



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 19ATEX1120X** Issue: **2**

4 Equipment: **8782 Slurry Transmitter and MS Slurry Sensor**

5 Applicant: **Emerson – Rosemount, Micro Motion, Inc.**

6 Address: **12001 Technology Dr.  
Eden Prairie  
Minnesota 55344 USA**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., Notified Body Number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012/A11:2013    EN 60079-7:2015/A1:2018    EN 60079-15:2010    EN 60079-31:2014  
EN IEC 60079-0:2018    EN 60079-11:2012    EN 60079-26:2015

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

**MS Slurry Sensor**



II 1/2 G, II 2 G, II 2 D  
Ex eb ia IIC T6...T3 Ga/Gb  
Ex eb ib IIC T6...T3 Gb  
Ex tb IIIC T65°C ...T200°C D  
Ta = -50°C to +60°C\*  
Ta = -29°C to +60°C\*\*  
\* Stainless Steel Enclosure  
\*\* Carbon Steel Enclosure

**8782 Slurry Transmitter**



II 3(1) G, II 3(1) D  
Ex ec ic [ia Ga] IIC T4 Gc  
Ex ic nA [ia Ga] IIC T4 Gc  
Ex ic tc [ia Da] IIIC T80°C Dc  
Ta = -40°C to +60°C

Project Number 80082030

Signed: J A May

Title: Director of Operations

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## SCHEDULE

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#### 13 DESCRIPTION OF EQUIPMENT

The Model 8782 Slurry Transmitter is a magnetic flowmeter transmitter that, when combined with the MS Flow Tubes, measures the volumetric flow rate of a conductive fluid in a pipe. The enclosure is comprised of aluminum housing approximately 0.256 m Height x 0.208 m Width x 0.071 m Thickness. The enclosure is comprised of two compartments, a field wiring compartment and an electronics compartment. Each compartment is provided with its own hinged door. The enclosure also has an optional LOI display and keypad that is attached in the electronics compartment. The 8782 Slurry Transmitter is designed to only connect to the model MS flow tube.

The enclosure is provided with 4 ½" NPT conduit entries on the bottom of the enclosure for field wiring, and optional ½" NPT to M20 thread adapters supplied with the equipment.

The 8782 Slurry Transmitter can be supplied to be powered from either a 90 to 250Vac 50/60Hz source, a 12-48 Vdc source, or 12-42 Vdc source. Each transmitter is programmed to have an IS output for the sensor electrode circuit, and a non-IS output for the Sensor Coil circuit. The transmitters are also equipped with two DIO circuits that are internally galvanically isolated. The transmitter communicates through a 4-20 mA/HART, a FIELDBUS/ PROFIBUS/FISCO, a MODBUS circuit and a pulse circuit, and they can be configured as intrinsically safe depending on the model option.

#### Entity Parameters for 8782 Slurry Transmitter

4-20 mA HART Circuit (Terminals 7 and 8):

$U_i = 30 \text{ V}$  ;  $I_i = 300 \text{ mA}$  ;  $P_i = 1.0 \text{ W}$  ;  $C_i = 924 \text{ pF}$  ;  $L_i = 0.0 \text{ mH}$

FF/PA/FISCO field Device Circuit (Terminals 7 and 8):

$U_i = 30 \text{ V}$  ;  $I_i = 380 \text{ mA}$  ;  $C_i = 924 \text{ pF}$  ;  $L_i = 0.0 \text{ mH}$  (Non-FISCO)

$U_i = 30 \text{ V}$  ;  $I_i = 380 \text{ mA}$  ;  $P_i = 5.32 \text{ W}$  ;  $C_i = 924 \text{ pF}$  ;  $L_i = 0.0 \text{ mH}$ (FISCO)

Pulse Circuit (Terminals 5 and 6):

$U_i = 28 \text{ V}$  ;  $I_i = 100 \text{ mA}$  ;  $P_i = 1.0 \text{ W}$  ;  $C_i = 4.5 \text{ pF}$  ;  $L_i = 0.0 \text{ mH}$

Electrode Output Circuit (Terminals 17, 18, 19):

$U_m = 250 \text{ V}$  ;  $U_o = 28.56 \text{ V}$  ;  $I_o = 5.77 \text{ mA}$  ;  $P_o = 165 \text{ mW}$  ;  $C_o = 61.7 \text{ nF}$  ;  $L_o = 1.0 \text{ H}$

The MS Slurry Sensor is installed in-line with process piping, either vertically or horizontally. Coils located on opposite sides of the flow tube create the necessary magnetic field. A conductive liquid moving through the magnetic field generates a voltage that is detected by two electrodes.

The enclosure of the flow tube consists of two parts the junction box, and the tube. The junction box has two ½" NPT entries or M20 entries and contains a field wiring terminal.

There are two input circuits included in the MS flow tube. The circuits can be supplied by the Emerson remote mount transmitter models, 8712EM, 8732EM, or 8782. The MS flow tube has a connection for the coil circuit which is used to generate the magnetic field, and a connection for the electrode circuit which is used to read a voltage created by the flowing process in the magnetic field. The electrode circuit is an intrinsically safe circuit in all explosive gas installations.

#### Entity Parameters for MS Slurry Sensor Electrode Circuit (Terminals 17, 18, 19):

$U_i = 30 \text{ V}$  ;  $I_i = 50 \text{ mA}$  ;  $P_i = 1.0 \text{ W}$  ;  $C_i = 1.9 \text{ nF}$  ;  $L_i = 630 \text{ } \mu\text{H}$



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#### 8782 Slurry Transmitter

Model :8782abcdeffgg

a = Revisions Level: A

b = Transmitter Mounting Options: W

c = Power Supply: 1 or 2

d = Transmitter Outputs: A, B, F, P, D or M

e = Conduit Entry: 1 or 2

ff = Safety Approvals Code Options: N1, N7, N9, ND, NF

gg = Any Alpha-Numeric characters representing product options up to fifty digits.

#### MS Slurry Sensor:

Model: MSaaabcdefgghijklm

aaa = Line size: 030 – 360(3-36 inch)

b = Rev level: A

c= Mounting option: R = Remote

d = Conduit Entry: 1=1/2" NPT, 2= M20

e = Lining Material: Any one digit alpha or numeric character

f = Electrode Material: Any one digit alpha or numeric character

g = Electrode Type: Any one digit alpha or numeric character

h = Flange Material: Any one digit alpha or numeric character

i = Flange Type: Any one digit alpha or numeric character

j = Flange Rating: Any one digit alpha or numeric character

kk = Coil Housing Configuration: M0, M1, M2, or M4.

ll = Safety Approval Options: K1, K7, K9, N1, N7, N9, ND, NF

m = Options: Any Alpha-Numeric characters representing non-safety product options up to fifty-two digits in length.

**Variation 1** - This variation introduced the following changes:

- i. Update drawings to incorporate editorial changes and minor design changes made to 8782 Slurry Transmitter and MS Slurry Sensor.
- ii. Update standard from EN 60079-7:2015 to EN 60079-7:2015/A1:2018.

## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	25 November 2019	R80008852A	The release of the prime certificate.
1	20 January 2020	5300	Transfer of certificate Sira 19ATEX1120X from Sira Certification Service to CSA Netherlands B.V.
2	08 October 2021	R80082030A	The introduction of Variation 1.

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- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 15.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 15.2 The 8782 Slurry Transmitter enclosure is manufactured from Aluminum Alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.
- 15.3 The MS Slurry Sensor is intended for use only in combination with the 8782, 8732EM, 8712EM Transmitters or a Transmitter with equivalent or less output ratings.
- 15.4 The 8782 Slurry Transmitter is not capable of passing the 500 V isolation test on terminals to chassis due to integral transient protection. This must be considered upon installation.
- 15.5 Appropriately rated conduit entries must be installed to maintain the enclosure ingress ratings of IP66, IP68 or IP69.
- 15.6 The MS Slurry Sensor contains nonconductive liners over the grounded tube. For process requiring EPL Ga, precautions shall be taken to avoid the liner being charged by the flow of nonconductive media.
- 15.7 In order to maintain the ingress protection level on the M4 electrode housing for the MS Flow Tube, the copper crush washer that seals the electrode access plug shall be replaced when the plug is reinstalled. The copper crush washer is one time use only.
- 15.8 When "Special Paint Systems" are applied, instructions for safe use regarding potential electrostatic charging hazard have to be followed
- 15.9 Warning - Ignition hazard, wetted parts may contain Titanium and Zirconium. For processes requiring EPL Ga and Gb rated equipment, suitability for use must be determined by the end user to eliminate ignition hazard due to impact or friction.
- 15.10 The MS Slurry Sensor is not allowed to be thermally insulated.
- 15.11 The 8782 Slurry Transmitter and the MS Slurry Sensor are permanently (conduit) connected, intended for continuous operation in extended environmental conditions as specified. Overvoltage Category II, Pollution Degree 2.
- 15.12 The 8782 Slurry Transmitter electrode and coil circuits can be remotely connected to the 8707 Sensor or MS Slurry Sensor
- 15.13 The 8782 Slurry Transmitter is suitable for field wiring wire gauges of 22 AWG to 10 AWG that are to be tightened down with a torque of 1.2 Nm.
- 15.14 The MS Slurry Sensor is suitable for field wiring wire gauges of 14 AWG to 16 AWG that are to be tightened down with a torque of 1.2 Nm.
- 15.15 The temperature code, ambient temperature range, and maximum process temperature for the MS Slurry Sensor are as follows:

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Hazardous Gas Locations (Group IIC)

T-Code	Coil Housing Material	Line Size	Ambient Temperature Range	Maximum Process Temperature
T6	Carbon Steel	All	-29°C to 35°C	45°C
T5	Carbon Steel	3"	-29°C to 60°C	60°C
T4	Carbon Steel	3"	-29°C to 60°C	105°C
T3	Carbon Steel	3"	-29°C to 60°C	177°C
T5	Carbon Steel	4"-36"	-29°C to 60°C	65°C
T4	Carbon Steel	4"-36"	-29°C to 60°C	110°C
T3	Carbon Steel	4"-36"	-29°C to 60°C	177°C
T6	Stainless Steel	All	-50°C to 35°C	45°C
T5	Stainless Steel	3"	-50°C to 60°C	60°C
T4	Stainless Steel	3"	-50°C to 60°C	105°C
T3	Stainless Steel	4"-36"	-50°C to 60°C	177°C
T5	Stainless Steel	4"-36"	-50°C to 60°C	65°C
T4	Stainless Steel	4"-36"	-50°C to 60°C	110°C
T3	Stainless Steel	4"-36"	-50°C to 60°C	177°C

Hazardous Dust Locations (Group IIIC)

T-Code	Coil Housing Material	Line Size	Ambient Temperature Range	Maximum Process Temperature
T65	Carbon Steel	All	-29°C to 35°C	45°C
T80	Carbon Steel	All	-29°C to 60°C	60°C
T135	Carbon Steel	All	-29°C to 60°C	105°C
T200	Carbon Steel	All	-29°C to 60°C	177°C
T65	Stainless Steel	All	-50°C to 35°C	45°C
T80	Stainless Steel	All	-50°C to 60°C	60°C
T135	Stainless Steel	All	-50°C to 60°C	105°C
T200	Stainless Steel	All	-50°C to 60°C	177°C

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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#### 17.3 8782 Transmitter Models (DC Models):

##### Mains Circuit Test:

At the conclusion of manufacture, and before shipping, each unit shall be subjected to a dielectric strength test, using a potential of 55.08V dc rms minimum, for a period of 2 seconds, without breakdown, between the following points: (voltage level is 90% of rated tolerance of the MOVs on the DC power module)

- Between Positive and Negative Power Terminal and the ground terminal with the metal enclosure.

Notes:

1) A potential of 55.08V dc minimum may alternatively be applied for a period of 2 seconds.

##### Secondary Floating Circuit Test:

At the conclusion of manufacture, and before shipping, each unit shall be subjected to a dielectric strength test, using a potential of 350V ac rms, for a period of 2 seconds, without breakdown, between the following points:

- Between output Terminals and the ground terminal with the metal enclosure.

Notes:

1) A potential of 354V Minimum dc may alternatively be applied for a period of 2 seconds. Voltage level is 90% MOV's Rating. On pins 5, 6, 7, 8,9, 10, 11, 12, 18 and 19 to the ground terminal with the metal enclosure

2) A potential of 500V Minimum dc may alternatively be applied for a period of 2 seconds. Voltage level is 90% MOV's Rating. On pins 1, 2 to the ground terminal with the metal enclosure

##### IS Transformer Test:

At the conclusion of manufacture, and before shipping, each transformer (reference drawing 08732-0817) shall be subjected to a dielectric strength test, using a potential of 1500V, for a period of 60 seconds, without breakdown, between the following points:

- Between Primary and secondary windings of the transformer.

Notes:

1) A potential of 1800 V may alternatively be applied for a period of 1 seconds.

#### 17.4 MS Slurry Sensor Models

At the conclusion of manufacture, and before shipping, each unit shall be subjected to a dielectric strength test, using a potential of 500V ac rms, for a period of 60 seconds, without breakdown, between the following points:

- Between terminals 1, and 2 and the ground terminal with the metal enclosure.

Notes:

1) A potential of 707 V dc may alternatively be applied for a period of 60 seconds.

2) A potential of 600 Vac may alternatively be applied for a period of 0.1 seconds.

3) A potential of 850V dc may alternatively be applied for a period of 0.1 seconds.



# Certificate Annexe



Certificate Number: Sira 19ATEX1120X

Equipment: 8782 Slurry Transmitter and MS Slurry Sensor

Applicant: Emerson – Rosemount, Micro Motion, Inc.

## Issue 0

Drawing	Rev.	Sheets	Date(Sira stamp)	Title
000MS-00AT	AA	1 to 2	24 Sep 19	MS ATEX Label Drawing
000MS-0020	AA	1 to 9	24 Sep 19	MS Control Drawing. Increased Safety with Intrinsically Safe Electrode
000MS-0023	AA	1 to 9	24 Sep 19	MS Control Drawing. Type 'n' and Type 'e' with intrinsically safe electrode.
08782-00AT	AA	1 to 3	18 Nov 19	8782 Transmitter ATEX Label Drawing
08782-0023	AA	1 to 8	24 Sep 19	8782 Transmitter Control Drawing – IECEx/ATEX 'e' and 'i'
08782-0024	AA	1 to 8	24 Sep 19	8782 Transmitter Control Drawing – IECEx/ATEX 't'
08782-0060	AA	1 to 12	24 Sep 19	INSTALLATION DRAWING ATEX/IECEx HAZARDOUS (Ex) LOCATIONS
00825-MA00-0010	AA	1 to 32	02 Oct 19	Rosemount 8782 and MS Sensor Approval Document
03031-0383	AF	1 to 2	02 Oct 19	Ground Terminal Assembly
03144-1010	AT	1 to 2	02 Oct 19	Cover, Aluminum
03144-1074	AH	1 of 1	02 Oct 19	Cover, Stainless Steel
08701-0065	AC	1 of 1	02 Oct 19	Coil Shield – 12"
08701-0077	AK	1 of 1	02 Oct 19	Coil Stud
08701-0187	AG	1 to 2	02 Oct 19	Coil Shield – 14" to 36"
08701-0304	A	1 of 1	02 Oct 19	Coil Support 30" and 36"
08705-0201	AM	1 to 4	02 Oct 19	Tube Adapter
08705-0202	AD	1 of 1	02 Oct 19	Glass Header (Hermetically Sealed)
08705-0207	AC	1 to 2	02 Oct 19	Spigot Ring
08705-0209	AJ	1 to 4	02 Oct 19	Side Wrapper, Carbon Steel
08705-0212	AK	1 to 2	02 Oct 19	Glass Header Assembly
08705-0213	AH	1 to 3	02 Oct 19	Flow Tube Center Wrapper
08705-0221	AA	1 of 1	02 Oct 19	Tube Adapter Schematic
08705-0222	AE	1 to 3	02 Oct 19	Tube Adapter PCB
08705-0223	AI	1 to 4	19 Nov 19	Tube Adapter Assembly
08705-0224	AE	1 to 2	02 Oct 19	Tube Adapter Cap
08705-0226	AA	1 to 4	02 Oct 19	Encapsulant – Sylgard 170
08705-0228	AC	1 to 3	02 Oct 19	Tube Adapter
08705-1004	BD	1 of 1	02 Oct 19	Wrapper Ring
08705-1006	AI	1 to 2	02 Oct 19	Glass Header Feedthrough
08705-1016	AC	1 to 4	02 Oct 19	Electrode Assembly
08705-1038	AE	1 to 2	02 Oct 19	Electrode Compartment Cap
08705-1050	AJ	1 to 7	02 Oct 19	Electrode Compartment
08707-0161	AM	1 to 5	02 Oct 19	Coil Shield – 1.5" to 5"
08707-0162	AG	1 of 1	02 Oct 19	Coil Shield – 6" to 10"
08707-3001	AE	1 to 2	02 Oct 19	Coil
08707-3034	AH	1 of 1	02 Oct 19	Coil Assembly
08732-0140	AT	1 to 2	02 Oct 19	Tube Adapter
08732-0222	AN	1 of 1	02 Oct 19	Nulling Printed Circuit Assembly
08732-0300	AG	1 to 3	02 Oct 19	Junction Box, Aluminum
08732-0302	AB	1 to 2	02 Oct 19	Remote Mount Terminal Block Schematic
08732-0303	AE	1 to 2	02 Oct 19	Remote Mount Terminal Block PWB

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Equipment: 8782 Slurry Transmitter and MS Slurry Sensor

Applicant: Emerson – Rosemount, Micro Motion, Inc.

Drawing	Rev.	Sheets	Date(Sira stamp)	Title
08732-0304	AA	1 to 1	02 Oct 19	Remote Mount Terminal Block W/ Connectors Schematic
08732-0305	AC	1 to 2	02 Oct 19	Remote Mount Terminal Block W/ Connectors PWB
08732-0306	AD	1 of 1	02 Oct 19	Socket Module Retaining Cup for Encapsulant
08732-0307	AE	1 of 1	02 Oct 19	Remote Mount Terminal Block Shroud with Integral Terminal Block
08732-0308	AE	1 to 2	02 Oct 19	Terminal Block Divider
08732-0310	AD	1 to 3	02 Oct 19	Junction Box, Stainless Steel
08732-0313	AI	1 to 4	02 Oct 19	Remote Mount Terminal Block Assembly
08732-0314	AA	1 of 1	02 Oct 19	Socket Module Schematic
08732-0315	AD	1 to 2	02 Oct 19	Socket Module PWB
08732-0316	AG	1 to 3	02 Oct 19	Socket Module CCA
08732-0317	AE	1 to 2	02 Oct 19	Socket Module Assembly
08732-0318	AB	1 to 2	02 Oct 19	Oxy-cast Epoxy, 2-Part
08732-0329	AA	1 of 1	02 Oct 19	O-Ring (Buna-N)
C10213	AP	1 to 5	02 Oct 19	Flat Washer
C10984	AL	1 to 2	02 Oct 19	O-Ring (Ethylene –Propylene)
C11035	AG	1 to 5	02 Oct 19	Hex Nut
C11397	AE	1 to 5	02 Oct 19	Ground Screw
C12214	AF	1 to 4	02 Oct 19	Mounting Bolt
C50096	AE	1 to 3	02 Oct 19	Lock Washer
C50243	AK	1 to 3	02 Oct 19	O-Ring – Silicone Rubber
C50276	E	1 to 3	02 Oct 19	Ground Electrode Wire
C53583	AD	1 to 3	02 Oct 19	Remote Mount Terminal Block Potting Material
C53633	B	1 to 3	02 Oct 19	Tyco Amp Connector
C53980	AC	1 to 4	02 Oct 19	M6 Plug
C54049	AG	1 to 6	02 Oct 19	Cushioned Clamp
C54052	AA	1 to 3	02 Oct 19	Ring- Tongue Terminal
C54095	AD	1 to 3	02 Oct 19	Epoxy, 2-part
C55113	AB	1 to 3	02 Oct 19	Wire Crimp Splice
C55194	AD	1 to 4	02 Oct 19	Electrode and Coil Lead Cable (Shielded)
C55240	AD	1 to 3	02 Oct 19	Silicone Wire Insulating Sleeve
C55459	AA	1 of 1	02 Oct 19	M6 Crush Washer
C55463	AC	1 to 3	02 Oct 19	Flange Hex Nut
FC0045	AA	1 to 2	02 Oct 19	Electrode and Coil Hookup Wire (Non-Shielded)
FC0058	AA	1 to 2	02 Oct 19	Electrode and Coil Cable (Foil Shield)
00444-0282	BE	1 to 3	02 Oct 19	Thread Adapters
08712-0010	AC	1 of 1	02 Oct 19	Glass for LOI/Display
08712-0054	AR	1 to 16	02 Oct 19	Housing Base
08712-0091	AA	1 of 1	02 Oct 19	Gasket for LOI/Display
08712-0301	AA	1 of 1	02 Oct 19	Cover Screw
08712-0534	AD	1 of 1	02 Oct 19	Teflon Insulated Wire
08712-0580	AG	1 to 4	02 Oct 19	Housing Upper Cover with LOI
08712-0581	AG	1 to 3	02 Oct 19	Housing Upper Cover without LOI
08712-0582	AD	1 to 2	02 Oct 19	Housing – LOI Keypad Cover
08712-0583	AK	1 to 3	02 Oct 19	Housing Lower Cover
08712-0604	AH	1 to 2	02 Oct 19	Terminal Block

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Drawing	Rev.	Sheets	Date(Sira stamp)	Title
08712-0607	AF	1 to 2	02 Oct 19	Terminal Block - Safety Cover
08712-0608	AC	1 to 2	02 Oct 19	Upper and Lower Cover Gasket Seal
08712-0612	AA	1 of 1	02 Oct 19	Terminal Block Divider Assembly
08712-0870	AB	1 of 1	02 Oct 19	LOI Schematic
08712-0871	AD	1 to 4	02 Oct 19	LOI PCB Fab
08712-0872	AF	1 of 1	02 Oct 19	LOI PCB Assembly
08732-0161	AV	1 to 4	02 Oct 19	Electrode and Power Cable Assembly
08732-0312	AF	1 to 2	02 Oct 19	08732 LOI Cable
08732-0866	AO	1 to 10	02 Oct 19	8732 EM SIRF (HART) Board Schematic
08732-0867	AH	1 to 15	02 Oct 19	8732 EM SIRF (HART) Board PCB Fab
08732-0868	AK	1 to 2	02 Oct 19	8732 EM SIRF (HART) Board Assembly
08732-0869	AD	1 to 10	02 Oct 19	8732 EM SIRF (FF/Fieldbus/Profibus) Board Schematic
08732-0870	AB	1 to 8	02 Oct 19	8732 EM SIRF (FF/Fieldbus/Profibus) Board PCB Fab
08732-0871	AD	1 to 2	02 Oct 19	8732 EM SIRF (FF/Fieldbus/Profibus) Board Assembly
08782-0320	AC	1 to 10	02 Oct 19	Global Slurry Mag Board Schematic
08782-0321	AB	1 to 3	02 Oct 19	Global Slurry Mag Board Fab Drawing
08782-0322	AC	1 to 6	02 Oct 19	Global Slurry Mag Board Assembly Drawing
08782-0323	AC	1 of 1	02 Oct 19	Transition Board Schematic
08782-0324	AC	1 to 3	02 Oct 19	Transition Board PCB Fab
08782-0325	AC	1 of 1	02 Oct 19	Transition Board Assembly
08782-0326	AC	1 of 1	02 Oct 19	DC Power Board Schematic
08782-0327	AC	1 to 3	02 Oct 19	DC Power Board Fab Drawing
08782-0328	AC	1 of 1	02 Oct 19	DC Power Board Assembly Drawing
08782-0329	AB	1 of 1	02 Oct 19	AC Power Board Schematic
08782-0330	AB	1 to 4	02 Oct 19	AC Power Board Fab Drawing
08782-0331	AB	1 of 1	02 Oct 19	AC Power Board Assembly Drawing
08782-0349	AB	1 to 1	02 Oct 19	Thermal Pad
08782-0350	AA	1 to 4	02 Oct 19	DC-DC Power Module
08782-0352	AA	1 to 4	02 Oct 19	AC Input Module
08782-0353	AA	1 to 4	02 Oct 19	AC/DC Converter Module
08782-0501	AD	1 to 2	02 Oct 19	Heat Sink Bracket
08782-0503	AA	1 to 2	02 Oct 19	LOI – Keyboard Membrane
C09866	AJ	1 to 5	02 Oct 19	Ground Screw
C10375	AN	1 to 4	02 Oct 19	O-Ring Buna N
C11998	F	1 to 5	02 Oct 19	Screw
C12304	AA	1 to 2	02 Oct 19	Washer Ground Terminal
C12728	AE	1 to 3	02 Oct 19	Thread Sealant
C50283	AB	1 to 6	02 Oct 19	Pan Head Screw
C50352	AB	1 to 2	02 Oct 19	3145RTV Sealant for LOI Cable and Glass
C51571	AR	1 to 4	02 Oct 19	NPT Stopping Plug
C51715	AE	1 to 5	02 Oct 19	Screw
C52990	B	1 to 2	02 Oct 19	Hinge Lubricant
C53209	AE	1 to 4	02 Oct 19	Drive Screw for Nameplates
C53496	AD	1 to 3	02 Oct 19	Terminal Block - Safety Cover Screw
C54374	AA	1 to 4	02 Oct 19	Button Head Screw Cap
C54902	AC	1 to 3	02 Oct 19	Electrical Contact Lubricant

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**CSA Group Netherlands B.V.**  
 Utrechtseweg 310,  
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 Netherlands

# Certificate Annexe



Certificate Number: Sira 19ATEX1120X

Equipment: 8782 Slurry Transmitter and MS Slurry Sensor

Applicant: Emerson – Rosemount, Micro Motion, Inc.

Drawing	Rev.	Sheets	Date(Sira stamp)	Title
C55532	AA	1 to 3	02 Oct 19	Strain Relief Bushing
C55730	AB	1 to 3	02 Oct 19	Screw – Button Head Socket Cap
C55830	AB	1 to 2	02 Oct 19	Solder Wire
FC0061	AA	1 to 3	02 Oct 19	Fuses 250V AC

Issue 1 – No new drawings were introduced.

## Issue 2

Drawing	Rev.	Sheets	Date (Stamp)	Title
000MS-0020	AB	1 to 9	08 Jul 21	MS Control Drawing. Increased Safety with Intrinsically Safe Electrode
000MS-0023	AB	1 to 9	08 Jul 21	MS Control Drawing. Type 'n' and Type 'e' with intrinsically safe electrode.
000MS-0024	AB	1 to 8	08 Jul 21	MS Control Drawing. MS. ATEX IECEx Dust Ex tx
00825-MA00-0010	AB	1 to 32	08 Jul 21	Rosemount 8782 and MS Sensor Approval Document
03031-0383	AG	1 to 2	08 Jul 21	Ground Terminal Assembly
03144-1010	AW	1 to 2	08 Jul 21	Cover, Aluminum
08701-0065	AD	1 of 1	08 Jul 21	Coil Shield – 12"
08705-0212	AL	1 to 2	08 Jul 21	Glass Header Assembly
08705-0223	AJ	1 to 4	08 Jul 21	Tube Adapter Assembly
08705-0226	AB	1 to 4	08 Jul 21	Encapsulant – Sylgard 170
08707-0161	AN	1 to 5	08 Jul 21	Coil Shield – 1.5" to 5"
08707-0162	AH	1 of 1	08 Jul 21	Coil Shield – 6" to 10"
08707-3001	AF	1 to 2	08 Jul 21	Coil
08732-0305	AD	1 to 2	08 Jul 21	Remote Mount Terminal Block W/ Connectors PWB
08732-0313	AJ	1 to 4	08 Jul 21	Remote Mount Terminal Block Assembly
08732-0318	AC	1 to 2	08 Jul 21	Oxy-cast Epoxy, 2-Part
C10984	AM	1 to 2	08 Jul 21	O-Ring (Ethylene –Propylene)
C53583	AE	1 to 3	08 Jul 21	Remote Mount Terminal Block Potting Material
00444-0282	BG	1 to 3	08 Jul 21	Thread Adapters
08712-0871	AE	1 to 4	08 Jul 21	LOI PCB Fab
08732-0161	AZ	1 to 4	08 Jul 21	Electrode and Power Cable Assembly
08732-0866	AP	1 to 10	08 Jul 21	8732 EM SIRF (HART) Board Schematic
08732-0868	AL	1 to 2	08 Jul 21	8732 EM SIRF (HART) Board Assembly
08732-0869	AE	1 to 10	08 Jul 21	8732 EM SIRF (FF/Fieldbus/Profibus) Board Schematic
08732-0871	AE	1 to 2	08 Jul 21	8732 EM SIRF (FF/Fieldbus/Profibus) Board Assembly
08782-0320	AD	1 to 10	08 Jul 21	Global Slurry Mag Board Schematic
C09866	AK	1 to 5	08 Jul 21	Ground Screw
C10375	AP	1 to 4	08 Jul 21	O-Ring Buna N
C51571	AV	1 to 4	08 Jul 21	NPT Stopping Plug
C55830	AD	1 to 2	08 Jul 21	Solder Wire

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