Rosemount[™] 1056

Four-Wire, Dual-Input Intelligent Transmitter





Safety information

Your instrument purchase from Emerson is one of the finest available for your particular application. These instruments have been designed and tested to meet many national and international standards. Experience indicates that its performance is directly related to the quailty of the installation and knowledge of the user in operating and maintaining the instrument. To ensure its continued operation to the design specifications, personnel should read this Quick Start Guide thoroughly before proceeding with installation, commissioning, operation, and maintenance of this instrument. If this equipment is used in a manner not specified by the manufacturer, the protection provided by it against hazards may be impaired.

- 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.
- Ensure that you have received the correct model and options from your purchase order. Verify
 that this Quick Start Guide covers your model and options. If it does not, call 800 854 8257 or 949
 757 8500 to request the correct Quick Start Guide.
- For clarification of instructions, contact your Rosemount representative.
- Follow all warnings, cautions, and instructions marked on and supplied with the product.
- Use only qualified personnel to install, operate, program, and maintain the product.
- Install equipment as specified in the Installation section of this Quick Start Guide. Follow
 appropriate local and national codes. Only connect the product to electrical and pressure sources
 specified in this Quick Start Guide.
- Use only factory documented components for repair. Tampering or unauthorized substitution of
 parts and procedures can affect the performance and cause unsafe operation of your process.
- All equipment doors must be closed, and protective covers must be in place unless qualified personnel are performing maintenance.

▲ WARNING

Risk of electrical shock

Installation and servicing of this product may expose personnel to dangerous voltages.

Equipment protected throughout by double insulation.

Disconnect main power wired to separate power source before servicing.

Do not operate or energize instrument with case open.

Signal wiring within this box must be rated at least 240 V.

Non-metallic cable strain reliefs do not provide grounding between conduit connections. Use grounding type bushings and jumper wires.

Unused cable conduit entries must be securely sealed by non-flammable closures to provide exposure integrity in compliance with personal safety and environmental protection requirements. Unused conduit openings must be sealed with NEMA 4X or IP65 conduit plugs to maintain the ingress protection rating (IP65).

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

Operate only with front panel fastened and in place.

Safety and performance require that this instrument be connected and properly grounded through a three-wire power source.

Proper use and configuration is the operator's responsibility.

A CAUTION

This product generates, uses, and can radiate radio frequency energy and thus can cause radio communication interference.

As temporarily permitted by regulation, this unit has not been tested for compliance within the limits of Class A computing devices, pursuant to subpart J of part 15 of Federal Communication Commission (FCC) rules, which are designed to provide reasonable protection against such interference.

Operation of this equipment in a residential area may cause interference, in which case the operator, at his or her own expense, will be required to take whatever measures may be required to correct the interference.

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.

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1 First steps

1.1 Unpack and inspect

Procedure

- 1. Inspect the shipping container. If it is damaged, contact the shipper immediately for instructions.
- 2. If there is no apparent damage, unpack the container. Be sure all items shown on the packing list are present. If items are missing, notify Emerson immediately.

1.2 Mount

Figure 1-1: Panel Mount Front View

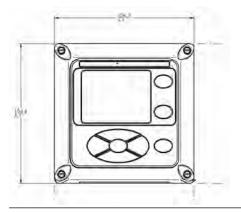
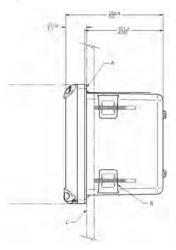
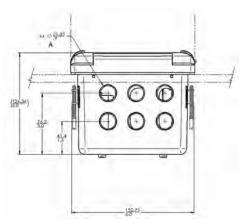


Figure 1-2: Panel Mount Side View



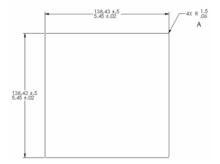
- A. Panel mount gasket
- B. 4X mounting brackets and screws provided with instrument
- C. Panel supplied by others: maximum thickness .375-in. (9.52 mm)

Figure 1-3: Panel Mount Bottom View



A. 6X conduit openings

Figure 1-4: Panel Mount Panel Cut-out

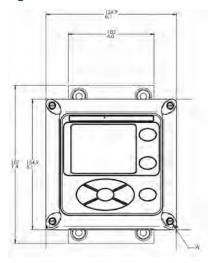


A. Maximum radius

Note

Panel mounting seal integrity (4/4X) for outdoor applications is the end user's responsibility.

Figure 1-5: Wall Mount Front View



A. 4X cover screw

Figure 1-6: Wall Mount Side View

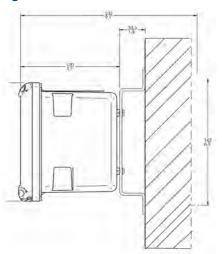
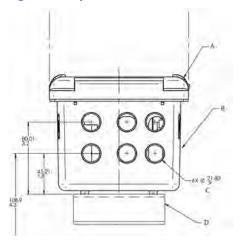


Figure 1-7: Pipe Mount Bottom View



- A. Front panel
- B. Panel and pipe mount enclosure
- C. Conduit openings
- D. 2-in. pipe mount bracket

2 Install

2.1 General installation information

WARNING

Electrical shock

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

- 1. Install the transmitter with a sunshield or out of direct sunlight and areas with extreme temperatures.
- 2. 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. (0.3 m) from high voltage conductors. Be sure there is easy access to the transmitter and sample conditioning system.
- 4. The transmitter is suitable for panel, pipe, or surface mounting.

3 Wire

3.1 General wiring information

The transmitter is easy to wire.

It includes removable connectors and slide-out signal input boards. The front panel is hinged at the bottom. The panel swings down for easy access to the wiring locations.

3.1.1 Removable connectors and signal input boards

The transmitter uses removable signal input boards and communication boards for ease of wiring and installation.

You can remove each of the signal boards either partially or completely from the enclosure for wiring. The transmitter has three slots for placement of up to two signal input boards and one communication board.

Slot 1 - left	Slot 2 - center	Slot 3 - right
Comm board	Input board 1	Input board 2

3.1.2 Signal input boards

Slots 2 and 3 are for signal input measurement boards.

Procedure

- Wire the sensor leads to the measurement board following the lead locations marked on the board.
- 2. Carefully slide the wired board fully into the enclosure slot and take up the excess sensor cable through the cable gland.
- 3. Tighten the cable gland nut to secure the cable and ensure a sealed enclosure.

3.1.3 Digital communication boards

HART® and Profibus® DP communication boards will be available in the future as options for Rosemount 1056 digital communication with a host.

The HART board supports Bell 202 digital communications over an analog 4-20 mA current output. Profibus DP is an open communications protocol that operates over a dedicated digital line to the host.

3.1.4 Alarm relays

Emerson supplies four alarm relays with the switching power supply (85 to 264 Vac, 03 order code) and the 24 Vdc power supply (20 - 30 Vdc, 02 order code). You can use all relays for process measurement(s) or temperature.

You can also configure any relay as a fault alarm instead of a process alarm. In addition, you may configure any relay independently and program it to activate pumps or control valves.

As process alarms, alarm logic (high or low activation or USP*) and deadband are user-programmable. Customer-defined failsafe operation is supported as a programmable menu function to allow all relays to be energized or not energized as a default condition upon powering the transmitter. You may program the USP* alarm to activate when the conductivity is within a user-selectable percentage of the limit. USP* alarming is available only when a contacting conductivity measurement board is installed.

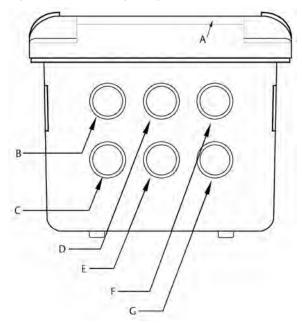
3.2 Prepare conduit openings

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

Note

Emerson fits four of the openings with plugs upon shipment.

Figure 3-1: 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

Note

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

Conduit openings accept $\frac{1}{2}$ -in. (12.7 mm) conduit fittings or PG13.5 cable glands. To keep the case watertight, block unused openings with Type 4X or IP66 conduit plugs.

Note

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

3.3 Prepare sensor cable

The Rosemount 1056 is intended for use with all Rosemount sensors. Refer to the sensor installation instructions for details on preparing sensor cables.

3.4 Power, output, and sensor connections

3.4.1 Power wiring

Emerson offers three power supplies for the Rosemount 1056.

- 1. 115/230 Vac power supply (01 ordering code)
- 2. 24 Vdc (20-30 V) power supply (02 ordering code)
- 3. 85-265 Vac switching power supply (03 ordering code)

AC mains (115 or 230 V) leads and 24 Vdc leads are wired to the power supply board which is mounted vertically on the left side of the main enclosure cavity. Each lead location is marked clearly on the power supply board. Wire the power leads to the power supply board using the lead markings on the board.

The grounding plate is connected to the earth terminal of power supply input connector TB1 on the 01 (115/230 Vac) and 03 (85-265 Vac) power supplies. The green screws on the grounding plate are intended for connection to some sensors to minimize radio frequency interference. The green screws are not intended to be used for safety purposes.

Figure 3-2: 115/230 Vac Power Supply (01 Ordering Code)



A CAUTION

AC power switch shipped in the 230 Vac position.

Adjust switch upwards to 115 Vac position for 110 Vac to 120 Vac operation.

Figure 3-3: 24 Vdc Power Supply (02 Ordering Code)



This power supply automatically detects DC power and accepts $20\,\mathrm{Vdc}$ to $30\,\mathrm{Vdc}$ inputs.

Four programmable alarm relays are included.

Figure 3-4: Switching AC Power Supply (03 Ordering Code)



This power supply automatically detects AC line conditions and switches to the proper line voltage and line frequency.

Four programmable relays are included.

3.4.2 Current output wiring

Emerson ships all instruments with two 4-20 mA current outputs. Wiring locations for the outputs are on the main board which is mounted on the hinged door of the instrument. Wire the relay leads on each of the

independent relays to the correct position on the main board using the lead markings (+/positive, -/negative) on the board. Emerson provides male mating connectors with each unit.

Note

Twisted pairs are required to miminize noise pickup in the flow and current sensor inputs. For high EMI/RFI environments, shielded sensor wire is required and recommended in all other installations.

Figure 3-5: Current Output Wiring





3.4.3 Alarm relay wiring

Emerson supplies four alarm relays with the switching power supply (85 to 265 Vac, 03 order code) and the 24 Vdc power supply (20-30 Vdc, 02 order code).

Wire the relay leads on each of the independent relays to the correct position on the power supply board using the printed lead markings (NO/ Normally open, NC/Normally closed, or Com/Common) on the board. See Figure 3-6.

Figure 3-6: Alarm Relay Wiring for Rosemount 1056 Switching Power Supply (03 Order Code)



Table 3-1: Performance Specifications

NO1	
COM1	Relay 1
NC1	
NO2	
COM2	Relay 2
NC2	
NO3	
COM3	Relay 3
NC3	
NO4	
COM4	Relay 4
NC4	

3.4.4 Wire sensor to signal boards.

Procedure

- 1. Wire the correct sensor leads to the main board using the lead locations marked directly on the board.
- 2. Carefully slide the wired board fulling into the enclosure slot and take up the excess sensor cable through the cable gland.

For best electromagnetic interference (EMI) and radio frequency interference (RFI) protection, use shielded output signal cable enclosed in an earth-grounded metal conduit. AC wiring should be 14 gauge or greater.

3. Provide a switch or breaker to disconnect the transmitter from the main power supply. Install the switch or breaker near the transmitter and label it as the disconnecting device for the transmitter.

▲ WARNING

Electrical shock

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

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.

Note

Twisted pairs are required to minimize noise pickup in the flow and current sensor inputs. For high EMI/RFI environments, shielded sensor wire is required and recommended in all other installations.

Figure 3-7: Contacting Conductivity Signal Board and Sensor Cable Leads





Figure 3-8: Toroidal Conductivity Signal Board and Sensor Cable Leads





Figure 3-9: pH/ORP/ISE Signal Board and Sensor Cable Leads





Figure 3-10: Chlorine, Dissolved Oxygen, and Ozone Signal Boards and Cable Sensor Leads





Figure 3-11: Turbidity Signal Board with Plug-in Sensor Connection

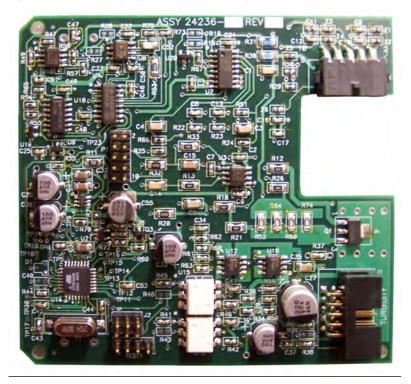
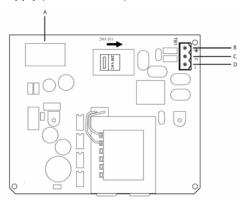


Figure 3-12: Flow/Current Input Signal Board and Sensor Cable Leads



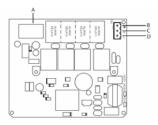


Figure 3-13: Power Wiring for the Rosemount 1056 115/230 Vac Power Supply (01 Order Code)



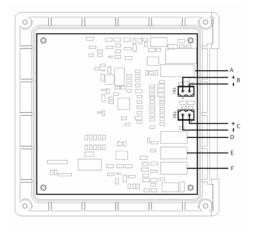
- A. To main board
- B. Earth ground
- C. Neutral
- D. Line

Figure 3-14: Power Wiring for the Rosemount 1056 85-265 Vac Power Supply (03 Ordering Code)



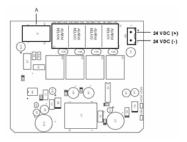
- A. To main board
- B. Earth ground
- C. Neutral
- D. Line

Figure 3-15: Output Wiring for Rosemount 1056 Main PCB



- A. To power supply PCB
- B. Analog output 1
- C. Analog output 2
- D. To digital I/O PCB
- E. To sensor 1 PCB
- F. To sensor 2 PCB

Figure 3-16: Power Wiring for Rosemount 1056 24 Vdc Power Supply (02 Ordering Code)



A. To main board

4 Navigating the display

4.1 User interface

The Rosemount 1056 has a large display which shows two live measurement readouts in large digits and up to four additional process variables or diagnostic parameters concurrently. The display is back-lit, and you can customize the format to meet your requirements.

Use the intuitive menu system to access Calibration, Hold (of current outputs), Programming, and Display functions by pressing MENU. In addition, a dedicated DIAGNOSTIC 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 occur. The transmitter displays Help screens 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.



4.2 Instrument keypad

Use the **MENU** key to access menus for programming and calibrating the instrument. 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 output(s).

Program: Program outputs, measurement, temperature, security, and reset.

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.

Press **DIAG** to display active Faults and Warnings and detailed instrument information and sensor diagnostics, including: faults, warnings, Sensor 1 and 2 information, Out 1 and Out 2 live current values, instrument software version, and AC frequency used.

Press ENTER on Sensor 1 or Sensor 2 to display 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 Signal board 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.
- Fnter or edit numeric values.
- 4. Move the cursor to the right or left.
- 5. Select measurement units during operation.

4.3 Main display

The Rosemount 1056 displays one or two primary measurement values, up to four secondary measurement values, a fault and warning banner, alarm relay flags, and a digital communications icon.

Process measurements

Two process variables are displayed if two signal boards are installed. One process variable and process temperature are displayed if one signal board is installed with one sensor. The upper display area shows the Sensor 1 process reading. The center display area shows the Sensor 2 process reading. For

dual conductivity, you can assign the upper and center display areas to different process variables as follows:

Process variables for upper display - example	Process variables for center display - example
Measure 1	Measure 1
% Reject	Measure 2
% Pass	% Reject
Ratio	% Pass
	Ratio
	Blank

For single input configurations, the upper display area shows the live process variable, and you can assign the center display area to Temperature or Blank.

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.

Possible secondary values include:

- Slope 1
- Ref off 1
- Gl imp 1
- Ref imp 1
- Raw
- mV input
- Temp 1
- Man temp 1
- Man temp 2
- Output 1 mA
- Output 2 mA
- Output 1%
- Output 2%
- Measure 1
- Blank

Fault and warning banner

If the transmitter detects a problem with itself or the sensor, 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.
- 4. 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.
- 6. Continue to navigate and program all desired screen selections. Press MENU and EXIT. The screen returns to the main display.

For single sensor configurations, the default display shows the live process measurement in the upper display area and 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. For dual sensor configurations, the default display shows Sensor 1 live process measurement in the upper display area and Sensor 2 live process measurement in the center display area.

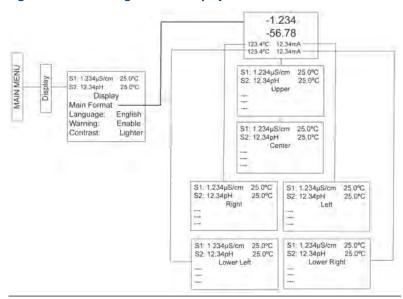


Figure 4-1: Formatting the Main Display

4.4 Menu system

The transmitter uses a scroll and select menu system. Press the **MENU** key at any time to open 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 menu item, press **ENTER**. To return to a previous menu level or to enable the main live display, press **EXIT** repeatedly. To return immediately to the main display from any menu level, 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 point 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.

During all menu displays (except main display format and Quick Start), the live process measurements and secondary measurement values 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 time out after two minutes and return to the main display.

5 Start-up

Procedure

 Wire sensor(s) to the signal boards.
 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 power to the transmitter.

A WARNING

Electrical shock

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

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

- a. A backlit field shows the position of the cursor.
- b. 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.
- c. 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. Complete the steps as shown in the quick start flow diagram.

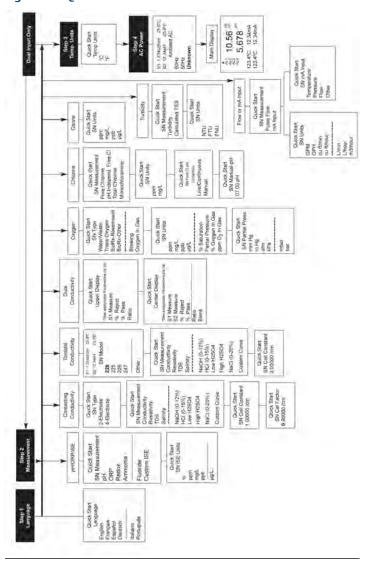


Figure 5-1: Quick Start Guide

After the last step, the main display appears. The outputs are assigned to default values.

4. To change output and temperature-related settings, go to the *Main Menu* and choose *Program*. Follow the prompts.

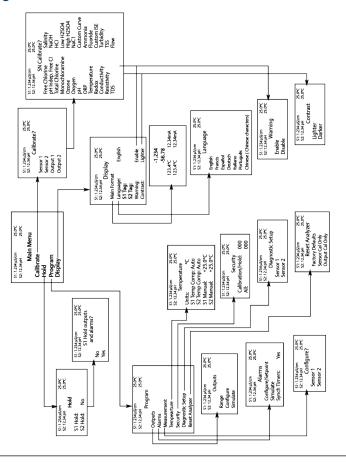


Figure 5-2: Rosemount 1056 Menu Tree

5. To return the transmitter to the factory default settings, choose **Reset Analyzer** under the **Program** menu.

Please call Rosemount Customer Support Center at 1-800-854-8527 if you need further support.

6 Product certifications

Rev 1.2

6.1 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.

6.2 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).

6.3 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.

6.4 USA

6.4.1 FM hazardous locations

Certificate FM16US0180X

Standards FM Class 3600: 2011

FM Class 3611: 2004 FM Class 3810: 2005 ANSI/NEMA 250: 2003

Markings

B, C, D, E, F and G; temperature class T4A Tamb = -20 °C to +50 °C; hazardous (classified) locations; enclosure Type 4X Nonincendive for use in Class I, II, and III, Division 2, Groups A, B, C, D, E, F and G; temperature class T4A Tamb = -20 °C to +50 °C; when installed per control Drawing 1400324; hazardous (classified) locations; enclosure Type 4X

Nonincendive for use in Class I, II, and III, Division 2, Groups A,

Special Conditions for Safe Use (X):

1. For use with sensors in accordance with drawing 1700463.

2. Sensors having exposed electrodes in the process shall be used in a non-flammable liquid process only.

- 3. The panel mount gasket has been tested for Type 4X installation. Type 4X refers to the enclosure only.
- 4. Turbidity sensors shall be used in a non-flammable liquid process only.

6.4.2 CSA hazardous locations

Certificate 70173522

Standards CSA Standard C22.2 No. 010, CSA Standard

C22.2 No. 0.4-04, CSA Standard C22.2 No. 25-1966, CSA Standard C22.2 No. 94-M1991, CSA Standard C22.2 No. 142-M1987, CSA Standard C22.2 No. 213-M1987, CSA Standard C22.2 No. 60529:05 (reaffirmed 2015), ANSI/IEC 60529-2004 (reaffirmed 2011), ANSI/ISA 12.12.01:2007. UL Standard No. 50

(11th ed,), UL Standard No. 508 (17th ed.)

Markings Class I, Division 2, Groups A, B, C, and D;

Class II, Division 2, Groups E, F, and G;

Class III

Maximum ambient 55 °C; temperature code

T4A; enclosure Type 4X; IP66

6.4.3 UL ordinary locations

Certificate 20170327-E207618

Standards UL 61010-1, CAN/CSA-C22.2 No. 61010-1

Markings Ordinary locations

CUL US

6.5 Canada

6.5.1 CSA hazardous locations

Certificate 70173522

Standards CSA Standard C22.2 No. 010, CSA Standard

C22.2 No. 0.4-04, CSA Standard C22.2 No. 25-1966, CSA Standard C22.2 No. 94-M1991, CSA Standard C22.2 No. 142-M1987, CSA

Standard C22.2 No. 213-M1987, CSA Standard C22.2 No. 60529:05 (reaffirmed 2015), ANSI/IEC 60529-2004 (reaffirmed 2011), ANSI/ISA 12.12.01:2007, UL Standard No. 50 (11th ed.), UL Standard No. 508 (17th ed.)

Markings

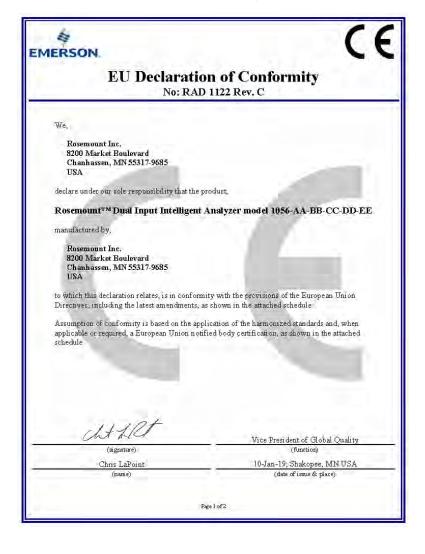
Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups E, F, and G;

Class III

Maximum ambient 55 °C; temperature code

T4A; enclosure Type 4X; IP66

7 EU Declaration of Conformity







EU Declaration of Conformity

No: RAD 1122 Rev. C

The product,

 $Rosem\,ount^{\texttt{TM}}\,Du\,al\,\,Input\,Intelligent\,\,Analyzer\,\,model\,\,1056\text{-}AA\text{-}BB\text{-}CC\text{-}DD\text{-}EE$

Where

AA is Power: 01 115/230V AC, no relays 02 24 V DC, 4 alarm relays

20 21 03 85-265V AC, 4 alarm relays

pH/ORP/ISP Flow/Current Chlorine Dissolved Oxygen Ozone Turbidity

BB is Measurement 1:

CC is Measurement 2: Contacting Conductivity Toroidal Conductivity 30 31 Contacting Conductivity Toroidal Conductivity pH/ORP/ISP Flow/Current 33 34 Chlorine 35 36

Dissolved Oxygen Ozone 37 Turbidity 38 None to which this declaration relates, is in conformity with relevant Union harmonization legislation:

AN 4-20 mA analog signaling
HT 4-20 mA plus HART comm.
DP Profibus protocol EE is UL option: Blank if no selection UL UL, Ordinary Location

DD is Communication Output:

EMC Directive (2014/30/EU)

Harmonized Standards: EN 61326-1:2013

Low Voltage Directive (2014/35/EU)

Harmonized Standard: EN 61010-1:2010

RoHS Directive (2011/65/EU)

Harmonized Standard: EN 50581:2012

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8 China RoHS Table

含有China RoHS 管控物质超过最大浓度限值的部件型号列表 1056 List of 1056 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	х	0	0	0	0	0
传感器组件 Sensor Assembly	x	0	0	0	О	О

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.

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.

部件名称 Part Name	组装备件说明 Spare Parts Descriptions for Assemblies
电子组件 Electronics Assembly	电子线路板组件 Electronic Board Assemblies 液晶显示屏或本地操作界面显示屏 LCD or LOI Display
传感器组件 Sensor Assembly	传感器模块 Sensor Module

O: Indicate that said hazardous substance in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.



Quick Start Guide 00825-0100-3156, Rev. AB March 2020

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