

Rosemount™ 1058 Dual Channel Transmitter



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1 Installation

1.1 General installation information

Install the transmitter in an area where vibration, electromagnetic, and radio frequency interference are minimized or absent.

1.2 Mounting

The 1058 supports panel, wall, and pipe mounting. Refer to [Mounting configuration](#) for drawings showing each of these mounting configurations.

Mounting configuration

Figure 1-1: Panel mount, front view

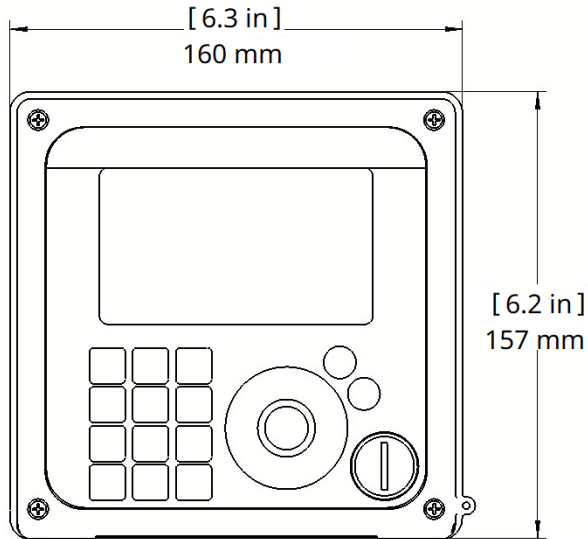
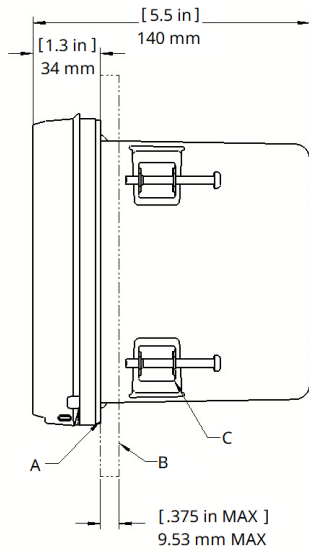
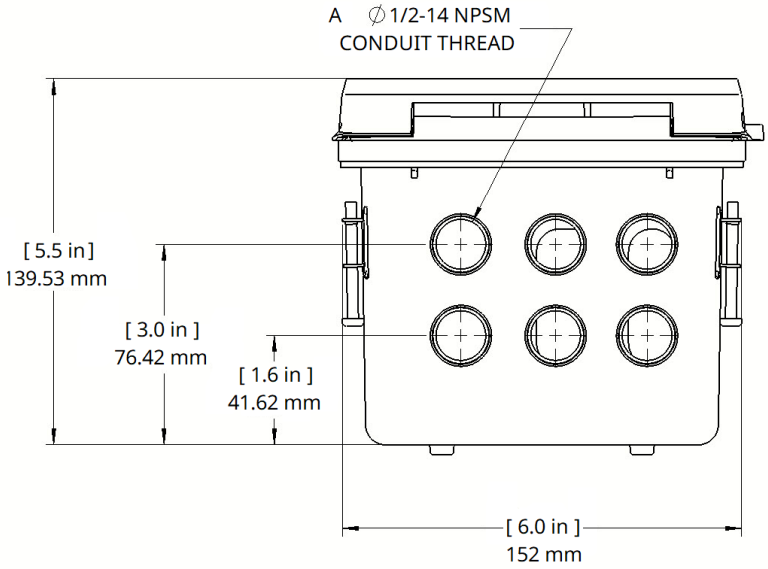


Figure 1-2: Panel mount, side view



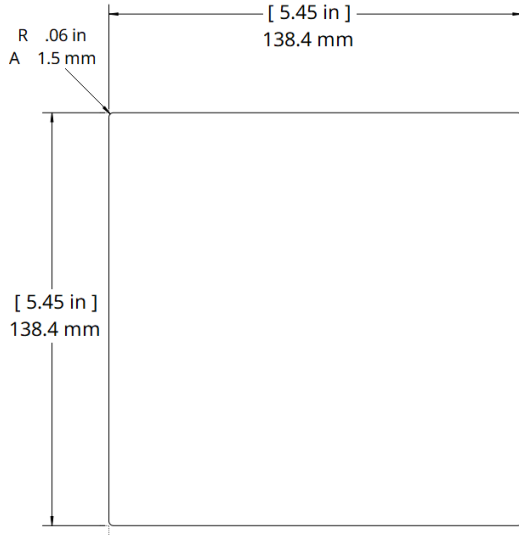
- A. Panel mount gasket
- B. Panel supplied by customer; maximum thickness: 0.375 in. (9.52 mm)
- C. Four mounting brackets and screws provided with the instrument

Figure 1-3: Panel mount, bottom view



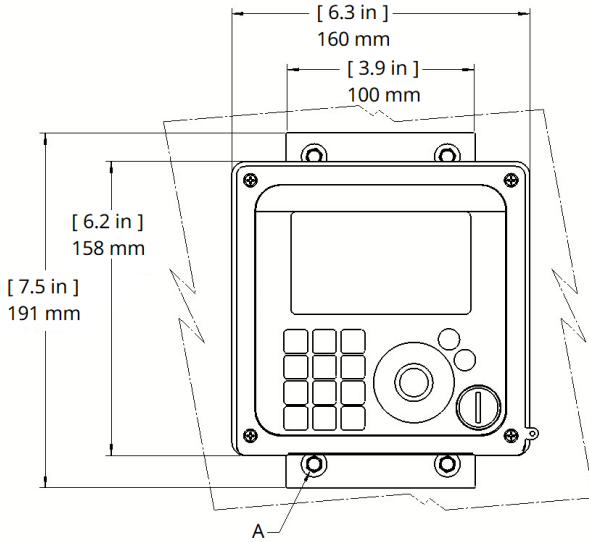
A. Conduit openings

Figure 1-4: Panel cut-out



A. Maximum

Figure 1-5: Wall mount, front view



A. QTY 4 Ø5/16 wall anchor screws

Figure 1-6: Wall mount, side view

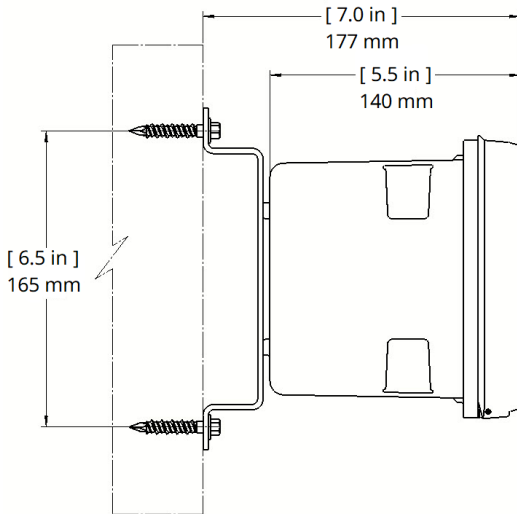
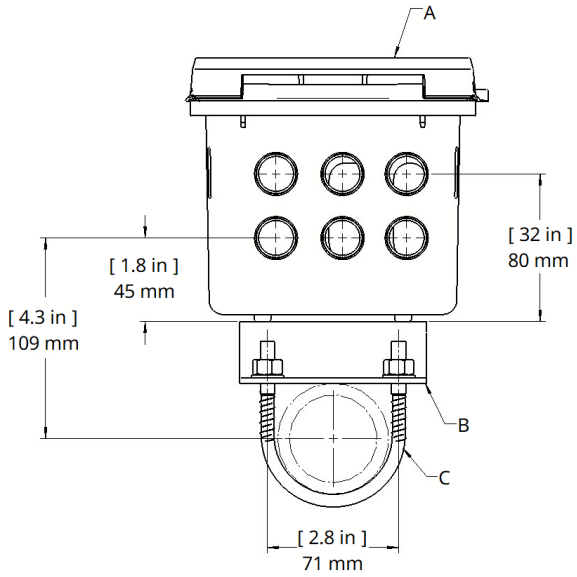
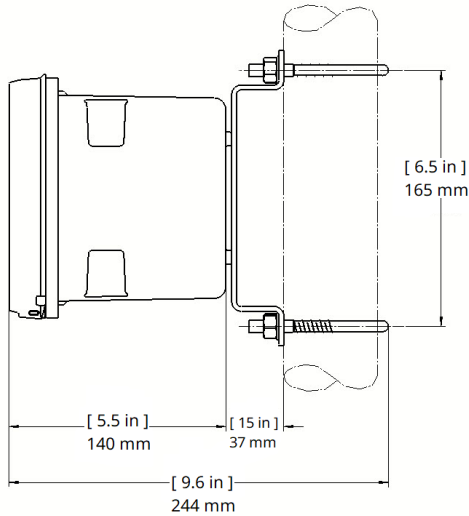


Figure 1-7: Wall mount, bottom view



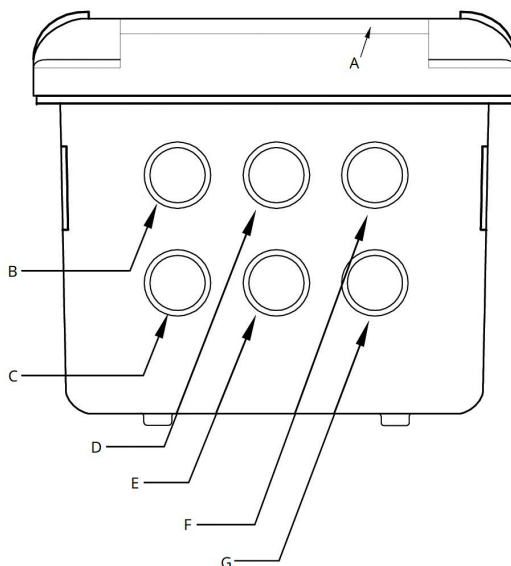
- A. Front panel
- B. 2-in. (51 mm) pipe mount bracket
- C. Two sets U-bolts for 2-in. (51 mm) pipe in kit, PN 23820-00

Figure 1-8: Pipe mount, side view



1.3 Preparing conduit openings

There are six conduit openings in all configurations of the transmitter. Conduit openings accept 0.5-in. (13 mm) conduit fittings or PG13.5 cable glands. A 1/2-in. NPT thread is recommended. To maintain ingress protection, use Type 4X or IP66 rated cable glands for all cables entering the device and block unused openings with Type 4X or IP66 conduit plugs.

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®/leads*
- F. Sensor 2 cable*
- G. Spare opening*

1.4 Wiring

1.4.1 General installation information

Install the transmitter in an area where vibration, electromagnetic, and radio frequency interference are minimized or absent.

1.4.2 Sensor wiring

Digital sensors with M12 connectors

Digital sensors with M12 type connectors are connected to the transmitter by plugging the M12 male connector on the sensor cable into the M12 female connector installed in one of the transmitter conduit openings.

Analog sensors and digital sensors without M12 connectors

Note

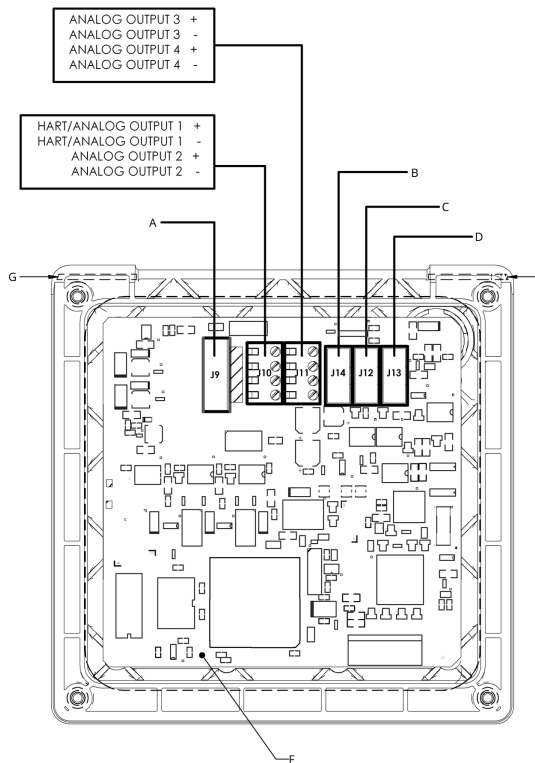
For digital sensors with flying lead wiring, remove the M12 plug connector and feed the cable through the appropriate conduit opening on the Rosemount 1058 before proceeding.

1. Wire the sensor leads to the terminals on the signal input board following the lead locations marked on the board. Refer to the applicable sensor Quick Start Guide for more details.
2. Carefully slide the wired signal input 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.

1.4.3 Output Wiring

The device has four 4-20 mA analog outputs. HART communications is superimposed on analog output 1. Wire the relay leads on each of the independent relays to the terminal on the main board using the lead markings (+/positive, -/negative) on the board. Emerson provides male mating connectors with each unit.

Figure 1-10: Output Wiring for Main PCB PN D0000333-02



- A. To power supply PCB (ribbon cable)
- B. Reserved
- C. To sensor 1 signal board
- D. To sensor 2 signal board
- E. Hinge pin
- F. Transmitter main board, PN D0000333-02
- G. Hinge pin

Alarm relay wiring

The device has four alarm relay outputs. To use the relay outputs, 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.

1.4.4 Power wiring

USP alarm can be programmed to activate when the conductivity is within a user-selectable percentage of the limit.

Note

Conductivity/resistivity measurement only.

Table 1-1: Maximum Relay Current Rating⁽¹⁾

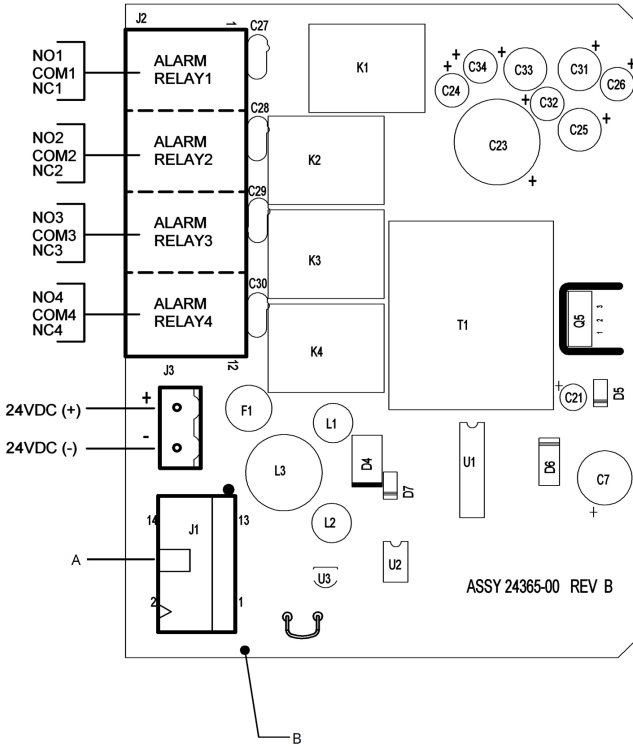
Power input	Resistive
28 VDC 5.0 A	5.0 A
115 VAC 5.0 A	5.0 A
230 VAC 5.0 A	5.0 A

(1) Relays: Form C, SPDT, epoxy sealed

Two power supply options are offered for the 1058: 24 VDC and 85-265 VAC. AC mains 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 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 the 85-265 VAC power supply device version. The green colored 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.

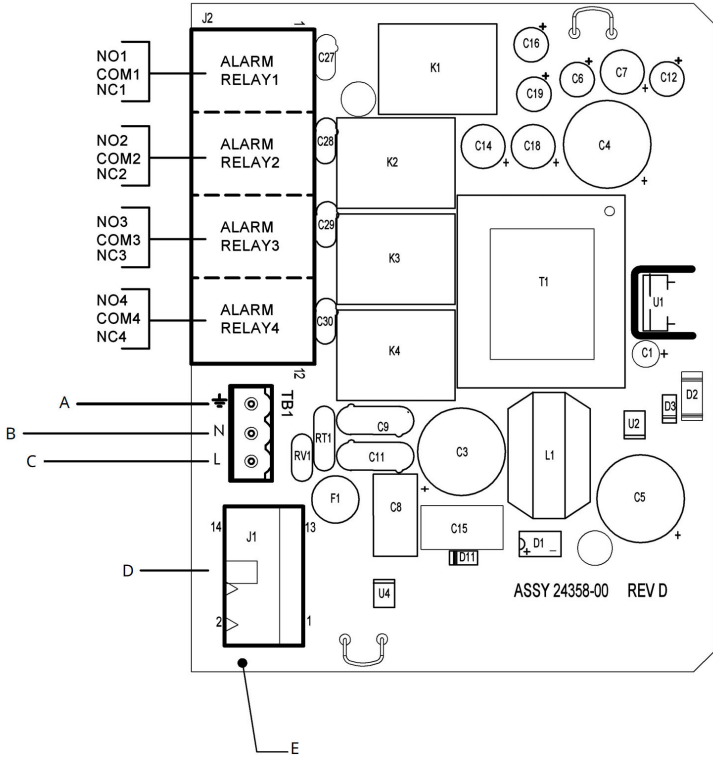
Figure 1-11: Power Wiring for 24 VDC Power Supply PN 24365-030



A. To main board (ribbon cable)

B. Rosemount 1058 DC power supply board PN 24365-030

Figure 1-12: Power Wiring for 85-264 VAC Power Supply PN D000340-01



- A. Earth ground
- B. Neutral
- C. Line power
- D. To main board (ribbon cable)
- E. Rosemount 1058 AC power supply board PN D000340-01

2 Start-up

Once all wiring connections are secured, close the front cover of the device, and install the four cover screws. Then apply power to the device.

When the device is powered up for the first time, Quick Start screens appear and guide you through the initial configuration of the device.

3 Product certifications

For Rosemount 1058 Dual Channel Transmitter product certifications, see the *Rosemount 1058 Dual Channel Transmitter Quick Start Guide*.

3.1 European Directive Information

A copy of the Declaration of Conformity can be found at the end of the Quick Start Guide. The most recent revision of the Declaration of Conformity can be found at [Emerson.com/Rosemount](https://www.emerson.com/Rosemount).

3.2 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).

3.3 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.

3.4 USA

3.4.1 N5 USA

Hazardous Locations

Certificate: FM17US0028X

Markings: NON-INCEDNIVE Class I, Division 2, Groups ABCD
T4 T_{amb} -10 °C To +60 °C
NIFW Per DWG A1058-1300

Special Conditions for Safe Use (X):

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

3.5 Canada

3.5.1 N6 USA

Hazaradous Locations


Certificate: FM24CA0046X

Markings: NON-INCEDNIVE Class I, Division 2, Groups ABCD
T4 T_{amb} -10 °C To +60 °C
NIFW Per DWG A1058-1300


Special Conditions for Safe Use (X):

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

3.6 Declaration of conformity



EU DECLARATION OF CONFORMITY




This declaration of conformity is issued under the sole responsibility of

Rosemount Inc.
6021 Innovation Blvd
Shakopee, MN 55379
USA

that the following products,

Rosemount™ 1058 Dual Channel Transmitter

comply with the provisions of the European Union Directives, including the latest amendments, valid at the time this declaration was signed.


August 21, 2024
 (signature & date of issue)

Mark Lee | Vice President, Quality | Boulder, CO, USA
 (name) (function) (place of issue)

Authorized Representative in Europe:
Emerson S.R.L., company No. J12/88/2006
Emerson 4 street, Parcul Industrial
Tetaram II, Cluj-Napoca 400638, Romania

Regulatory Compliance Shared Services Department
Email: europesproductcompliance@emerson.com Phone: +40 374 132 035

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

Low Voltage Directive (2014/53/EU)
Harmonized Standards:
EN 61010-1:2017

RoHS Directive (2011/65/EU)
Harmonized Standards:
IEC 63000:2018

3.7 China RoHS

含有China RoHS管控物质超过最大浓度限值的部件型号列表 [1058]
 List of [1058] 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	O	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.



Quick Start Guide
MS-00825-0100-1058, Rev. AA
August 2024

For more information: [Emerson.com/global](https://www.emerson.com/global)

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