

# Signet 8350 Temperature Transmitters

Member of the Process Pro® Family of Transmitters



Panel Mount



Pipe, Wall, Tank and Integral Mount

## Description

The Signet 8350 Temperature Transmitter offers local or remote display with current and relay outputs. This model offers exceptional repeatability and accuracy over a wide operating temperature range. Configurations include open collector outputs or mechanical relays with status indicators for process control or alarming. The unit also has the ability to accept other temperature sensors which have 4 to 20 mA output via the Signet 8058 Signal Converter. The chemical resistant NEMA

4X/IP65 front face is found on both the highly visible field mount or black panel mount instruments with a self-healing window and a standard 1/4 DIN cutout. Dual input version allows difference calculation ( $\Delta T$ ) and offers cost savings with independent dual outputs. All models offer an output simulation function for complete system testing.


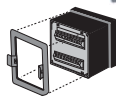








## Features

- Digital (S<sup>3</sup>L) input for stable & reliable reading
- Available with single or dual input
- Field scaleable 4 to 20 mA output
- Displays temperature and mA output
- Temperature display in degrees Celsius (°C) or Fahrenheit (°F)
- Choice of relay or open collector output
- NEMA 4X/IP65

## Applications

- Process Temperature Monitoring
- Plating Bath Temperature Control
- Heat Exchange Monitor
- R.O. or D.I. Monitoring
- Hot/Cold Mixing System Monitoring
- Data Acquisition
- Cooling Loops
- Effluent Monitoring
- HVAC
- Chemical Processing

## System Overview

In-Line Installation			Submersible Installation*	
<b>Panel Mount Signet 8350 Temperature Transmitter</b>  	<b>Pipe, Tank, Wall Mount Signet 8350 Temperature Transmitter</b>  Signet Universal Adapter Kit (3-8050) (sold separately) 	<b>Integral Mount Signet 8350 Temperature Transmitter</b>  Signet Integral Adapter Kit (3-8052) (sold separately) 	<b>Panel, Pipe, Tank, Wall Mount Signet 8350 Temperature Transmitter</b>  Pipe extension or conduit with 3/4 in. FNPT threads 	
Signet 2350 Temperature Sensor (sold separately) 			Signet 2350 Temperature Sensor (sold separately) 	
In-Line Installation - Fittings (Customer supplied)				

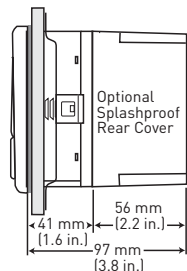
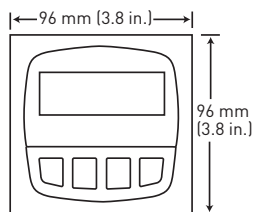


8058 signal converter also compatible

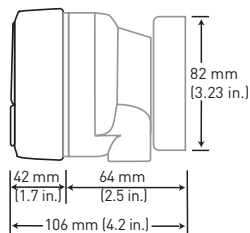
\*For pipe, tank or wall mount installations, user must use the Universal Adapter Kit (3-8050).

## Dimensions

### 3-8350-XP



### Field version with universal mount



### Model 8350

#### Ordering Notes

- Field mount instruments can be mounted with a sensor in an integral configuration by choosing the following:
  - Order integral adapter kit PN 3-8052 (sold separately) to connect the transmitter directly onto the sensor.
- An optional splashproof rear cover can be ordered separately if needed.
- Use the universal mounting kit with the field mount transmitter to mount to a pipe, tank or wall.
- To mount panel version on a wall, use heavy duty wall mount bracket.
- Order RC filter kits to protect relays from voltage spikes.
- Panel cutout should be 92 mm X 92 mm [3.62 in X 3.62 in.].

Please refer to **Wiring, Installation, and Accessories** sections for more information.

#### Rev A [3/09]

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## Specifications

### General

#### Compatibility:

Signet 2350 Temperature Sensor versions w/digital output or other sensors with 4 to 20 mA output (via Model 8058)

Accuracy:  $\pm 0.5\text{ }^{\circ}\text{C}$  ( $\pm 0.9\text{ }^{\circ}\text{F}$ ) (based on 2350)

#### Display

- Alphanumeric, 2 x 16 dot matrix LCD
- Update Rate: 1 second
- Contrast: User selected, 5 levels

### Materials

- Case: PBT
- Panel Case Gasket: Neoprene
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

### Electrical

#### Power:

- 12 to 24 VDC  $\pm 10\%$  regulated
- [-1] 21 mA max.
- [-2] 200 mA max.
- [-3] 31 mA max.

#### Current Output

- 4 to 20 mA, isolated, passive, fully adjustable and reversible
- Max. Loop Impedance:
  - 50  $\Omega$  max. @ 12 V
  - 325  $\Omega$  max. @ 18 V
  - 600  $\Omega$  max. @ 24 V
- Update Rate: 200 ms
- Accuracy:  $\pm 0.03\text{ mA}$

### Electrical (continued)

#### Relay Output

- Mechanical SPDT contacts: High, Low, Pulse, Off
  - Maximum Voltage Rating: 5 A @ 30 VDC, 5 A @ 250 VAC resistive load
  - Hysteresis: User adjustable
  - Maximum 400 pulses/min.
- #### Open-Collector Output
- High, Low, Pulse, Off
  - Optically isolated, 50 mA max, sink, 30 VDC max. with pull-up resistor
  - Hysteresis: User adjustable
  - Maximum 400 pulses/min.

### Environmental

Enclosure Rating: NEMA 4X/IP65 front

#### Operating Temperature:

-10  $^{\circ}\text{C}$  to 70  $^{\circ}\text{C}$  (14  $^{\circ}\text{F}$  to 158  $^{\circ}\text{F}$ )

#### Storage Temperature:

-15  $^{\circ}\text{C}$  to 80  $^{\circ}\text{C}$  (5  $^{\circ}\text{F}$  to 176  $^{\circ}\text{F}$ )

#### Relative Humidity:

0 to 95%, non-condensing

**Shipping Weight** 0.325 kg 0.8 lb

### Standards and Approvals

- CE, UL listed, CUL
- RoHS compliant
- Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management

## Ordering Information

Instrument Part Number	
<b>3-8350</b>	Temperature Transmitter
	Input(s), Outputs, and Power - Choose One
-1	One input with 4 to 20 mA output and one open collector; uses 2 wire power
-2	One input with 4 to 20 mA output and two relays; uses 4 wire power
-3	Two inputs with two 4 to 20 mA outputs and 2 open collectors; uses 4 wire power
	Field or Panel Mount - Choose One
-	Field mount for pipe, wall, tank, or integral mounting
P	Panel mount with mounting bracket and panel gasket
<b>3-8350</b>	<b>-1 P Example Part Number</b>

Mfr. Part No	Code	Mfr. Part No	Code
3-8350-1	<b>159 000 192</b>	3-8350-2P	<b>159 000 195</b>
3-8350-1P	<b>159 000 193</b>	3-8350-3	<b>159 000 196</b>
3-8350-2	<b>159 000 194</b>	3-8350-3P	<b>159 000 197</b>

## Accessories and Replacement Parts

Mfr. Part No.	Code	Description
<b>Mounting</b>		
3-8050	<b>159 000 184</b>	Universal mounting kit
3-8050.395	<b>159 000 186</b>	Splashproof rear cover (panel mount only)
3-8052	<b>159 000 188</b>	3/4 in. Integral mounting kit
3-8052-1	<b>159 000 755</b>	3/4 in. NPT mount junction box w/one liquid tight connector and cap with terminal block
3-0000.596	<b>159 000 641</b>	Heavy duty wall mount bracket (panel mount only)
3-5000.598	<b>198 840 225</b>	Surface mount bracket (panel mount only)
<b>Liquid Tight Connectors</b>		
3-9000.392	<b>159 000 368</b>	Liquid tight connector kit for rear cover (3 connectors)
3-9000.392-1	<b>159 000 839</b>	Liquid tight connector kit, NPT (1 connector)
3-9000.392-2	<b>159 000 841</b>	Liquid tight connector kit, PG 13.5 (1 connector)
<b>Other</b>		
3-8050.396	<b>159 000 617</b>	RC filter kit (for relay use) - 2 per kit
3-8058-1S	<b>special order</b>	4 to 20 mA to digital signal converter, single input, loop powered
3-8058-2S	<b>special order</b>	4 to 20 mA to digital signal converter, dual input, loop powered