

# Signet 8750 pH/ORP Transmitters



Member of the ProcessPro® Family of Instruments



Panel Mount



Pipe, Tank, Wall Mount

## Features

- Automatic temperature compensation
- Temperature display in °C or °F
- Hold and simulate functions
- Relay options available
- Output scalability
- Optional Dual output
- NEMA 4X/IP65 enclosure with self-healing window
- EasyCal option available

## Applications




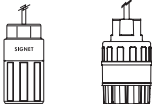


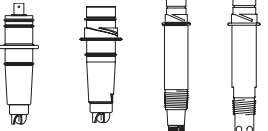
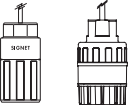
- Neutralization Systems
- Heavy Metals Recovery
- Plating Control
- Scrubber Control
- Pool and Spa Control
- Environmental Study
- Water Treatment
- Water Quality Monitoring
- Waste Treatment
- Disinfection

## Description

The Signet 8750 pH/ORP Transmitter is designed for broad application and ease of setup and use. The unit auto-configures for either pH or ORP use when connected to Signet pH or ORP electrodes. Multiple mounting options allow for installation best suited to your particular application.

The EasyCal menu features automatic buffer recognition for mistake-proof pH or ORP electrode calibrations. Intuitive software and the four button keypad arrangement make it easy to access important information such as pH or ORP, mV input, temperature, calibration, relay set-up menus and more.

## System Overview

In-Line Sensor Installation		Submersible Sensor Installation
<b>Panel Mount</b> Signet 8750 pH/ORP Instrument 	<b>Pipe, Tank, Wall Mount</b> Signet 8750 pH/ORP Instrument 	<b>Panel, Pipe, Tank, Wall Mount</b> Signet 8750 pH/ORP Instrument 
Signet 2720 and 2760 Preamplifier (sold separately) 	Signet Universal Adapter Kit (3-8050) (sold separately) 	Pipe extension or conduit with 3/4 in. NPT or ISO 7/1-R 3/4 threads 
Signet pH/ORP electrode (sold separately) 2714 2754 2764 2774 2715 2755 2765 2775 2716 2756 2766 2776 2717 2757 2767 2777 		Signet 2720 and 2760 Preamplifier (sold separately) 
Signet Fittings* (sold separately) or customer supplied fittings (see individual electrode sheets for more info.)		Signet pH/ORP electrode (sold separately) 2714 2754 2764 2774 2715 2755 2765 2775 2716 2756 2766 2776 2717 2757 2767 2777

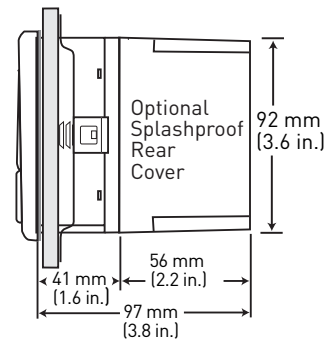
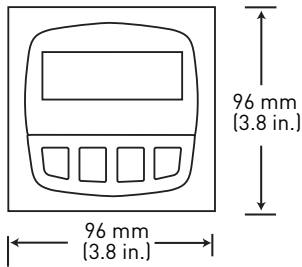


\* See Fittings Section for more information

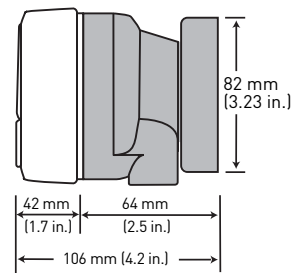


## Dimensions

### 3-8750-XP Panel Mount



### Field version with Universal Mounting Kit



### Model 8750

#### Ordering Information:

- For panel version, cutout should be 92 x 92 mm (3.62 x 3.62 in.)
- To mount the panel version on a wall, use the heavy duty wall mount bracket.
- An optional splashproof rear cover can be ordered separately if needed - panel mount version only.
- Use the universal mounting kit with the field mount instrument to mount to a pipe, tank or wall.
- Order RC filter kits to protect relays from voltage spikes.

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

## Specifications

### General

Accuracy:  $\pm 0.03$  pH,  $\pm 2$  mV ORP

### Display:

Alphanumeric 2 x 16 LCD

Contrast: User selectable, 5 levels

### Material

- 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) 220 mA max.
- (-3) 60mA max.

#### Electrode input range:

- pH: 0 to 14 pH
- Temp.: 3K Balco,  $-25^{\circ}\text{C}$  to  $120^{\circ}\text{C}$  ( $-13^{\circ}\text{F}$  to  $248^{\circ}\text{F}$ )
- ORP:  $-2000$  to  $+2000$  mV, isolated (10K $\Omega$  I.D. resistance T+, T-)

#### 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: 0.5 seconds
- Accuracy:  $\pm 0.03$  mA @  $25^{\circ}\text{C}$ , 24 V

### Electrical (continued)

#### Relay output:

- Mechanical SPDT contacts: Hi, Lo, Pulse, Off
- Maximum voltage rating: 5 A @ 30 VDC, or 5 A @ 250 VAC resistive load
- Hysteresis: User-adjustable Max 400 pulses/min.

#### Open-collector output: Hi, Lo, Pulse, Off

- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage.
- Hysteresis: User-adjustable Max. 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:** 0.6 kg (1.3 lb.)

### Standards and Approvals

- CE, UL listed
- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

## Ordering Information

Part Number	
<b>3-8750</b>	pH/ORP Transmitter
↓	Input(s), Outputs, and Power - Choose one
	<b>-1</b> One input with 4 to 20 mA output and one open collector; uses 2 wire power
	<b>-2</b> One input with 4 to 20 mA output and two relays; uses 4 wire power
	<b>-3</b> One input with two 4 to 20 mA outputs and 2 open collectors; uses 4 wire power
↓	Field or panel mount - Choose one
	<b>-</b> Field mount for pipe, wall, or tank mounting
	<b>P</b> Panel mount; including mounting bracket and panel gasket
<b>3-8750</b>	<b>-1 P Example Part Number</b>

Mfr. Part No.	Code	Mfr. Part No.	Code
3-8750-1	<b>159 000 053</b>	3-8750-2P	<b>159 000 056</b>
3-8750-1P	<b>159 000 054</b>	3-8750-3	<b>159 000 057</b>
3-8750-2	<b>159 000 055</b>	3-8750-3P	<b>159 000 058</b>

## Accessories and Replacement Parts

Mfr. Part No.	Code	Description
<b>Mounting</b>		
3-8050	<b>159 000 184</b>	Universal mounting kit
3-8050.392	<b>159 000 640</b>	Model 200 retrofit adapter
3-8050.395	<b>159 000 186</b>	Splashproof rear cover
3-0000.596	<b>159 000 641</b>	Heavy duty wall mount bracket (for panel mount only)
3-5000.598	<b>198 840 225</b>	Surface Mount Bracket
<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 piece)
3-9000.392-2	<b>159 000 841</b>	Liquid tight connector kit, PG13.5 (1 piece)
<b>Other</b>		
3-8050.396	<b>159 000 617</b>	RC Filter kit (for relay use), 2 per kit
3-0700.390	<b>198 864 403</b>	pH buffer kit