### Signet 8850 Conductivity/Resistivity Transmitters



#### Member of the ProcessPro® Family of Instruments







Pipe, Tank, Wall and Integral Mount

The Signet 8850 Conductivity/Resistivity Transmitter is designed for multiple installation capabilities, simple set-up and easy operation, thus satisfying a broad range of application requirements.

The 8850 comes equiped with two 4 to 20 mA loop outputs and two open collector relays. It is offered with a NEMA 4X/IP65 front panel with a self-healing window in a convenient ½ DIN package for easy mounting. The 8850 can be configured via a simple menu system.

In addition to programmable outputs and relays, the unit can also be set up to measure raw conductivity values.

#### **Features**

- Display choices of  $\mu$ S, mS, K $\Omega$ , M $\Omega$ , PPM (TDS)
- Simulate function
- Programmable temperature compensation
- Two open collectors
- Dual output option allows temperature and process signal transmission
- NEMA 4X/IP65 enclosure with self-healing window
- Compatible with ALL Signet conductivity electrodes









### **Applications**

- RO/DI System Control
- Rinse Tank Control
- Cooling Tower, Scrubber or Blowdown Control
- Environmental Study (TDS)
- Desalination Monitor
- Water Quality Monitoring
- Leak Detection
- Chemical Concentration

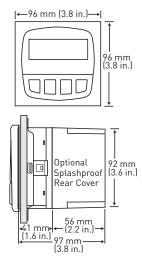


# **Specifications**

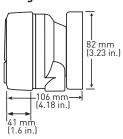
General						
Compatible Electrodes	All Signet conductivity	All Signet conductivity/resistivity electrodes				
Sensor Input Range						
Conductivity	0.055 to 400,000 µS/c	0.055 to 400,000 μS/cm				
Resistivity	10 KΩ•cm to 18.2 MΩ	10 KΩ•cm to 18.2 MΩ•cm				
TDS	0.023 to 200,000 ppm	0.023 to 200,000 ppm				
Temperature	PT1000	-25 °C to 120 °C	-13 °F to 248 °F			
Accuracy						
Conductivity/Resist	ivity ±2% of reading	·				
Temperature	±0.75 °C	±0.75 °C				
Display	Alphanumeric 2 x 16 l	Alphanumeric 2 x 16 LCD				
Contrast	User selected, 5 level	User selected, 5 levels				
Update Rate	1.8 seconds	1.8 seconds				
Materials						
Case	PBT	PBT				
Keypad	Sealed 4-key silicone	Sealed 4-key silicone rubber				
Panel and Case Gasket	Neoprene	Neoprene				
Window	Polyurethane coated	Polyurethane coated polycarbonate				
Electrical						
Power	12 to 24 VDC ±10% re	12 to 24 VDC ±10% regulated				
	100 mA max.	100 mA max.				
Current Output		4 to 20 mA, isolated, passive, fully adjustable and reversible				
Max Loop Impedance	50 Ω max. @ 12 V	50 Ω max. @ 12 V				
	325 Ω max. @ 18 V	325 Ω max. <b>@</b> 18 V				
	600 Ω max. @ 24 V	600 Ω max. @ 24 V				
Update Rate	200 ms	200 ms				
Accuracy	±0.03 mA @ 25°C, 24	±0.03 mA @ 25°C, 24 V				
Open Collector Output	High, Low, Pulse, Off					
Max Voltage Rating	50 mA max sink, 30 V	DC max				
Hysteresis	User adjustable					
	· '	Max 400 pulses/min.				
Relay Output	Mechanical SPDT con	tacts: High, Low, Pulse, Off				
Max Voltage Rating		5A @ 30 VDC, or 5 A @ 250 VAC resistive load				
Hysteresis	User adjustable					
	Max 400 pulses/min.	Max 400 pulses/min.				
Environmental						
Operating Temperature	-10 °C to 70 °C	14 °F to 158 °F				
Storage Temperature	-15 °C to 80 °C	5 °F to 176 °F				
Relative Humidity		0 to 95%, non-condensing				
Enclosure	NEMA 4X/IP65 (front f	NEMA 4X/IP65 (front face only on panel mount); field mount is 100% NEMA 4X/IP65				
Shipping Weight						
	0.6 kg	1.32 lb				
Standards and Approvals						
	CE, FCC, UL, CUL	CE, FCC, UL, CUL				
	RoHS compliant, Chir	RoHS compliant, China RoHS				
	Manufactured under I OHSAS 18001 for Occ	Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management and OHSAS 18001 for Occupational Health and Safety				

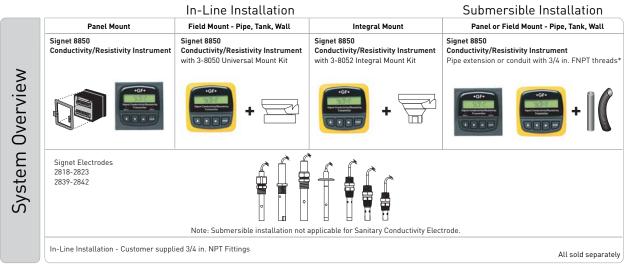
### **Dimensions**

#### 3-8850-XP Panel Mount



#### Field Version with Universal Mounting Kit



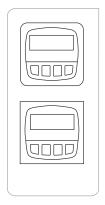


\*Refer to the Signet Submersion brochure located in the K-Factors Fittings and More Kit (3-0000-709) for installation suggestions and options.

### **Ordering Notes**

- 1) Instruments can be mounted directly to a sensor by choosing the following:
  - Order integral adapter kit 3-8052 (sold separately) to connect the sensor to an instrument.
- 2) Use the universal mount kit (3-8050) with the field mount instrument to mount to a pipe, tank or wall.
- 3) To mount the panel version to a wall, use the heavy duty wall mount bracket
- 4) Order RC filter kits to protect relays from voltage spikes.

# **Ordering Information**



Mfr. Part No.	Code	Input	Output	Power	
Conductivity/Resistivity Transmitter					
Integral mount package					
3-8850-3	159 000 232	One	Two 4 to 20 mA outputs and 2 open collectors	4 wire	
Panel mount package					
3-8850-3P	159 000 233	One	Two 4 to 20 mA outputs and 2 open collector	4 wire	

## **Accessories and Replacement Parts**

Mfr. Part No.	Code	Description		
Mounting				
3-8050	159 000 184	Universal mounting kit		
3-8050.395	159 000 186	Splashproof rear cover (panel mount only)		
3-8052	159 000 188	¾ in. integral mounting kit		
3-8052-1	159 000 755	¾ in. NPT mount junction box		
3-0000.596	159 000 641	Heavy duty wall mount bracket (panel mount only)		
3-5000.598	198 840 225	Surface mount bracket (panel mount only)		
3-8050.392	159 000 640	1/4 DIN retrofit adapter		
3-9900.396	159 001 701	Angle adjustment adapter kit		
Liquid Tight Connectors				
3-9000.392	159 000 368	Liquid tight connector kit for rear cover (3 connectors)		
3-9000.392-1	159 000 839	Liquid tight connector kit, NPT (1 connector)		
3-9000.392-2	159 000 841	Liquid tight connector kit, PG 13.5 (1 connector)		
Other .				
3-8050.396	159 000 617	RC filter kit (for relay use), 2 per kit		