Product Data Sheet
00813-0100-3157, Rev AA
November 2019

Rosemount™ 1057

Triple Channel Transmitter

Multi-parameter transmitter for liquid analysis

The Rosemount 1057 Triple Channel Transmitter can display up to three independent liquid analytical measurements. The transmitter can show three additional temperature measurements, analog outputs, and diagnostic information. Use the Quick Start programming feature to easily start up and install the Rosemount 1057.

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Overview

Independent triple input measurements

- Expandable to three channels of liquid analytical measurements: pH/ORP and contacting conductivity.
- Modular boards with auto-recognition of sensor board.
- Large, easy to read, user customizable display of three measurements in addition to diagonistic and temperature readings.

Reduced installation and maintenance time

- Shorter installation times using Quick Start programming at initial install or after factory reset.
- Display measurements, configure alarms, and conduct maintenance with an easy to use local operator interface.

Accurate, linear, and reliable measurements of analytical sensors

- Faster calibration of pH sensors using auto pH buffer solution detection.
- Linear conductivity measurements with on-board concentration curves for common acids and bases.

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Ordering information

Table 1: Rosemount 1057 Ordering Information

Option	Description
Transmitter type	
1057	Triple channel transmitter
Power	
02	24 Vdc with four alarm relays
03	85 to 265 Vac switching, 50/60 Hz with four alarm relays
Measurement 1	
20	Contacting conductivity
22	pH/ORP/ISE
Measurement 2	
30	Contacting conductivity
32	pH/ORP/ISE
38	None
Measurement 3	
40	Contacting conductivity
42	pH/ORP/ISE
48	None
Approvals	
_	CSA/FM approval
UL	UL approval

Table 2: Accessories

Part number	Description
23554-00	Cable gland kit (quantity 5)
23820-00	2-in. (50.8 mm) pipe mounting kit (includes U-bolts, mounting bracket, nuts, washers, and screws)
23820-01	2-in. (50.8 mm) stainless steel pipe mounting kit (includes U-bolts, mounting bracket, nuts, washers, and screws)
9240048-00	Stainless steel tag (customer-specified marking)

Specifications

Enclosure

Material	Polycarbonate
Rating	Type 4X and IP65
Dimensions	Length x width x height: 6.10 x 6.10 x 5.45 in. (155 x 155 x 131 mm)
Conduit openings	½-in. (12.7 mm) or PG 13.5 conduit fittings

Display

Features	User-customizable, monochromatic, backlit graphic liquid crystal display
Resolution	128 x 96 pixels
Dimensions	Diagonal: 3.8 in. (96.5 mm)

Ambient conditions

Temperature	32 to 131 °F (0 to 55 °C)
Temperature for turbidity	32 to 122 °F (0 to 50 °C)
Relative humidity	5 to 95 percent (non-condensing)
Storage temperature	-4 to 140 °F (-20 to 60 °C)

Power

02	20 to 30 Vdc. 15 W.
03	84 to 265 Vac, 47 to 63.0 Hz. 15 W.

Power option codes 02 and 03 include four programmable relays.

Equipment protected by double insulation.

Relays

Form C, SPDT, epoxy sealed

Table 3: Maximum Relay Current

	Resistive
28 Vdc	5.0 A

Table 3: Maximum Relay Current *(continued)*

	Resistive
115 Vac	5.0 A
230 Vac	5.0 A

Inductive load ⅛ HP motor (maximum) at 115/230 Vac

Relays only available with option 02 power supply (20 to 30 Vdc) or 03 switching power supply (84 to 265 Vac).

Alarm relays

Four configurable alarm relays for process measurement as alarms or faults with interval timer settings.

Terminal wire sizes

Power	24-12 AWG
Analog outputs	26-16 AWG
Relays	24-12 AWG

Weight/shipping weight

Rounded to nearest 1 lb. or 0.5 kg

3 lb./4 lb. (1.5 kg/2.0 kg)

Product certifications

Hazardous location approvals

Class I, Division 2, Group A, B, C, and D

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

Class IIIT4A Tamb = 50 °C

Evaluated to the ANSI/UL standards. The "C" and "US" indicators adjacent to the CSA mark signify that the product has been evaluated to the applicable CSA and ANSI/UL standards, for use in Canada and the US respectively.

Ordinary locations (only with UL ordering option)

Pollution Degree 2

Normally only non-conductive pollution occurs. Temporary conductivity caused by condensation possible.

Altitude: 6562 ft. (2000 m) maximum

Radio frequency immunity/electromagnetic interference (RFI/EMI)

Meets all industrial environment requirements as per EN61326.

CE

Low Voltage Directive (LVD)

EN-61010-1

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.

Dimensional drawings

Figure 1: Panel Mount, Front View

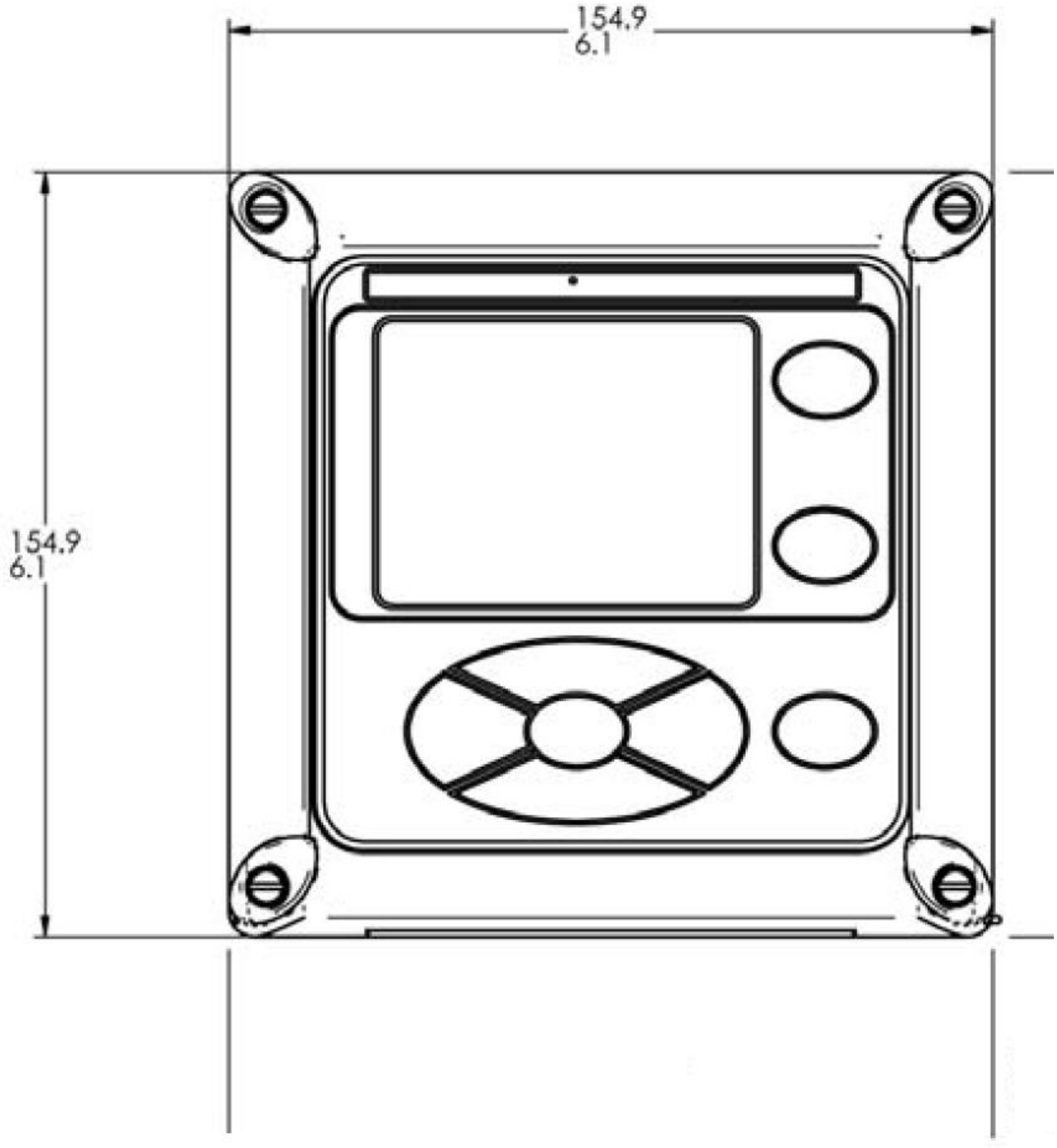
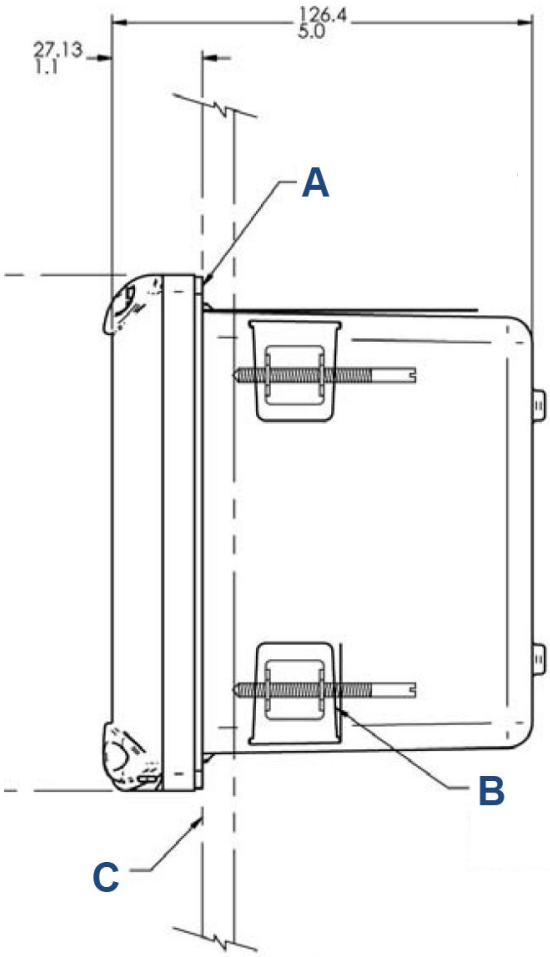
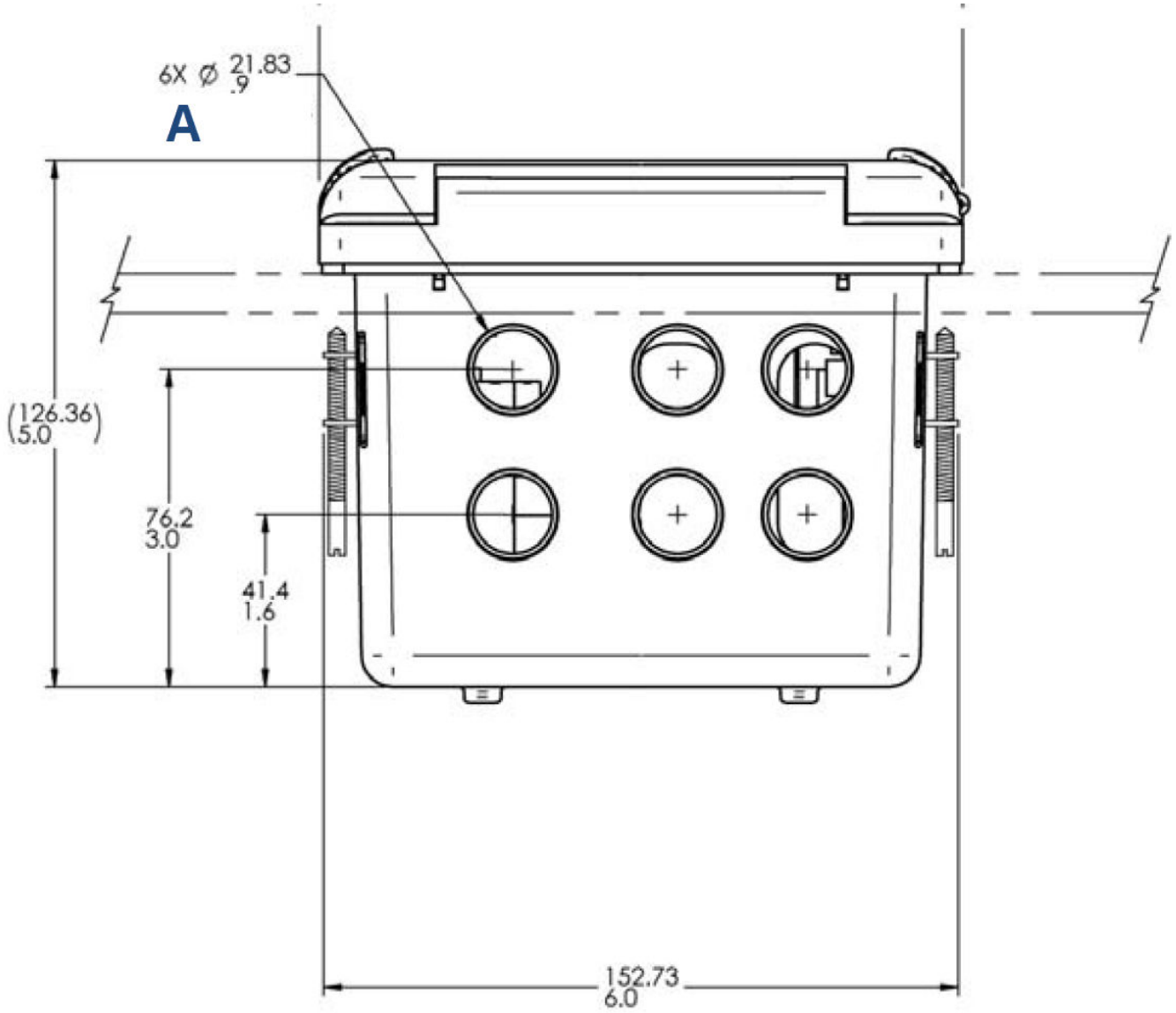


Figure 2: Panel Mount, Side View



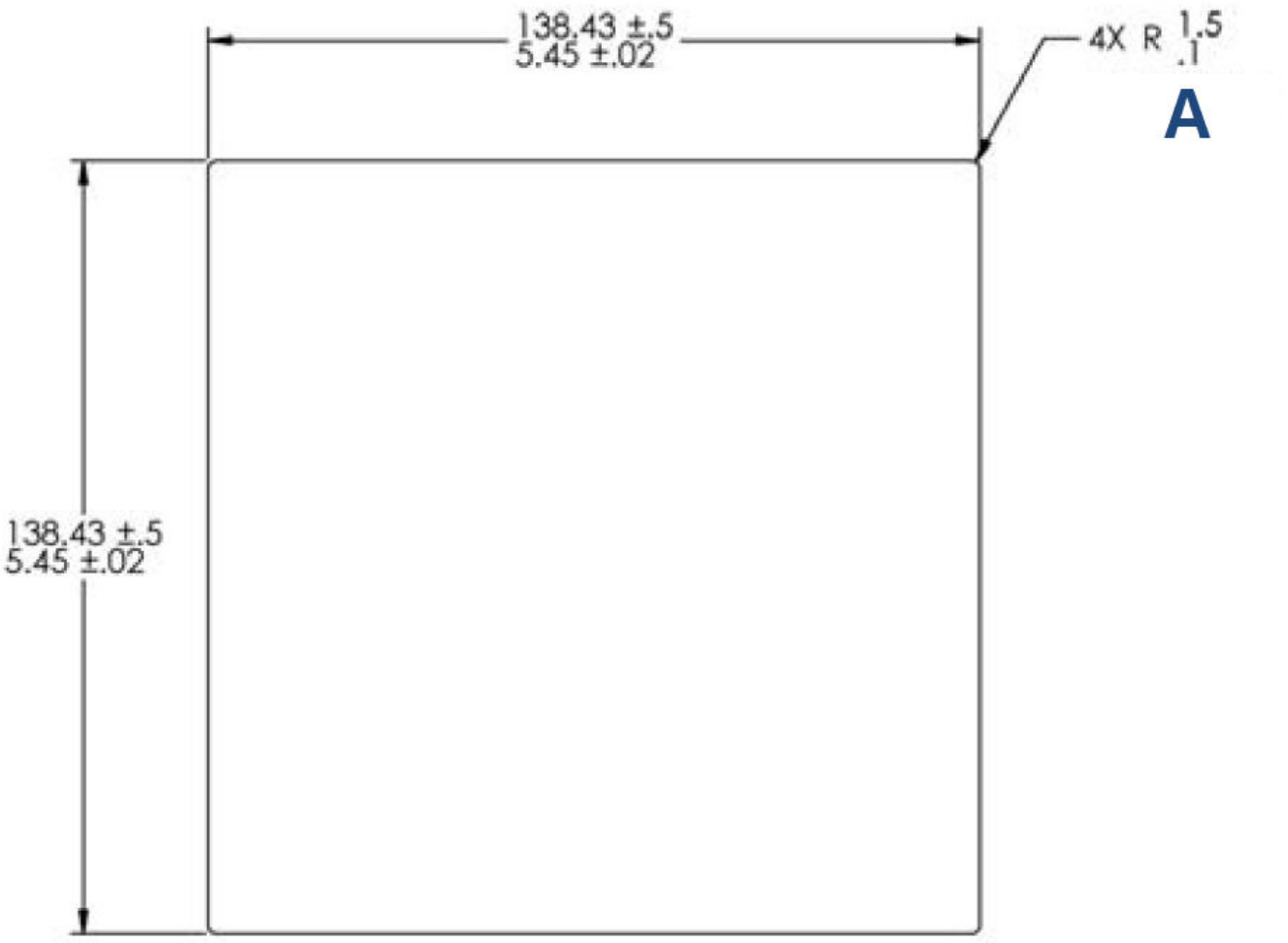
A. Panel mount gasket
B. Four mounting brackets and screws provided with transmitter
C. Panels supplied by others. Maximum thickness: 0.375 in. (9.52 mm)

Figure 3: Panel Mount, Bottom View



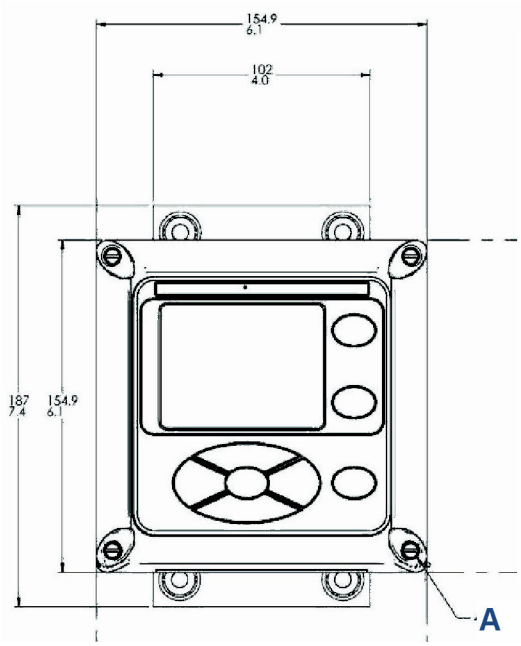
A. Conduit openings

Figure 4: Panel Cut-out



A. Maximum radius

Figure 5: Wall Mount, Front View



A. Four cover screws

Figure 6: Wall Mount, Side View

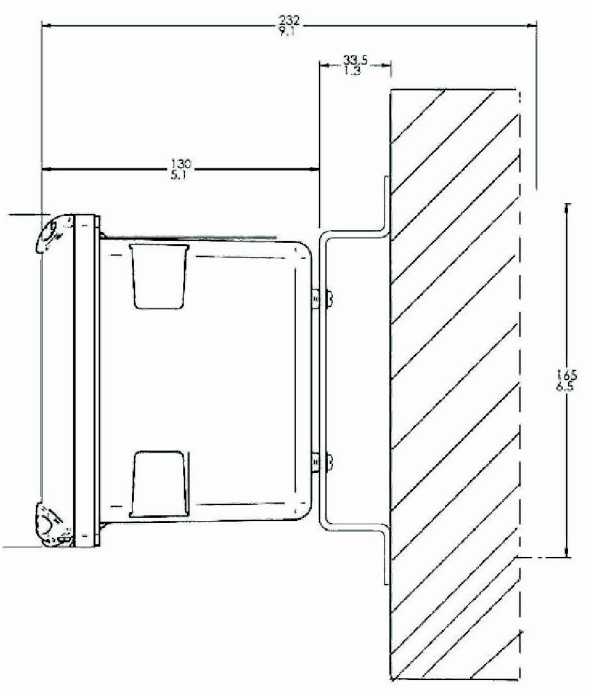
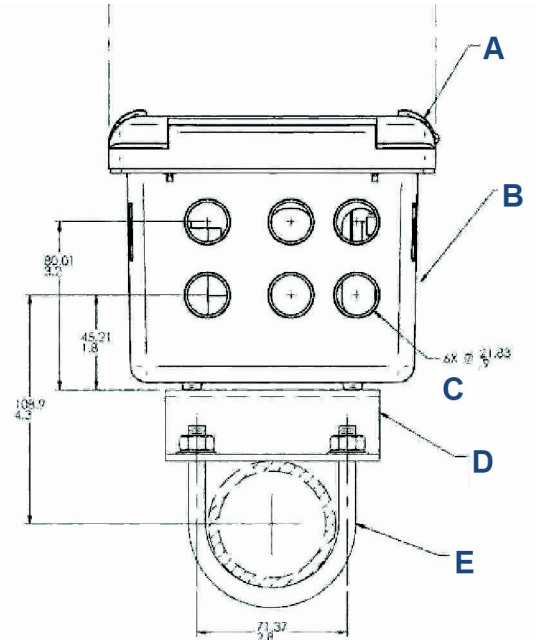
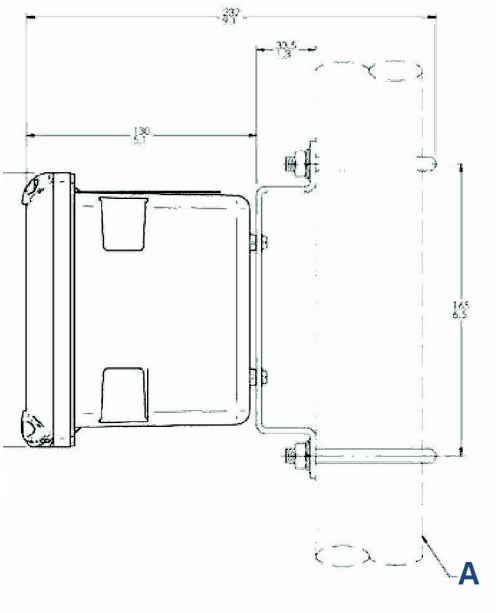


Figure 7: Wall Mount, Bottom View



A. Front panel
B. Panel and pipe mount enclosure
C. Conduit openings
D. 2-in. (50.8 mm) pipe mount bracket
E. Two sets U-bolts for 2-in. (50.8 mm) pipe in kit PN 23820-00

Figure 8: Wall Mount, Side View



A. 2-in. (50.8 mm) pipe supplied by customer

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