

## 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

	CLASS I, DIV I GROUPS B, C AND D CLASS II/III, DIV I GROUPS E, F AND G NEMA 4X, T6	
	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  $\pm 1$  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  $\pm 0.5\%$  of full scale.

#### Alarm Set Point Accuracy

$\pm 0.5\%$  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  $\pm 1$  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)

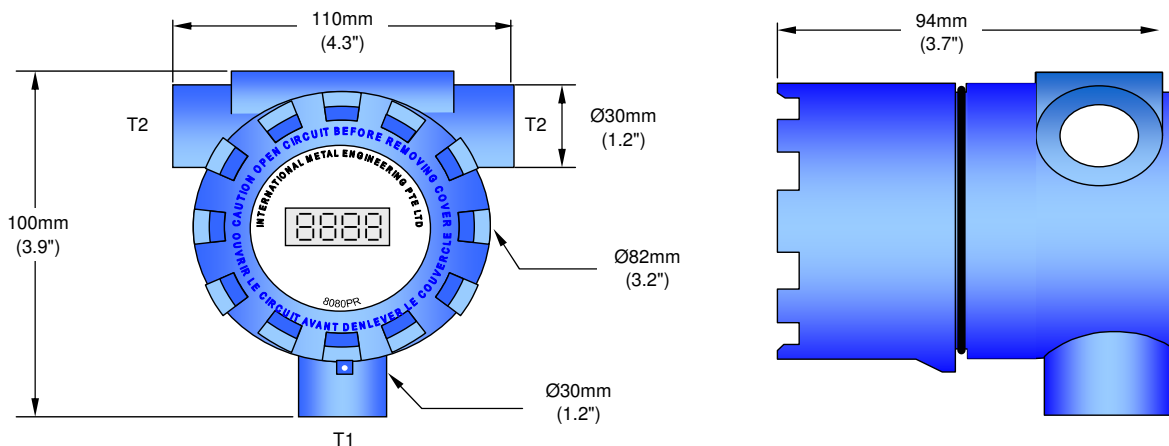
# INTERNATIONAL METAL ENGINEERING

## ORDERING INFORMATION FOR 8080PR

Model	Description		
8080PR	Temperature Indicating Switch With Dual Relays		
	<b>Code</b>	<b>Options, Housing</b>	
	<b>A</b>	Die cast Aluminum, Epoxy Coated	
	<b>T</b>	SS316, Electro Polished	
		<b>Code</b>	<b>Instrument Connection (T1)</b>
		<b>01</b>	M16 x 2P (See note 1)
		<b>02</b>	M16 x 2P (See note 1)
		<b>03</b>	M16 x 2P (See note 1)
		<b>04</b>	1/2" NPT
		<b>05</b>	1/2" NPT
		<b>06</b>	1/2" NPT
		<b>07</b>	3/4" NPT
		<b>08</b>	3/4" NPT
		<b>09</b>	3/4" NPT
		<b>10</b>	1/2" BSP
		<b>11</b>	1/2" BSP
		<b>12</b>	1/2" BSP
		<b>13</b>	3/4" NPT
		<b>14</b>	M20 x 1.5P
		<b>16</b>	1/2" BSP
		<b>17</b>	1/2" NPT
		<b>Code</b>	<b>Certification</b>
		<b>NN</b>	None
		<b>E1</b>	FM / CSA / ATEX / IECEx Explosion Proof Certified, NEMA 4X, IP68, T6
		<b>Code</b>	<b>Accessories</b>
		<b>RC</b>	Model 175RC Mounting Bracket (See note 1)
		<b>PM</b>	Model 175PM Mounting Bracket (See note 1)
		<b>NR</b>	Model 175NR Mounting Bracket
		<b>MM</b>	Model 175MM Mounting Bracket
		<b>Code</b>	<b>2 Inch "U" Bolt with Nuts and Washers</b>
		<b>00</b>	None
		<b>01</b>	Model 17508, 1 Set (For Model 175RC)
		<b>02</b>	Model 17508, 2 Sets (For Model 175PM & 175NR)
<b>8080PR</b>	<b>A</b>	<b>02</b>	<b>E1</b>
			<b>PM</b>
			<b>02</b>
<b>Typical Model Number</b>			

Note:

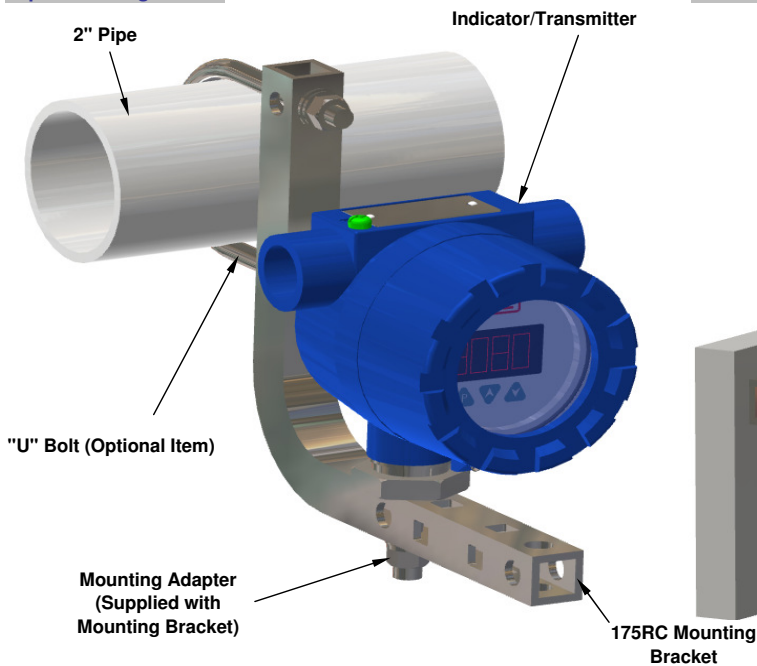
- 1 Ports with M16 x 2P thread are not through holes, they are for use with Model 175RC and 175PM Mounting Brackets only.



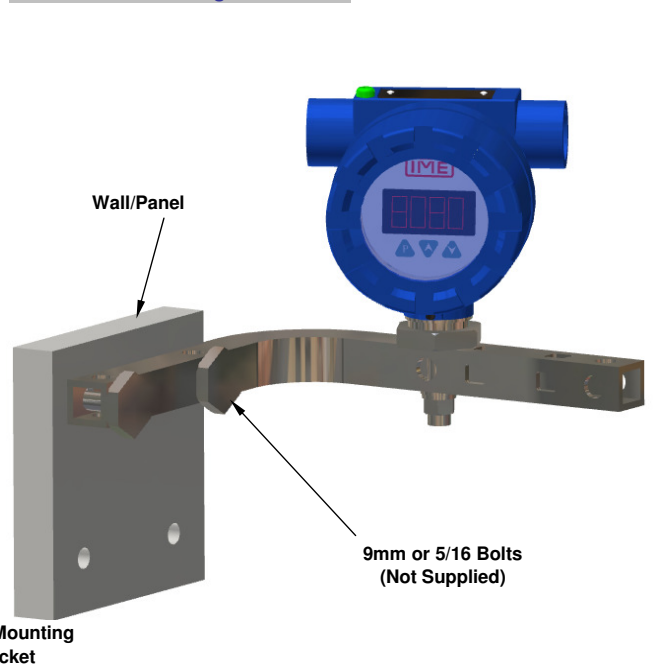
## MOUNTING BRACKETS FOR INDICATORS AND TRANSMITTERS

### Mounting Methods For Model 175RC

#### Pipe Mounting

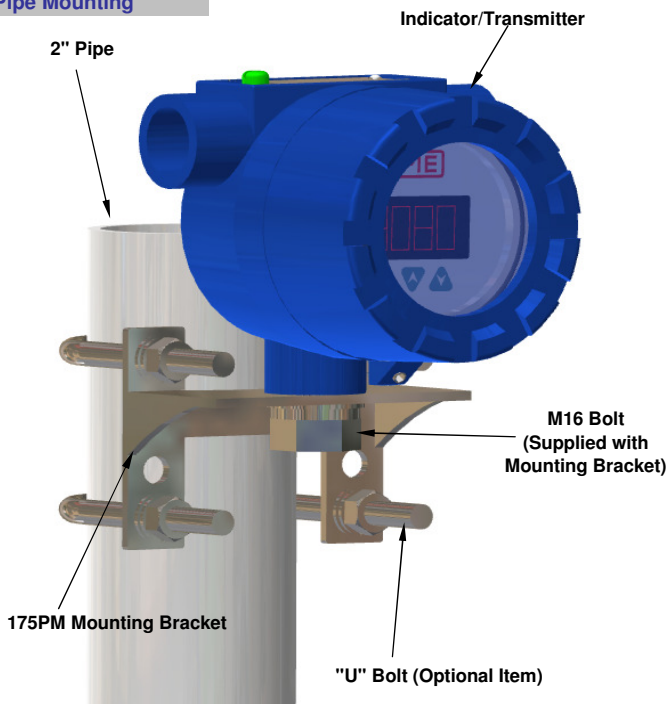


#### Wall / Panel Mounting

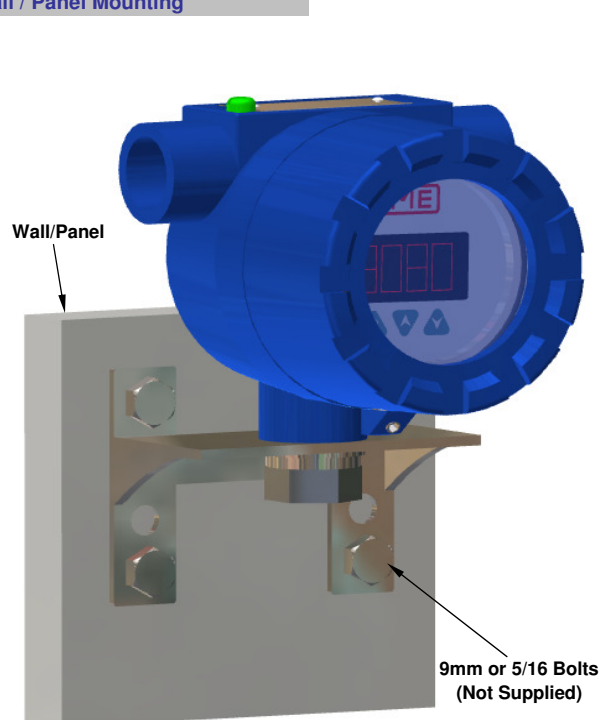


### Mounting Methods For Model 175PM

#### Pipe Mounting



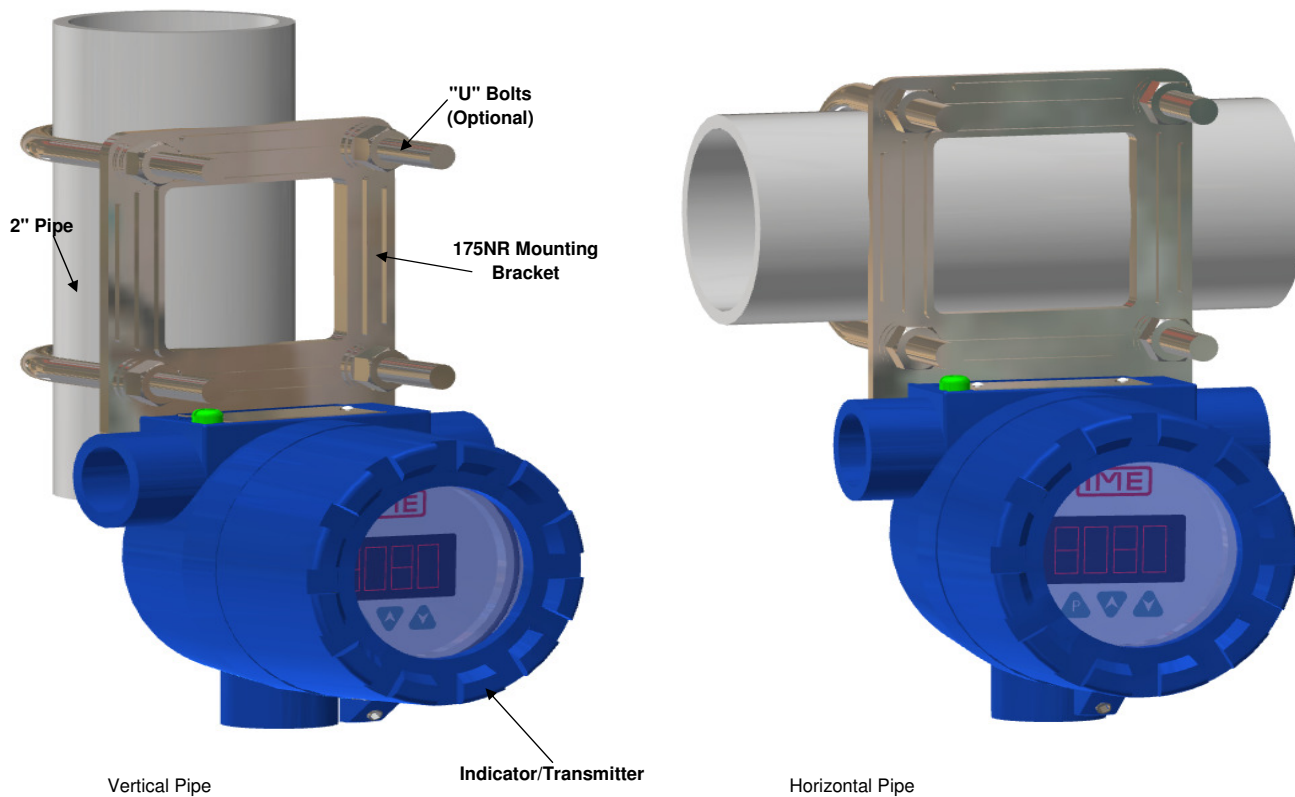
#### Wall / Panel Mounting



## MOUNTING BRACKETS FOR INDICATORS AND TRANSMITTERS

### Mounting Methods For Model 175NR

#### Pipe Mounting



### Mounting Methods For Model 175MM

#### Wall/Panel Mounting

