				float								
49171	9170	Reserved		R				float								
49173	9172	Reserved		R				float								
49175	9174	Reserved		R				float								
49177	9176	Reserved		R				float								
49179	9178	Reserved		R				float								
49181	9180	Reserved		R				float								
49183	9182	Reserved		R				float								
49185	9184	Reserved		R				float								
49187	9186	Reserved		R				float								

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49189	9188	Reserved		R				float								
49191	9190	RunningAvgFlowTemperature	Flow temperature one minute average A running average of flow-condition temperature (FlowTemperature) over one minute when the running averages are valid (IsRunningAvgValid).	R				float	deg C	deg F	float32	K				
49193	9192	RunningAvgFlowPressure	Flow pressure one minute average A running average of flow-condition pressure (FlowPressure) over one minute when the running averages are valid (IsRunningAvgValid).	R				float	MPa	psi	float32	MPa				
49195	9194	RunningAvgTurbulenceA	Chord A turbulence one minute average A running average of chord A turbulence over one minute when the running averages are valid (IsRunningAvgValid).	R				float	%	%	float32	%				
49197	9196	RunningAvgTurbulenceB	Chord B turbulence one minute average A running average of chord B turbulence over one minute when the running averages are valid (IsRunningAvgValid).	R				float	%	%	float32	%				
49199	9198	RunningAvgTurbulenceC	Chord C turbulence one minute average A running average of chord C turbulence over one minute when the running averages are valid (IsRunningAvgValid).	R				float	%	%	float32	%				
49201	9200	RunningAvgTurbulenceD	Chord D turbulence one minute average A running average of chord D turbulence over one minute when the running averages are valid (IsRunningAvgValid).	R				float	%	%	float32	%				
49203	9202	RunningAvgAvgFlow	Avg flow averaged for one minute A running average of average flow velocity (AvgFlow) over one minute when the running averages are valid (IsRunningAvgValid).	R				float	m/s	ft/s	float32	m/s				
49205	9204	RunningAvgCrossFlow	Cross-flow one minute average A running average of cross-flow (CrossFlow) over one minute when the running averages are valid (IsRunningAvgValid).	R				float	-	-	float32	-				
49207	9206	RunningAvgProfileFactor	Profile factor one minute average A running average of profile factor (ProfileFactor) over one minute when the running averages are valid (IsRunningAvgValid).	R				float	-	-	float32	-				
49209	9208	RunningAvgSymmetry	Symmetry one minute average A running average of symmetry (Symmetry) over one minute when the running averages are valid (IsRunningAvgValid).	R				float	-	-	float32	-				
49211	9210	RunningSDevCrossFlow	Running standard deviation of cross-flow over a minute A running average of standard deviation of cross-flow (SDevCrossFlow) over a minute when the running averages are valid (IsRunningAvgValid).	R				float	-	-	float32	-				
49213	9212	RunningSDevProfileFactor	Running standard deviation of the profile factor over a minute A running average of standard deviation of the profile factor (SDevProfileFactor) over a minute when the running averages are valid (IsRunningAvgValid).	R				float	-	-	float32	-				
49215	9214	RunningSDevSymmetry	Running standard deviation of symmetry over a minute A running average of standard deviation of symmetry (SDevSymmetry) over a minute when the running averages are valid (IsRunningAvgValid).	R				float	-	-	float32	-				
49217	9216	ReverseFlowVol	Accumulated volume for reverse flow alarm Volume flowed from continuous flow in reverse direction. This volume is compared to the reverse flow limit (ReverseFlowVolLmt) to determine the reverse flow alarm (IsReverseFlowDetected). It is only accumulated when the flow velocity (AvgWtdFlowVel) is below the reverse flow velocity threshold (ReverseFlowDetectionZeroCut).	R				float	volume	volume	float32	m3				
49219	9218	SignalAmplitudeA1	Batch average signal amplitude on path A1 Batch average of the signal amplitude when transducer A1 receives a signal.	R				float	mV	mV	float32	mV				
49221	9220	SignalAmplitudeA2	Batch average signal amplitude on path A2 Batch average of the signal amplitude when transducer A2 receives a signal.	R				float	mV	mV	float32	mV				
49223	9222	SignalAmplitudeB1	Batch average signal amplitude on path B1 Batch average of the signal amplitude when transducer B1 receives a signal.	R				float	mV	mV	float32	mV				
49225	9224	SignalAmplitudeB2	Batch average signal amplitude on path B2 Batch average of the signal amplitude when transducer B2 receives a signal.	R				float	mV	mV	float32	mV				
49227	9226	SignalAmplitudeC1	Batch average signal amplitude on path C1 Batch average of the signal amplitude when transducer C1 receives a signal.	R				float	mV	mV	float32	mV				
49229	9228	SignalAmplitudeC2	Batch average signal amplitude on path C2 Batch average of the signal amplitude when transducer C2 receives a signal.	R				float	mV	mV	float32	mV				
49231	9230	SignalAmplitudeD1	Batch average signal amplitude on path D1 Batch average of the signal amplitude when transducer D1 receives a signal.	R				float	mV	mV	float32	mV				
49233	9232	SignalAmplitudeD2	Batch average signal amplitude on path D2 Batch average of the signal amplitude when transducer D2 receives a signal.	R				float	mV	mV	float32	mV				
49235	9234	NoiseAmplitudeA1	Batch average noise amplitude on path A1 Batch average of the noise amplitude when transducer A1 receives a signal.	R				float	mV	mV	float32	mV				
49237	9236	NoiseAmplitudeA2	Batch average noise amplitude on path A2 Batch average of the noise amplitude when transducer A2 receives a signal.	R				float	mV	mV	float32	mV				
49239	9238	NoiseAmplitudeB1	Batch average noise amplitude on path B1 Batch average of the noise amplitude when transducer B1 receives a signal.	R				float	mV	mV	float32	mV				
49241	9240	NoiseAmplitudeB2	Batch average noise amplitude on path B2 Batch average of the noise amplitude when transducer B2 receives a signal.	R				float	mV	mV	float32	mV				
49243	9242	NoiseAmplitudeC1	Batch average noise amplitude on path C1 Batch average of the noise amplitude when transducer C1 receives a signal.	R				float	mV	mV	float32	mV				
49245	9244	NoiseAmplitudeC2	Batch average noise amplitude on path C2 Batch average of the noise amplitude when transducer C2 receives a signal.	R				float	mV	mV	float32	mV				
49247	9246	NoiseAmplitudeD1	Batch average noise amplitude on path D1 Batch average of the noise amplitude when transducer D1 receives a signal.	R				float	mV	mV	float32	mV				
49249	9248	NoiseAmplitudeD2	Batch average noise amplitude on path D2 Batch average of the noise amplitude when transducer D2 receives a signal.	R				float	mV	mV	float32	mV				
49251	9250	FlowAnalysisHighFlowLmt	Upper flow velocity limit for performing flow analysis diagnostics The upper flow velocity limit for performing Dual-Configuration meter diagnostics (IsColocMeterQFlowRangeErr and IsColocMeterSndSpdRangeErr) and gating "flow analysis gated" values in daily and hourly logs.	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		14.63	1	50
49253	9252	FlowAnalysisLowFlowLmt	Lower flow velocity limit for performing flow analysis diagnostics The lower flow velocity limit for performing Dual-Configuration meter diagnostics (IsColocMeterQFlowRangeErr and IsColocMeterSndSpdRangeErr) and gating "flow analysis gated" values in daily and hourly logs. This value may not be less than the lower velocity threshold (ZeroCut).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0.61	-3.40E+38	3.40E+38
49255	9254	ReverseFlowVolLmt	Reverse flow alarm limit This is the limit for the reverse flow alarm (IsReverseFlowDetected). If the volume for reverse flow (ReverseFlowVol) exceeds this value with continuous reverse flow, the reverse flow alarm will be set.	RW	Y	Y	Y	float	volume	volume	float32	m3		0	0	3.40E+38
49257	9256	ReverseFlowDetectionZeroCut	Velocity threshold below which reverse flow volume accumulates Velocity threshold below which the flow velocity is considered reversed (and thus the reverse flow volume (ReverseFlowVol) is accumulated).	RW	Y	Y	Y	float	m/s	ft/s	float32	m/s		0.1	0	3.40E+38

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49259	9258	SDevCrossFlow	Standard deviation of cross-flow Standard deviation of cross-flow calculated using measurement sequences received in a batch. This is used to calculate one minute running average of standard deviation of cross-flow (RunningSDevCrossFlow).	R				float	-	-	float32	-				
49261	9260	SDevProfileFactor	Standard deviation of profile factor Standard deviation of profile factor calculated using measurement sequences received in a batch. This is used to calculate one minute running average of standard deviation of profile factor (RunningSDevProfileFactor).	R				float	-	-	float32	-				
49263	9262	SDevSymmetry	Standard deviation of symmetry Standard deviation of symmetry calculated using measurement sequences received in a batch. This is used to calculate one minute running average of standard deviation of symmetry (RunningSDevSymmetry).	R				float	-	-	float32	-				
49276	9275	AreSwComponentsCompatible	Kernel, File System and Firmware are compatible versions When TRUE (1), the versions of the kernel (OSVer), file system (FileSysVer) and firmware (CPUBdSwVer), are compatible with each other. When FALSE (0), the appropriate software component(s) need to be updated.	R				int	-	-	boolean	-				
49277	9276	AreSwComponentsIncompatible	Kernel, File System and Firmware are not compatible versions The inversion of the software compatibility Boolean (AreSwComponentsCompatible) for the Modbus system status bit field (SystemStatus). When FALSE (0), the versions of the kernel, file system and firmware are compatible with each other. When TRUE (1), the appropriate software component(s) need to be updated.	R				int	-	-	boolean	-				
49278	9277	Reserved		R				int								
49279	9278	Reserved		R				int								
49280	9279	IsRunningAvgValid	One minute average validity Are the values in the one minute averages valid for use with the baseline	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
49281	9280	RunningAvgSwirlAngle	Swirl angle one minute average A running average of swirl angle (SwirlAngle) over one minute when the running averages are valid (IsRunningAvgValid).	R				int	deg	deg	int8	deg				
49282	9281	IsReverseFlowDetected	Reverse flow detected The meter has accumulated a reverse flow volume greater than a user configurable limit. Limits are specified by the reverse flow volume limit (ReverseFlowVolLmt) and by the reverse flow detection zero flow cutoff (ReverseFlowDetectionZeroCut). This alarm may be enabled or disabled (IsReverseFlowDetectionEnabled). This alarm is latched (IsReverseFlowDetectedLatched). Recommended Actions: 1. Check the valves for leaks. 2. If the metering run is known to have some volume of reverse flow when the flow is stopped, reconfigure the reverse flow volume limit (ReverseFlowVolLmt) to allow a greater volume. 3. If the meter regularly flows in the reverse direction, this alarm should be disabled. It is only intended to be used for unidirectional applications. 4. If the issue is unresolved, collect an Archive Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49283	9282	IsAnyBaselineAvail	Baselines supported for this meter type This indicates whether or not the baselines are supported. The value is FALSE (0) for liquid meters.	R	Y			int	-	-	boolean	-	Not Available (FALSE) Available (TRUE)			
49284	9283	SwirlAngleHighLmt	Swirl angle high limit The flow swirl angle limit above the baseline beyond which there is increased uncertainty in flow measurement. It is set internally when the swirl angle limit (SwirlAngleLmt) is set.	R	Y			int	deg	deg	int8	deg				
49285	9284	SwirlAngleLowLmt	Swirl angle low limit The flow swirl angle limit below the baseline beyond which there is increased uncertainty in flow measurement. It is set internally when the swirl angle limit (SwirlAngleLmt) is set.	R				int	deg	deg	int8	deg				
49286	9285	SwirlAngleLmt	Swirl angle limit The flow swirl angle limit around the baseline (SwirlAngleLowLmt, SwirlAngleHighLmt) beyond which there is increased uncertainty in flow measurement.	RW	Y	Y	Y	int	deg	deg	uint8	deg		5	0	90
49301	9300	PressureInvalidLatched	Flow pressure invalid, latched until acknowledged The alarm value for flow-condition pressure (PressureInvalid) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49302	9301	TemperatureInvalidLatched	Flow temperature invalid, latched until acknowledged The alarm value for flow-condition temperature (TemperatureInvalid) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49303	9302	IsAcqModuleErrorLatched	Acquisition Module error, latched until acknowledged The alarm value for Acquisition Module errors (IsAcqModuleError) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49304	9303	IsMeterVelAboveMaxLmtLatched	Meter velocity above max limit, latched until acknowledged The alarm value for the maximum velocity (IsMeterVelAboveMaxLmt) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49305	9304	IsAvgSoundVelRangeErrLatched	Average speed of sound out of limits, latched until acknowledged The latch for the average speed of sound out of limits alarm (IsAvgSoundVelRangeErr) that remains set until manually cleared	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49306	9305	IsAcqModeLatched	Acquisition mode, latched until acknowledged The latched alarm for acquisition mode (IsAcqMode) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49307	9306	IsTooFewOperChordsLatched	Too few operating chords, latched until acknowledged The alarm value for too few chords (IsTooFewOperChords) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49308	9307	IsReverseFlowDetectedLatched	Reverse flow detected, latched until acknowledged The latch for the reverse flow alarm (IsReverseFlowDetected) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49309	9308	IsReverseFlowDetectionEnabled	Enables or disables reverse flow detection Disables reverse flow detection (IsReverseFlowDetected) when set FALSE (0). Setting this to TRUE (1) will enable reverse flow detection.	RW	Y	Y		int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
49310	9309	Reserved		R				int								
49311	9310	Reserved		R				int								
49312	9311	Reserved		R				int								
49313	9312	Reserved		R				int								
49314	9313	Reserved		R				int								
49315	9314	Reserved		R				int								
49316	9315	Reserved		R				int								
49317	9316	Reserved		R				int								
49318	9317	Reserved		R				int								
49319	9318	Reserved		R				int								
49320	9319	Reserved		R				int								
49321	9320	Reserved		R				int								
49322	9321	Reserved		R				int								
49323	9322	Reserved		R				int								

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49324	9323	Reserved		R				int								
49325	9324	Reserved		R				int								
49326	9325	Reserved		R				int								
49327	9326	Reserved		R				int								
49328	9327	Reserved		R				int								
49329	9328	Reserved		R				int								
49330	9329	Reserved		R				int								
49331	9330	Reserved		R				int								
49332	9331	Reserved		R				int								
49333	9332	Reserved		R				int								
49334	9333	Reserved		R				int								
49335	9334	Reserved		R				int								
49336	9335	Reserved		R				int								
49337	9336	Reserved		R				int								
49338	9337	SetXdcrType	Set transducer type Sets the type of transducer installed. Changing this data point will overwrite transducer configuration parameters (XdcrFreq, XdcrNumDriveCycles, DltChkSI, NegSpanSI, PkPlsWdthSI, PosSpanSI, SampPerCycle, SampInterval, TmDevLow1, Tspf, TspfLo, TspfHi, Tspe and Tamp) with default values. Once these transducer configuration values are written, the value of this data point is saved in the transducer type data point (XdcrType), and then set transducer type is set to zero.	RW	Y		Y	int	-	-	uint8	-	Automatically reset by the meter (0) LT-01/LT-03/LT-06/LT-07/LT-08/LT-09/LT-14/LT-15 (1) LT-04 (2) LT-05 (3) LT-10/LT-11/LT-16/LT-17 (4)	0	0	4
49339	9338	XdcrNumDriveCycles	Number of cycles for transducer Number of cycles for transducer. Will be overwritten when transducer type (SetXdcrType) changes.	RW	Y	Y	Y	int	-	-	uint8	-		1	1	2
49340	9339	SampPerCycle	Samples per cycle The number of times the waveform is sampled between two zero crossings with the same slope (one cycle). Usually adjusted by setting the transducer type (SetXdcrType). This value should only be changed at the factory or under the direction of Emerson Flow Support.	RW	Y	Y	Y	int	-	-	uint8	-	8 (8) 10 (10) 12 (12)	10	8	12
49341	9340	ColocMeterMode	Dual-Configuration meter mode Configures the meter to operate as a single head meter ("Disabled", 0), a Dual-Configuration meter's head 1 ("Transmitter Head 1", 1) or a Dual-Configuration meter's head 2 ("Transmitter Head 2", 2). The meters that measure the same flow may share a meter body or be installed in series with each other with only data sharing enabled. The Dual-Configuration meter's mode can be set to "Transmitter Head 1" or "Transmitter Head 2" only if the device number (DeviceNumber) is 3814. When meter is configured as a Dual-Configuration meter, it can be configured to synchronize transducer firing (XdcrFiringSync) and also to enable data sharing and clock synchronization with Dual-Configuration meter (ColocMeterIPAddress).	RW	Y	Y	Y	int	-	-	uint8	-	Disabled (0) Transmitter Head 1 (1) Transmitter Head 2 (2)	0	0	2
49342	9341	XdcrFiringSync	Transducer firing synchronization control Configure transducer firing synchronization to be enabled ("Enabled", 1) or disabled ("Disabled", 0) between Dual-Configuration meters (IsXdcrFiringSyncActive). Transducer firing synchronization can only be enabled ("Enabled", 1) if Dual-Configuration meter mode (ColocMeterMode) is not disabled ("Disabled", 0).	RW	Y	Y	Y	int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	FALSE (0)	FALSE (0)	TRUE (1)
49343	9342	IsXdcrFiringSyncActive	Transducer firing synchronization active in batch This indicates that all waveforms in a batch have Transducer Firing Synchronization (XdcrFiringSync) active.	R				int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)			
49348	9347	IsXdcrFiringSyncError	Transducer firing synchronization error A problem with transducer firing synchronization in a batch (IsXdcrFiringSyncActive) when the transducer firing synchronization (XdcrFiringSync) is enabled and the Dual-Configuration meters' Acquisition Modules are not able to synchronize for multiple consecutive batches (AlarmDef). Possible causes include incorrect configuration, transducer synchronization cable is disconnected or damaged, and one of the two heads is not powered up or power cycling. Recommended Actions: 1. Verify that the transducer synchronization cable is connected between the two Acquisition Modules located in the base enclosures. 2. Verify that both heads are powered up. 3. Verify that the transducer firing synchronization (XdcrFiringSync) is enabled on both heads. 4. Verify that the Dual-Configuration meter mode (ColocMeterMode) is set to "Transmitter Head 1" on one head and "Transmitter Head 2" on the other head. 5. For model number 3818, both heads must have the same configuration for stack size (StackSize), desired stacking transducer emission rate (StackEmRateDesired) and desired transducer emission rate (EmRateDesired). 6. If the issue is unresolved, collect a Maintenance Log using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49349	9348	IsColocMeterCommErr	Dual-Configuration meter communication error The Dual-Configuration meters are not communicating, either due to incorrect configuration or the other head is not reachable. It could also indicate that the Dual-Configuration meter clock is out of sync. Check the Dual-Configuration meter communication error reasons (ColocMeterCommErrReasons) for details. Recommended action: 1. Check the Ethernet connection between the Dual-Configuration meters. 2. Make sure that the Dual-Configuration meter IP address (ColocMeterIPAddress) on the head 1 is the same as the Ethernet IP address (Eth1IPAddr) on the head 2 and vice versa. 3. If the clock synchronization (IsColocMeterClockSyncEnabled) is enabled, make sure that the PTP domain number (PTPDomainNumber) is the same on both meter heads. 4. Collect the Archive Logs (Daily, Hourly, Audit, Alarm, and System) using MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49350	9349	IsColocMeterCommErrLatched	Dual-Configuration meter communication error, latched until acknowledged Latched alarm for Dual-Configuration meter communication error (IsColocMeterCommErr) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49351	9350	IsColocMeterSndSpdRangeCheckEnabled	Enables or disables Dual-Configuration meter speed of sound range check error Enables Dual-Configuration meter speed of sound check feature (IsColocMeterSndSpdRangeCheckFeatureActive) when set TRUE (1). Setting this to FALSE (0) will disable Dual-Configuration meter speed of sound check feature.	RW	Y	Y		int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
49352	9351	IsColocMeterSndSpdRangeCheckFeatureActive	Dual-Configuration meter speed of sound range check feature is active This is TRUE (1), when the Dual-Configuration meter speed of sound range check (IsColocMeterSndSpdRangeCheckEnabled) is TRUE (1), Dual-Configuration meter IP address (ColocMeterIPAddress) is configured with an IP address other than the loopback address or meter's Ethernet IP address (Eth1IPAddr) and Dual-Configuration meter mode (ColocMeterMode) is set to "Transmitter Head 1" or "Transmitter Head 2".	R				int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)			

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The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49353	9352	IsColocMeterSndSpdRangeErr	Dual-Configuration meter speed of sound range check error A Dual-Configuration meter speed of sound range error is detected. This could indicate a problem with the meter or the Dual-Configuration meter which could affect meter measurement. This alarm indicates that the one-hour running average of average speed of sound (ColocMeterRunningAvgAvgSndVel) of the Dual-Configuration meters differ by more than the specified speed of sound range check error limit (ColocMeterSndSpdErrLimit). This alarm is set to TRUE (1), when the condition stated above is met and when the Dual-Configuration meter speed of sound range check feature (IsColocMeterSndSpdRangeCheckFeatureActive) is TRUE (1) and the average speed of sound one-hour running average (IsColocMeterRunningAvgAvgSndVelValid) is TRUE (1) on both heads. The alarm is not set when the average flow velocity (AvgFlow) is less than the diagnostic analysis low flow limit (FlowAnalysisLowFlowLmt) or is greater than the diagnostic analysis high flow limit (FlowAnalysisHighFlowLmt). Recommended Actions: 1. Check there are no active alarm conditions which could be affecting speed of sound measurement. 2. Collect the Archive Logs (Daily, Hourly, Audit, Alarm, and System), Maintenance Log and Waveform stream file using MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.</HTML	R				int	-	-	boolean	-				
49354	9353	IsColocMeterSndSpdRangeErrLatched	Dual-Configuration meter speed of sound range check error, latched until acknowledged Latched alarm for Dual-Configuration meter speed of sound range check error (IsColocMeterSndSpdRangeErr) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49355	9354	IsColocMeterQFlowRangeCheckEnabled	Enables or disables Dual-Configuration meter uncorrected flow rate range check error Enables Dual-Configuration meter flow-condition volumetric flow rate range check feature (IsColocMeterQFlowRangeCheckFeatureActive) when set to TRUE (1). Setting this to FALSE (0) will disable Dual-Configuration meter flow-condition volumetric flow rate range check feature.	RW	Y	Y		int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
49356	9355	IsColocMeterQFlowRangeCheckFeatureActive	Dual-Configuration meter uncorrected flow rate range check feature is active This is TRUE (1), when the Dual-Configuration meter flow-condition volumetric flow rate range check (IsColocMeterQFlowRangeCheckEnabled) is TRUE (1), Dual-Configuration meter IP address (ColocMeterIPAddress) is configured with an IP address other than the loopback address or meter's Ethernet IP address (Eth1IPAddr) and Dual-Configuration meter mode (ColocMeterMode) is set to "Transmitter Head 1" or "Transmitter Head 2".	R				int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)			
49357	9356	IsColocMeterQFlowRangeErr	Dual-Configuration meter uncorrected flow rate range check error A Dual-Configuration meter flow-condition volumetric flow rate range error is detected. This alarm could indicate a problem with the meter or the Dual-Configuration meter which could affect meter measurement. This alarm indicates that the flow-condition volumetric flow rate one-hour running average (ColocMeterRunningAvgQFlow) of the Dual-Configuration meters differ by more than the specified flow-condition volumetric flow rate range check error limit (ColocMeterQFlowErrLimit). This alarm is TRUE (1), when the condition stated above is met and when the Dual-Configuration meter flow-condition volumetric flow rate range check feature (IsColocMeterQFlowRangeCheckFeatureActive) is TRUE (1) and the flow-condition volumetric flow rate one-hour running average (IsColocMeterRunningAvgQFlowValid) is TRUE (1) on both heads. The alarm is not set when the average flow velocity (AvgFlow) is less than the diagnostic analysis low flow limit (FlowAnalysisLowFlowLmt) or is greater than the diagnostic analysis high flow limit (FlowAnalysisHighFlowLmt). Recommended Actions: 1. The alarm could be an indication of possible buildup of material on the meter bore. The meter run should be checked and cleaned if necessary. 2. On meter head 1, check the meter diagnostics Symmetry, SwirlAngle, ProfileFactor and CrossFlow and compare them against their baseline values. 3. Collect the Archive Logs (Daily, Hourly, Audit, Alarm, and System), Maintenance Log and Waveform stream file using MeterLink™ while the meter is experiencing the issue and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49358	9357	IsColocMeterQFlowRangeErrLatched	Dual-Configuration meter uncorrected flow rate range check error, latched until acknowledged Latched alarm for Dual-Configuration meter flow-condition volumetric flow rate range check error (IsColocMeterQFlowRangeErr) that remains set until manually cleared.	RW	Y			int	-	-	boolean	-		FALSE (0)	FALSE (0)	TRUE (1)
49359	9358	IsColocMeterRunningAvgAvgSndVelValid	Average speed of sound running average for Dual-Configuration meter diagnostic error validity The validity of average speed of sound one hour running average (ColocMeterRunningAvgAvgSndVel). This is used for Dual-Configuration meter speed of sound range check error (IsColocMeterSndSpdRangeErr).	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
49360	9359	IsColocMeterRunningAvgQFlowValid	Uncorrected flow rate running average for Dual-Configuration meter diagnostic error validity The validity of Dual-Configuration meter flow-condition volumetric flow rate one hour running average (ColocMeterRunningAvgQFlow). This is used for Dual-Configuration meter flow-condition volumetric flow rate range check error (IsColocMeterQFlowRangeErr).	R				int	-	-	boolean	-	Invalid (FALSE) Valid (TRUE)			
49361	9360	IsColocMeterClockSyncEnabled	Enables or disables clock synchronization with Dual-Configuration meter Enables clock synchronization for a data sharing Dual-Configuration meter when set to TRUE (1) in both transmitter heads.	RW	Y	Y		int	-	-	boolean	-	Disabled (FALSE) Enabled (TRUE)	TRUE (1)	FALSE (0)	TRUE (1)
49362	9361	PTPDomainNumber	PTP domain number Configures the PTP (Precision Time Protocol) domain number. This allows the Dual-Configuration meter's head 2 clock to synchronize to the Dual-Configuration meter's head 1 clock. The Dual-Configuration meter clock synchronization (IsColocMeterClockSyncEnabled) must be enabled on both Dual-Configuration meters to synchronize clock. When set to 128, meaning auto-configure PTP domain, then on the Dual-Configuration meter head 1, the low order octet of Ethernet IP address (Eth1IPAddr) is used as PTP domain number. While on the Dual-Configuration meter head 2, the low order octet of Dual-Configuration meter IP address (ColocMeterIPAddress) is used as the PTP domain number.	RW	Y	Y		int	-	-	uint8	-		128	0	255
49363	9362	ColocMeterCommErrReasons	Dual-Configuration meter communication error reason The reasons for Dual-Configuration meter communication error (IsColocMeterCommErr). 0 – No error 1 – Dual-Configuration meter IP address could not be reached 2 – Previously established connection with Dual-Configuration meter has gone down. This could be due to reasons that can cause the connection to go down, including the remote meter rebooting, network connectivity issues, or problems with the internal system error on the Dual-Configuration meter 3 – Internal error or system call failure 4 – Dual-Configuration meter clock out of sync	R				int	-	-	uint8	-	No error (0) Dual-Configuration meter IP address unreachable (1) Waiting for Dual-Configuration meter response (2) System internal error (3) Dual-Configuration meter clock out of sync (4)			
49364	9363	XdcrType	Transducer type The set of transducers with the same tracking parameters of which the installed transducers are a member. The value is typically set by the set transducer type (SetXdcrType). However, this value may be manually entered or overwritten.	RW	Y	Y	Y	int	-	-	uint8	-	Not set (0) LT-01/LT-03/LT-06/LT-07/LT-08/LT-09/LT-14/LT-15 (1) LT-04 (2) LT-05 (3) LT-10/LT-11/LT-16/LT-17 (4)	0	0	4
49371	9370	ColocMeterSndSpdErrLimit	Error limit for Dual-Configuration meter speed of sound range check error Limit on the difference between average speed of sound one hour average (ColocMeterRunningAvgAvgSndVel) of the Dual-Configuration meters. This is used to generate Dual-Configuration meter speed of sound range check alarm (IsColocMeterSndSpdRangeErr).	RW	Y	Y	Y	float	%	%	float32	%		0.5	0	10

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017

The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49373	9372	ColocMeterQFlowErrLimit	Error limit for Dual-Configuration meter uncorrected flow rate range check error Limit on the difference between flow-condition volumetric flow rate one hour average (ColocMeterRunningAvgQFlow) of the Dual-Configuration meters. This is used to generate Dual-Configuration meter flow-condition volumetric flow rate range check alarm (lsColocMeterQFlowRangeErr).	RW	Y	Y	Y	float	%	%	float32	%		1	0	10
49375	9374	ColocMeterRunningAvgAvgSndVel	Average speed of sound running average for Dual-Configuration meter diagnostic error One hour running average of average speed of sound (AvgSndVel). The running average is updated once in a minute using average speed of sound samples per batch. It is used to indicate Dual-Configuration meter speed of sound range check alarm (lsColocMeterSndSpdRangeErr).	R				float	m/s	ft/s	float32	m/s				
49377	9376	ColocMeterRunningAvgQFlow	Uncorrected flow rate running average for Dual-Configuration meter diagnostic error One hour running average of Dual-Configuration meter flow-condition volumetric flow rate (QFlow). The running average is updated once in a minute using flow-condition volumetric flow rate samples per batch. It is used to indicate Dual-Configuration meter flow-condition volumetric flow rate range check alarm (lsColocMeterQFlowRangeErr).	R				float	volume/time	volume/time	float32	m3/hr				
49401	9400	BatchSeqNum	Batch sequence number The batch sequence number which is zero on a warm start and then incremented each batch period (BatchUpdatePeriod).	R				long	-	-	uint32	-				
49411	9410	XdcrHousingLengthA1	Transducer assembly A1 housing length The length of the transducer assembly A1 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49413	9412	XdcrHousingLengthA2	Transducer assembly A2 housing length The length of the transducer assembly A2 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49415	9414	MeterHousingLengthA	Chord A meter housing length The meter housing length for chord A. The length is located on the tag attached to the ultrasonic meter body and is also included in the Zero Flow Calibration report provided with the meter.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	5
49417	9416	LA	Chord A length ("L" dimension) The distance between the transducer faces on chord A. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.3175	0	5
49419	9418	DltDlyA	Chord A difference in upstream and downstream delay times The adjustment to the chord A delta times (the individual times used for DltTmA (DltTmA)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
49421	9420	AvgDlyA	Chord A average delay time The chord-specific delay for chord A primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
49425	9424	XdcrHousingLengthB1	Transducer assembly B1 housing length The length of the transducer assembly B1 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49427	9426	XdcrHousingLengthB2	Transducer assembly B2 housing length The length of the transducer assembly B2 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49429	9428	MeterHousingLengthB	Chord B meter housing length The meter housing length for chord B. The length is located on the tag attached to the ultrasonic meter body and is also included in the Zero Flow Calibration report provided with the meter.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	5
49431	9430	LB	Chord B length ("L" dimension) The distance between the transducer faces on chord B. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.4445	0	5
49433	9432	DltDlyB	Chord B difference in upstream and downstream delay times The adjustment to the chord B delta times (the individual times used for DltTmB (DltTmB)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
49435	9434	AvgDlyB	Chord B average delay time The chord-specific delay for chord B primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
49439	9438	XdcrHousingLengthC1	Transducer assembly C1 housing length The length of the transducer assembly C1 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49441	9440	XdcrHousingLengthC2	Transducer assembly C2 housing length The length of the transducer assembly C2 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49443	9442	MeterHousingLengthC	Chord C meter housing length The meter housing length for chord C. The length is located on the tag attached to the ultrasonic meter body and is also included in the Zero Flow Calibration report provided with the meter.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	5
49445	9444	LC	Chord C length ("L" dimension) The distance between the transducer faces on chord C. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.4445	0	5
49447	9446	DltDlyC	Chord C difference in upstream and downstream delay times The adjustment to the chord C delta times (the individual times used for DltTmC (DltTmC)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1
49449	9448	AvgDlyC	Chord C average delay time The chord-specific delay for chord C primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
49453	9452	XdcrHousingLengthD1	Transducer assembly D1 housing length The length of the transducer assembly D1 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49455	9454	XdcrHousingLengthD2	Transducer assembly D2 housing length The length of the transducer assembly D2 housing. The length is engraved on the housing body and is also included in the Zero Flow Calibration report.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	0.508
49457	9456	MeterHousingLengthD	Chord D meter housing length The meter housing length for chord D. The length is located on the tag attached to the ultrasonic meter body and is also included in the Zero Flow Calibration report provided with the meter.	RW	Y	Y	Y	float	m	ft	float32	m		0	0	5
49459	9458	LD	Chord D length ("L" dimension) The distance between the transducer faces on chord D. The factory setting should only be changed when changing a transducer or after a meter cold start.	RW	Y	Y	Y	float	m	ft	float32	m		0.3175	0	5
49461	9460	DltDlyD	Chord D difference in upstream and downstream delay times The adjustment to the chord D delta times (the individual times used for DltTmD (DltTmD)) to ensure calibration at zero flow.	RW	Y	Y	Y	float	us	us	float32	us		0	-1	1

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017

The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
49463	9462	AvgDlyD	Chord D average delay time The chord-specific delay for chord D primarily due to the signal processing algorithm and acoustic propagation time within the transducer including the matching layer. It is used in conjunction with the overall system delay (SystemDelay).	RW	Y	Y	Y	float	us	us	float32	us		0	0	50
49473	9472	IsChordLengthMismatchedA	In-use length is not equal to the calculated length for chord A The in-use chord length (LA) does not match the calculated chord length. The meter calculates chord length as, calculated_length = meter_housing_length (MeterHousingLengthA) - transducer1_housing_length (XdcrHousingLengthA1) - transducer2_housing_length (XdcrHousingLengthA2). This alarm is disabled when all the chord component lengths (MeterHousingLengthA, XdcrHousingLengthA1, XdcrHousingLengthA2) are set to zero. When the component lengths are updated, the meter doesn't update the in-use chord length (LA). The in-use chord length shall be updated when updating the chord component lengths when replacing the transducer. Recommended Actions: 1. Open the Transducer Swap-Out wizard in MeterLink™ and verify the component lengths for chord A are correct. Compare them against a Zero Flow Calibration report if you have one or read the values off the individual components. This report can be requested from your Emerson Flow service representative. The wizard will calculate the new chord length (LA) which can be written to the meter if different from the value In Use to clear this alarm. 2. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49474	9473	IsChordLengthMismatchedB	In-use length is not equal to the calculated length for chord B The in-use chord length (LB) does not match the calculated chord length. The meter calculates chord length as, calculated_length = meter_housing_length (MeterHousingLengthB) - transducer1_housing_length (XdcrHousingLengthB1) - transducer2_housing_length (XdcrHousingLengthB2). This alarm is disabled when all the chord component lengths (MeterHousingLengthB, XdcrHousingLengthB1, XdcrHousingLengthB2) are set to zero. When the component lengths are updated, the meter doesn't update the in-use chord length (LB). The in-use chord length shall be updated when updating the chord component lengths when replacing the transducer. Recommended Actions: 1. Open the Transducer Swap-Out wizard in MeterLink™ and verify the component lengths for chord B are correct. Compare them against a Zero Flow Calibration report if you have one or read the values off the individual components. This report can be requested from your Emerson Flow service representative. The wizard will calculate the new chord length (LB) which can be written to the meter if different from the value In Use to clear this alarm. 2. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49475	9474	IsChordLengthMismatchedC	In-use length is not equal to the calculated length for chord C The in-use chord length (LC) does not match the calculated chord length. The meter calculates chord length as, calculated_length = meter_housing_length (MeterHousingLengthC) - transducer1_housing_length (XdcrHousingLengthC1) - transducer2_housing_length (XdcrHousingLengthC2). This alarm is disabled when all chord component lengths (MeterHousingLengthC, XdcrHousingLengthC1, XdcrHousingLengthC2) are set to zero. When the component lengths are updated, the meter doesn't update the in-use chord length (LC). The in-use chord length shall be updated when updating the chord component lengths when replacing the transducer. Recommended Actions: 1. Open the Transducer Swap-Out wizard in MeterLink™ and verify the component lengths for chord C are correct. Compare them against a Zero Flow Calibration report if you have one or read the values off the individual components. This report can be requested from your Emerson Flow service representative. The wizard will calculate the new chord length (LC) which can be written to the meter if different from the value In Use to clear this alarm. 2. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49476	9475	IsChordLengthMismatchedD	In-use length is not equal to the calculated length for chord D The in-use chord length (LD) does not match the calculated chord length. The meter calculates chord length as, calculated_length = meter_housing_length (MeterHousingLengthD) - transducer1_housing_length (XdcrHousingLengthD1) - transducer2_housing_length (XdcrHousingLengthD2). This alarm is disabled when all chord component lengths (MeterHousingLengthD, XdcrHousingLengthD1, XdcrHousingLengthD2) are set to zero. When the component lengths are updated, the meter doesn't update the in-use chord length (LD). The in-use chord length shall be updated when updating the chord component lengths when replacing the transducer. Recommended Actions: 1. Open the Transducer Swap-Out wizard in MeterLink™ and verify the component lengths for chord D are correct. Compare them against a Zero Flow Calibration report if you have one or read the values off the individual components. This report can be requested from your Emerson Flow service representative. The wizard will calculate the new chord length (LD) which can be written to the meter if different from the value In Use to clear this alarm. 2. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
49481	9480	IsChordLengthMismatched	In-use chord length does not match calculated chord length The in-use chord length does not match for one or more chords. See chord alarms for more details (IsChordLengthMismatchedA, IsChordLengthMismatchedB, IsChordLengthMismatchedC, IsChordLengthMismatchedD). Recommended Actions: 1. Open the Transducer Swap-Out wizard in MeterLink™ and verify the component lengths for chord (for four-path meters LA, LB, LC and LD, for dual-path meters LA and LB and for single-path meters LA) are correct. Compare them against a Zero Flow Calibration report if you have one or read the values off the individual components. This report can be requested from your Emerson Flow service representative. The wizard will calculate the new chord lengths which can be written to the meter if different from the value In Use to clear this alarm. 2. 2. If the issue is unresolved, collect Meter Archive Logs (Daily, Hourly, Audit, Alarm and System) with MeterLink™ and contact your local area Emerson Flow service representative.	R				int	-	-	boolean	-				
	65533	Reserved		R				float								
	65534	Reserved		R				long								

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017

The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters

Holding Register Number	Reg Num	Label	Description	Acc	NV	Cnfg	Prot	Modbus Reg Type	Modbus Metric Unit	Modbus U.S. Customary Unit	Native Data Type	Native Data Unit	Selections/Bitmap	Default Value (native unit)	Minimum Value (native unit)	Maximum Value (native unit)
	65535	Reserved		R				int								

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017					
The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters					
Holding Register Number	Type	Register Label	Bit In Register	Status/Alarm/Alert Label	Status-Level
502	INT	IsWarmStartReq	NA	IsWarmStartReq	Red
1300	INT	DidColdStart	NA	DidColdStart	Red
1302	INT	DidCnfgChksumChg	NA	DidCnfgChksumChg	Yellow
1305	INT	WatchDogReset	NA	WatchDogReset	Red
2300	LONG	DataQlty	0	IsHardFailedA	Yellow
			1	IsHardFailedB	Yellow
			2	IsHardFailedC	Yellow
			3	IsHardFailedD	Yellow
			8	Reserved	NA
			16	IsTooFewOperChords	Red
			17	IsMeterVelAboveMaxLmt	Yellow
2458	INT	StatusA	0	DidExceedMaxNoiseA	Yellow
			1	IsSNRTooLowA	Yellow
			2	DidTmDevChkFailA	Yellow
			4	DidDltTmChkFailA	Yellow
			5	IsXdcrMaintenanceRequiredA	Yellow
			6	IsStackingIncompleteA	Yellow
			7	IsChordLengthMismatchedA	Red
			8	IsSigClippedA	Yellow
			9	IsSigQltyBadA	Yellow
			10	IsSigDistortedA	Yellow
			11	IsPeakSwitchDetectedA	Yellow
			12	IsMeasSndSpdRangeA	Yellow
			13	IsBatchInactiveA	Yellow
			14	IsFailedForBatchA	Yellow
			15	IsAcqMode	Red
2459	INT	StatusB	0	DidExceedMaxNoiseB	Yellow
			1	IsSNRTooLowB	Yellow
			2	DidTmDevChkFailB	Yellow
			4	DidDltTmChkFailB	Yellow
			5	IsXdcrMaintenanceRequiredB	Yellow
			6	IsStackingIncompleteB	Yellow
			7	IsChordLengthMismatchedB	Red
			8	IsSigClippedB	Yellow
			9	IsSigQltyBadB	Yellow
			10	IsSigDistortedB	Yellow
			11	IsPeakSwitchDetectedB	Yellow
			12	IsMeasSndSpdRangeB	Yellow
			13	IsBatchInactiveB	Yellow
			14	IsFailedForBatchB	Yellow
			15	IsAcqMode	Red
2460	INT	StatusC	0	DidExceedMaxNoiseC	Yellow
			1	IsSNRTooLowC	Yellow
			2	DidTmDevChkFailC	Yellow
			4	DidDltTmChkFailC	Yellow
			5	IsXdcrMaintenanceRequiredC	Yellow
			6	IsStackingIncompleteC	Yellow
			7	IsChordLengthMismatchedC	Red
			8	IsSigClippedC	Yellow
			9	IsSigQltyBadC	Yellow
			10	IsSigDistortedC	Yellow
			11	IsPeakSwitchDetectedC	Yellow
			12	IsMeasSndSpdRangeC	Yellow
			13	IsBatchInactiveC	Yellow
			14	IsFailedForBatchC	Yellow
			15	IsAcqMode	Red

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017					
The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters					
Holding Register Number	Type	Register Label	Bit In Register	Status/Alarm/Alert Label	Status-Level
2461	INT	StatusD	0	DidExceedMaxNoiseD	Yellow
			1	IsSNRTooLowD	Yellow
			2	DidTmDevChkFailD	Yellow
			4	DidDltTmChkFailD	Yellow
			5	IsXdcrMaintenanceRequiredD	Yellow
			6	IsStackingIncompleteD	Yellow
			7	IsChordLengthMismatchedD	Red
			8	IsSigClippedD	Yellow
			9	IsSigQltyBadD	Yellow
			10	IsSigDistortedD	Yellow
			11	IsPeakSwitchDetectedD	Yellow
			12	IsMeasSndSpdRangeD	Yellow
			13	IsBatchInactiveD	Yellow
			14	IsFailedForBatchD	Yellow
			15	IsAcqMode	Red
2462	INT	SystemStatus	0	Reserved	NA
			1	AreSwComponentsIncompatible	NA
			2	DidPowerFail	Red
			3	IsAcqModuleIncompatible	Red
			4	IsXdcrFiringSyncError	Yellow
			5	IsEstimatedFlowVelocityInUse	Yellow
			6	DidWarmStart	Yellow
			7	IsColocMeterQFlowRangeErr	Yellow
			8	IsTooFewOperChords	Red
			9	IsMeterVelAboveMaxLmt	Yellow
			14	IsReverseFlowDetected	Yellow
			15	WatchDogReset	Red
2464	INT	QMeterValidity	NA	QMeterValidity	Red
2465	INT	QFlowValidity	NA	QFlowValidity	Red
2470	INT	PressureValidity	NA	PressureValidity	Yellow
2471	INT	TemperatureValidity	NA	TemperatureValidity	Yellow
2474	INT	ExpCorrPressValidity	NA	ExpCorrPressValidity	Red
2475	INT	ExpCorrTempValidity	NA	ExpCorrTempValidity	Red
2478	INT	IsAvgSoundVelRangeErr	NA	IsAvgSoundVelRangeErr	Yellow
2492	INT	SystemStatusLatched	7	IsColocMeterQFlowRangeErrLatched	Yellow
			8	IsTooFewOperChordsLatched	Red
			9	IsMeterVelAboveMaxLmtLatched	Yellow
			14	IsReverseFlowDetectedLatched	Yellow
2493	INT	FieldIOStatusLatched	0	IsColocMeterCommErrLatched	Yellow
			1	PressureInvalidLatched	Yellow
			2	TemperatureInvalidLatched	Yellow
2496	INT	SOSCompareStatus	3	IsColocMeterSndSpdRangeErr	Yellow
2497	INT	SOSCompareStatusLatched	3	IsColocMeterSndSpdRangeErrLatched	Yellow
4264	LONG	FieldIOStatus	0	IsColocMeterCommErr	Yellow
			1	PressureInvalid	Yellow
			2	TemperatureInvalid	Yellow
			8	DidResetUsers	Yellow
			18	IsCorePresent	Red
5003	INT	IsClkInvalid	NA	IsClkInvalid	Yellow
5004	INT	IsAcqModuleError	NA	IsAcqModuleError	Red
5005	INT	IsAlarmLogFull	NA	IsAlarmLogFull	Yellow
5006	INT	IsAuditLogFull	NA	IsAuditLogFull	Yellow
5007	INT	IsDailyLogFull	NA	IsDailyLogFull	Yellow
5008	INT	IsHourlyLogFull	NA	IsHourlyLogFull	Yellow
5009	INT	IsSystemLogFull	NA	IsSystemLogFull	Yellow
5010	INT	IsElecTempOutOfRange	NA	IsElecTempOutOfRange	Yellow

Rosemount™ Liquid Ultrasonic Firmware: 1.61 Database: 2.29.017					
The below Modbus map is applicable for Rosemount™ Liquid 4-Path (DeviceNumber 3814) and 2-Path (DeviceNumber 3812) meters					
Holding Register Number	Type	Register Label	Bit In Register	Status/Alarm/Alert Label	Status-Level
5011	INT	IsElecVoltOutOfRange	NA	IsElecVoltOutOfRange	Yellow
5075	INT	HARTTVValidity	NA	HARTTVValidity	Red
5076	INT	HARTQVValidity	NA	HARTQVValidity	Red
5077	INT	HARTSlot0Validity	NA	HARTSlot0Validity	Red
5078	INT	HARTSlot1Validity	NA	HARTSlot1Validity	Red
5079	INT	HARTSlot2Validity	NA	HARTSlot2Validity	Red
5080	INT	HARTSlot3Validity	NA	HARTSlot3Validity	Red
5095	INT	AO1DataValidity	NA	AO1DataValidity	Red
5096	INT	AO2DataValidity	NA	AO2DataValidity	Red
5097	INT	Freq1DataValidity	NA	Freq1DataValidity	Red
5098	INT	Freq2DataValidity	NA	Freq2DataValidity	Red
9302	INT	IsAcqModuleErrorLatched	NA	IsAcqModuleErrorLatched	Red
9304	INT	IsAvgSoundVelRangeErrLatched	NA	IsAvgSoundVelRangeErrLatched	Yellow
9305	INT	IsAcqModeLatched	NA	IsAcqModeLatched	Red
10515	INT	IsQFlowInvalid	NA	IsQFlowInvalid	NA

Modbus notes

1. The units are as shown below (in alphabetical order):

Unit	Description
-	dimensionless or not applicable
%	percent
µs	microseconds
1/degC	inverse degree-Celsius
1/degF	inverse degree-Fahrenheit
1/K	inverse Kelvin
1/MPa	inverse megapascal
1/psi	inverse pounds-per-square-inch
bbl	US petroleum barrel
bits/sec	bits per second
cPoise	centipoise
deg	degrees (angular measure)
deg C	degrees Celsius
deg F	degrees Fahrenheit
energy	energy unit
Epoch sec	time in seconds since Epoch (midnight Jan. 1, 1970)
ft	feet
ft/s	feet per second
gain (dB)	gain in decibels
gal	US liquid gallon
hr	hour
Hz	Hertz
in	inches
K	Kelvin
KHz	kiloHertz
kg/m3	kilogram per cubic meter
L	Liter
lbm/ft3	pounds mas per cubic foot.
m	meters
ma	milliamperes
m/s	meters per second
min	minutes
MPa	MegaPascals
ms	milliseconds
ns	nanoseconds
Pa.s	Pascal seconds
psi	pounds-per-square inch
pulses/volume	pulses per volume where the volume unit is determined by the UnitsSystem, VolUnitUS, and VolUnitMetric data points
s/m	seconds per meter
s2/m2	square seconds per square meter
sample intervals	sample intervals
sec	seconds per meter
sec/ft	seconds per foot
sec2/ft2	square seconds per square foot
Time pulses	Time pulses (0.001000 sec per time pulse)
V	Volts

Modbus notes

volume	volume where the volume unit is determined by the UnitsSystem, VolUnitUS, and VolUnitMetric data points
volume lower	lower volume portion (i.e., amount below overflow of 10^9 volume units) where the volume unit is determined by the UnitsSystem, VolUnitUS, and VolUnitMetric data points
volume overflow	overflow volume portion (i.e., multiples of 10^9 volume units) where the volume unit is determined by the UnitsSystem, VolUnitUS, and VolUnitMetric data points
volume/pulse	volume per frequency pulse where the volume unit is determined by the UnitsSystem, VolUnitUS, and VolUnitMetric data points
volume/time	volume per time unit where the volume unit is determined by the UnitsSystem, VolUnitUS, and VolUnitMetric data points and the time unit is determined by the VolFlowRateTimeUnit data point

2. When no units are listed then the value is dimensionless or not applicable.
3. The native data types are as follows:
   int8, int16, int32, and int64 are 8-, 16-, 32-, and 64-bit integers
   uint8, uint16, uint32, and uint64 are 8-, 16-, 32-, and 64-bit unsigned integers
   float32 is 32-bit floating point
   float64 is 64-bit floating point
   boolean is a Boolean value (i.e., has FALSE or TRUE value where FALSE=0, TRUE=1)
   bitfield is a bitmapped collection of Boolean database points
4. The "Selections/Bitmap" column is used to indicate selection values and bitfield bit mapping. For selection values, the selection option is followed by the corresponding data point value in parentheses. For bitfields, the bit number is followed by the boolean data point label. Following the data point label, in parentheses, is the data point characteristics: NV if non-volatile, Config if a configuration point, and Prot if write-protected. Bit 0 is the least significant bit.
5. Following list contains the Modbus extensions (features not defined in standard Modbus) that are implemented in Rosemount™ ultrasonic flow meters.

   a. 32-bit values like floats and longs occupy two consecutive Modbus 16-bit registers. Modbus implemented in Rosemount™ ultrasonic flow meters is big endian. So the first (lowest number) register contains the most significant word with the most significant byte first, and the second the least significant byte last (high byte first and high word first). 32-bit floating point values are stored in IEEE 754 Floating-Point format.
   b. Some other Modbus devices use a pre-defined type based on the register number. Rosemount™ ultrasonic flow meters uses types (int, long, float) without regard to register number.
   c. In Rosemount™ liquid meters, registers are dual mapped to accommodate different flow computers. . So all liquid registers, starting at 1 have a duplicate at the register +40001.
   d. All liquid registers may be read in either metric or U.S. Customary units.

Modbus notes	
e.	When a Modbus register is undefined in the meter a value of zero is returned. There are 3 dummy registers at the end of the Modbus map (65533-65535) that are reserved for internal use to facilitate this.
f.	If an odd number of registers are polled for 32-bit values, the meter returns one extra register so that a complete set of 32-bit values are polled. It is recommended to use transactions with registers of the same Modbus type.