Rosemount[™] 1066

Single Channel Transmitter





Safety information

For information on specifications, programming, calibration, and HART® communications, see the Rosemount 1066 Transmitter Reference Manual at Emerson.com/Rosemount.

Emerson designs, manufactures, and tests its products to meet many national and international standards. Because these instruments are sophisticated technical products, you must properly install, use, and maintain them to ensure they continue to operate within their normal specifications. You must adhere to the following instructions and integrate them into your safety program when installing, using, and maintaining Emerson's Rosemount products.

A WARNING

Failure to follow the proper instructions may cause any one of the following situations to occur: loss of life, personal injury, property damage, damage to this instrument, and warranty invalidation. Unauthorized parts and procedures can affect the product's performance, place the safe operation of your process at risk, and may result in fire, electrical hazards, or improper operation.

Read all instructions prior to installing, operating, and servicing the product.

If you do not understand any of the instructions, contact your Emerson representative for clarification.

Follow all warnings, cautions, and instructions marked on and supplied with the product. Inform and educate your personnel in the proper installation, operation, and

Install equipment as specified in the installation instructions of the appropriate Quick Start Guide and per applicable local and national codes. Connect all products to the proper electrical and pressure sources.

When replacement parts are required, ensure that qualified people use replacement parts specified by Emerson.

Ensure that all equipment doors are closed and protective covers are in place, except when maintenance is being performed by qualified people, to prevent electrical shock and personal injury.

A WARNING

Risk of electrical shock

Do not open while the circuit is live. Only clean with a damp cloth.

maintenance of the product.

NOTICE

If a 475 Universal HART® Communicator is used with these transmitters, the software within the 475 may require modification. If a software modification is required, please contact your local Emerson Service Group or National Response Center at 1-800-654-7768.

A WARNING

Electrostatic ignition hazard

Special conditions for safe use (when installed in hazardous areas)

The plastic enclosure, except the front panel, must only be cleaned with a damp cloth. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Take care to avoid electrostatic charge build-up. Do not rub or clean the transmitter with solvents or a dry cloth.

The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer to the enclosure only.

Special condition of use of Rosemount 1066 C FF/FII5 and 1066 T FF/FII5. For use with simple apparatus Rosemount 140, 141, 142, 150, 400, 401, 402, 402VP, 403, 403VP, 404, and 410VP contacting conductivity sensors and Rosemount 222, 225, 226, and 228 toroidal sensors.

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 in protecting your system. Restrict physical access by unauthorized personnel to protect end users' assets. This is true for all systems used within the facility.

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1 Installation

1.1 Unpack and inspect

Procedure

Inspect the shipping container.

- If it is damaged, contact the shipper immediately for further instructions.
- If there is no apparent damage, unpack the container. Ensure all items shown on the packing list are present. If items are missing, notify Emerson immediately.

1.2 Mounting

NOTICE

Dimensions in the following drawings show inches above and millimeters below.

Figure 1-1: Panel mount front

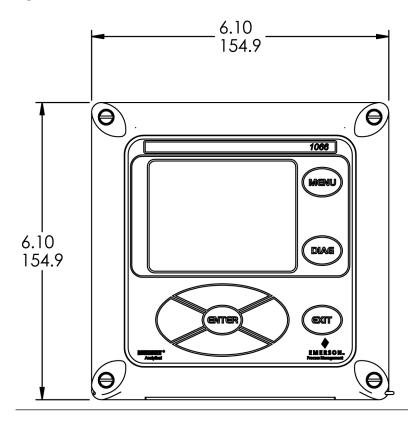
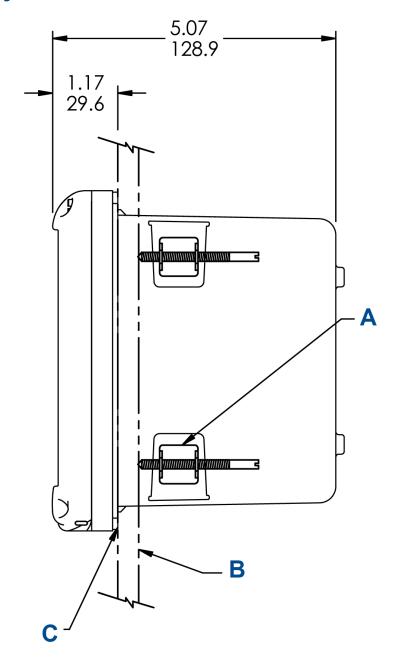


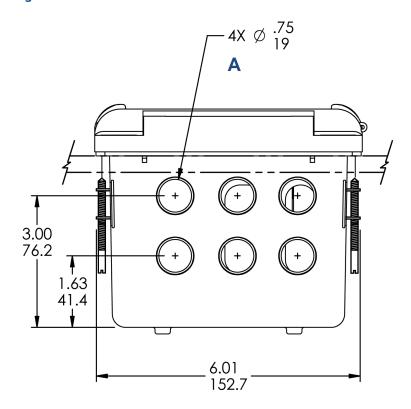
Figure 1-2: Panel mount side



A. Four mounting brackets and screws provided with instrument

- B. Panel supplied by others. Maximum thickness: 0.375-in. (9.52 mm)
- C. Panel mount gasket

Figure 1-3: Panel mount bottom



A. Conduit openings

Figure 1-4: Panel cut-out

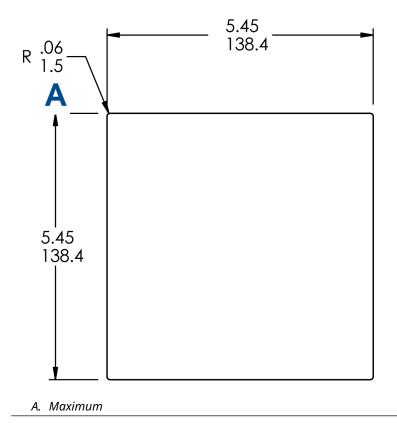
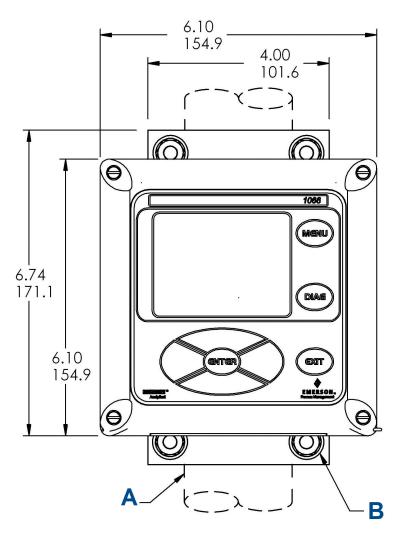


Figure 1-5: Wall mount front



- A. 2-in. (50.8 mm) pipe supplied by customer
- B. Four cover screws

Figure 1-6: Wall mount side

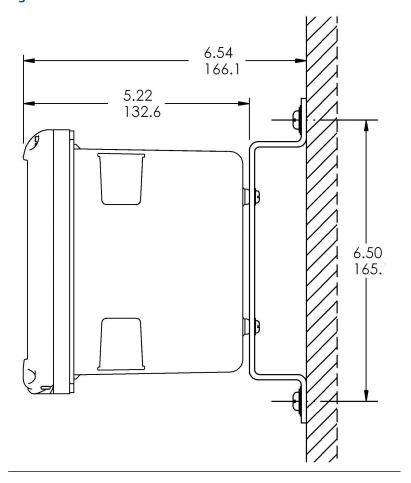
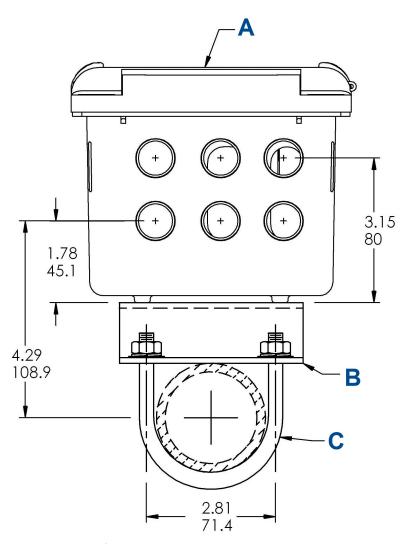
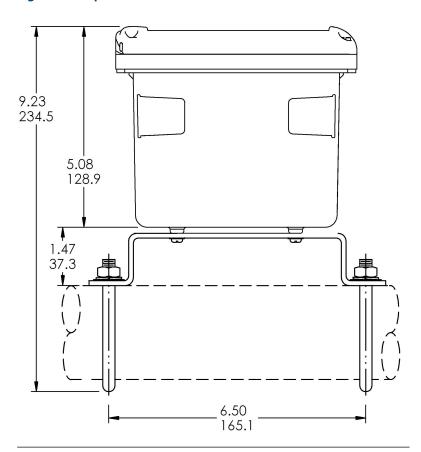


Figure 1-7: Pipe mount bottom



- A. Front panel
- B. 2-in (50.8 mm) pipe mount bracket
- C. Two sets of U-bolts for 2-in (50.8 mm) pipe in kit PN 23820-00

Figure 1-8: Pipe mount side



1.3 General installation information

- 1. Install the transmitter with a sun shield or out of direct sunlight and areas with extreme temperatures.
- Install the system in an area where vibrations and electromagnetic and radio frequency interference are minimized or absent.
- 3. Keep the transmitter and sensor wiring at least 1 ft (0.30 m) from high voltage conductors. Ensure there is easy access to the transmitter and sample conditioning system.
- 4. The transmitter is suitable for panel, pipe, or surface mounting.

5. The transmitter case has six ½-in. (12.7 mm) conduit openings. Use separate conduit openings for the power/output cable, the sensor cable, and the other sensor cable as needed (pH input for free chlorine with continuous pH correction).

- 6. Use weathertight cable glands to keep moisture out of the transmitter. If using a conduit, plug and seal the connections at the transmitter housing to prevent moisture from getting inside the instrument.
- 7. Install cable gland fittings and plugs as needed to properly seal the transmitter on all six enclosure openings. The USB port cover must be fully installed on the front cover to ensure proper transmitter sealing.

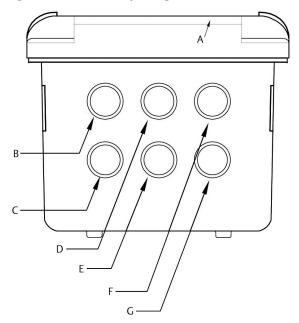
1.4 Preparing conduit openings

There are six conduit openings in all configurations of the transmitter.

Note

Emerson fits four of the openings with plugs upon shipment.

Figure 1-9: Conduit openings



- A. Front panel/keypad
- B. Power leads
- C. Alarm relay leads
- D. Sensor 1 cable
- E. 4-20 mA/HART®/Profibus® leads
- F. Sensor 2 cable
- G. Spare opening

NOTICE

Always use proper cable gland fittings and plugs for wire and cable installations.

Conduit openings accept 0.5 in (13 mm) conduit fittings or PG13.5 cable glands. To keep the case watertight, block unused openings with Type 4X or IP66 conduit plugs.

To maintain ingress protection for outdoor use, seal unused conduit holes with suitable conduit plugs.

NOTICE

Use watertight fittings and hubs that comply with your requirements. Connect the conduit hub to the conduit before attaching the fitting to the transmitter.

Important

Electrical installation must be in accordance with the National Electrical Code (ANSI/NFPA-70) and/or any other applicable national or local codes.

2 Wiring

2.1 General wiring information

All wiring connections are located on the main circuit board. The front panel is hinged at the bottom. The panel swings down for easy access to the wiring locations.

2.2 Digital communication

HART® and FOUNDATION™ Fieldbus communications are available as ordering options for the Rosemount 1066. HART units support Bell 202 digital communications over analog 4-20 mA current output 1.

2.3 HART® power supply - current loop wiring

Refer to Figure 2-1.

Run the power/signal wiring through the opening nearest TB-2.

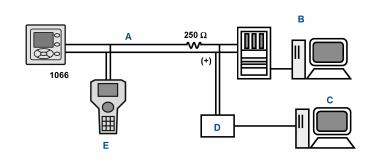
For optimum EMI/RFI protection:

- 1. Use shielded power/signal cable and ground the shield at the power supply.
- 2. Use a metal cable gland and be sure the shield makes good electrical contact with the gland.
- 3. Use the metal backing plate when attaching the gland to the transmitter enclosure. The power/signal cable can also be enclosed in an earth-grounded metal conduit.

Note

Do not run power supply/signal wiring in the same conduit or cable tray with loop power lines. Keep power supply/signal wiring at least 6 ft. (2 m) away from heavy electrical equipment.

Figure 2-1: Rosemount 1066 System Block Diagram



- A. 4-20 mA and HART signal
- B. Control system
- C. Computer
- D. Bridge
- E. Field Communicator

2.3.1 HART® power supply and load requirements

Refer to Figure 2-2. The supply voltage must be at least 12.7 Vdc at the transmitter terminals. The power supply must be able to cover the voltage drop on the cable as well as the load resistor (250 Ω minimum) required for HART communication. The maximum power supply voltage is 42.0 Vdc. For intrinsically safe installations, the maximum power supply voltage is 30.0 Vdc.

Figure 2-2 shows load and power supply requirements. The upper line is the power supply voltage needed to provide 12.7 Vdc at the transmitter terminals for a 22 mA current. The power supply must provide a surge current during the first 80 milliseconds of start-up. The maximum current is about 24 mA.

For digital communication, the load must be at least 250 ohms. To supply the 12.7 Vdc lift off voltage at the transmitter, the power supply voltage must be at least 17.5 Vdc.

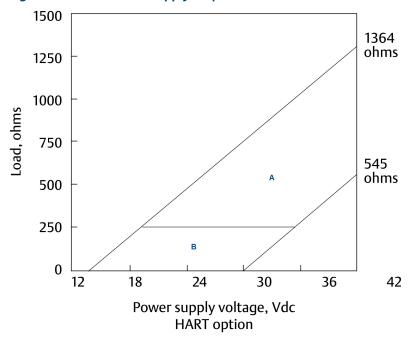


Figure 2-2: Load/Power Supply Requirements

- A. With HART communication
- B. Without HART communication

2.3.2 HART® current output wiring

Emerson ships all instruments with two 4-20 mA current outputs. Current output 1 is the HART communications channel. Current output 2 is available to report process temperature measured by the temperature sensing element or resistance temperature device (RTD) within the sensor.

Wiring locations for the outputs are on the main board, which is mounted on the hinged door of the instrument. Wire the output leads to the correct position on the main board using the lead markings (+/positive, -/negative) on the board.

H

OUTPUT2

OUTPUT3

Figure 2-3: Rosemount 1066 HART loop power wiring

- A. Install plugs in all other openings as needed
- B. Ground lugs
- C. Hinge side of front panel
- D. Rosemount 1066 HART circuit board (pH/amperometric) ASSY 24539-00
- E. TB5/THUM terminal is only used for wireless THUM adaptor instllations
- F. TB7/output 2 requires external DC power
- G. Hinged panel
- H. Inner enclosure

2.4 Wire FOUNDATION™ Fieldbus power supply

Procedure

- 1. Run the power /signal wiring through the opening nearest TB2.
- 2. Use shielded cable and ground the shield at the power supply.

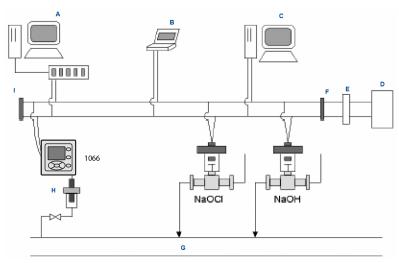
3. To ground the transmitter, attach the shield to TB2-3.

Note

For optimum electromagnetic interference (EMI) and radio frequency interference (RFI) immunity, shield the power supply/output cable and enclose it in an earth-grounded metal conduit. Do not run power supply/signal wiring in the same conduit or cable tray with loop power lines. Keep power supply/signal wiring at least 6 ft. (2 m) away from heavy electrical equipment.

Figure 2-4 shows the Rosemount 1066PFF being used to measure and control pH and chlorine levels in drinking water. The figure also shows three ways in which Fieldbus communication can be used to read process variables and configure the transmitter.

Figure 2-4: Configuring Rosemount 1066P Transmitter with FOUNDATION Fieldbus



- A. DeltaV configurator and host
- B. Fieldbus technician configurator
- C. Other host
- D. Power supply
- E. Filter
- F. Terminator
- G. Process line
- H. pH sensor
- I. Terminator

2.5 Wire sensor to transmitter

Procedure

- 1. Wire the correct sensor leads to the main board using the lead locations marked directly on the board.
 - Use integral cable SMART sensors or compatible VP8 pH cables to wire the Rosemount SMART pH sensors to the transmitter.
- 2. After wiring the sensor leads, use wiring diagrams found in the sensor manual to guide you as you carefully take up the excess sensor cable through the cable gland.

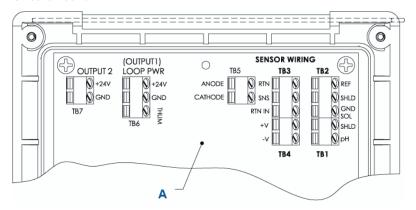
A CAUTION

Keep sensor and output signal wiring separate from loop power wiring. Do not run sensor and power wiring in the same conduit or close together in a cable tray.

When wiring a pH/ORP sensor to the transmitter, follow this order:

- 1. Wire **TB3**/RTD to the return, sense, and RTD in terminals.
- 2. Wire **TB2**/reference and solution ground to the reference in, reference shield, and solution ground terminals.
- Wire TB4/preamplifier (if present) to the +volts and -volts terminals.
- 4. Wire **TB1**/pH input to the pH shield and pH in terminals.

Figure 2-5: pH/ORP Sensor Wiring to the Transmitter Printed Circuit Board



A. Rosemount 1066 circuit board ASSY 24539-00 (HART®)

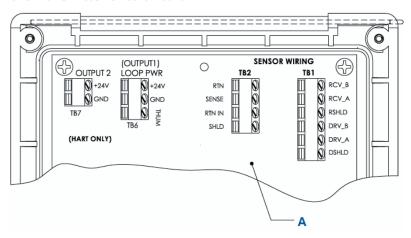
Note

- A. If ground lead is present, terminate it to green ground screw on inner enclosure.
- B. TB5, TB6, and TB7 are not used for pH/ORP sensor wiring.

When wiring a contacting or toroidal conductivity sensor to the transmitter, follow this order:

- Wire TB2/RTD to the return, sense, RTD in, and shield terminals.
- 2. Wire **TB1**/conductivity to the receive B, receive A, shield, drive B, drive A, and shield terminals.

Figure 2-6: Contacting and Toroidal Conductivity Sensor Wiring to the Transmitter Circuit Board

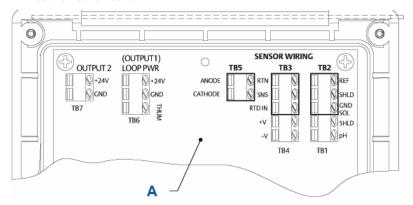


A. Rosemount 1066 circuit board ASSY 24638-00 (HART)

When wiring a chlorine, oxygen, or ozone sensor to the transmitter, follow this order:

- 1. Wire **TB5**/anode and cathode to the anode and cathode terminals.
- 2. Wire **TB3**/RTD to the return, sense, and RTD in terminals.
- 3. Wire **TB2**/solution ground to the solution ground terminal.

Figure 2-7: Chlorine, Oxygen, Ozone Sensor Wiring to Transmitter Printed Circuit Board



A. Rosemount 1066 circuit board ASSY 24406-xx

Note

- A. TB1, TB4, TB6, and TB7 not used for oxygen and ozone sensor wiring.
- B. TB1, TB2, and TB4 may be used for pH sensor wiring if free chlorine measurement requires live pH input.

H CONTROL NATION AND THE THE STATE OF THE ST

Figure 2-8: Power/Current Loop Wiring with Wireless THUM Adaptor

- A. Install plugs in all other openings as needed.
- B. Hinge side of front panel

F

C. HART circuit board (pH/chlorine/dissolved oxygen/ozone) ASSY 24406-xx

DWG NO. 40106614

- D. TB6/THUM terminal is used only for wireless THUM adapter installations. 250 ohm resistor is pre-installed in-circuit.
- E. TB7/output 2 requires external DC power
- F. Wireless THUM adapter
- G. Wire nut
- H. Splice connector provided by end user
- I. Inner enclosure

RESIDENCE TO SENSOR WINNO SENSO

Figure 2-9: HART Loop Power Wiring

- A. Install plugs in all other openings as needed
- B. Hinge side of front panel
- C. HART circuit board (pH/chlorine/dissolved oxygen/ozone) ASSY 24406-xx
- D. TB6/THUM terminal is used only for wireless THUM adapter installations
- E. TB7/output 2 requires external DC power
- F. Hinged panel
- G. Inner enclosure

For recommended wire entry points, see Figure 1-9.

3 Navigating the display

3.1 User interface

The transmitter has a large display which shows the measurement readout and temperature in large digits and up to four additional process variables or diagnostic parameters concurrently. You can customize the displayed variables to meet your requirements. This is called display format.

The intuitive menu system allows access to Calibration, Hold (of current outputs), Programming, and Display functions. In addition, a dedicated **DIAG** button is available to provide access to useful operational information on installed sensor(s) and any problematic conditions that might occur. The display flashes **Fault** and/or **Warning** when these conditions appear. *Help* screens are displayed for most fault and warning conditions to guide you in troubleshooting. During calibration and programming, key presses cause different displays to appear. The displays are self-explanatory and guide you step-by-step through the procedure.



3.2 Instrument keypad

There are four function keys and four selection keys on the instrument keypad.

Function keys

Four top-level menu items appear when you press **MENU**.

Calibrate Calibrate the attached sensor(s) and analog output(s).

Hold Suspend analog outputs.

Program Program outputs, measurements, temperature, and

security. You can also reset the transmitter.

Display Program display format, language, warnings, and

contrast.

Press **MENU** to display the *Main Menu* screen. Press **MENU** followed by **EXIT** to display the main display.

Pressing the **DIAG** key displays active faults and warnings and provides detailed instrument information and sensor diagnostics, including: faults, warnings, sensor information, Out 1 and Out 2, the current values, model configuration string (e.g. 1066-P-Ht-60), and instrument software version. Pressing **DIAG** on Sensor 1 or Sensor 2 provides useful diagnostics and information (as applicable): measurement, sensor type, raw signal value, cell constant, zero offset, temperature, temperature offset, selected measurement range, cable resistance, temperature sensor resistance, and software version.

Press **ENTER** to store numbers and settings and move the display to the next screen.

Press **EXIT** to return to the previous screen without storing changes.

Selection keys

Surrounding the **ENTER** key, four selection keys - **Up**, **Down**, **Right**, and **Left** - move the cursor to all areas of the screen while using the menus.

Selection keys are used to:

- 1. Select items on the menu screens.
- 2. Scroll up and down the menu lists.
- Enter or edit numeric values.
- 4. Move the cursor to the right or left.
- 5. Select measurement units during operation.

3.3 Main display

The transmitter displays: the primary measurement value and temperature and up to four secondary measurement values, a fault and warning banner, and a digital communications icon.

Process measurements



One process variable and process temperature are displayed by default. For all configurations, the upper display area shows the live process variable, and the center display area shows the temperature (default screen settings).

Secondary values

Up to four secondary values are shown in display quadrants at the bottom half of the screen. You can program all four secondary value positions to any displayable parameter available.

Fault and Warning banner

If the transmitter detects a problem with itself or the sensor, then the word **Fault** or **Warning** will appear at the bottom of the display. A fault requires immediate attention. A warning indicates a problematic condition or an impending failure. For troubleshooting assistance, press **DIAG**.

Formatting the main display

You can program the main display screen to show primary process variables, secondary process variables, and diagnostics.

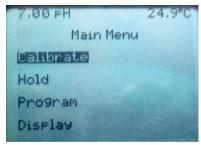
- Press MENU.
- 2. Scroll down to **Display**. Press **ENTER**.
- 3. Main Format is highlighted. Press ENTER.
- The Sensor 1 process value is highlighted in reverse video. Press the selection keys to navigate down to the screen sections that you wish to program. Press ENTER.

5. Choose the desired display parameter or diagnostic for each of the four display sections in the lower screen.

Continue to navigate and program all desired screen selections. Press **MENU** and **EXIT**. The screen returns to the main display.

The default display shows the live process measurement in the upper display area and the temperature in the center display area. You can elect to disable the display of temperature in the center display area using the Main Format function.

3.4 Menu system



The transmitter uses a scroll and select menu system. Pressing the **MENU** key at any time opens the top-level menu including Calibrate, Hold, Program, and Display functions.

To find a menu item, scroll with the up and down keys until the item is highlighted. Continue to scroll and select menu items until the desired function is chosen.

To select the item, press **ENTER**. To return to a previous menu level or to enable the main live display, press the **EXIT** key repeatedly. To return immediately to the main display from any menu level, simply press **MENU** and then **EXIT**.

The selection keys have the following functions:

- The Up key (above ENTER) increments numerical values, moves the decimal point one place to the right, or selects units of measurement.
- The **Down** key (below **ENTER**) decrements numerical values, moves the decimal place one place to the left, or selects units of measurement.
- The Left key (left of **ENTER**) moves the cursor to the left.
- The Right key (right of **ENTER**) moves the cursor to the right.

To access desired menu functions, use the Quick Reference Guide. During all menu displays (except main display format and Quick

Start), the live process measurement and temperature value are displayed in the top two lines of the upper display area. This conveniently allows display of the live values during important calibration and programming operations. Menu screens will time out after two minutes of inactivity and return to the main live display.

4 Start up transmitter

Procedure

1. Wire sensor(s) to the signal boards.

See Wiring for wiring instructions. Refer to the sensor Quick Start Guide for additional details. Make current output, alarm relay, and power connections.

Once connections are secured and verified, apply DC power to the transmitter.



This symbol identifies a risk of electical shock.



This symbol identifies a potential hazard. When this symbol appears, consult the manual for appropriate action.

When the transmitter is powered up for the first time, *Quick Start* screens will appear. Quick Start operating tips are as follows:

- A highlighted field shows the position of the cursor.
- To move the cursor left or right, use the keys to the left or right of the ENTER key. To scroll up or down or to increase or decrease the value of a digit, use the keys above and below the ENTER key. Use the Left or Right keys to move the decimal point.
- Press ENTER to store a setting. Press EXIT to leave without storing changes. Press EXIT during Quick Start to return the display to the initial startup screen (Select language).
- 3. Choose the desired language and press **ENTER.**
- 4. Choose measurement and press **ENTER**.
- 5. For pH, choose preamplifier location.
 - Select **Analyzer** to use the integral preamplifier in the transmitter.
 - b) Select Sensor/J-Box if your sensor is SMART or has an integral preamplifier or if you are using a remote preamplifier located in a junction box.
- 6. If applicable, choose units of measurement.
- For contacting and toroidal conductivity, choose the sensor type and enter the numeric cell constant using the keys.

8. Choose temperature units: °F or °C.
The main display appears. The outputs are assigned to default values.

- To change output settings, to scale the 4-20 mA current outputs, to change measurement-related settings from the default values, and to enable pH diagnostics, press MENU. Select Program and follow the prompts.
 Refer to the appropriate menu.
- 10. To return the transmitter to the factory default settings, choose **Program** under the *Main Menu* and then scroll to

If you need further support, then call the Emerson Customer Support Center at 1-800-999-9307.

5 Product certifications

Rev 1.1

5.1 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 Emerson.com/Rosemount.

5.2 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).

5.3 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.

5.4 USA

5.4.1 FM intrinsically safe

Certificate FM16US0181X

Standards FM Class 3600:2011, FM Class 3610:2010, FM

Class 3611:2004; FM Class 3810:2005, ANSI/ISA 60079-0:2009, ANSI/ISA 60079-11:2009 ANSI/IEC

60529:2004

Markings Listing # 1, # 2, # 3, # 4:

IS/I, II, III/1/ABCDEFG

I/0, AEx ia IIC NI/I/2/ABCD DIP/II,III/1/EFG

T4 Tamb = -20 °C to +65 °C

Install per control drawing 1400670

IP66

Listing #5 and #6 IS/I, II, III/1/ABCDEFG;

I/0, AEx ia IIC

T4 Tamb = -20 °C to +65 °C NI/I/2/ABCD DIP/II,III/1/EFG T4 Tamb = -20 °C to +65 °C

Install per control drawing 1400670

FISCO Field Device

IP66

Special Conditions for Safe Use (X):

Listings #1, #4, and #6

- The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer to the enclosure only.
- The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build up. The transmitter must not be rubbed or cleaned with solvents or a dry cloth.

Listings #2, #3, and #5

- 1. The panel mount gasket has not been tested for type of protection IP66 or Class II and III. Type of protection IP66 and Class II, III refer to the enclosure only.
- 2. The surface resistivity of the non-metallic enclosure materials is greater than one gigaohm. Care must be taken to avoid electrostatic charge build up. The transmitter must not be rubbed or cleaned with solvents or a dry cloth.
- 3. For use with the Model series 222, 225, 226, or 228 toroidal sensors and/or the simple apparatus contacting conductivity sensors.

5.4.2 CSA intrinsically safe

Certificate 70176165

Standards C22.2 No. 25-M1966, C22.2 No. 94-M91, C22.2

No.142-M1987, C22.2 No. 157-M1992, C22.2 No. 213-M1987, C22.2 No. 60529:05, UL 50, Eleventh Edition, UL 508, Seventeenth Edition, UL 913, Seventh Edition, UL 1203, Fourth Edition, ANSI/ISA

Standard: 12.12.01-2013

Markings Intrinsically Safe:

Class I, II, III Division 1, Groups ABCDEFG T4

Tamb = -20 °C to +65 °C

Non-Incendive:

Class I, Division 2, Groups ABCD T4

Dust Ignition Proof:

Class II, III, Division 1 Groups EFG

Install per DWG 1400669 IP66, Type 4X Enclosure

5.5 Canada

5.5.1 CSA intrinsically safe

Certificate 70176165

Standards C22.2 No. 25-M1966, C22.2 No. 94-M91, C22.2

No.142-M1987, C22.2 No. 157-M1992, C22.2 No. 213-M1987, C22.2 No. 60529:05, UL 50, Eleventh Edition, UL 508, Seventeenth Edition, UL 913, Seventh Edition, UL 1203, Fourth Edition, ANSI/ISA

Standard: 12.12.01-2013

Markings Intrinsically Safe:

Class I, II, III Division 1, Groups ABCDEFG T4

Tamb = -20 °C to +65 °C

Non-Incendive:

Class I, Division 2, Groups ABCD T4

Dust Ignition Proof:

Class II, III, Division 1 Groups EFG

Install per DWG 1400669 IP66, Type 4X Enclosure

5.6 Europe

5.6.1 ATEX/UKEX intrinsically safe

ATEX Certificate Baseefa11ATEX0195X

UKEX Certificate BAS21UKEX0390X

Standards EN IEC 60079-0:2018

EN 60079-11:2012

Markings (Ex) II 1 G

Ex ia IIC T4 Ga

 $(-20 \, ^{\circ}\text{C} \le \text{Ta} \le +65 \, ^{\circ}\text{C})$

Special Conditions for Safe Use (X):

 The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

5.7 International

5.7.1 IECEx intrinsically safe

Certificate IECEx BAS 11.0098X

Standards IEC 60079-0:2011

IEC 60079-11:2011

Markings Ex ia IIC T4 Ga IP66

-20 °C ≤ Ta ≤ +65 °C

Special Conditions for Safe Use (X):

 The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

5.8 Brazil

5.8.1 UL intrinsically safe

Certificate UL-BR 18.0477X

Standards ABNT NBR IEC 60079-0:2013

ABNT NBR IEC 60079-11:2013

Markings Ex ia IIC T4 Ga IP66

 $(-20 \text{ °C} \le \text{Ta} \le +65 \text{ °C})$

Special Conditions for Safe Use (X):

 The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with a damp cloth.

5.9 EAC

5.9.1 EAC Technical Regulations Customs Union (EAC) intrinsically safe

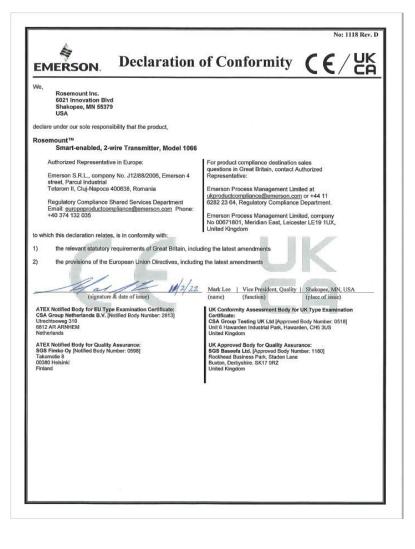
Certificate TC RU C-US.MIO62.B.06009

Markings 0Ex ia IIC T4 Ga X

 $(-20 \text{ °C} \le \text{Ta} \le +65 \text{ °C})$

IP66

A Declaration of Conformity





Declaration of Conformity (



No: 1118 Rev. D

EMC Directive (2014/30/EU) Harmonized Standards: EN 61326-1:2013

ATEX Directive (2014/34/EU)

Baseefa11ATEX0195X – Intrinsically Safe Equipment Group II, Category 1 G Ex ia IIC T4 Ga (-20°C \leq Ta \leq +65°C)

Harmonized Standards: EN IEC 60079-0:2018 EN 60079-11:2012

Specific Conditions of Use: The plastic enclosure, excluding the front panel, may constitute a potential electrostatic ignition risk and must only be cleaned with damp cloth.

Electromagnetic Compatibility Regulations 2016 (S.I. 2016/1091)
Designated Standards:
EN 61326-1:2013

Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016 (S.I. 2016/1107)

BAS21UKEX0390X-Intrinsically Safe

Equipment Group II, Category 1 G Ex ia IIC T4 Ga (-20°C ≤ Ta≤ +65°C)

Designated Standards: EN IEC 60079-0:2018 EN 60079-11:2012

B China RoHS table

表格 1: 含有 China RoHS 管控物质超过最大浓度限值的部件型号列 Table 1: List of Model Parts with China RoHS Concentration above MCVs

Table 1. List of Model Parts with China Rons Concentration above MCVs							
	有害物质 / Hazardous Substances						
部件名称	铅	汞	镉	六价铬	多溴联苯	多溴联苯醚	
Part Name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr +6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)	
电子组件 Electronics Assembly	×	0	0	0	0	0	
传感器组件 Sensor Assembly	х	0	0	0	0	0	

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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