Quick Start Guide
00825-0100-4488, Rev AA
November 2023

Rosemount™ 9195 Wedge Meter Assembly

ROSEMOUNT™

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NOTICE

This document provides basic installation guidelines for the Rosemount 9195 Wedge Meter Assembly. For comprehensive instructions for detailed configuration, diagnostics, maintenance, service, installation, or troubleshooting refer to the *Rosemount 9195 Reference Manual*. The manual and this guide are also available electronically on Emerson.com/Rosemount.

If the Rosemount 9195 Primary Element was ordered assembled to a Rosemount Pressure Transmitter or a Rosemount 1199 Diaphragm Seal System, refer to the following Quick Start Guides for information on configuration and hazardous locations certifications:

- Rosemount 3051S Quick Start Guide
- Rosemount 3051SMV Quick Start Guide
- Rosemount 4088 Quick Start Guide
- Rosemount 1199 Diaphragm Seal Quick Start Guide
- Rosemount 3051SAL Quick Start Guide

Hazardous Area Approvals for assemble-to flow meter components specified on distinct lines: An assembly may be composed of certified pieces of equipment. The overall assembly is subject to inspection by the authority having jurisdiction over the installation.

If the meter was ordered with a wireless transmitter, the battery will be shipped separately due to freight carrier regulations.

⚠ WARNING

Process leaks may cause harm or result in death.

To avoid process leaks, only use gaskets and O-rings designed for the corresponding flange to seal process connections.

Transmitter electronics maintenance should not be conducted on energized equipment in a hazardous atmosphere.

Failure to comply with the requirements for intrinsic safety in a hazardous atmosphere could result in an explosion.

If the process fluid is hazardous, the procedure outlined here should be modified as required.

Failure to do so could result in serious injury to personnel or death.

If the line is pressurized, always open valves slowly.

Failure to do so could result in serious injury to personnel or death.

During installation never lift the meter by remote seal capillaries, the transmitter, RTD, or impulse lines/valves.

Doing so may result in either meter damage or serious injury.

⚠ WARNING

Physical access

Unauthorized personnel may potentially cause significant damage to and/or misconfiguration of end users' equipment. This could be intentional or unintentional and needs to be protected against.

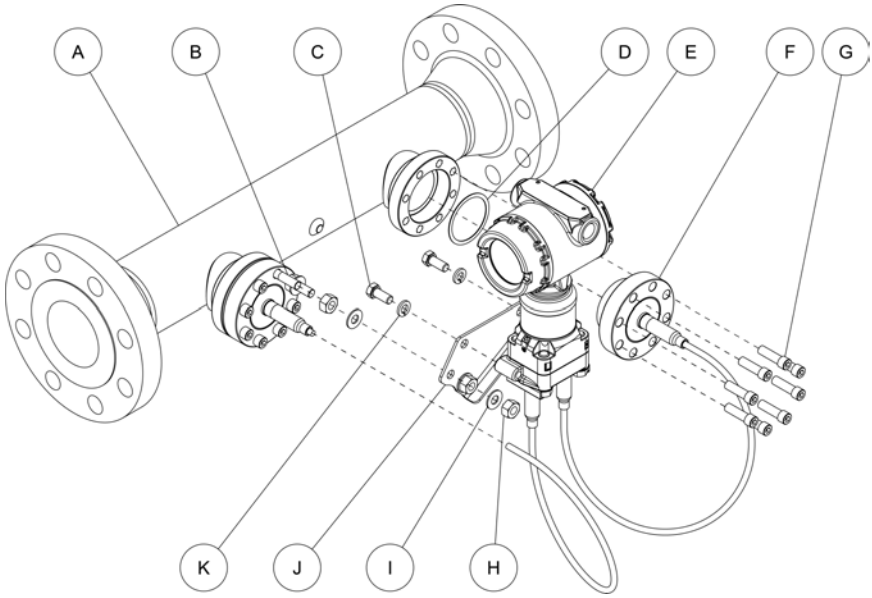
Physical security is an important part of any security program and fundamental to protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

Contents

1 Before you begin

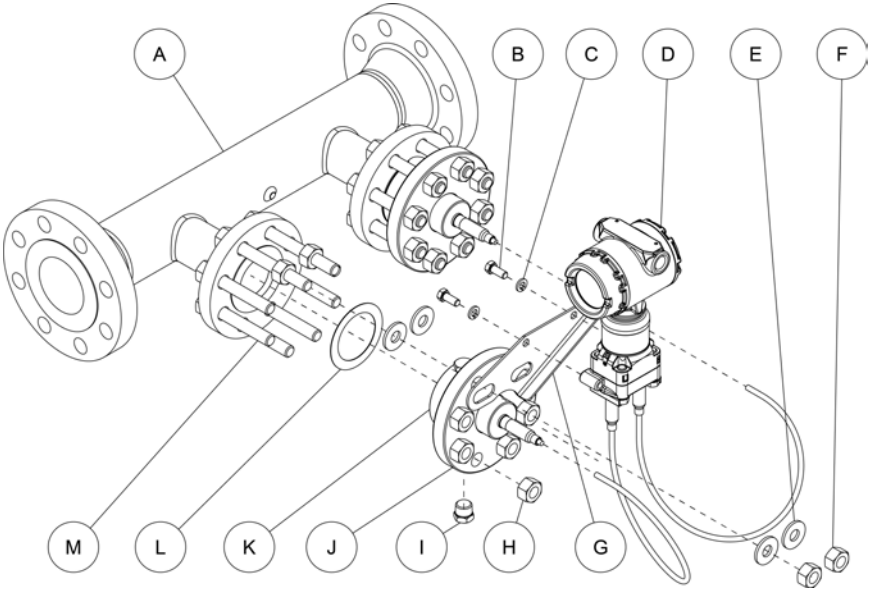
Before you begin the installation, consider the vibration and temperature limits of the meter. Refer to the *Rosemount 9195 Wedge Meter Product Data Sheet*, flow sizing, or instrument tag for functional limits.

Figure 1-1: Exploded View 1: Compact Remote Seal (WSP Style)



A. Wedge Primary Element Meter Body
B. Mounting Bracket Studs
C. Mounting Bracket Screws
D. Remote Seal Gaskets
E. Transmitter
F. Remote Seals
G. Remote Seal Screws
H. Mounting Bracket Nuts
I. Mounting Bracket Washers
J. Mounting Bracket
K. Mounting Bracket Lock Washers

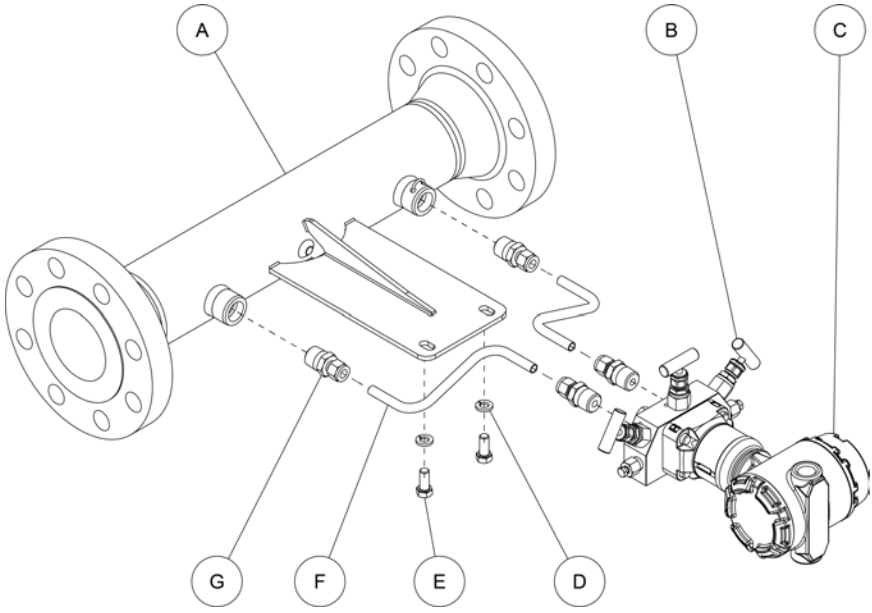
Figure 1-2: Exploded View 2: 2" NPS/DN50 Flanged Assembly



A. *Wedge Primary Element Meter Body*
B. *Mounting Bracket Screws*
C. *Mounting Bracket Lock Washers*
D. *Transmitter*
E. *Mounting Bracket Washers*
F. *Mounting Bracket Nuts*
G. *Mounting Bracket*
H. *Remote Seal Nuts*
I. *Flushing Ring Plugs*
J. *Remote Seals*
K. *Flushing Ring*
L. *Remote Seal Gaskets*
M. *Remote Seal Studs*

Note
If using primary isolation valves (option codes BV1 and GV1 in the model number), valves and valve gaskets are installed between the branch gasket (L) and the flushing ring or remote seal (K or J). Ensure a gasket is used between all connection points.

Figure 1-3: Exploded View 3: ½-inch NPT Tubed Assembly



A. Wedge Primary Element Meter Body
B. Manifold
C. Transmitter
D. Mounting Lock Washers
E. Mounting Screws
F. Formed Tubing
G. Compression Fittings

2 Locate the installation point

Locate the primary element installation point. If possible, install the meter at ground level to allow meter access.

Table 2-1: Straight Pipe Requirements (Distance in Number of Pipe Diameters)

	Type of flow disturbance upstream of flow meter[1]	Typical straight run pipe diameters (D)	Straight run pipe diameters per ISO[2][3]
Upstream (inlet) side of primary	Single 90° bend in the same plane	10	7
	Three 90° bends with parallel exit and outlet	22	22
	Two or more 90° bends in the same plane	15	21
	Concentric expander (D/2 to D)	7	7
	Concentric reducer (3D/2 to D)	7	7
	Partially closed valve	10	15
	Pipe tee – straight run	5	7
	Pipe tee – used as elbow or tee	6	8
Downstream (outlet) side of primary (all disturbances)		5	6

(1) Consult an Emerson representative if a disturbance is not listed.

(2) Upstream straight pipe run diameters are measured from the upstream pressure taps of the Rosemount 9195 primary element. Downstream straight pipe run diameters are measured from the downstream pressure taps.

(3) Straight pipe requirements are based on ISO 5167-6 for wedge ratios 0.2 ≤ h/D ≤ 0 .6.

2.1 Reversing the transmitter

The Rosemount 9195 primary element with factory installed tubing defaults to a left-handed orientation. If a right-handed meter orientation is required, this can be specified in the model code.

If there is interference in the mounting location, the transmitter electronics can be reinstalled on the opposite side of the meter by following the directions below.

Note
This is only applicable to the Direct mount ½" NPT connection style, option code "T" in the model number.

⚠ WARNING

This operation should not be conducted on either energized equipment or in a hazardous atmosphere.

Always depressurize the system before disassembling the compression fitting.

Failure to comply with the requirements for intrinsic safety in a hazardous atmosphere could result in an explosion.

Procedure

1. Mark the tube at the edge of the compression nut. Later, use these marks to ensure the tubing is fully seated in the compression fitting.

   Disassemble the compression fitting nuts at the tubing-to-manifold connections.
2. Remove the bolts connecting the manifold to the mounting bracket.
3. Remove the manifold from the mounting bracket.
4. Remove the transmitter from the manifold.
5. Rotate the transmitter 180° on the manifold, ensuring the high and low pressure ports match those on the Rosemount 9195 meter body.

   Tighten the bolts as shown in Table 2-2.
6. Position the tubing into the compression fittings on the manifold on the desired side of the mounting bracket, ensuring the high and low pressure sides of the transmitter match that of the wedge primary element.
7. Install the manifold onto the mounting bracket loosely.

8. Tighten the compression fitting nuts to 1.25 turns past hand-tight.
   a) Insert the tube with preswaged ferrules into the fitting until the front ferrule seats against the fitting body.

      Note
      If needed, lightly reapply lubricant to the body threads and the rear surface of the back ferrule.

   b) While holding the fitting body steady, rotate the nut with a wrench to the previously pulled-up position, as indicated by the marks on the tube and flats.
      At this point, you will feel a significant increase in resistance.

   c) Slightly tighten the nut.

9. Finish tightening the manifold onto the mounting bracket.
10. Verify the flange bolts are protruding through the sensor module before applying pressure.

Table 2-2: Torque Values for Transmitter Mounting Bolts

Bolt material	Head markings	Initial torque	Final torque
Carbon steel (CS)	B7M	300 in-lb	650 in-lb
Stainless steel (SST)		150 in-lb	300 in-lb

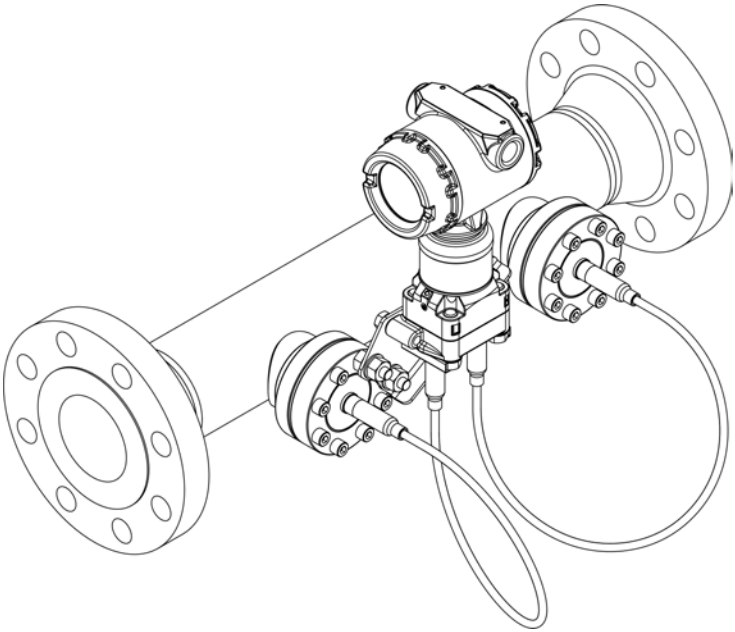
3 Orient the primary element

The primary element should be installed as recommended below. Manifold or flushing ring vents should be positioned to allow for bleeding or venting. Orienting the unit within the recommended zone will also prevent inaccurate measurements. Determine the orientation based on the application type, mounting type, flow direction, and the flow meter's orientation in relation to the pipe.

For steam applications with ½-inch NPT branches, remote mount is recommended for vertical flow applications. For liquid applications, flow down is not a recommended installation.

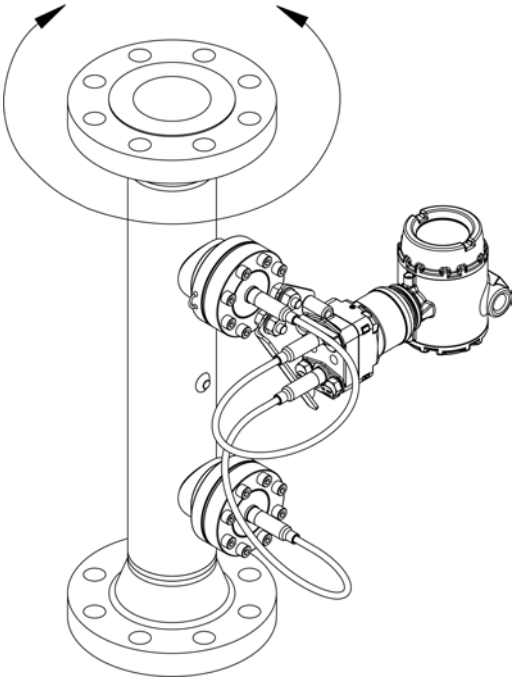
3.1 Integrated meter orientations for remote seal assemblies

Figure 3-1: Horizontal Flow for Direct & Remote Mount Orientations Based on Gas, Liquid, or Steam Fluid Types



Note
Recommended orientation for branches are at the 3:00 or 9:00 positions.

Figure 3-2: Vertical Flow for Direct & Remote Mount Orientations Based on Gas, Liquid, or Steam Fluid Types



Note
Vertical flow will add additional uncertainty. Refer to the *Rosemount 9195 Reference Manual* for more information.

Note
Steam and liquid flowing vertically down can be associated with increased signal noise and are generally not recommended.

Note
Generally, steam flowing vertically is not recommended.

3.2 Integrated meter orientations for tubed assemblies

Figure 3-3: Horizontal Flow for Direct Mount Orientations Based on a Liquid or Steam Fluid Type

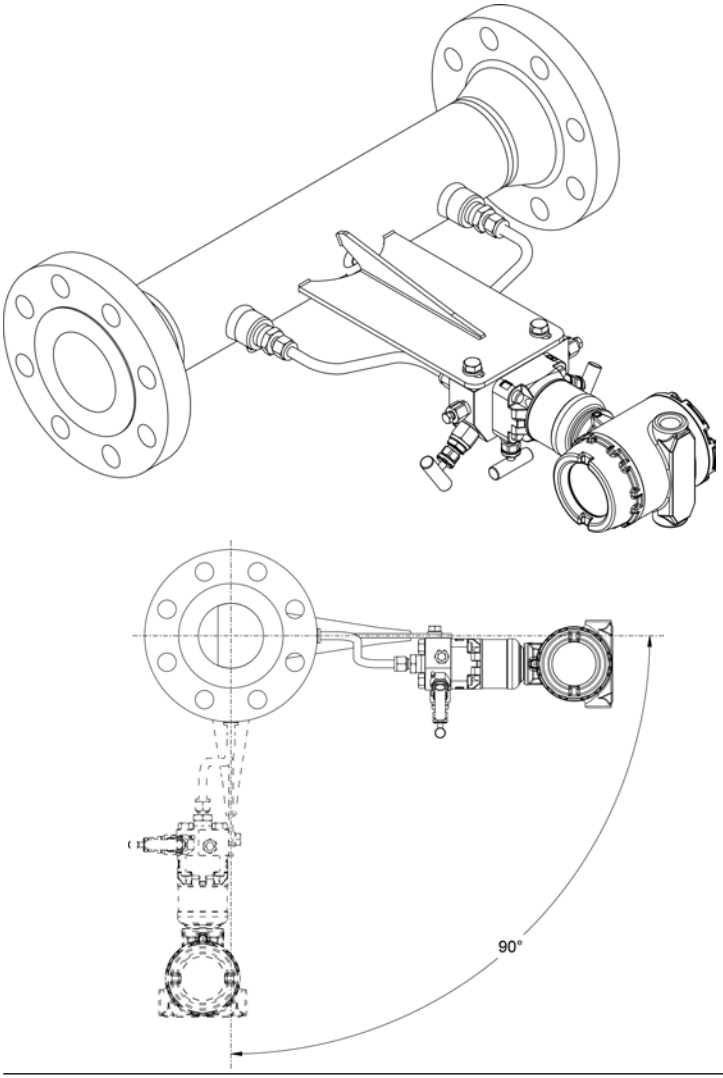


Figure 3-4: Horizontal Flow for Direct Mount Orientations Based on a Gas Fluid Type

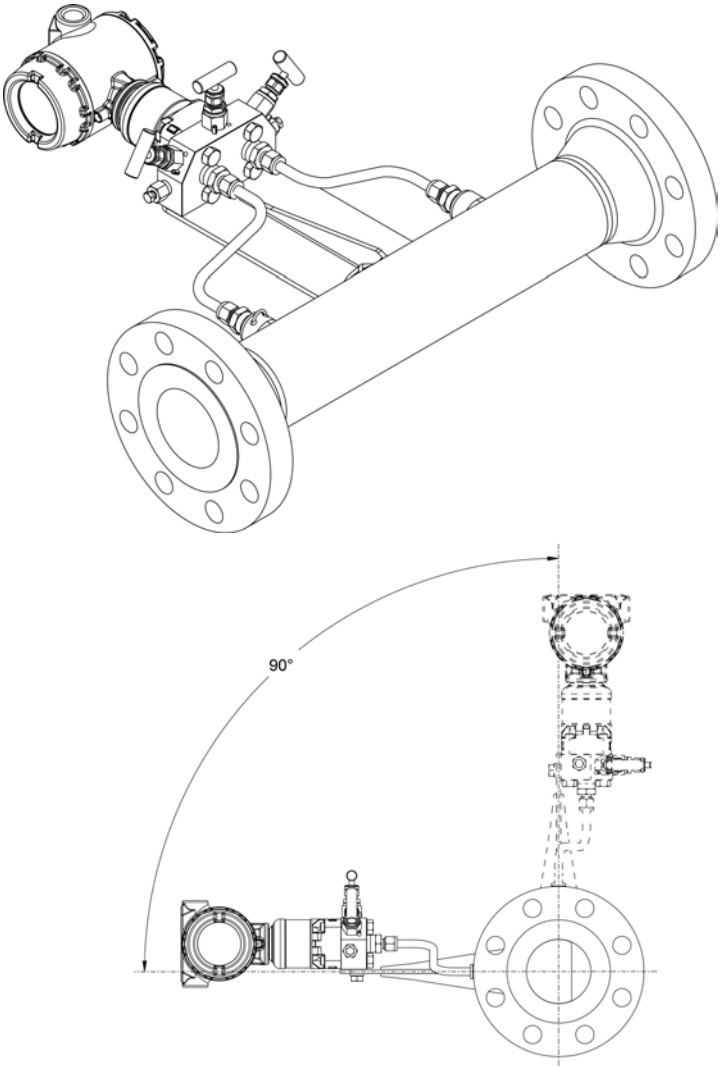


Figure 3-5: Vertical Flow for Direct Mount Orientations Based on a Dry Gas Fluid Type

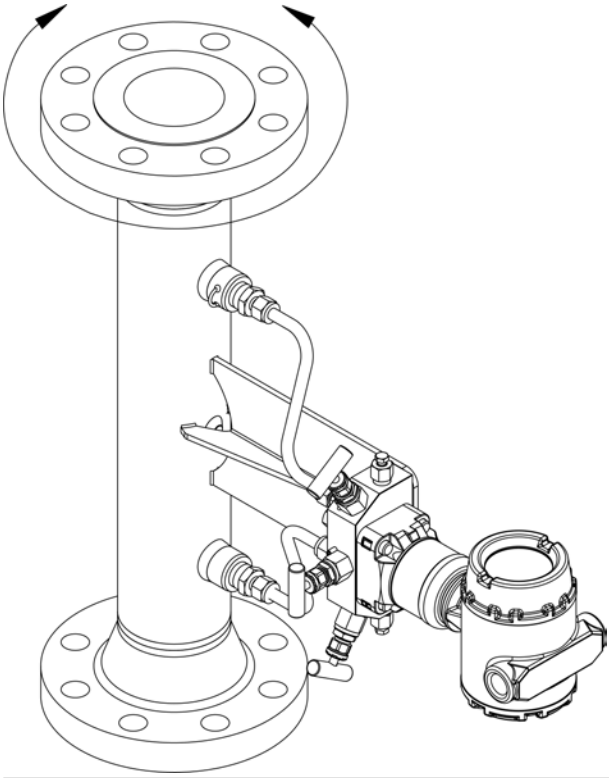
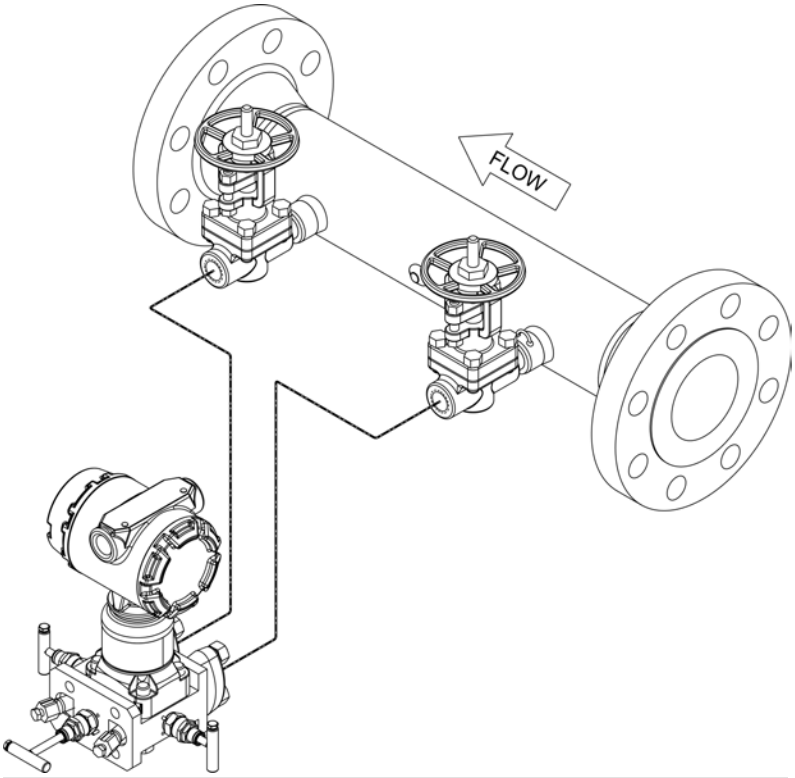


Figure 3-6: Horizontal Flow for Remote Mount Orientations Based on a Liquid or Steam Fluid Type



Note

Root valves shown in the image are not provided with the 9195 Wedge primary element.

Figure 3-7: Horizontal Flow for Remote Mount Orientations Based on a Gas Fluid Type

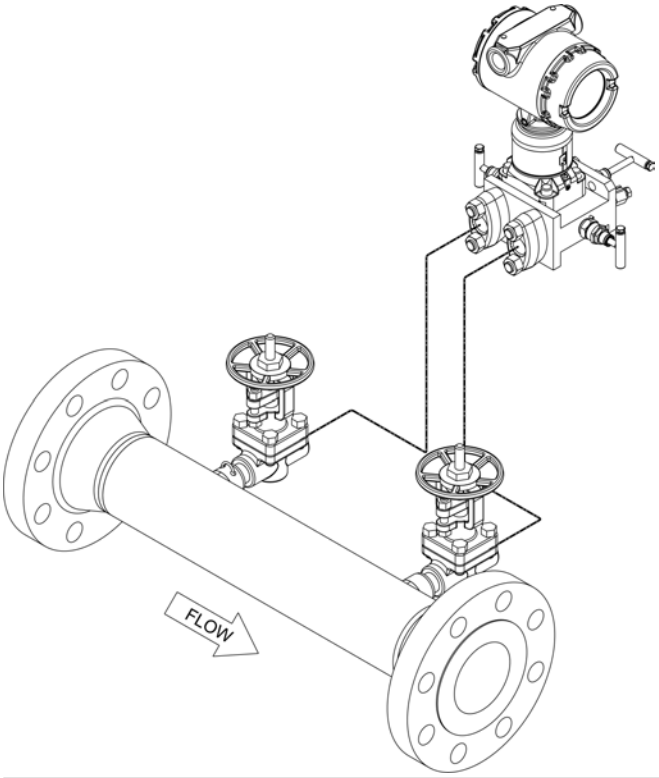


Figure 3-8: Vertical Flow for Remote Mount Orientations Based on a Liquid or Steam Fluid Type

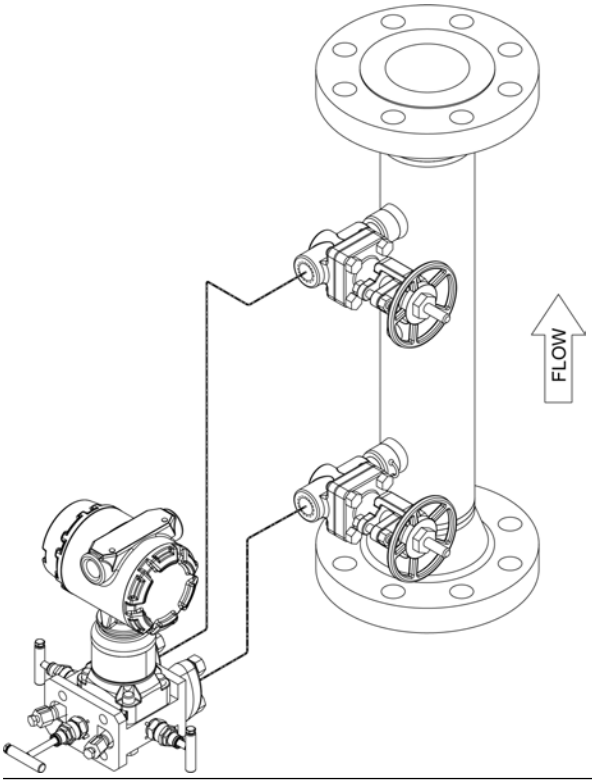
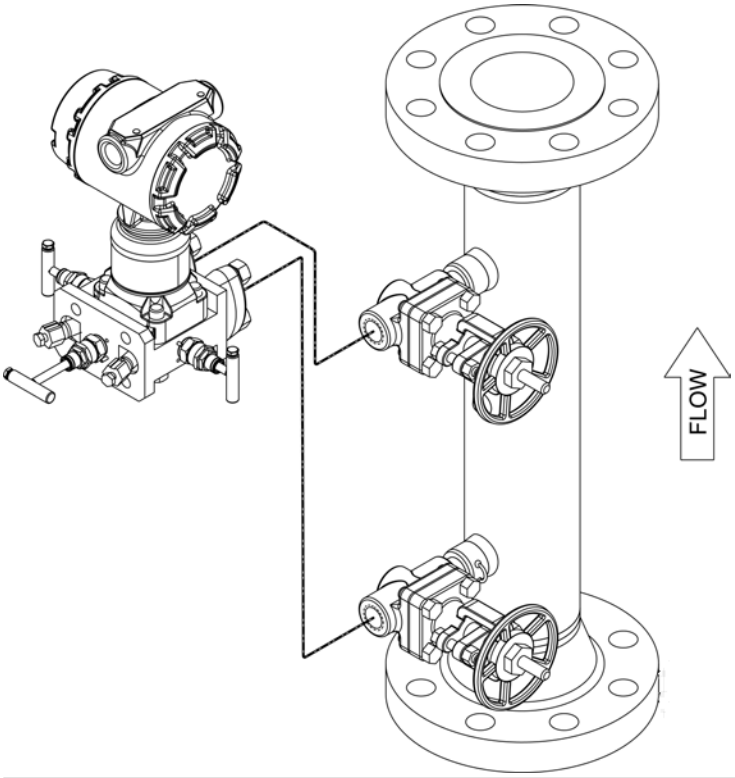


Figure 3-9: Vertical Flow for Remote Mount Orientations Based on a Gas Fluid Type



Note
Vertical flow will add additional uncertainty. Refer to the *Rosemount 9195 Reference Manual* for more information.

Note
Not applicable for remote seal applications.

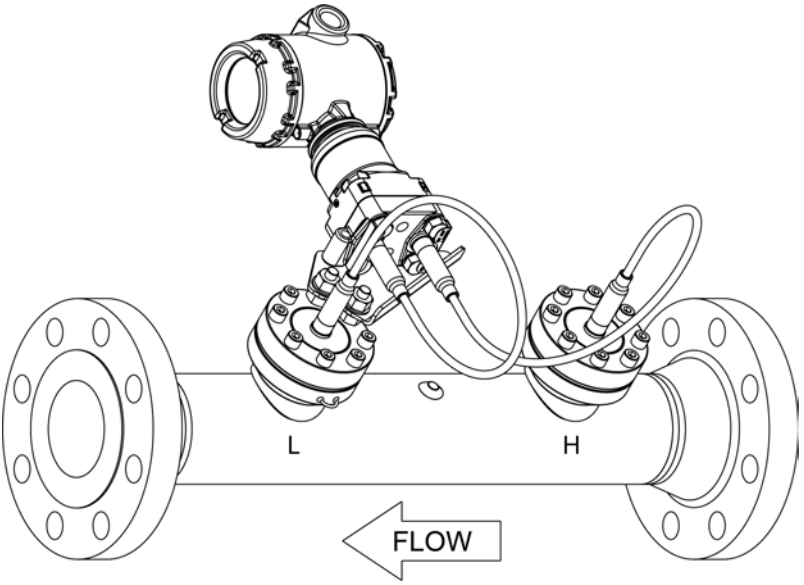
Note
For remote mount installations, use stainless steel tubing with the largest convenient internal diameter per site practices. A best practice is to minimize the length of the impulse lines. For examples of remote installation, refer to Figure 3-6, Figure 3-7, Figure 3-8, or Figure 3-9.

4 Install the primary element

The unit must be oriented with the flow arrow pointing in the direction of the flow; otherwise, the primary element will produce erroneous readings. Upstream tap(s) should be connected to the high (H) side of the transmitter and downstream tap(s) connected to the low (L) side.

Refer to Figure 4-1.

Figure 4-1: Flow Direction



Procedure

1. For units using a ½ in NPT connection, ensure that all connections are tight and sealed properly.
2. For units using a remote seal connection:
   a) The remote seal comes standard with a sealing gasket. When connecting the upper and lower housing make sure the gasket is aligned properly on the gasket sealing surface.
   b) For flanged assemblies: when connecting the process and mating flange, the bolts should be torqued to the applicable flange requirements.

c) For Compact Seal (WSP) assemblies: ensure that the remote seal screws and/or nuts are torqued to 180 in-lb (20 N-m).

d) For general handling of the remote seal system:

1. When unpacking or handling seal system assemblies, do not lift the seal or transmitter by gripping the capillaries; doing so could result in disconnecting the seal and/or capillary from the transmitter, which will void the warranty.

2. The material of a remote seal is designed to withstand pressure and wear from process material, but outside of process connection conditions, remote seals are delicate and should be handled with care.

3. The protective cover should remain on the seal until the moment before installation.

Note
Try to avoid touching the diaphragm with fingers or objects and refrain from setting the diaphragm side of the seal down on a hard surface. Even minor dents or scratches in the diaphragm material may impair the performance of the seal system assembly.

4. Avoid sharply bending or crimping the capillary tubing. The minimum bending radius of the capillary tubing is 3-in. (8 cm).

5. When using heat or steam tracing, exercise caution if a PVC coating is added onto the capillary. The PVC coating on the armor will break down at temperatures around 212 °F (100 °C). The best practice for heat and steam tracing is to regulate the temperature above the maximum ambient temperature for a consistent result.

Note
To avoid accuracy effects and thermal stress, the capillary should not be partially heated.

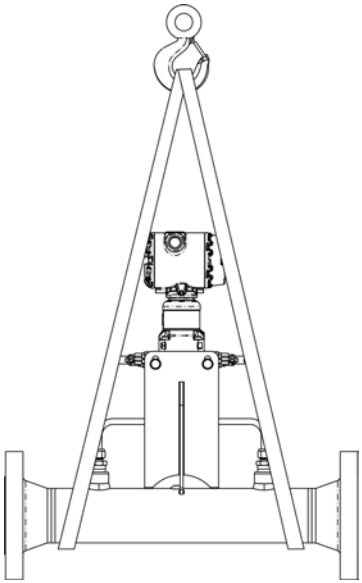
3. Lift the meter by using straps on the body of the meter. Proper support is needed at the flange connections shown below in Figure 4-2.

Note
Follow local guidelines on lifting safety.

Note
Do not lift the meter by the impulse lines, remote seals,or the transmitter body.

Note
Ensure the meter is secured correctly within straps. If not secured correctly, the meter may rotate during lifting operations.

Figure 4-2: Recommended Support Locations for Lifting



4. Instrument connections should be positioned 90 degrees on the horizontal. This orientation allows debris and entrained gases to pass by the wedge element unobstructed .
5. Install the flanged ends into the process pipe.

   The distance between the flanges should be equal to the overall length of the flow meter, plus clearance for the gaskets.

6. Use the appropriate studs, nuts, gaskets, and torque specifications for the given flange size, rating, and process conditions. Tighten the nuts following a star or cross pattern.

5 Preparing for operation

⚠ WARNING

Serious injury can occur by opening the valves when the pipe is pressurized.

Do not bleed or vent process fluid if it is toxic or harmful to health or the environment.

5.1 Remote seal assemblies

Before the unit is put in service, a transmitter zero trim should be performed under no flow conditions. Refer to the Rosemount DP Level Transmitters and Diaphragm Seal Systems Quick Start Guide for more information.

5.2 Tubed direct mount 450 °F (232 °C) or less

Before the unit is put in service, a transmitter zero trim should be performed at normal line pressure:

Procedure

1. Start the procedure by closing all the valves on the unit.
2. Open both manifold isolation valves.
   - For liquid or steam service, open vent valves slightly to allow removal of trapped gases. Actuate primary isolation valves to remove any trapped gases.
   - For gas service, open vent valves slightly to allow removal of trapped liquids.
3. Once Step 2 has been completed, close both vent valves.
4. Close the manifold low side isolation valve.
5. Open the manifold equalization valve.
   The pressure will now be equal across the differential pressure transmitter.
6. Perform the zero trim. Refer to the transmitter quick start guide for more information.
7. To put the transmitter back into service, close the equalization valve.
8. Open the manifold low side isolation.
   The system is now operational.

5.3 Tubed remote mount

Procedures for mounting based on fluid type.

5.3.1 Gas applications—transmitter located above Rosemount 9195 taps

Procedure

1. Start the procedure by closing all the valves on the unit.
2. Open both transmitter manifold isolation valves.
3. Open the transmitter manifold vent valves slightly to allow for the removal of trapped liquids.
4. Once Step 3 has been completed, close both vent valves.
5. Close the transmitter manifold low side isolation valve.
6. Open the transmitter manifold equalization valve.
   The pressure will now be equal across the differential pressure transmitter.
7. Perform the zero trim. Refer to the transmitter quick start guide for more information.
8. To put the transmitter back into service, close the equalization valve.
9. Open the transmitter manifold low side isolation.
   The system is now operational.

5.3.2 Liquid applications—transmitter located below Rosemount 9195 taps

Procedure

1. Start the procedure by closing all the valves on the unit.
2. Open both transmitter manifold isolation valves.
3. Open the transmitter manifold vent valves slightly to allow removal of trapped gases. Actuate primary isolation valves to remove any trapped gases.
4. Once Step 3 has been completed, close both vent valves.
5. Close the transmitter manifold low side isolation valve
6. Open the manifold equalization valve.
   The pressure will now be equal across the differential pressure transmitter.
7. Perform the zero trim.

   Refer to the transmitter quick start guide for more information.

8. To put the transmitter back into service, close the equalization valve.
9. Open the transmitter manifold low side isolation.
   The system is now operational.

5.3.3 Steam applications-transmitter located below Rosemount 9195 taps for remote mount

Procedure

1. Remove pressure from line and close all valves on the transmitter manifold.
2. Open both transmitter manifold isolation valves.
3. Open the vent valves slightly to allow for the removal of trapped gases. Actuate primary isolation valves to remove any trapped gases.
4. Fill transmitter manifold and instrument lines, with water through drain vents on transmitter manifold.
5. Once Steps 3 and 4 have been completed, close both vent valves.
6. Close the transmitter manifold low side isolation valve.
7. Pressurize the line.
8. Gently tap the electronics body, transmitter manifold, instrument lines, and wedge meter with a small wrench to dislodge any trapped air.
9. Open the manifold equalization valve.
   The pressure will now be equal across the differential pressure transmitter.
10. Perform the zero trim.

    Refer to the transmitter quick start guide for more information.
11. To put the transmitter back into service, close the equalization valve.
12. Open the transmitter manifold low side isolation.
    The system is now operational.

6 Product certifications

6.1 Approved manufacturing locations

Rosemount, Inc.: Shakopee, Minnesota USA

Rosemount DP Flow Design and Operations: Boulder, Colorado USA

Emerson Process Management: Cluj-Napoca, Romania

Emerson Asia Pacific Private Limited: Singapore

Emerson Beijing Instrument Co., Ltd: Beijing, China

Emerson's Solutions Center in Dubai, UAE

6.2 European Directive information

The EU Declaration of Conformity for all applicable European directives for this product can be found either in Hazardous locations certifications or on the website at Rosemount Primary Elements Declaration of Conformity.

Contact your local sales office to obtain a hard copy.

European Pressure Equipment Directive (PED) (97/23/EC)

Refer to the EU declaration of conformity for the conformity assessment.

Pressure Transmitter — See appropriate Pressure Transmitter QSG.

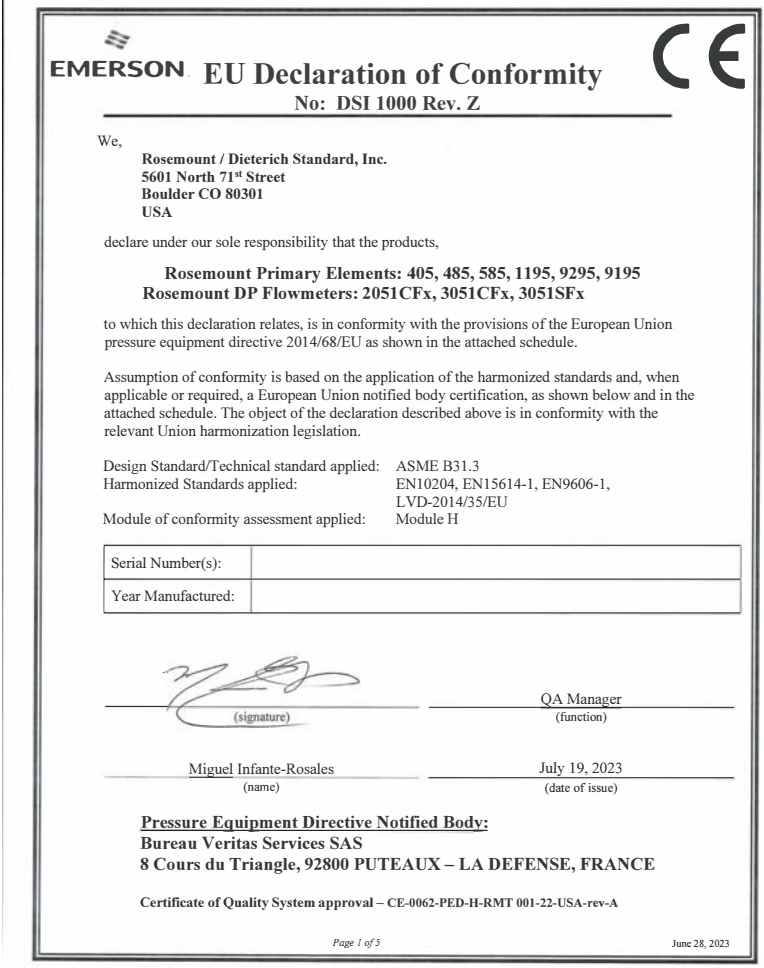
Nameplate indicated design conditions shall never be exceeded.

6.3 Hazardous locations certifications

For information regarding the electronics product certification, see the appropriate transmitter Quick Start Guide:

- Rosemount 3051S: Rosemount 3051S Series Pressure Transmitter and Rosemount 3051SF Series Flow Meter with HART® Protocol Quick Start Guide
- Rosemount 3051SMV: Rosemount 3051S and 3051SF Series Flow Meter MultiVariable™ Transmitters Quick Start Guide
- Rosemount 3051: Rosemount 3051 Pressure Transmitter and 3051CF Series Flow Meter with 4-20 mA HART and 1-5 Vdc Low Power Protocol Quick Start Guide
- Rosemount 4088: Rosemount 4088B MultiVariable ™ Transmitter Quick Start Guide

Figure 6-1: Rosemount 9195 Declaration of Conformity



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EU Declaration of Conformity

No: DSI 1000 Rev. Z

We,

Rosemount / Dieterich Standard, Inc.
5601 North 71st Street
Boulder CO 80301
USA

declare under our sole responsibility that the products,

Rosemount Primary Elements: 405, 485, 585, 1195, 9295, 9195
Rosemount DP Flowmeters: 2051CFx, 3051CFx, 3051SFx

to which this declaration relates, is in conformity with the provisions of the European Union pressure equipment directive 2014/68/EU as shown in the attached schedule.

Assumption of conformity is based on the application of the harmonized standards and, when applicable or required, a European Union notified body certification, as shown below and in the attached schedule. The object of the declaration described above is in conformity with the relevant Union harmonization legislation.

Design Standard/Technical standard applied:	ASME B31.3
Harmonized Standards applied:	EN10204, EN15614-1, EN9606-1, LVD-2014/35/EU
Module of conformity assessment applied:	Module H

Serial Number(s):	
Year Manufactured:	

(signature) — QA Manager (function)

Miguel Infante-Rosales (name) — July 19, 2023 (date of issue)

Pressure Equipment Directive Notified Body:
Bureau Veritas Services SAS
8 Cours du Triangle, 92800 PUTEAUX – LA DEFENSE, FRANCE

Certificate of Quality System approval – CE-0062-PED-H-RMT 001-22-USA-rev-A

Page 1 of 5 June 28, 2023

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EU Declaration of Conformity

No: DSI 1000 Rev. Z

PED Directive (2014/68/EU) ***This directive is valid from 19 July 2016***

Summary of Classifications – Group 1 Dangerous Fluids		
Model/Range	Hazard Classification	
	Gas	Liquid
585S (Flanged): CL150/PN16 to CL900/PN160 (Sensor 11, 22 & 44)	SEP	SEP
585S (Flanged): CL1500/PN250 to CL2500/PN400 (Sensor 11 & 22)	CAT I*	SEP
585S (Flanged): CL1500/PN250 & CL2500/PN400 (Sensor 44)	CAT III	SEP
405A, 405C, 405P Compact Primary Element (x051xFC)	SEP	SEP
1195, x051xFP: 1/2" & 1" (All types & Ratings)	SEP	SEP
1195, x051xFP: CL150/PN16 1-1/2"	CAT I*	SEP
1195, x051xFP: CL300/PN40 1-1/2"	CAT II*	SEP
1195, x051xFP: CL600/PN100 to CL900/PN160 1-1/2"	CAT II*	CAT II
1195, x051xFP: 1-1/2" Threaded & Welded	CAT II*	CAT II
Pak-Lok – 485/x051xFA: All (CL600/PN100 Rating) All Lines	SEP	SEP
Flanged – 485/x051xFA: CL150/PN16 to CL900/PN160 All Lines	SEP	SEP
Flanged – 485/x051xFA: CL1500/PN250 & CL2500/PN400 All Lines	CAT I*	SEP
Flange-Lok – 485/x051xFA: CL150/PN16 to CL600/PN100 All Lines	SEP	SEP
Flo-Tap – 485/x051xFA: Sensor Size 1 CL150/PN16 to CL600/PN100 2" to 8" Line	SEP	SEP
Flo-Tap – 485/x051xFA : Sensor Size 2 CL150/PN16 6" to 24" Line	CAT I*	SEP
Flo-Tap – 485/x051xFA : Sensor Size 2 CL150/PN16 30" to 36" Line	CAT II*	SEP
Flo-Tap – 485/x051xFA : Sensor Size 2 CL300/PN40 6" to 36" Line	CAT II*	SEP
Flo-Tap – 485/x051xFA : Sensor Size 2 CL600/PN100 6" to 14" Line	CAT II*	SEP
Flo-Tap – 485/x051xFA : Sensor Size 2 CL600/PN100 16" to 36" Line	CAT III	CAT II
Flo-Tap – 485/x051xFA : Sensor Size 3 CL150/PN16 12" to 36" Line	CAT II*	SEP
Flo-Tap – 485/x051xFA: Sensor Size 3 CL150/PN16 42" to 72" Line	CAT III	CAT II
Flo-Tap – 485/x051xFA: Sensor Size 3 CL300/PN40 12 to 72" Line	CAT III	CAT II
Flo-Tap – 485/x051xFA : Sensor Size 3 CL600/PN100 12" to 36" Line	CAT III	CAT II
Flo-Tap – 485/x051xFA : Sensor Size 3 CL600/PN100 42" to 72" Line	N/A	CAT II
Flo-Tap – 585: Sensor Size 44 CL150/PN16 (Line Size Code <= 420)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL150/PN16 (Line Size Code > 420, <=720)	CAT I*	SEP
Flo-Tap – 585: Sensor Size 44 CL300/PN40 (Line Size Code <= 420)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL300/PN40 (Line Size Code > 420, <=720)	CAT II*	SEP
Flo-Tap – 585: Sensor Size 44 CL600/PN10 (Line Size Code <= 420)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL600/PN100 (Line Size Code > 420, <=720)	CAT II*	SEP
585M: Sensor Size 44	CAT III*	SEP
9295, CL150/PN16, 2"	CAT I*	SEP
9295, CL150/PN16, 3" & 4"	CAT II*	SEP
9295, CL150/PN16, 6"	CAT II*	CAT II
9295, CL300/PN40 to CL900/PN160, 2"	CAT II*	SEP
9295, CL300/PN40 to CL900/PN160, 3" & 4"	CAT II*	CAT II
9295, CL300/PN40 to CL900/PN160, 6"	CAT III	CAT II
9195, CL150/PN16, NPS 2 (DN50)	CAT I*	SEP
9195, CL150/PN16, NPS 3 (DN80) to NPS 4 (DN100)	CAT II*	SEP
9195, CL150/PN16, NPS 6 (DN150) to NPS 8 (DN200)	CAT II*	CAT II
9195, CL300/PN40, NPS 2 (DN50)	CAT II*	SEP
9195, CL300/PN40 to CL600/PN100, NPS 3 (DN80) to NPS 4 (DN100)	CAT II*	CAT II
9195, CL300/PN40 to CL600/PN100, NPS 6 (DN150) to NPS 8 (DN200)	CAT III	CAT II

Page 2 of 5 July 19, 2023

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EU Declaration of Conformity

No: DSI 1000 Rev. Z

Summary of Classifications – Group 1 Dangerous Fluids		
Model/Range	Hazard Classification	
	Gas	Liquid
9195, CL600/PN100, NPS 2 (DN50)	CAT II*	CAT II

***When fluid is an unstable gas, these items are Cat III**

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EU Declaration of Conformity

No: DSI 1000 Rev. Z

PED Directive (2014/68/EU) ***This directive is valid from 19 July 2016***

Summary of Classifications – Group 2 All Other Fluids		
Model/Range	Hazard Classification	
	Gas	Liquid
585S (Flanged): CL150/PN16 to CL2500/PN400 (Sensor 11, 22, &44)	SEP	SEP
405A, 405C, 405P Compact Primary Element (x051xFC)	SEP	SEP
1195, x051xFP: 1/2" & 1" (All Versions)	SEP	SEP
1195, x051xFP: CL150/PN16 1-1/2"	SEP	SEP
1195, x051xFP: CL300/PN40 - CL900/PN160 1-1/2"	I	SEP
1195, x051xFP: 1-1/2" Threaded & Welded	I	SEP
Pak-Lok – 485/x051xFA: All (CL600/PN100 Rating) All Lines	SEP	SEP
Flanged – 485/x051xFA: CL150/PN16 to CL900/PN160 All Lines	SEP	SEP
Flanged – 485/x051xFA: CL1500/PN250 & CL2500/PN400 All Lines	SEP	SEP
Flange-Lok – 485/x051xFA: CL150/PN16 to CL600/PN100 All Lines	SEP	SEP
Flo-Tap – 485/x051xFA: Sensor Size 1 CL150/PN16 to CL600/PN100 2" to 8" Line	SEP	SEP
Flo-Tap – 485/x051xFA: Sensor Size 2 CL150/PN16 6" to 24" Line	SEP	SEP
Flo-Tap – 485/x051xFA: Sensor Size 2 CL150/PN16 30" to 36" Line	CAT I	SEP
Flo-Tap – 485/x051xFA: Sensor Size 2 CL300/PN40 6" to 36" Line	CAT I	SEP
Flo-Tap – 485/x051xFA: Sensor Size 2 CL600/PN100 6" to 14" Line	CAT I	SEP
Flo-Tap – 485/x051xFA: Sensor Size 2 CL600/PN100 16" to 36" Line	CAT II	SEP
Flo-Tap – 485/x051xFA: Sensor Size 3 CL150/PN16 12" to 36" Line	CAT I	SEP
Flo-Tap – 485/x051xFA: Sensor Size 3 CL150/PN16 42" to 72" Line	CAT II	SEP
Flo-Tap – 485/x051xFA: Sensor Size 3 CL300/PN40 12 to 72" Line	CAT II	SEP
Flo-Tap – 485/x051xFA: Sensor Size 3 CL600/PN100 12" to 36" Line	CAT III	SEP
Flo-Tap – 485/x051xFA: Sensor Size 3 CL600/PN100 42" to 72" Line	CAT III	SEP
Flo-Tap – 585: Sensor Size 44 CL150/PN16 (Line Size Code <= 420)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL150/PN16 (Line Size Code > 420, <=720)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL300/PN40 (Line Size Code <= 420)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL300/PN40 (Line Size Code > 420, <=720)	CAT I	SEP
Flo-Tap – 585: Sensor Size 44 CL600/PN10 (Line Size Code <= 420)	SEP	SEP
Flo-Tap – 585: Sensor Size 44 CL600/PN100 (Line Size Code > 420, <=720)	CAT I	SEP
585M: Sensor Size 44	SEP	SEP
9295, CL150/PN16, 2"	SEP	SEP
9295, CL150/PN16, 3" to 6"	I	SEP
9295. CL300/PN40 to CL900/PN160, 2" to 4"	I	SEP
9295, CL300/PN40 to CL900/PN160, 6"	II	SEP
9195, CL150/PN16, NPS 2 (DN50)	SEP	SEP
9195, CL150/PN16, NPS 3 (DN80) to NPS 8 (DN200)	CAT I	SEP
9195, CL300/PN40 to CL600/PN100, NPS 2 (DN50) to NPS 4 (DN100)	CAT I	SEP
9195, CL300/PN40 to CL600/PN100, NPS 6 (DN150) to NPS 8 (DN200)	CAT II	SEP

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No: DSI 1000 Rev. Z

RoHS Directive (2011/65/EU)

Models 3051CFx, 2051CFx
Harmonized standard: EN 50581:2012

Only applies to the following models:

- *3051CFx with 4-20 mA HART output code A*
- *3051CFx with FOUNDATION Fieldbus output code F*
- *3051CFx with Profibus PA output code W*
- *2051CFx with 4-20 mA HART output code A*

Page 5 of 5

July 19, 2023

Quick Start Guide
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For more information: **Emerson.com/global**

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