

TEMPERATURE INDICATING TRANSMITTER WITH DUAL RELAYS

8080PR1

- Pt100 SENSOR INPUT Pt100 RTD
- 4 - 20 mA OUTPUT
- 4 DIGIT LED DISPLAY IN DEGREE C OR F
- RUGGED NEMA 4X ENCLOSURE
- CHOICE OF COPPER-FREE ALUMINUM OR SS316 DUAL COMPARTMENT ENCLOSURE
- EXPLOSION PROOF CERTIFIED
- INDEPENDENT SET-POINTS, TEMPERATURE HYSTERESIS & DEADBAND ADJUSTMENTS
- 12-28 VDC SUPPLY VOLTAGE IDEAL FOR UPS & REMOTE APPLICATIONS



Introduction

IME Model 8080PR1 allows 2 independent alarms to be assigned over the temperature range of the sensor. The unit will accept an input from a Pt100 RTD Sensor and provide an indication on a bright 4 digit LED. The unit serves a dual purpose since in addition to local indication of temperature, which is switch selectable to read Deg F or Deg C, it also serves as an accurate and repeatable temperature switch. In addition a 4-20mA Output proportional to temperature is available, making the 8080PR1 into an indicating transmitter.

Description

IME Model 8080PR1 Temperature Indicator is designed for use in process industries where vibration, inclement weather and corrosive atmospheres prevail. The electronics are enclosed in a copper-free epoxy coated Aluminum housing. For more aggressive environments, a SS316 housing is also available. The housings meet the requirements of NEMA 4X, and are also certified Explosion Proof by CSA and ATEX/IECEX.




LED Meter

Model 8080PR1 has a 4 digit LED display. Choice of °C or °F, alarm settings etc can be adjusted via the membrane switches located in the front panel.

Mounting

A wide choice of stainless steel mounting brackets are available for mounting the Model 8080PR1 on either a 2" pipe or wall. (See detailed information of mounting bracket on pages 18,19 and 20)

Certification System

	CLASS I, DIV I GROUPS B, C AND D CLASS II/III, DIV I GROUPS E, F AND G NEMA 4X, T6
	II 2G D Ex d IIC T6 Gb Ex tb IIIC T85°C Db IP68 Ta = -40°C to +60°C
	Ex d IIC T6 Gb Ex tb IIIC T85°C Db IP68 Ta = -40°C to +60°C

Functional Specifications

Indication Accuracy	0.1% of Calibrated range +/- 1 digit
Alarm Status Indication	LED on front panel
Alarm Set Point Accuracy	±0.5% of full scale.
Alarm Output	2 sets SPDT, 1 from C, rated 5A @ 230V AC, 50/60Hz Relay 1 – On/Off via Deadband or Proportional Relay 2 – On/Off via Deadband only
Display Height	10.0 mm (0.4") high
Input	RTD Pt100
Output Signal	4- 20 mA, Proportional to Temperature
Supply Voltage	12 ~ 28 VDC
Operating Temperature	-40 - 60 °C
Weight	1.6Kg (3.5LBS) for Aluminum unit and 3.0Kg(6.4LBS) for SS316 Unit
Material of Construction	Enclosure epoxy coated Copper-Free Aluminum or SS316 as specified
O Rings	Nitrile
Optional Accessories	Mounting Brackets (Model 175PM, 175RC, 175NR & 175MM) See pages 18,19 and 20
Warranty	3 Years Warranty

Ordering Information

See page 17 for complete ordering information.

ORDERING INFORMATION FOR INDICATORS AND TRANSMITTERS

Model	Description
8080PP	Field Mounted LCD Loop Powered Indicator
8080MK	Field Mounted LED Loop Powered Indicator
8080EL	Field Mounted LCD Loop Powered Indicator With Engineering Units
8080MN	Field Mounted Process Indicator with Transducer Power Supply
8080KN	Battery Powered Digital Temperature Indicator
8080HT	Indicating Temperature Transmitter with HART®
8080RR	Field Mounted Process Indicator With Dual Relays
8080PR	Temperature Indicating Switch With Dual Relays
8080PR1	Field Mounted Temperature Indicator with Dual Relays and 4- 20 mA Output
8080PR2	Field Mounted Temperature Indicator with Dual Relays and 4 to 20 mA PID Control Output
8080PR3	Field Mounted Dual Channel Indicating Temperature Switch
8080FR	Field Mounted Flow Indicator With Dual Relays

Code	Options, Housing
A	Die cast Aluminum, Epoxy Coated
T	SS316, Electro Polished

Code	Instrument Connection (T1)	Conduit Size (T2)
01	M16 x 2P (See note 1)	¾" NPT
02	M16 x 2P (See note 1)	½" NPT
03	M16 x 2P (See note 1)	M20 x 1.5P (See note 2)
04	½" NPT	¾" NPT
05	½" NPT	½" NPT
06	½" NPT	M20 x 1.5P
07	¾" NPT	¾" NPT
08	¾" NPT	½" NPT
09	¾" NPT	M20 x 1.5P
10	½" BSP (See note 3)	¾" NPT
11	½" BSP (See note 3)	½" NPT
12	½" BSP (See note 3)	M20 x 1.5P (See note 2)
13	¾" NPT	None
14	M20 x 1.5P (See note 2)	None
16	½" BSP (See note 3)	None
17	½" NPT	None

Code	Certification
NN	None
E1	FM / CSA / ATEX / IECEx Explosion Proof Certified, NEMA 4X, IP68, T6

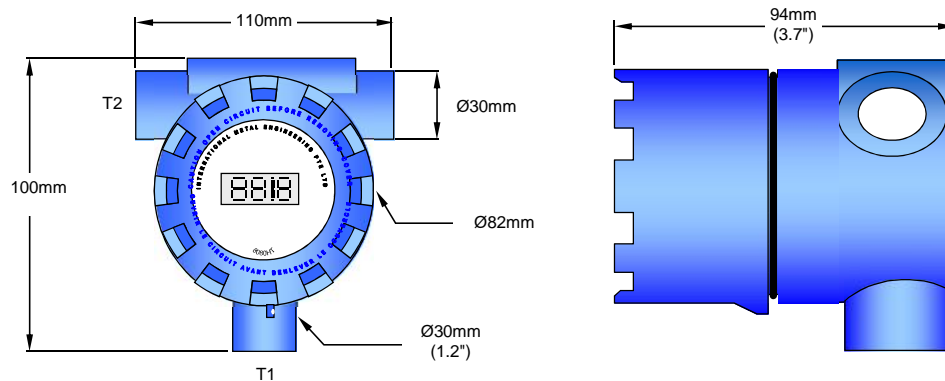
Code	Accessories (See Pages 18, 19 and 20)
RC	Model 175RC Mounting Bracket
PM	Model 175PM Mounting Bracket
NR	Model 175NR Mounting Bracket
MM	Model 175MM Mounting Bracket

Code	2 Inch "U" Bolt with Nuts and Washers
00	None
01	Model 17508, 1 Set (For Model 175RC)
02	Model 17508, 2 Sets (For Model 175PM & 175NR)

8080PR	A	02	E1	PM	02	← Typical Model Number
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Note:

- 1 Ports with M16 x 2P thread are not through holes, they are for Mounting only.
- 2 A temporary metric label is required when an M20 x 1.5P thread is selected. However this thread option is not allowed in Canada.
- 3 1/2"BSP thread is not FM Approved.



STAINLESS STEEL MOUNTING BRACKET FOR FIELD DEVICES

Mounting Bracket

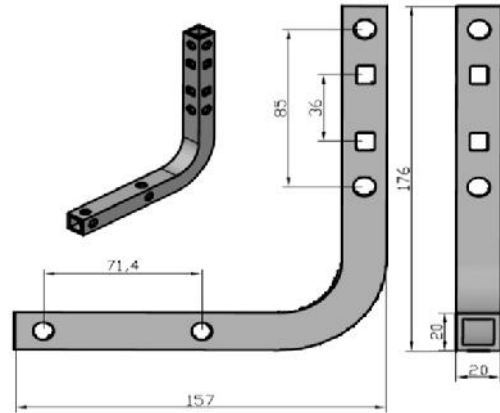
175RC

Introduction

This simple hollow square mounting bracket constructed out of SS316 Stainless Steel, can be used to mount a variety of field devices, either on a wall or panel or a 2" Pipe.

When mounting on a 2" pipe, a "U" Bolt is required, which can be supplied optionally.

IME Model 17508 consists of a complete assembly of a 2" U bolt along with the nuts and washers required.



Mounting Bracket

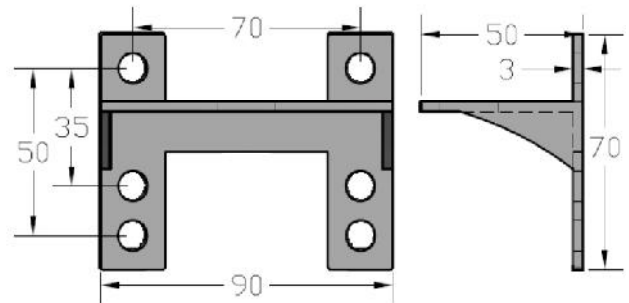
175PM

Introduction

This simple "L" Shape mounting bracket constructed out of SS316 Stainless Steel, can be used to mount a variety of field devices, either on a wall or panel or on a 2" pipe.

When mounting on a 2" pipe, a "U" Bolt is required, which can be supplied optionally.

IME Model 17508 consists of a complete assembly of a 2" U bolt along with the nuts and washers required.



Mounting Bracket

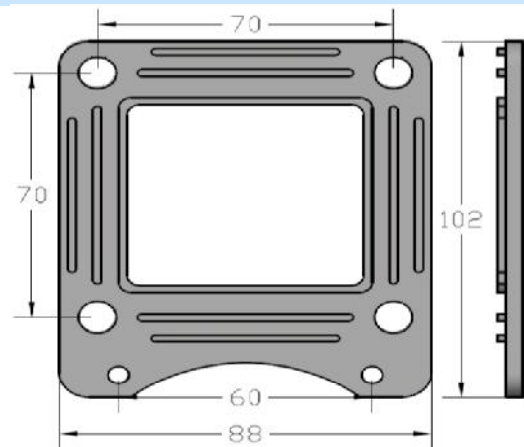
175NR

Introduction

IME MODEL 175NR is Stainless Steel Mounting Brackets made exclusively for IME MODEL 8080 Instrument Enclosure to mount on a 2" Pipe.

This Bracket is available for customers who require all 3 ports on the enclosure for other purposes.

The 175NR is symmetrical, so it can be rotated 90° to suit the viewing position of the Indicator/Transmitter.



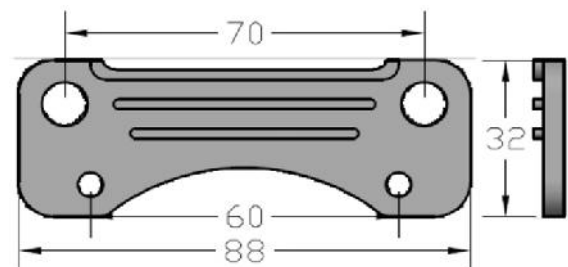
Mounting Bracket

175MM

Introduction

IME MODEL 175MM is Stainless Steel Mounting Brackets made exclusively for IME MODEL 8080 Instrument Enclosure to mount on wall.

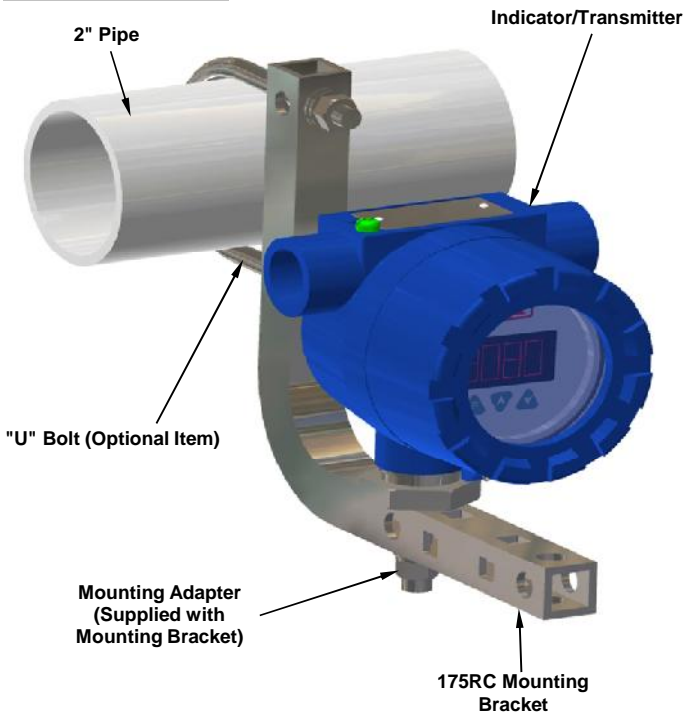
This low cost Bracket is available for customers who require all 3 ports on the enclosure for other purposes.



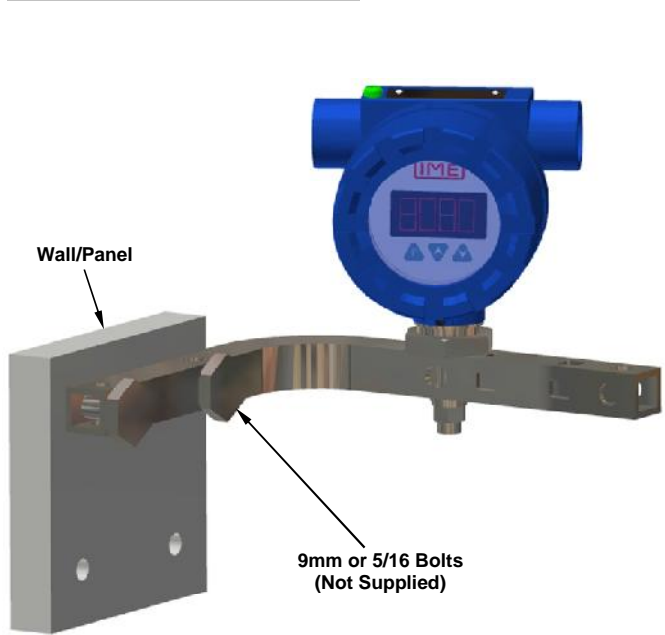
MOUNTING BRACKETS FOR INDICATORS AND TRANSMITTERS

Mounting Methods For Model 175RC

Pipe Mounting

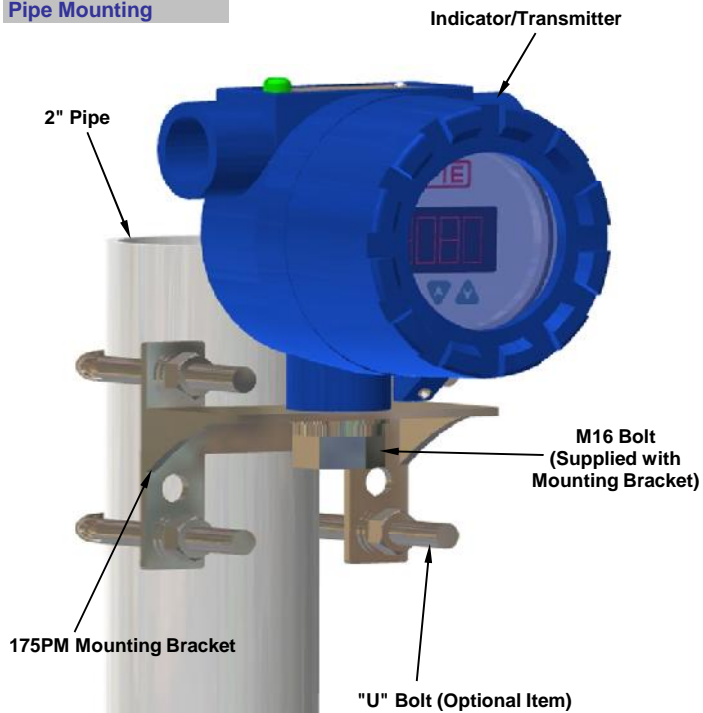


Wall / Panel Mounting

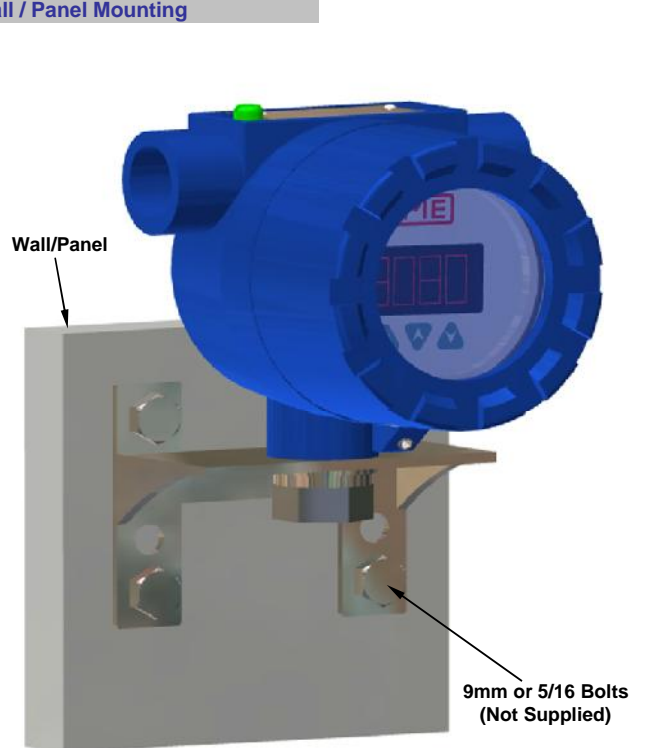


Mounting Methods For Model 175PM

Pipe Mounting



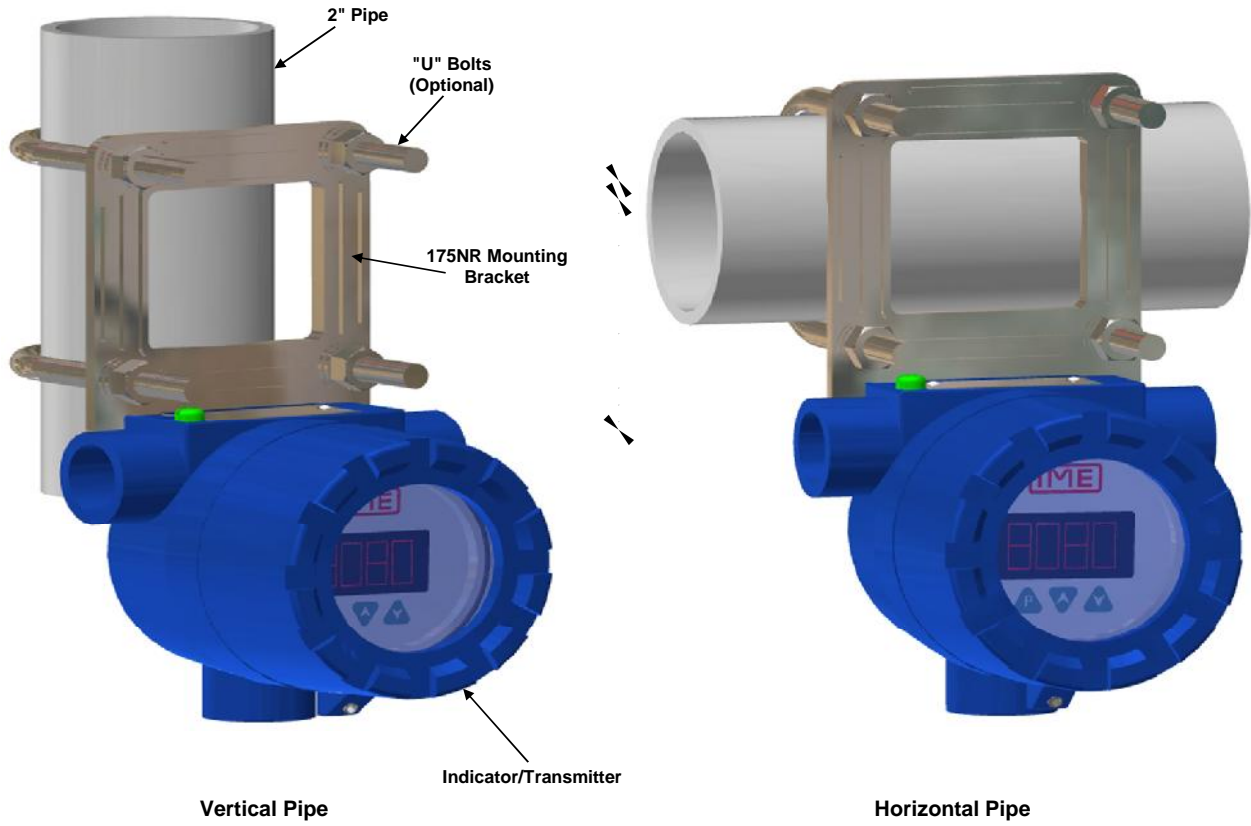
Wall / Panel Mounting



MOUNTING BRACKETS FOR INDICATORS AND TRANSMITTERS

Mounting Methods For Model 175NR

Pipe Mounting



Mounting Methods For Model 175MM

Wall/Panel Mounting

