Quick Start Guide
00825-0100-4804, Rev BC
August 2016

Rosemount 3051S Electronic Remote Sensor (ERS)™ System

with HART® Protocol

CE HART COMMUNICATION PROTOCOL

EMERSON™
Process Management

NOTICE

This guide provides basic guidelines for the Rosemount 3051S ERS System. It does not provide instructions for diagnostics, maintenance, service, or troubleshooting. Refer to the Rosemount 3051S ERS Reference Manual for more instruction. This document is also available electronically on EmersonProcess.com/Rosemount.

⚠ WARNING

Explosions could result in death or serious injury.

Installation of this transmitter in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Review the approvals section of the Rosemount 3051S ERS Reference Manual for any restrictions associated with a safe installation.

- Before connecting a Field Communicator in an explosive atmosphere, ensure the instruments in the loop are installed in accordance with intrinsically safe or non-incendive field wiring practices.
- In an Explosion-proof/Flameproof installation, do not remove the transmitter covers when power is applied to the unit.

Process leaks may cause harm or result in death.

- Install and tighten process connectors before applying pressure.

Electrical shock can result in death or serious injury.

- Avoid contact with the leads and terminals. High voltage that may be present on leads can cause electrical shock.

Conduits/cable entries

- Unless otherwise marked, the conduit / cable entries in the Rosemount 3051S ERS housing enclosure use a $^{1}/_{2}$–14 NPT form. Only use plugs, adapters, glands, or conduit with a compatible thread form when closing these entries.

Contents

1.0 Identify all Rosemount 3051S ERS System components

A complete Rosemount ERS system contains two sensors. One is mounted on the high-pressure (P_{HI}) process connection, and the other is mounted on the low-pressure (P_{LO}) process connection. An optional remote display and interface may also be included (not pictured) if ordered.

1. Look at the wire-on tag on the Rosemount 3051S sensor to identify whether it is configured as the P_{HI} or P_{LO} sensor.
2. Locate the second sensor that will be used in the Rosemount 3051S ERS system:
   - For new installations or applications, the second Rosemount 3051S ERS sensor may have been shipped in a separate box.
   - If servicing or replacing part of an existing Rosemount 3051S ERS system, the other sensor may already be installed.

2.0 Mount each Rosemount 3051S ERS

Mount the P_{HI} and P_{LO} sensors at the correct process connections for the application. Common Rosemount 3051S ERS installations are shown in Figure 1 and Figure 2.

2.1 Vertical installation

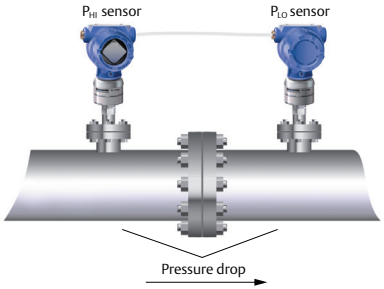
In a vertical installation such as on a vessel or distillation column, the P_{HI} sensor should be installed at the bottom process connection. The P_{LO} sensor should be installed at the top process connection.

Figure 1. Vertical Rosemount 3051S ERS Installation

2.2 Horizontal installation

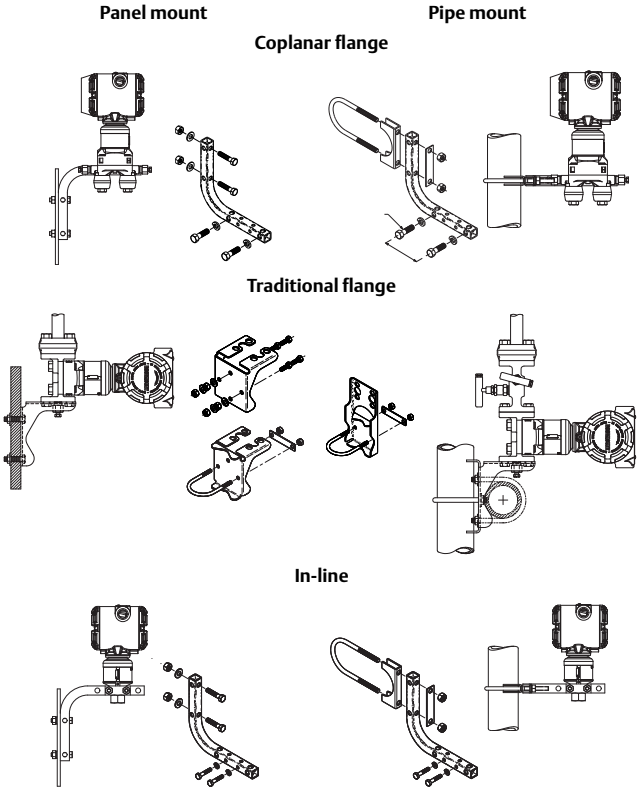
In a horizontal installation, the P_{HI} sensor should be installed at the upstream process connection. The P_{LO} sensor should be installed downstream.

Figure 2. Horizontal Rosemount 3051S ERS Installation



2.3 Mounting bracket

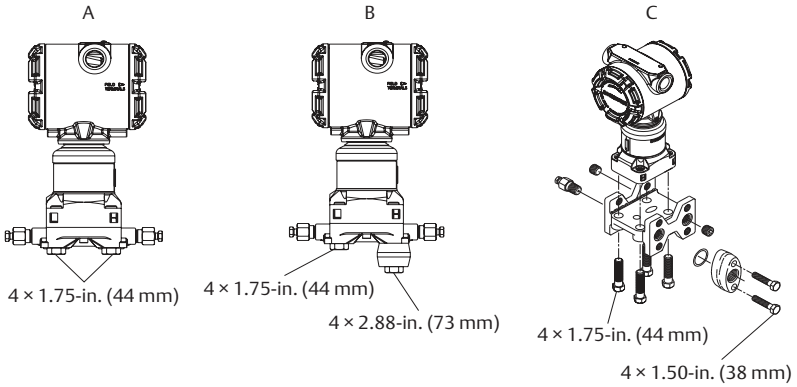
Figure 3. Mounting Bracket Assemblies



2.4 Bolting

If the installation requires assembly of a process flange, manifold, or flange adaptors, follow these assembly guidelines to ensure a tight seal for optimal performance characteristics of the Rosemount 3051S ERS System. Only use bolts supplied with the transmitter or sold by Emerson™ Process Management as spare parts. Figure 4 illustrates common transmitter assemblies with the bolt length required for proper transmitter assembly.

Figure 4. Common Transmitter Assemblies



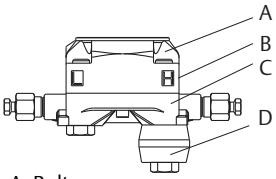
A. Transmitter with coplanar flange
B. Transmitter with coplanar flange and flange adapters
C. Transmitter with traditional flange and flange adapters

Bolts are typically carbon steel or stainless steel. Confirm the material by viewing the marking on the head of the bolt and referencing Table 1. If bolt material is not shown in Table 1, contact your local Emerson Process Management representative for more information.

Use the following bolt installation procedure:

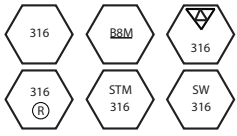
1. Carbon steel bolts do not require lubrication. Stainless steel bolts are coated with a lubricant to ease installation, however no additional lubricant should be applied when installing either type of bolt.
2. Finger-tighten the bolts.
3. Torque the bolts to the initial torque value using a crossing pattern. See Table 1 for initial torque value.
4. Torque the bolts to the final torque value using the same crossing pattern. See Table 1 for final torque value.
5. Verify that the flange bolts are protruding through the module isolator plate before applying pressure (See Figure 5).

Figure 5. Module Isolator Plate



A. Bolt
B. Sensor module isolator plate
C. Coplanar flange
D. Flange adapters

Table 1. Torque Values for the Flange and Flange Adapters Bolts

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

O-rings with flange adapters

⚠ WARNING

Use only the O-rings included with the flange adapter for the 3051S ERS sensor. Failure to install proper fitting flange adapter O-rings may cause process leaks, which can result in death or serious injury.

When removing flanges or adapters, visually inspect the PTFE O-rings. Replace them if there are any signs of damage such as nicks or cuts. If replacing O-rings, re-torque the flange bolts after installation to compensate for seating of the PTFE O-ring.

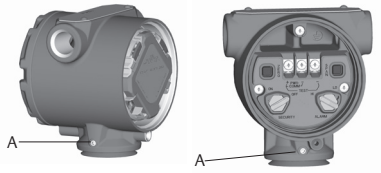
3.0 Consider housing rotation

To improve field access to wiring or to better view the optional LCD display:

1. Loosen the housing rotation set screw.
2. Turn the housing up to 180° left or right of its original (as shipped) position.
3. Retighten the housing rotation set screw.

Figure 6. Housing Rotation

PlantWeb **Junction box**



A. Housing rotation set screw ($^3/_{32}$-in.)

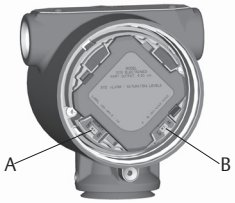
Note
Do not rotate the housing on each transmitter more than 180° without first performing a disassembly procedure (see Section 2 of the Rosemount 3051S ERS Reference Manual for more information). Over-rotation may sever the electrical connection between the sensor module and feature board electronics.

4.0 Set switches

If the Rosemount 3051S ERS sensor is equipped with alarm and security hardware switches, verify the desired configuration (default: alarm = HI, security = OFF).

1. If the sensor is installed, secure the loop and remove power.
2. Remove the housing cover opposite the field terminals side. Do not remove the housing cover in explosive environments.
3. Slide the security and alarm switches into the preferred positions by using a small screwdriver.
4. Reinstall the housing cover so that metal contacts metal to meet explosion-proof requirements.

Figure 7. Transmitter Switch Configuration



A. Security switch
B. Alarm switch

5.0 Connect wiring and power up

A Rosemount 3051S ERS System can be wired in a variety of configurations, depending on the hardware that was ordered.

5.1 Standard Rosemount 3051S ERS system (Figure 8)

1. Remove the housing cover labeled “Field Terminals” on both Rosemount 3051S ERS sensors.
2. Using the Rosemount 3051S ERS communication cable (if ordered) or an equivalent 4-wire shielded assembly per the specifications detailed below, connect the 1, 2, A, and B terminals between the two sensors per Figure 8.
3. Connect the Rosemount 3051S ERS System to the control loop by connecting the + and - PWR/COMM terminals to the positive and negative leads, respectively.
4. Plug and seal all unused conduit connections.

5. If applicable, install wiring with a drip loop. Arrange the drip loop so that the bottom is lower than the conduit connections on the transmitter housings.
6. Reinstall and tighten the housing covers on both sensors so that metal contacts metal to meet explosion-proof requirements.

5.2 Rosemount 3051S ERS system with remote display and interface (Figure 9 and Figure 10)

1. Remove the housing cover labeled “Field Terminals” on both Rosemount 3051S ERS sensors and the remote housing.
2. Using the Rosemount 3051S ERS communication cable (if ordered) or an equivalent 4-wire shielded assembly per the specifications detailed below, connect the 1, 2, A, and B terminals between the two sensors and remote housing in a “tree” (Figure 9) or “daisy-chain” (Figure 10) configuration.
3. Connect the Rosemount 3051S ERS System to the control loop by connecting the + and - PWR/COMM terminals on the remote housing to the positive and negative leads, respectively.
4. Plug and seal all unused conduit connections.
5. If applicable, install wiring with a drip loop. Arrange the drip loop so that the bottom is lower than the conduit connections on the transmitter housings.
6. Reinstall and tighten all housing covers so that metal contacts metal to meet explosion-proof requirements.

5.3 Wiring diagrams

Figure 8 to Figure 10 show the wiring connections necessary to power a Rosemount 3051S ERS System and enable communications with a hand-held Field Communicator.

Note
The wiring connection between the sensors (and remote housing if applicable) must be made directly. An intrinsically safe barrier or other high-impedance device will cause the Rosemount 3051S ERS System to malfunction if placed in between any of the Rosemount 3051S ERS sensors.

5.4 Rosemount 3051S ERS cable specifications

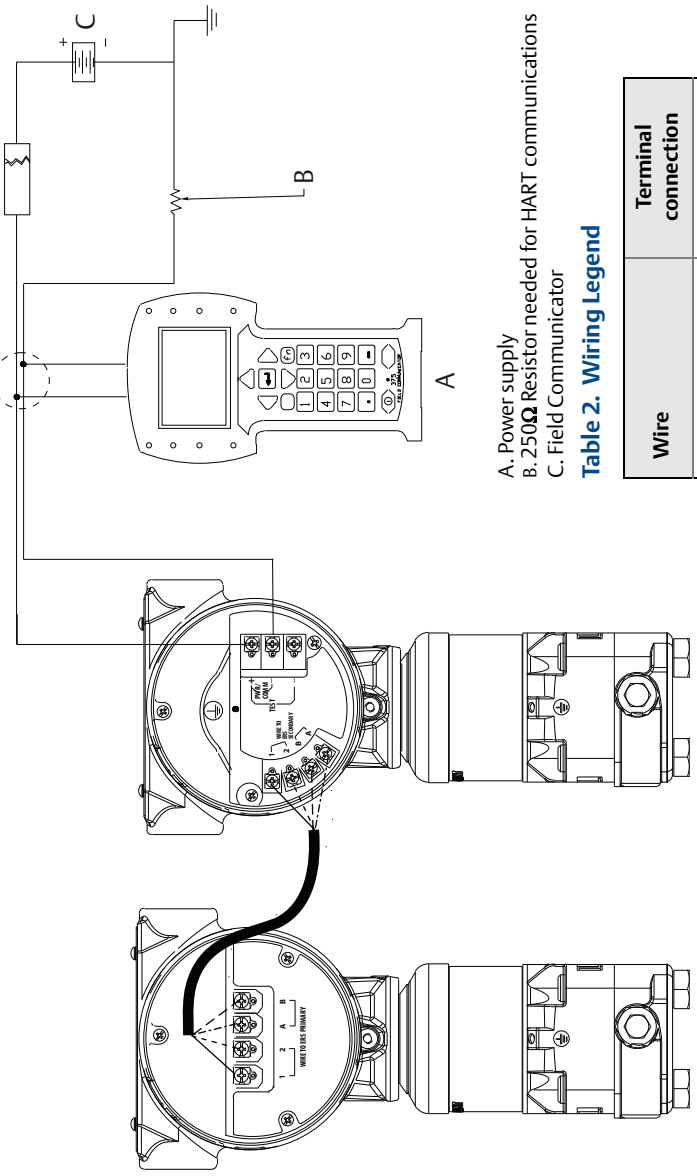
Cable type: Recommend Madison AWM Style 2549 cable. Other comparable cable may be used as long as it has independent dual twisted shielded pair wires with an outer shield. The power wires (pin terminals 1 and 2) must be 22 AWG minimum and the communication wires (pin terminals A and B) must be 24 AWG minimum.

Cable length: Up to 150 ft (45,7 m) depending upon cable capacitance.

Cable capacitance: The capacitance between the communication terminals (pin terminals A and B) as wired must be less than 5000 picofarads total. This allows up to 50 picofarads per ft (0,3 m) for a 100 ft (31 m) cable.

Cable outside diameter (O.D.): 0.270-in. (6,86 mm)

Figure 8. Wiring Diagram for Standard Rosemount 3051S ERS System

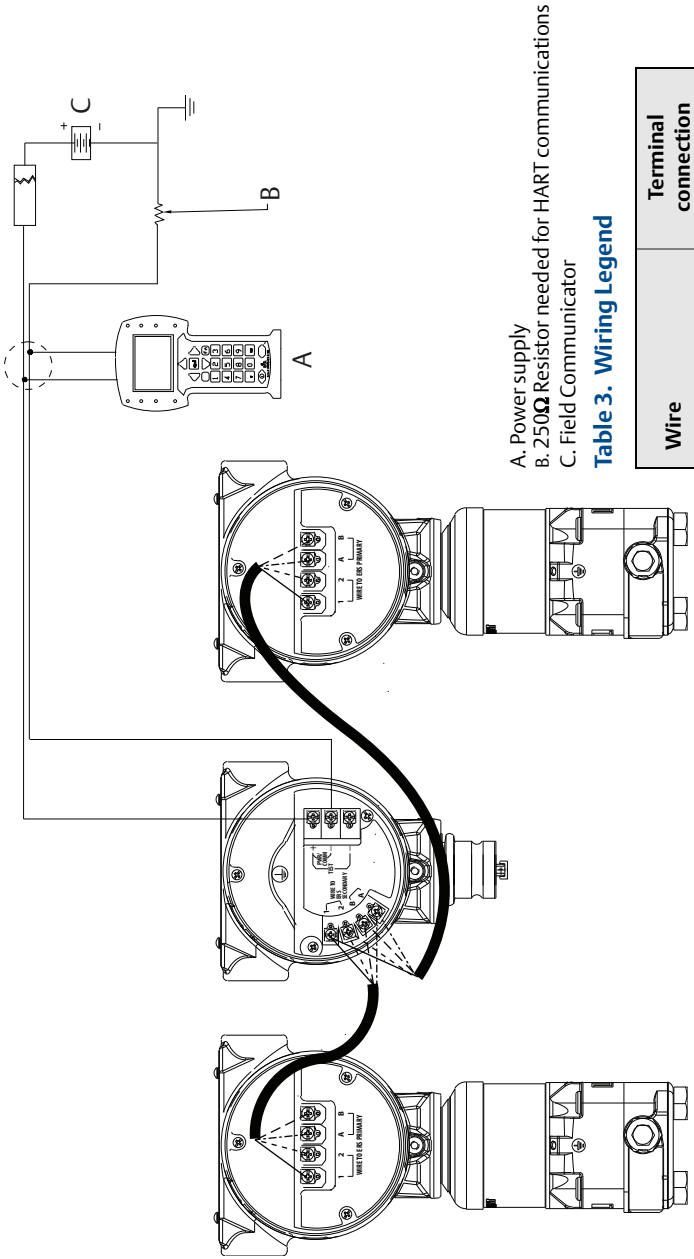


A. Power supply
B. 250Ω Resistor needed for HART communications
C. Field Communicator

Table 2. Wiring Legend

Wire	Terminal connection
Red	1
Black	2
White	A
Blue	B

Figure 9. Wiring Diagram for Rosemount 3051S ERS System with Remote Display in "Tree" Configuration

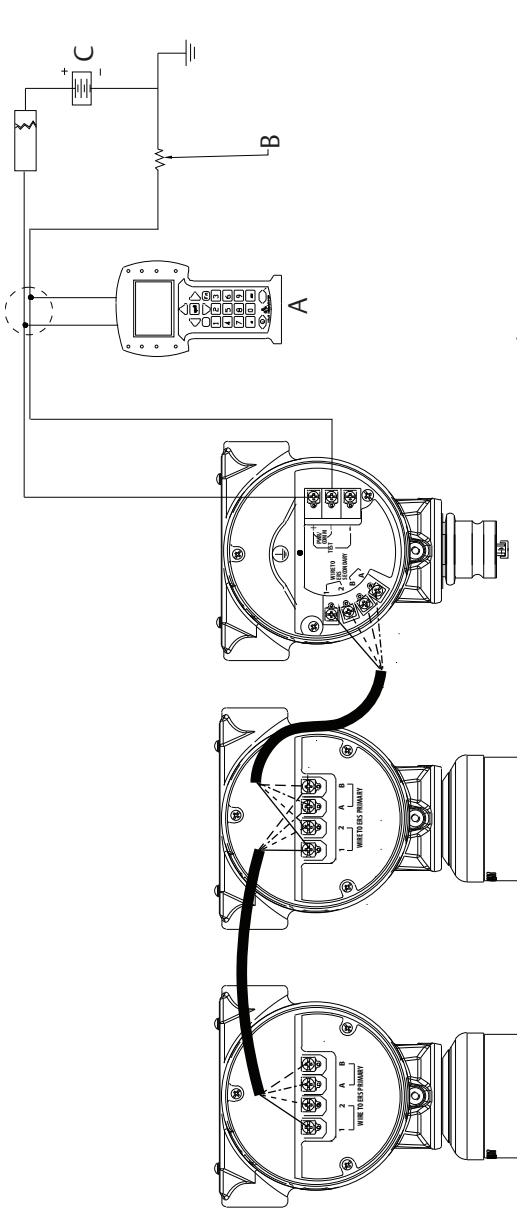


A. Power supply
B. 250Ω Resistor needed for HART communications
C. Field Communicator

Table 3. Wiring Legend

Wire	Terminal connection
Red	1
Black	2
White	A
Blue	B

Figure 10. Wiring Diagram for Rosemount 3051S ERS System with Remote Display in "Daisy-Chain" Configuration



A. Power supply
B. 250Ω Resistor needed for HART communications
C. Field Communicator

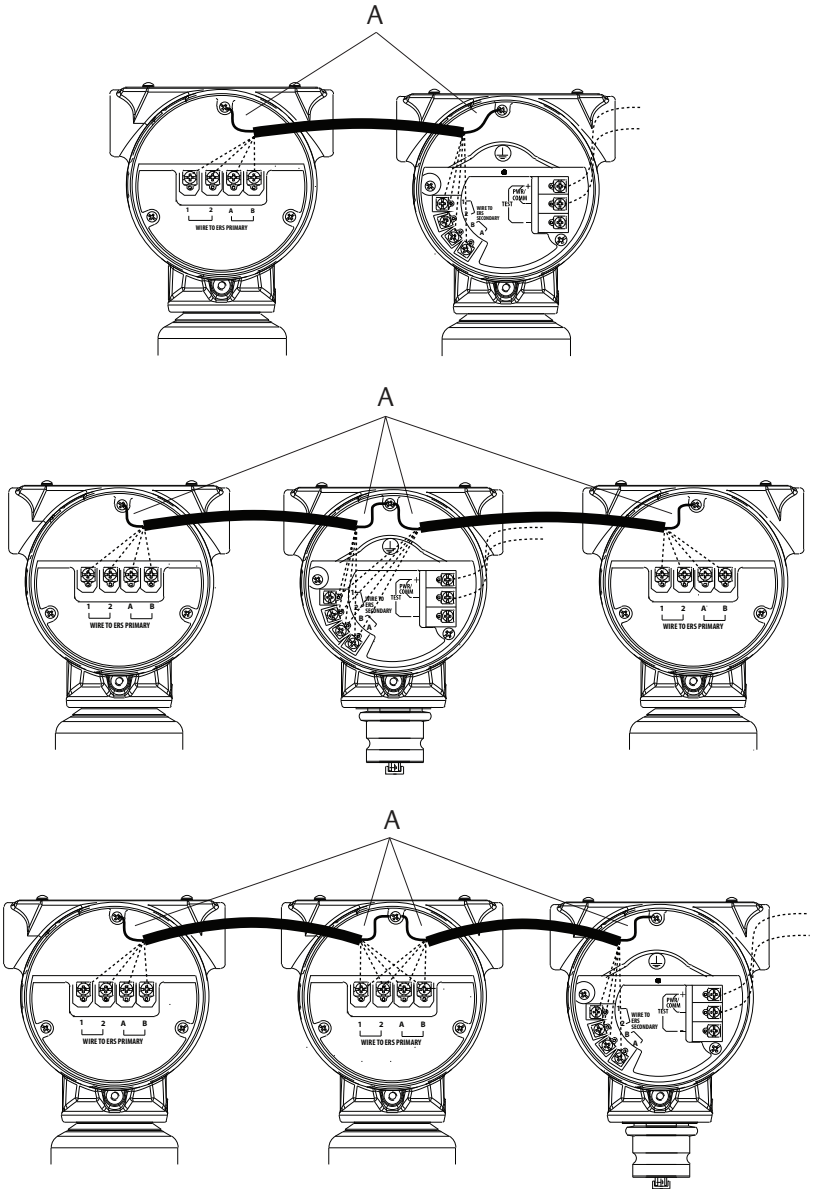
Table 4. Wiring Legend

Wire		Terminal connection
———	Red	1
- - - - - -	Black	2
— - — - —	White	A
————	Blue	B

5.5 Shield grounding

Connect the shield from the Rosemount 3051S ERS communication cable assembly to each housing case as shown for the applicable wiring configuration in Figure 11.

Figure 11. Shield Grounding



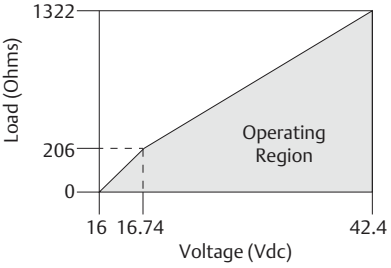
A. Cable shield

5.6 Power supply

The DC power supply should provide power with less than two percent ripple. The total resistance load is the sum of the resistance of the two signal leads and the load resistance of the controller, indicator, intrinsic safety barriers, and related components.

Figure 12. Load Limitation

If supply voltage ≤ 16.74 Vdc,
Maximum loop resistance = 277.8 × (Power supply voltage – 16.0)
If supply voltage > 16.74 Vdc,
Maximum loop resistance = 43.5 × (Power supply voltage – 12.0)



6.0 Verify configuration

As part of the basic commissioning process of the Rosemount 3051S ERS System, the parameters in Table 5 should be verified/configured with a HART-compliant master (see Figure 8 to Figure 10 for connecting a hand-held Field Communicator):

Table 5. Basic Configuration HART Fast Key Sequence

Function	Fast Key sequence
Device Tagging	
Tag	2, 1, 1, 1, 1
Long Tag	2, 1, 1, 1, 2
Descriptor	2, 1, 1, 1, 3
Message	2, 1, 1, 1, 4
Units of Measure	
P_{LO} Pressure	2, 1, 1, 2, 1, 1
P_{LO} Module Temperature	2, 1, 1, 2, 1, 2
System DP	2, 1, 1, 2, 1, 3
P_{HI} Module Temperature	2, 1, 1, 2, 1, 4
P_{HI} Pressure	2, 1, 1, 2, 1, 5

Table 5. Basic Configuration HART Fast Key Sequence

Function	Fast Key sequence
Damping	
P_{LO} Pressure	2, 1, 1, 2, 2, 1
System DP	2, 1, 1, 2, 2, 2
P_{HI} Pressure	2, 1, 1, 2, 2, 3
Variable Mapping	
Primary Variable	2, 1, 1, 3, 1
2nd Variable	2, 1, 1, 3, 2
3rd Variable	2, 1, 1, 3, 3
4th Variable	2, 1, 1, 3, 4
Analog Output	
Primary Variable	2, 1, 1, 4, 1
Upper Range Value	2, 1, 1, 4, 2
Lower Range Value	2, 1, 1, 4, 3
Alarm and Saturation Levels	2, 1, 1, 5

The items in Table 6 are considered “optional” and can be configured as necessary:

Table 6. Optional Configuration HART Fast Key Sequence

Function	Fast Key sequence
Device Display	2, 1, 3
Burst Mode	
Burst Mode	2, 1, 4, 1
Burst Option	2, 1, 4, 2
Scaled Variable	
Linear (2-point) Scaled Variable	2, 1, 5, 1
Non-Linear (Multi-point) Scaled Variable	2, 1, 5, 2
Change Module Assignments	
View Module 1 Assignment	2, 1, 6, 1
View Module 2 Assignment	2, 1, 6, 2
Set Module 1 = P_{HI}, Module 2 = P_{LO}	2, 1, 6, 3
Set Module 1 = P_{LO}, Module 2 = P_{HI}	2, 1, 6, 4
View Device Topology	2, 1, 6, 5

7.0 Calibrate the Rosemount 3051S ERS System

Each Rosemount 3051S ERS sensor is shipped fully calibrated per request or with the factory default of full scale. After the Rosemount 3051S ERS System has been installed and wired, either a zero trim or a lower sensor trim should be performed on each sensor to compensate for installation effects.

- A zero sensor trim should be performed after installing a gage sensor. A zero sensor trim should not be performed on an absolute sensor or on a gage sensor that is at line pressure.
- A lower sensor trim should be performed after installing an absolute sensor or a gage sensor that is at line pressure.

Additionally, a "System DP Zero" trim should be performed to establish a zero-based DP reading. The "System DP Zero" trim should be performed after a zero/lower trim has been performed on each sensor.

The steps outlined below detail the procedures for the sensor trims and the "System DP Zero" trim.

7.1 Rosemount 3051S ERS System calibration

1. Equalize or vent both Rosemount 3051S ERS sensors and connect a Field Communicator as shown in Figure 8 to Figure 10.
2. Input the following Fast Key sequence on the Field Communicator to trim each sensor and the DP reading. Follow the commands prompted by the Field Communicator.

Table 7. ERS Calibration HART Fast Key Sequence

Function	Fast Key sequence
P-Hi Sensor Zero Trim	3, 4, 3, 1, 3
P-Hi Sensor Lower Trim	3, 4, 3, 1, 2
P-Lo Sensor Zero Trim	3, 4, 4, 1, 3
P-Lo Sensor Lower Trim	3, 4, 4, 1, 2
System DP Zero Trim	3, 4, 2, 1, 3

Note

1. The "System DP Zero Trim" should be performed after the P-Hi and P-Lo sensor trims.
2. Refer to the Rosemount 3051S ERS Reference Manual for the recommended calibration procedure for performing a sensor trim at line pressure.

8.0 Product Certifications

Rev 1.9

8.1 European Directive Information

A copy of the EU Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the EU Declaration of Conformity can be found at EmersonProcess.com/Rosemount.

8.2 Ordinary Location Certification

As standard, the transmitter has been examined and tested to determine that the design meets the basic electrical, mechanical, and fire protection requirements by a nationally recognized test laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

8.3 Installing Equipment in North America

The US National Electrical Code® (NEC) and the Canadian Electrical Code (CEC) permit the use of Division marked equipment in Zones and Zone marked equipment in Divisions. The markings must be suitable for the area classification, gas, and temperature class. This information is clearly defined in the respective codes.

8.4 USA

E5 FM Explosionproof (XP) and Dust-Ignitionproof (DIP)
Certificate: 3008216
Standards: FM Class 3600 – 2011, FM Class 3615 – 2006, FM Class 3616 – 2011, FM Class 3810 – 2005, ANSI/NEMA® 250 – 2003
Markings: XP CL I, DIV 1, GP B, C, D; DIP CL II, DIV 1, GP E, F, G; CL III; T5(–50 °C ≤ T_a ≤ +85 °C); Factory Sealed; Type 4X

I5 FM Intrinsic Safety (IS) and Nonincendive (NI)
Certificate: 3012350
Standards: FM Class 3600 – 2011, FM Class 3610 – 2010, FM Class 3611 – 2004, FM Class 3810 – 2005, NEMA 250 – 2003
Markings: IS CL I, DIV 1, GP A, B, C, D; CL II, DIV 1, GP E, F, G; Class III; Class 1, Zone 0 AEx ia IIC T4; NI CL 1, DIV 2, GP A, B, C, D; T4(–50 °C ≤ T_a ≤ +70 °C) [HART]; T4(–50 °C ≤ T_a ≤ +60 °C) [Fieldbus]; when connected per Rosemount drawing 03151-1006; Type 4X

Special Condition for Safe Use:

1. The Rosemount 3051S/3051S-ERS Pressure Transmitter contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact and friction.

Note
Transmitters marked with NI CL 1, DIV 2 can be installed in Division 2 locations using general Division 2 wiring methods or Nonincendive Field Wiring (NIFW). See Drawing 03151-1006.

IE FM FISCO
Certificate: 3012350
Standards: FM Class 3600 – 2011, FM Class 3610 – 2010, FM Class 3611 – 2004, FM Class 3810 – 2005, NEMA 250 – 2003
Markings: IS CL I, DIV 1, GP A, B, C, D; T4(–50 °C ≤ T_a ≤ +60 °C); when connected per Rosemount drawing 03151-1006; Type 4X

Special Condition for Safe Use:

1. The Rosemount 3051S/3051S-ERS Pressure Transmitter contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact and friction.

8.5 Canada

E6 CSA Explosionproof, Dust-Ignitionproof, and Division 2
Certificate: 1143113
Standards: CAN/CSA C22.2 No. 0-10, CSA Std C22.2 No. 25-1966, CSA Std C22.2 No. 30-M1986, CAN/CSA C22.2 No. 94-M91, CSA Std C22.2 No. 142-M1987, CSA Std C22.2 No. 213-M1987, ANSI/ISA 12.27.01-2003, CSA Std C22.2 No. 60529:05
Markings: Explosionproof Class I, Division 1, Groups B, C, D; Dust-Ignitionproof Class II, Division 1, Groups E, F, G; Class III; suitable for Class I, Zone 1, Group IIB+H2, T5; suitable for Class I, Division 2, Groups A, B, C, D; suitable for Class I, Zone 2, Group IIC, T5; when connected per Rosemount drawing 03151-1013; Type 4X

I6 CSA Intrinsically Safe
Certificate: 1143113
Standards: CAN/CSA C22.2 No. 0-10, CSA Std C22.2 No. 30-M1986, CAN/CSA C22.2 No. 94-M91, CSA Std C22.2 No. 142-M1987, CSA Std C22.2 No. 157-92, ANSI/ISA 12.27.01-2003, CSA Std C22.2 No. 60529:05
Markings: Intrinsically Safe Class I, Division 1; Groups A, B, C, D; suitable for Class 1, Zone 0, IIC, T3C; when connected per Rosemount drawing 03151-1016 [3051S] 03151-1313 [ERS]; Type 4X

IF CSA FISCO
Certificate: 1143113
Standards: CAN/CSA C22.2 No. 0-10, CSA Std C22.2 No. 30-M1986, CAN/CSA C22.2 No. 94-M91, CSA Std C22.2 No. 142-M1987, CSA Std C22.2 No. 157-92, ANSI/ISA 12.27.01-2003, CSA Std C22.2 No. 60529:05
Markings: FISCO Intrinsically Safe Class I, Division 1; Groups A, B, C, D; suitable for Class 1, Zone 0, IIC, T3C; when connected per Rosemount drawing 03151-1016 [3051S] 03151-1313 [ERS]; Type 4X

8.6 Europe

E1 ATEX Flameproof
Certificate: KEMA 00ATEX2143X
Standards: EN 60079-0:2012, EN 60079-1:2007, EN 60079-26:2007 (3051SFx models with RTD are certified to EN60079-0:2006)
Markings: ⟨Ex⟩ II 1/2 G Ex d IIC T6...T4 Ga/Gb, T6(–60 °C ≤ T_a ≤ +70 °C), T5/T4(–60 °C ≤ T_a ≤ +80 °C)

Temperature class	Process temperature
T6	–60 °C to +70 °C
T5	–60 °C to +80 °C
T4	–60 °C to +120 °C

Special Conditions for Safe Use (X):

1. The device contains a thin wall diaphragm. Installation, maintenance and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.
2. For information on the dimensions of the flameproof joints, the manufacturer shall be contacted.

I1 ATEX Intrinsic Safety
Certificate: BAS01ATEX1303X
Standards: EN 60079-0:2012, EN 60079-11:2012
Markings: ⟨Ex⟩ II 1 G Ex ia IIC T4 Ga, T4(–60 °C ≤ T_a ≤ +70 °C)

Model	U_i	I_i	P_i	C_i	L_i
SuperModule™	30 V	300 mA	1.0 W	30 nF	0
3051S...A; 3051SF...A; 3051SAL...C	30 V	300 mA	1.0 W	12 nF	0
3051S...F; 3051SF...F	30 V	300 mA	1.3 W	0	0
3051S ...A...M7, M8, or M9; 3051SF ...A...M7, M8, or M9; 3051SAL...C... M7, M8, or M9	30 V	300 mA	1.0 W	12 nF	60 µH
3051SAL or 3051SAM	30 V	300 mA	1.0 W	12 nF	33 µH
3051SAL...M7, M8, or M9 3051SAM...M7, M8, or M9	30 V	300 mA	1.0 W	12 nF	93 µH
RTD Option for 3051SF	5 V	500 mA	0.63 W	N/A	N/A

Special Conditions for Safe Use (X):

1. The Rosemount 3051S Transmitters fitted with transient protection are not capable of withstanding the 500 V test as defined in Clause 6.3.13 of EN 60079-11:2012. This must be taken into account during installation.
2. The terminal pins of the Rosemount 3051S SuperModule must be provided with a degree of protection of at least IP20 in accordance with IEC/EN 60529.
3. The Rosemount 3051S enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in a zone 0 area.

IA ATEX FISCO
Certificate: BAS01ATEX1303X
Standards: EN 60079-0:2012, EN 60079-11:2012
Markings: ⟨Ex⟩ II 1 G Ex ia IIC T4 Ga, T4(–60 °C ≤ T_a ≤ +70 °C)

Parameter	FISCO
Voltage U_i	17.5 V
Current I_i	380 mA
Power P_i	5.32 W
Capacitance C_i	0
Inductance L_i	0

Special Conditions for Safe Use (X):

1. The Rosemount 3051S Transmitters fitted with transient protection are not capable of withstanding the 500 V test as defined in Clause 6.3.13 of EN 60079-11:2012. This must be taken into account during installation.
2. The terminal pins of the Rosemount 3051S SuperModule must be provided with a degree of protection of at least IP20 in accordance with IEC/EN 60529.
3. The Rosemount 3051S enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in a zone 0 area.

ND ATEX Dust
Certificate: BAS01ATEX1374X
Standards: EN 60079-0:2012, EN 60079-31:2009
Markings: ⟨Ex⟩ II 1 D Ex ta IIIC T105 °C T_{500} 95 °C Da, (–20 °C ≤ T_a ≤ +85 °C), V_{max} = 42.4 V

Special Conditions for Safe Use (X):

1. Cable entries must be used which maintain the ingress protection of the enclosure to at least IP66.
2. Unused cable entries must be filled with suitable blanking plugs which maintain the ingress protection of the enclosure to at least IP66.
3. Cable entries and blanking plugs must be suitable for the ambient temperature range of the apparatus and capable of withstanding a 7 J impact test.
4. The SuperModule(s) must be securely screwed in place to maintain the ingress protection of the enclosure(s).

N1 ATEX Type n
Certificate: BAS01ATEX3304X
Standards: EN 60079-0:2012, EN 60079-15:2010
Markings: ⟨Ex⟩ II 3 G Ex nA IIC T5 Gc, (–40 °C ≤ T_a ≤ +85 °C), V_{max} = 45 V

Special Condition for Safe Use (X):

1. The equipment is not capable of withstanding the 500 V insulation test required by clause 6.5 of EN 60079-15:2010. This must be taken into account when installing the equipment.

Note
RTD Assembly is not included with the Rosemount 3051SFx Type n Approval.

8.7 International

E7 IECEx Flameproof and Dust
Certificate: IECEx KEM 08.0010X (Flameproof)
Standards: IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-26:2006 (3051SFx models with RTD are certified to IEC 60079-0:2004)
Markings: Ex d IIC T6...T4 Ga/Gb, T6(–60 °C ≤ T_a ≤ +70 °C), T5/T4(–60 °C ≤ T_a ≤ +80 °C)

Temperature class	Process temperature
T6	–60 °C to +70 °C
T5	–60 °C to +80 °C
T4	–60 °C to +120 °C

Special Conditions for Safe Use (X):

1. The device contains a thin wall diaphragm. Installation, maintenance and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.
2. For information on the dimensions of the flameproof joints the manufacturer shall be contacted.

Certificate: IECEx BAS 09.0014X (Dust)
Standards: IEC 60079-0:2011, IEC 60079-31:2008
Markings: Ex ta IIIC T 105 °C T_{500} 95 °C Da, (–20 °C ≤ T_a ≤ +85 °C), V_{max} = 42.4 V

Special Conditions for Safe Use (X):

1. Cable entries must be used which maintain the ingress protection of the enclosure to at least IP66.
2. Unused cable entries must be filled with suitable blanking plugs which maintain the ingress protection of the enclosure to at least IP66.
3. Cable entries and blanking plugs must be suitable for the ambient temperature range of the apparatus and capable of withstanding a 7 J impact test.
4. The Rosemount 3051S SuperModule must be securely screwed in place to maintain the ingress protection of the enclosure.

I7 IECEx Intrinsic Safety
Certificate: IECEx BAS 04.0017X
Standards: IEC 60079-0: 2011, IEC 60079-11:2011
Markings: Ex ia IIC T4 Ga, T4(–60 °C ≤ T_a ≤ +70 °C)

Model	U_i	I_i	P_i	C_i	L_i
SuperModule	30 V	300 mA	1.0 W	30 nF	0
3051S...A; 3051SF...A; 3051SAL...C	30 V	300 mA	1.0 W	12 nF	0
3051S...F; 3051SF...F	30 V	300 mA	1.3 W	0	0
3051S ...A...M7, M8, or M9; 3051SF ...A...M7, M8, or M9; 3051SAL...C... M7, M8, or M9	30 V	300 mA	1.0 W	12 nF	60 µH
3051SAL or 3051SAM	30 V	300 mA	1.0 W	12 nF	33 µH

Model	U_i	I_i	P_i	C_i	L_i
3051SAL...M7, M8, or M9 3051SAM...M7, M8, or M9	30 V	300 mA	1.0 W	12 nF	93 µH
RTD Option for 3051SF	5 V	500 mA	0.63 W	N/A	N/A

Special Conditions for Safe Use (X):

1. The Rosemount 3051S Transmitters fitted with transient protection are not capable of withstanding the 500 V test as defined in Clause 6.3.13 of EN 60079-11:2012. This must be taken into account during installation.
2. The terminal pins of the Rosemount 3051S SuperModule must be provided with a degree of protection of at least IP20 in accordance with IEC/EN 60529.
3. The Rosemount 3051S enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in a zone 0 area.

I7 IECEx Intrinsic Safety – Group I - Mining (I7 with Special A0259)
Certificate: IECEx TSA 14.0019X
Standards: IEC 60079-0:2011, IEC 60079-11:2011
Markings: Ex ia I Ma (–60 °C ≤ T_a ≤ +70 °C)

Model	U_i	I_i	P_i	C_i	L_i
SuperModule	30 V	300 mA	1.0 W	30 nF	0
3051S...A; 3051SF...A; 3051SAL...C	30 V	300 mA	1.0 W	12 nF	0
3051S...F; 3051SF...F	30 V	300 mA	1.3 W	0	0
3051S ...A...M7, M8, or M9; 3051SF ...A...M7, M8, or M9; 3051SAL...C... M7, M8, or M9	30 V	300 mA	1.0 W	12 nF	60 µH
3051SAL or 3051SAM	30 V	300 mA	1.0 W	12 nF	33 µH
3051SAL...M7, M8, or M9 3051SAM...M7, M8, or M9	30 V	300 mA	1.0 W	12 nF	93 µH
RTD Option for 3051SF	5 V	500 mA	0.63 W	N/A	N/A

Special Conditions for Safe Use (X):

1. If the apparatus is fitted with optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by Clause 6.3.13 of IEC60079-11:2011. This must be taken into account when installing the apparatus.
2. It is a condition of safe use that the above input parameters shall be taken into account during installation.
3. It is a condition of manufacture that only the apparatus fitted with housing, covers and sensor module housing made out of stainless steel are used in Group I applications.

IG IECEx FISCO
Certificate: IECEx BAS 04.0017X
Standards: IEC 60079-0:2011, IEC 60079-11:2011
Markings: Ex ia IIC T4 Ga, T4(–60 °C ≤ T_a ≤ +70 °C)

Parameter	FISCO
Voltage U_i	17.5 V
Current I_i	380 mA
Power P_i	5.32 W
Capacitance C_i	0
Inductance L_i	0

Special Conditions for Safe Use (X):

1. The Rosemount 3051S Transmitters fitted with transient protection are not capable of withstanding the 500 V test as defined in Clause 6.3.13 of EN 60079-11:2012. This must be taken into account during installation.
2. The terminal pins of the Rosemount 3051S SuperModule must be provided with a degree of protection of at least IP20 in accordance with IEC/EN 60529.
3. The Rosemount 3051S enclosure may be made of aluminum alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in a zone 0 area.

IG IECEx Intrinsic Safety – Group I - Mining (IG with Special A0259)
Certificate: IECEx TSA 14.0019X
Standards: IEC 60079-0:2011, IEC 60079-11:2011
Markings: FISCO FIELD DEVICE Ex ia I Ma (–60 °C ≤ T_a ≤ +70 °C)

Parameter	FISCO
Voltage U_i	17.5 V
Current I_i	380 mA
Power P_i	5.32 W
Capacitance C_i	0
Inductance L_i	0

Special Conditions for Safe Use (X):

1. If the apparatus is fitted with optional 90 V transient suppressor, it is not capable of withstanding the 500 V insulation test required by Clause 6.3.13 of IEC60079-11:2011. This must be taken into account when installing the apparatus.
2. It is a condition of safe use that the above input parameters shall be taken into account during installation.
3. It is a condition of manufacture that only the apparatus fitted with housing, covers and sensor module housing made out of stainless steel are used in Group I applications.

N7 IECEx Type n
Certificate: IECEx BAS 04.0018X
Standards: IEC 60079-0:2011, IEC 60079-15:2010
Markings: Ex nA IIC T5 Gc, (–40 °C ≤ T_a ≤ +85 °C)

Special Condition for Safe Use (X):

1. The equipment is not capable of withstanding the 500 V insulation test required by clause 6.5 of EN 60079-15:2010. This must be taken into account when installing the equipment.

8.8 Brazil

E2 INMETRO Flameproof
Certificate: UL-BR15.0393X
Standards: ABNT NBR IEC 60079-0:2008 + Corrigendum 1:2011,
ABNT NBR IEC 60079-1:2009 + Corrigendum 1:2011,
ABNT NBR IEC 60079-26:2008 + Corrigendum 1:2008
Markings: Ex d IIC T* Ga/Gb, T6(–60 °C ≤ T_a ≤ +70 °C), T5/T4(–60 °C ≤ T_a ≤ +80 °C), IP66

Special Conditions for Safe Use (X):

1. The device contains a thin wall diaphragm. Installation, maintenance and use shall take into account the environmental conditions to which the diaphragm will be subjected. The manufacturer's instructions for installation and maintenance shall be followed in detail to assure safety during its expected lifetime.
2. For information on the dimensions of the flameproof joints, the manufacturer shall be contacted.

I2/IB INMETRO Intrinsic Safety/FISCO
Certificate: UL-BR 15.0392X
Standards: ABNT NBR IEC 60079-0:2008 + Corrigendum 1:2011,
ABNT NBR IEC 60079-11:2009
Markings: Ex ia IIC T4 Ga, T4(–60 °C ≤ T_a ≤ +70 °C), IP66

Special Condition for Safe Use (X):

1. The Rosemount 3051S enclosure may be made of aluminium alloy and given a protective polyurethane paint finish; however, care should be taken to protect it from impact or abrasion if located in areas that requires EPL Ga.

Model	U_i	I_i	P_i	C_i	L_i
SuperModule	30 V	300 mA	1.0 W	30 nF	0
3051S...A; 3051SF...A; 3051SAL...C	30 V	300 mA	1.0 W	12 nF	0
3051S...F; 3051SF...F	30 V	300 mA	1.3 W	0	0
3051S...F...IB; 3051SF...F...IB	17.5V	380 mA	5.32 W	0	0
3051S ...A...M7, M8, or M9; 3051SF ...A...M7, M8, or M9; 3051SAL...C... M7, M8, or M9	30 V	300 mA	1.0 W	11.4 nF	60 µH
3051SAL or 3051SAM	30 V	300 mA	1.0 W	11.4 nF	33 µH
3051SAL...M7, M8, or M9 3051SAM...M7, M8, or M9	30 V	300 mA	1.0 W	11.4 nF	93 µH
RTD Option for 3051SF	5 V	500 mA	0.63 W	N/A	N/A

8.9 China

E3 China Flameproof and Dust Ignition-proof
Certificate: 3051S: GYJ16.1249X
3051SFx: GYJ11.1711X
3051S-ERS: GJY15.1406X
Standards: 3051S: GB3836.1-2010, GB3836.2-2010, GB3836.20-2010, GB12476.1-2013, GB12476.5-2013
3051SFx: GB3836.1-2010, GB3836.2-2010, GB3836.20-2010, GB12476.1-2000
3051S-ERS: GB3836.1-2010, GB3836.2-2010, GB3836.20-2010
Markings: 3051S: Ex d IIC T6...T4; Ex tD A20 T 105 °C T_{500} 95 °C; IP66
3051SFx: Ex d IIC T5/T6 Ga/Gb; DIP A20 T_A 105 °C; IP66
3051S-ERS: Ex d IIC T4 ~ T6 Ga/Gb

Special Conditions for Safe Use (X):

1. Only the pressure transmitters, consisting of Rosemount 3051SC Series, 3051ST Series, 3051SL Series and 300S Series, are certified.
2. The ambient temperature range is (–20 ~ +60)°C.
3. The ambient temperature range for the 3051S in a dust environment is $-20\ °C \le T_a \le 95\ °C$.
4. The relation between temperature class and maximum temperature of process medium is as follows:

Temperature class	Temperature of process medium (°C)
T5	≤ 95 °C
T4	≤ 130 °C
T3	≤ 190 °C

Table 8. Rosemount 3051S

Temperature class	Ambient temperature (°C)	Process temperature (°C)
T6	$-60\ °C \le T_a \le +70\ °C$	$-60\ °C \le T_a \le +70\ °C$
T5	$-60\ °C \le T_a \le +80\ °C$	$-60\ °C \le T_a \le +80\ °C$
T4	$-60\ °C \le T_a \le +80\ °C$	$-60\ °C \le T_a \le +120\ °C$

5. The earth connection facility in the enclosure should be connected reliably.
6. During installation, use and maintenance of transmitter, observe the warning "Don't open the cover when the circuit is alive."
7. During installation, there should be no mixture harm to flameproof housing.
8. Cable entry, certified by NEPSI with type of protection Ex d IIC in accordance with GB3836.1-2000 and GB3836.2-2000, should be applied when installation in hazardous location. Five full threads should be in engagement when the cable entry is assembled onto the transmitter. When pressure transmitter is used in the presence of combustible dust, the ingress of protection of the cable entry should be IP66.
9. The diameter of cable should observe the instruction manual of cable entry. The compressing nut should be fastened. The aging of seal ring should be changed in time.
10. Maintenance should be done in non-hazardous location.

11. End users are not permitted to change any components inside.
12. When installation, use and maintenance of transmitter, observe following standards:
    GB3836.13-1997 “Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres”
    GB3836.15-2000 “Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous area (other than mines)”
    GB50257-1996 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”
    GB15577-1995 “Safe regulation for explosive dust atmospheres”
    GB12476.2-2006 “Electrical apparatus for use in the presence of combustible dust – Part 1-2: Electrical apparatus protected by enclosures and surface temperature limitation – Selection, installation and maintenance”

I3 China Intrinsic Safety

Certificate: 3051S: GYJ16.1250X [Mfg USA, China, Singapore]
3051SFx: GYJ11.1707X [Mfg USA, China, Singapore]
3051S-ERS: GYJ16.1248X [Mfg USA, China, Singapore]

Standards: 3051S: GB3836.1-2010, GB3836.4-2010, GB3836.20-2010
3051SFx: GB3836.1/4-2010, GB3836.20-2010, GB12476.1-2000
3051S-ERS: GB3836.1-2010, GB3836.4-2010, GB3836.20-2010

Markings: 3051S, 3051SFx: Ex ia IIC T4 Ga
3051S-ERS: Ex ia IIC T4

Special Conditions for Safe Use (X):

1. Symbol “X” is used to denote specific conditions of use:
   For output code A and F: This apparatus is not capable of withstanding the 500V r.m.s. insulation test required by Clause 6.4.12 of GB3836.4-2000.
2. The ambient temperature range is:

Output code	Ambient temperature
A	$-50\ °C \le T_a \le +70\ °C$
F	$-50\ °C \le T_a \le +60\ °C$

3. Intrinsically safe parameters:

Output code	Housing code	Display code	Maximum input voltage: U_i (V)	Maximum input current: I_i (mA)	Maximum input power: P_i (W)	Maximum internal parameter: C_i (nF)	Maximum internal parameter: L_i (uH)
A	=00	/	30	300	1	38	0
A	≠00	/	30	300	1	11.4	2.4
A	≠00	M7/M8/M9	30	300	1	0	58.2
F	≠00	/	30	300	1.3	0	0
F FISCO	≠00	/	17.5	500	5.5	0	0

4. The product should be used with Ex-certified associated apparatus to establish explosion protection system that can be used in explosive gas atmospheres. Wiring and terminals should comply with the instruction manual of the product and associated apparatus.
5. The cable between this product and associated apparatus should be shielded cables (the cables must have insulated shield). The shield has to be grounded reliably in non-hazardous area.
6. The product complies to the requirements for FISCO field devices specified in IEC60079-27:2008. For the connection of an intrinsically safe circuit in accordance FISCO model, FISCO parameters of this product are as above.
7. End users are not permitted to change any components inside, but to settle the problem in conjunction with manufacturer to avoid damage to the product.
8. When installation, use and maintenance of this product, observe the following standards:
   GB3836.13-1997 "Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres"
   GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous area (other than mines)"
   GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)"
   GB50257-1996 "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering"

N3 China Type n
Certificate: 3051S: GYJ101112X [Mfg China]
3051SF: GYJ101125X [Mfg China]
Markings: Ex nL IIC T5 Gc

Special Conditions for Safe Use (X):

1. The ambient temperature range is: $-40\ °C \le T_a \le 85\ °C$.
2. Maximum input voltage: 45 V.
3. Cable glands, conduit or blanking plugs, certified by NEPSI with Ex e or Ex n protection type and IP66 degree of protection provided by enclosure, should be used on external connections and redundant cable entries.
4. Maintenance should be done in non-hazardous location.
5. End users are not permitted to change any components inside, but to settle the problem in conjunction with manufacturer to avoid damage to the product.
6. When installation, use and maintenance of this product, observe following standards:
   GB3836.13-2013 "Electrical apparatus for explosive gas atmospheres Part 13: Repair and overhaul for apparatus used in explosive gas atmospheres"
   GB3836.15-2000 "Electrical apparatus for explosive gas atmospheres Part 15: Electrical installations in hazardous area (other than mines)"
   GB3836.16-2006 "Electrical apparatus for explosive gas atmospheres Part 16: Inspection and maintenance of electrical installation (other than mines)"

GB50257-1996 “Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering”.

8.10 EAC – Belarus, Kazakhstan, Russia

EM Technical Regulation Customs Union (EAC) Flameproof
Certificate: RU C-US.AA87.B.00094
Markings: Ga/Gb Ex d IIC T6...T4 X

IM Technical Regulation Customs Union (EAC) Intrinsic Safety
Certificate: RU C-US.AA87.B.00094
Markings: 0Ex ia IIC T4 Ga X

8.11 Japan

E4 Japan Flameproof
Certificate: TC15682, TC15683, TC15684, TC15685, TC15686, TC15687, TC15688, TC15689, TC15690, TC17099, TC17100, TC17101, TC17102, TC18876
3051ERS: TC20215, TC20216, TC20217, TC20218, TC20219, TC20220, TC20221
Markings: Ex d IIC T6

8.12 Republic of Korea

EP Republic of Korea Flameproof
Certificate: 12-KB4BO-0180X [Mfg USA], 11-KB4BO-0068X [Mfg Singapore]
Markings: Ex d IIC T5 or T6

IP Republic of Korea Intrinsic Safety
Certificate: 12-KB4BO-0202X [HART – Mfg USA],
12-KB4BO-0204X [Fieldbus – Mfg USA],
12-KB4BO-0203X [HART – Mfg Singapore],
13-KB4BO-0296X [Fieldbus – Mfg Singapore]
Markings: Ex ia IIC T4

8.13 Combinations

K1 Combination of E1, I1, N1, and ND
K2 Combination of E2 and I2
K5 Combination of E5 and I5
K6 Combination of E6 and I6
K7 Combination of E7, I7, and N7
KA Combination of E1, I1, E6, and I6
KB Combination of E5, I5, E6, and I6
KC Combination of E1, I1, E5, and I5
KD Combination of E1, I1, E5, I5, E6, and I6
KG Combination of IA, IE, IF, and IG
KM Combination of EM and IM
KP Combination of EP and IP

8.14 Additional Certifications

SBS American Bureau of Shipping (ABS) Type Approval
Certificate: 00-HS145383-6-PDA
Intended Use: Measure gauge or absolute pressure of liquid, gas or vapor applications on ABS classed vessels, marine, and offshore installations.

SBV Bureau Veritas (BV) Type Approval
Certificate: 31910/A0 BV
Requirements: Bureau Veritas Rules for the Classification of Steel Ships
Application: Class Notations: AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS

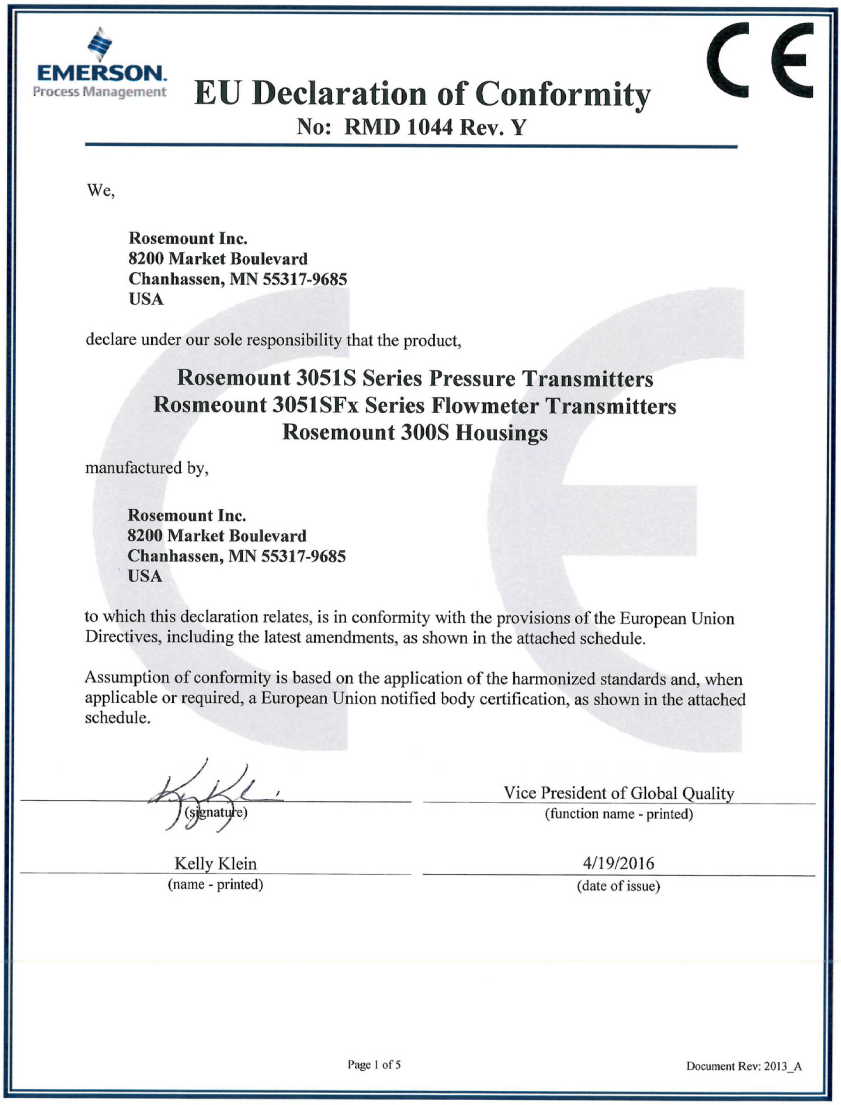
SDN Det Norske Veritas (DNV) Type Approval
Certificate: A-14186
Intended Use: Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft, and Det Norske Veritas' Offshore Standards
Application:

Location classes	
Type	3051S
Temperature	D
Humidity	B
Vibration	A
EMC	A
Enclosure	D/IP66/IP68

SLL Lloyds Register (LR) Type Approval
Certificate: 11/60002(E3)
Application: Environmental categories ENV1, ENV2, ENV3, and ENV5

D3 Custody Transfer – Measurement Canada Accuracy Approval [3051S Only]
Certificate: AG-0501, AV-2380C

Figure 13. Rosemount 3051S Declaration of Conformity



EMERSON. Process Management

EU Declaration of Conformity

No: RMD 1044 Rev. Y

We,

Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

declare under our sole responsibility that the product,

Rosemount 3051S Series Pressure Transmitters
Rosmeount 3051SFx Series Flowmeter Transmitters
Rosemount 300S Housings

manufactured by,

Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317-9685
USA

to which this declaration relates, is in conformity with the provisions of the European Union Directives, including the latest amendments, 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 in the attached schedule.

(signature)	Vice President of Global Quality (function name - printed)
Kelly Klein (name - printed)	4/19/2016 (date of issue)

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Process Management

EU Declaration of Conformity

No: RMD 1044 Rev. Y

CE

EMC Directive (2004/108/EC) ***This directive is valid until 19 April 2016***
EMC Directive (2014/30/EU) ***This directive is valid from 20 April 2016***

Harmonized Standards:
EN 61326-1:2013, EN 61326-2-3:2013

PED Directive (97/23/EC) ***This directive is valid until 18 July 2016***
PED Directive (2014/68/EU) ***This directive is valid from 19 July 2016***

Rosemount 3051S Series Pressure Transmitters

Rosemount 3051S_CA4; 3051S_CD2, 3, 4, 5 (*also with P0 & P9 option)* Pressure Transmitters
QS Certificate of Assessment – EC Certificate No. 59552-2009-CE-HOU-DNV
Module H Conformity Assessment
Evaluation standards:
ANSI / ISA 61010-1:2004

All other Rosemount 3051S Pressure Transmitters
Sound Engineering Practice

Transmitter Attachments: Diaphragm Seal, Process Flange, or Manifold
Sound Engineering Practice

Rosemount 3051SFx Series Flowmeter Pressure Transmitters
See DSI 1000 Declaration of Conformity

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EMERSON.
Process Management

EU Declaration of Conformity

No: RMD 1044 Rev. Y

ATEX Directive (94/9/EC) ***This directive is valid until 19 April 2016***
ATEX Directive (2014/34/EU) ***This directive is valid from 20 April 2016***

BAS01ATEX1303X – Intrinsic Safety Certificate
Equipment Group II, Category 1 G
Ex ia IIC T4 Ga
Harmonized Standards Used:
EN 60079-0:2012, EN 60079-11:2012

BAS01ATEX3304X – Type n Certificate
Equipment Group II, Category 3 G
Ex nA IIC T5 Gc
Harmonized Standards Used:
EN 60079-0:2012, EN 60079-15:2010

BAS01ATEX1374X – Dust Certificate
Equipment Group II, Category 1 D
Ex ta IIIC T105°C T_{500}95°C Da
Harmonized Standards Used:
EN 60079-0:2012, EN 60079-31:2009

BAS04ATEX0181X – Mining Certificate
Equipment Group I, Category M1
Ex ia I Ma
Harmonized Standards Used:
EN 60079-0:2012, EN 60079-11:2012

BAS04ATEX0193U – Mining Certificate: Component
Equipment Group I, Category M1
Ex ia I Ma
Harmonized Standards Used:
EN 60079-0:2012, EN 60079-11:2012

EMERSON.
Process Management

EU Declaration of Conformity

No: RMD 1044 Rev. Y

Rosemount 3051S transmitters, 300S housings, 3051SFx flowmeters without RTD option:

KEMA00ATEX2143X – Flameproof Certificate

Equipment Group II, Category 1/2 G
Ex d IIC T6…T4 Ga/Gb
Harmonized Standards:
EN 60079-0:2012, EN 60079-1:2007, EN 60079-26:2007

Rosemount 3051SFx flowmeters with RTD options:

KEMA00ATEX2143X – Flameproof Certificate

Equipment Group II, Category 1/2 G
Ex d IIC T5/T6 Ga/Gb
Harmonized Standards:
EN 60079-1:2007, EN 60079-26:2007
Other Standards Used:
EN 60079-0:2006
(A review against EN60079-0:2012, which is harmonized, shows no significant changes relevant to this equipment so EN60079-0:2006 continues to represent "State of the Art")

EMERSON.
Process Management

EU Declaration of Conformity

No: RMD 1044 Rev. Y

CE

PED Notified Body

Rsoemount 3051S Series Pressure Transmitters

Det Norske Veritas (DNV) [Notified Body Number: 0575]
Veritasveien 1, N-1322
Hovik, Norway

ATEX Notified Bodies for EU Type Examination Certificate

DEKRA Certification B.V. [Notified Body Number: 0344]
Utrechtseweg 310
Postbus 5185
6802 ED Arnhem
Netherlands

SGS Baseefa Limited [Notified Body Number: 1180]
Rockhead Business Park, Staden Lane
Buxton, Derbyshire SK17 9RZ
United Kingdom

ATEX Notified Body for Quality Assurance

SGS Baseefa Limited [Notified Body Number: 1180]
Rockhead Business Park, Staden Lane
Buxton, Derbyshire SK17 9RZ
United Kingdom

含有China RoHS管控物质超过最大浓度限值的部件型号列表 Rosemount 3051SAL/3051SAM
List of Rosemount 3051SAL/3051SAM Parts with China RoHS Concentration above MCVs

部件名称 Part Name	有害物质 / Hazardous Substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr +6)	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
电子组件 Electronics Assembly	X	O	O	O	O	O
壳体组件 Housing Assembly	X	O	O	X	O	O
传感器组件 Sensor Assembly	X	O	O	X	O	O

本表格系依据SJ/T11364的规定而制作.
This table is proposed in accordance with the provision of SJ/T11364.

O: 意为该部件的所有均质材料中该有害物质的含量均低于GB/T 26572所规定的限量要求.
O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: 意为在该部件所使用的所有均质材料里，至少有一类均质材料中该有害物质的含量高于GB/T 26572所规定的限量要求.
X: Indicate that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

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Global Headquarters
Emerson Process Management
6021 Innovation Blvd.
Shakopee, MN 55379, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RFQ.RMD-RCC@EmersonProcess.com

North America Regional Office
Emerson Process Management
8200 Market Blvd.
Chanhassen, MN 55317, USA
+1 800 999 9307 or +1 952 906 8888
+1 952 949 7001
RMT-NA.RCCRFQ@Emerson.com

Latin America Regional Office
Emerson Process Management
1300 Concord Terrace, Suite 400
Sunrise, FL 33323, USA
+1 954 846 5030
+1 954 846 5121
RFQ.RMD-RCC@EmersonProcess.com

Europe Regional Office
Emerson Process Management Europe GmbH
Neuhofstrasse 19a P.O. Box 1046
CH 6340 Baar
Switzerland
+41 (0) 41 768 6111
+41 (0) 41 768 6300
RFQ.RMD-RCC@EmersonProcess.com

Asia Pacific Regional Office
Emerson Process Management Asia Pacific Pte Ltd
1 Pandan Crescent
Singapore 128461
+65 6777 8211
+65 6777 0947
Enquiries@AP.EmersonProcess.com

Middle East and Africa Regional Office
Emerson Process Management
Emerson FZE P.O. Box 17033,
Jebel Ali Free Zone - South 2
Dubai, United Arab Emirates
+971 4 8118100
+971 4 8865465
RFQ.RMTMEA@Emerson.com

Linkedin.com/company/Emerson-Process-Management

Twitter.com/Rosemount_News

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Google.com/+RosemountMeasurement

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