INTERNATIONAL METAL ENGINEERING

TEMPERATURE INDICATING SWITCH WITH DUAL RELAYS   8080PR

● INPUT THERMOCOUPLE AND RTD

● 4 DIGIT LED DISPLAY IN DEGREES C OR F

● RUGGED NEMA4X, IP68 ENCLOSURE

● CHOICE OF COPPER-FREE ALUMINUM OR SS316 ENCLOSURE

● EXPLOSION PROOF CERTIFIED

● 3 YEAR WARRANTY

Introduction

Model 8080PR allows two independent alarms to be assigned over the temperature range of the sensor. The unit will accept an input from a Pt100 RTD or Type J or K thermocouple and provide an indication on a bright 4 digit LED. The unit serves a dual purpose in addition to local indication of temperature, which is switch selectable to read °C or °F, it also serves as an accurate and repeatable temperature switch.

Description

Model 8080PR Temperature Indicators are designed for using 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. Housings meet the requirements of NEMA 4X & IP68, and are also certified Explosion Proof by FM/CSA/ATEX/IECEx.

LED Meter

The Model 8080PR has a 4 digit LED display and may be configured to read -999 to 9999. The decimal point location, choice of °C or °F, alarm settings etc can be adjusted via the Front Panel.

Mounting

The Model 8080PR can be either remotely mounted or mounted directly on the thermowell/nipple assembly. For mounting the unit on a wall or 2" pipe, a wide choice of stainless steel mounting brackets are also available.

Certification System

FM APPROVED	CLASS I, DIV I GROUPS B, C AND D CLASS II/III, DIV I GROUPS E, F AND G NEMA 4X, T6
CSA®	CLASS I, DIV I GROUPS B, C AND D CLASS II/III, DIV I GROUPS E, F AND G NEMA 4X, T6
Ex (ATEX) CE	II 2G D Ex db IIC T6 Gb Ex tb IIIC T85°C Db IP68 Ta = -40°C to +60°C
IECEx	Ex db 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

Set Point Adjustment
10 to 100% of full scale, user selectable

Reset
Automatically when the input falls below the alarm set point by approximately ±0.5% of full scale.

Alarm Set Point Accuracy
±0.5% of full scale.

Alarm Status Indication
LED on front panel

Display Height
10mm (0.4") high

Alarm Output
2 sets SPDT, 1 from C, rated 10A @ 250V AC, 50/60Hz

Stability Over Time
0.1% of calibrated range ±1 digit over 6 months

Over Range Indication
Indication of "High" on Display

Response Time
Typically 75ms

Supply Voltage
18 to 28V DC

Operating Temperature
RTD Pt100: -40°C to +60°C
Thermocouple Type J / K: 0°C to +60°C

Weight
0.9Kg (2 lbs) for Aluminum Unit and 1.4Kg (3 lbs) for SS316 unit

Material of Construction of Enclosure
Epoxy coated Copper-Free Aluminum or SS316 as specified

O Rings
Buna N (Nitrile)

Optional Accessories
Mounting Brackets (Model 175PM, 175RC, 175NR, 175MM)

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ORDERING INFORMATION FOR 8080PR

Model	Description					
8080PR	Temperarure Indicating Switch 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		
		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	¾" NPT		
		11	½" BSP	½" NPT		
		12	½" BSP	M20 x 1.5P		
		13	¾" NPT	None		
		14	M20 x 1.5P	None		
		16	½" BSP	None		
		17	½" NPT	None		
			Code	**Certification**		
			NN	None		
			E1	FM / CSA / ATEX / IECEx Explosion Proof Certified, NEMA 4X, IP68, T6		
				Code	**Accessories**	
				RC	Model 175RC Mounting Bracket (See note 1)	
				PM	Model 175PM Mounting Bracket (See note 1)	
				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)

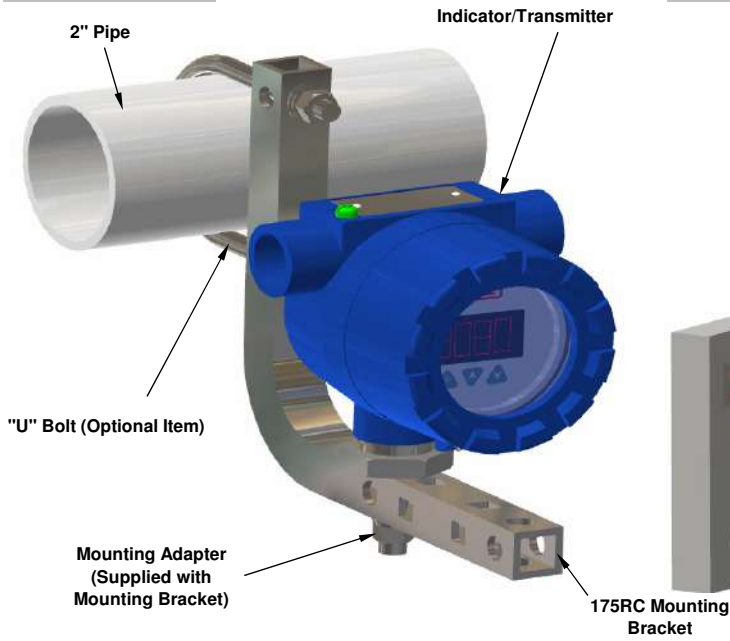| **8080PR**	**A**	**02**	**E1**	**PM**	**02**	←	**Typical Model Number**

Note:

1 Ports with M16 x 2P thread are not through holes, they are for use with Model 175RC and 175PM Mounting Brackets only.
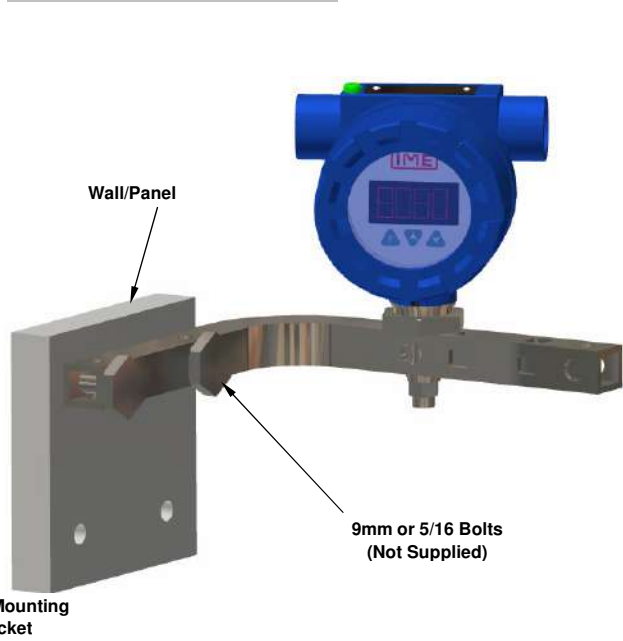
2 BSP threads are not approved by FM, CSA, ATEX & IECEx.

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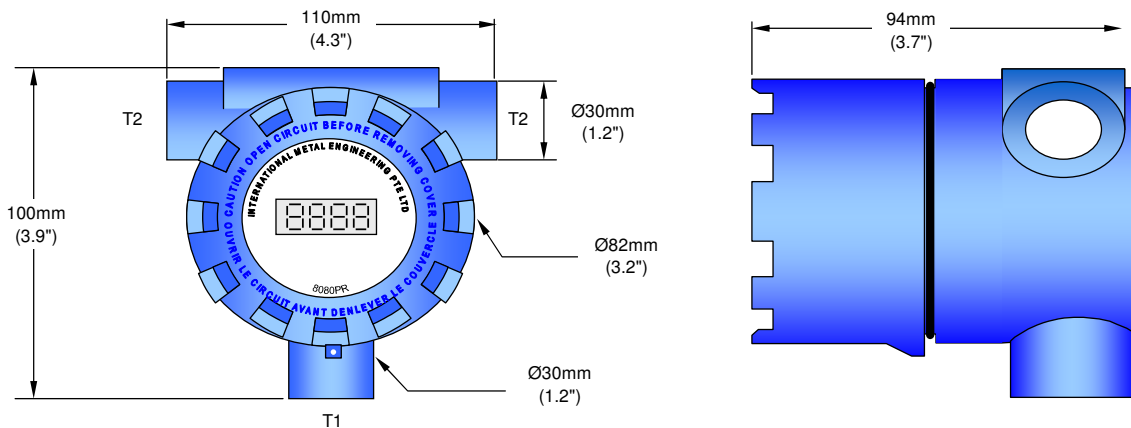
MOUNTING BRACKETS FOR INDICATORS AND TRANSMITTERS

Mounting Methods For Model 175RC

Pipe Mounting

2" Pipe

Indicator/Transmitter

"U" Bolt (Optional Item)

Mounting Adapter
(Supplied with
Mounting Bracket)

175RC Mounting
Bracket

Wall / Panel Mounting

Wall/Panel

9mm or 5/16 Bolts
(Not Supplied)

Mounting Methods For Model 175PM

Pipe Mounting
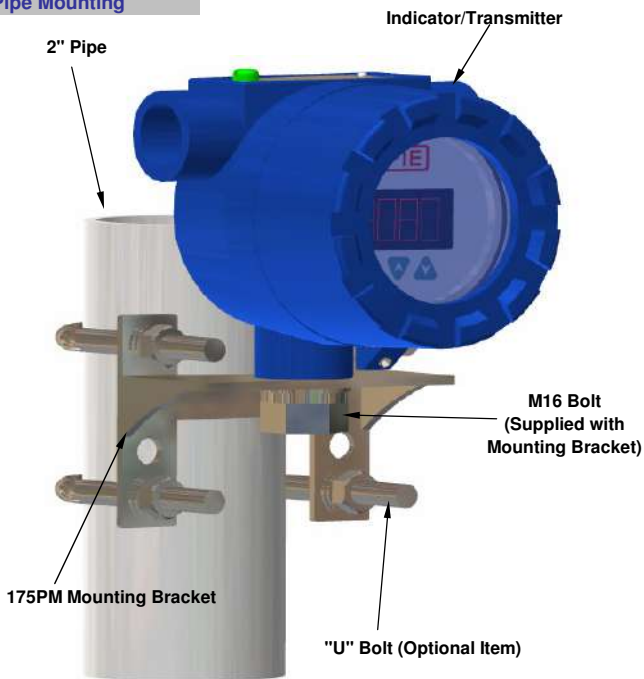
2" Pipe

Indicator/Transmitter

M16 Bolt
(Supplied with
Mounting Bracket)

175PM Mounting Bracket

"U" Bolt (Optional Item)

Wall / Panel Mounting

Wall/Panel

9mm or 5/16 Bolts
(Not Supplied)

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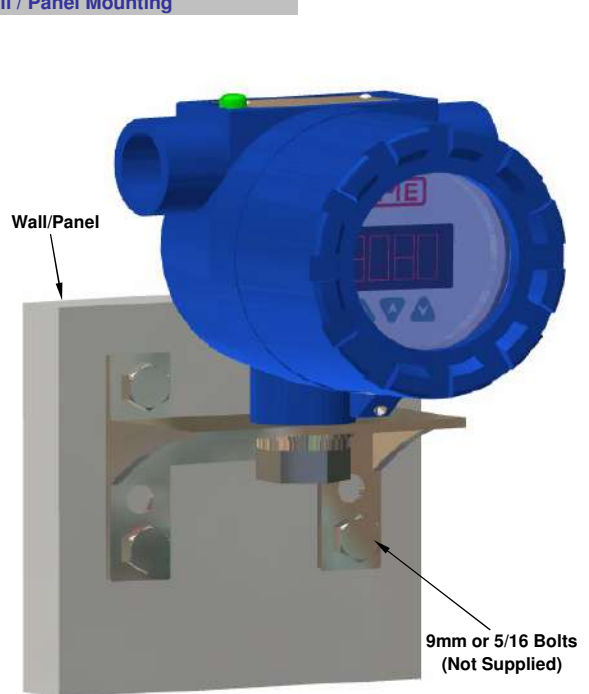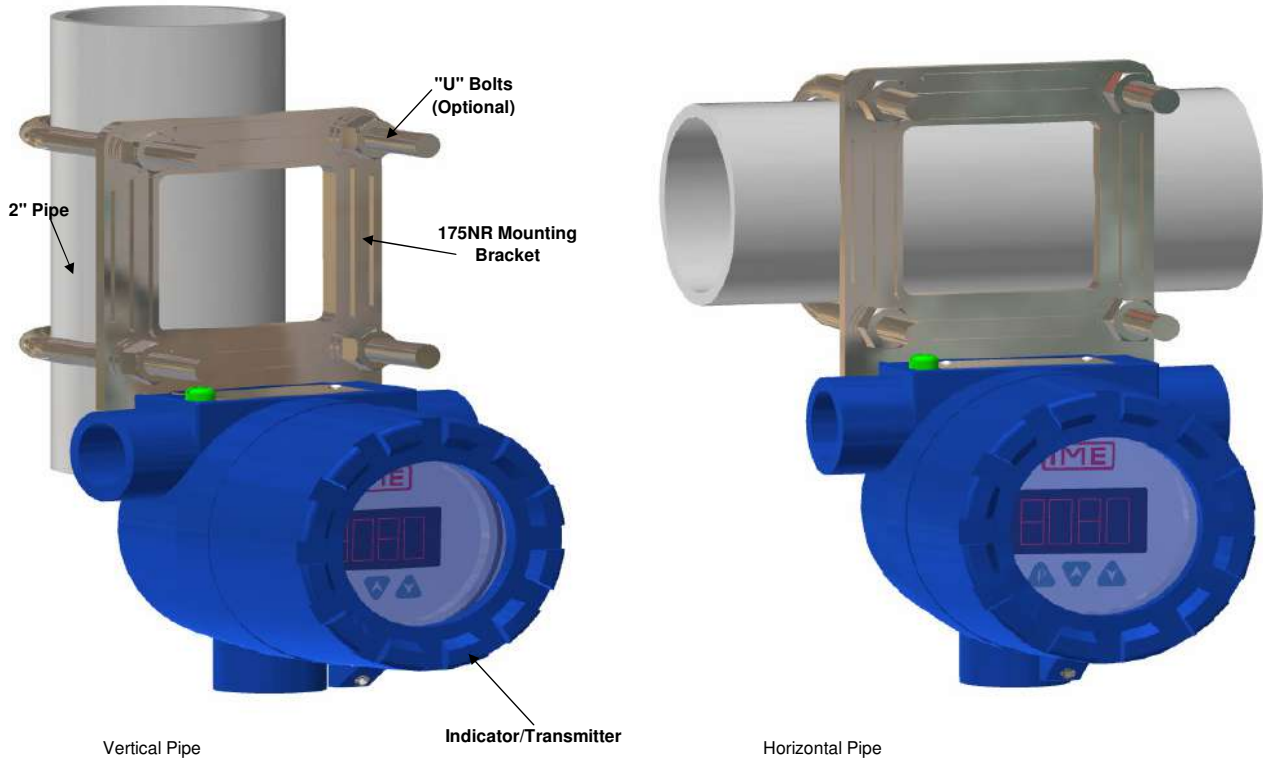
MOUNTING BRACKETS FOR INDICATORS AND TRANSMITTERS

Mounting Methods For Model 175NR

Pipe Mounting

"U" Bolts
(Optional)

2" Pipe

175NR Mounting
Bracket

Vertical Pipe

Indicator/Transmitter

Horizontal Pipe

Mounting Methods For Model 175MM

Wall/Panel Mounting

9mm or 5/16 Bolts
(Not Supplied)

Wall

175MM Mounting
Bracket

Indicator/Transmitter

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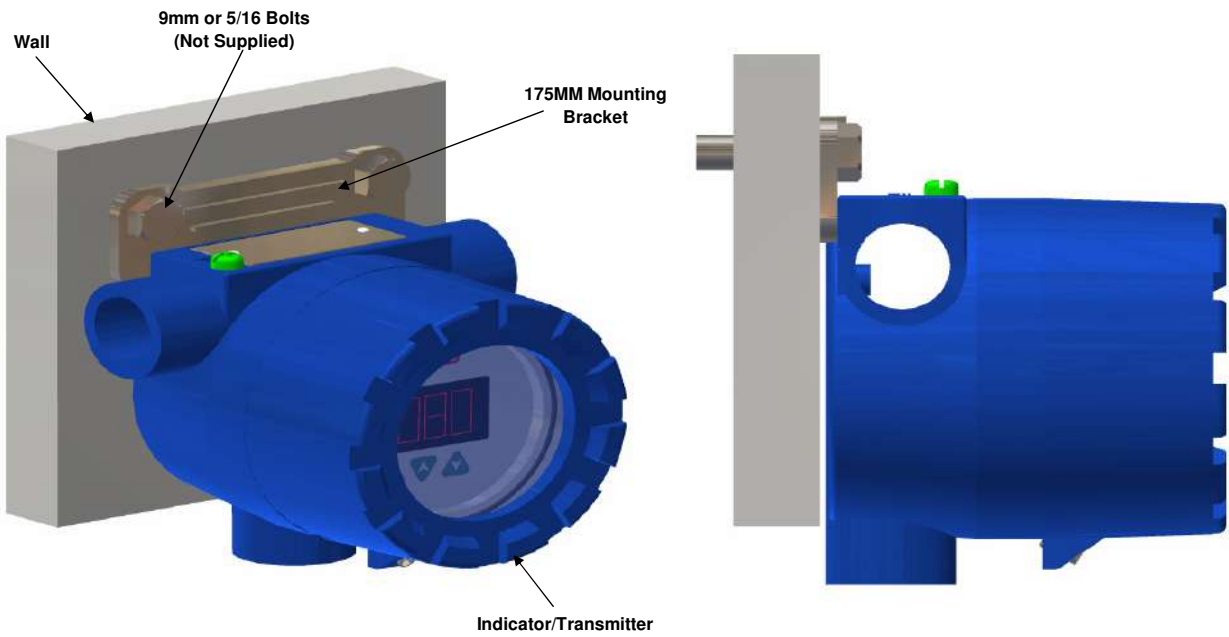
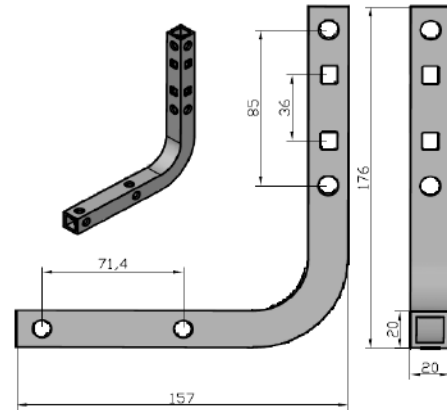## Mounting Bracket   175RC

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.
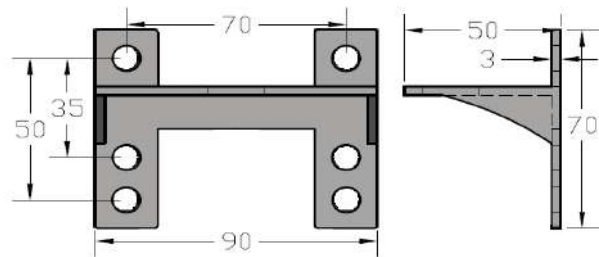
Mounting Bracket   175PM

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.
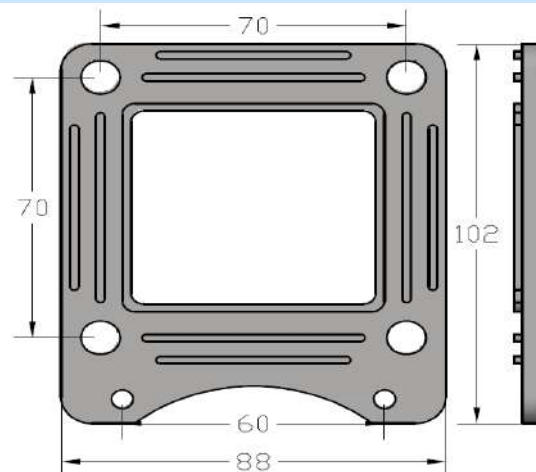
Mounting Bracket   175NR

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 symetrical, 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.