

# Signet 8850 Conductivity/Resistivity Transmitters



Check out the 9900 Transmitter for your single channel needs

Member of the ProcessPro® Family of Instruments



Panel Mount



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 equipped 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 ¼ 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  $\mu\text{S}$ , 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



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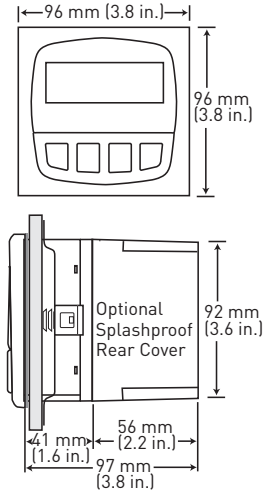
Web: [www.desal.co.uk](http://www.desal.co.uk)

# Specifications

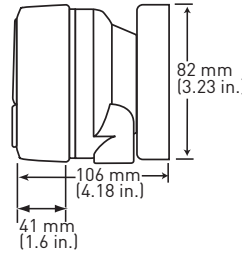
General			
Compatible Electrodes	All Signet conductivity/resistivity electrodes		
Sensor Input Range			
Conductivity	0.055 to 400,000 $\mu\text{S}/\text{cm}$		
Resistivity	10 $\text{K}\Omega\cdot\text{cm}$ to 18.2 $\text{M}\Omega\cdot\text{cm}$		
TDS	0.023 to 200,000 ppm		
Temperature	PT1000	-25 °C to 120 °C	-13 °F to 248 °F
Accuracy			
Conductivity/Resistivity	$\pm 2\%$ of reading		
Temperature	$\pm 0.75$ °C		
Display	Alphanumeric 2 x 16 LCD		
Contrast	User selected, 5 levels		
Update Rate	1.8 seconds		
Materials			
Case	PBT		
Keypad	Sealed 4-key silicone rubber		
Panel and Case Gasket	Neoprene		
Window	Polyurethane coated polycarbonate		
Electrical			
Power	12 to 24 VDC $\pm 10\%$ regulated 100 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	$\pm 0.03$ mA @ 25°C, 24 V		
Open Collector Output	High, Low, Pulse, Off		
Max Voltage Rating	50 mA max sink, 30 VDC max		
Hysteresis	User adjustable Max 400 pulses/min.		
Relay Output	Mechanical SPDT contacts: High, Low, Pulse, Off		
Max Voltage Rating	5A @ 30 VDC, or 5 A @ 250 VAC resistive load		
Hysteresis	User adjustable 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 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		
	RoHS compliant, China RoHS		
	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







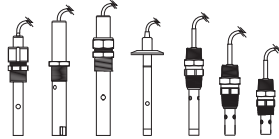
## Field Version with Universal Mounting Kit



System Overview

### In-Line Installation

### Submersible Installation

	Panel Mount	Field Mount - Pipe, Tank, Wall	Integral Mount	Panel or Field Mount - Pipe, Tank, Wall
	<b>Signet 8850 Conductivity/Resistivity Instrument</b> 	<b>Signet 8850 Conductivity/Resistivity Instrument with 3-8050 Universal Mount Kit</b> 	<b>Signet 8850 Conductivity/Resistivity Instrument with 3-8052 Integral Mount Kit</b> 	<b>Signet 8850 Conductivity/Resistivity Instrument</b> Pipe extension or conduit with 3/4 in. FNPT threads* 
	Signet Electrodes 2818-2823 2839-2842 			
	Note: Submersible installation not applicable for Sanitary Conductivity Electrode.			
	In-Line Installation - Customer supplied 3/4 in. NPT Fittings			All sold separately

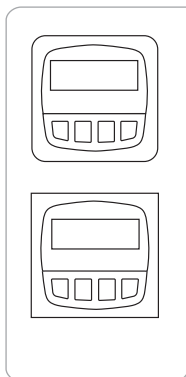
\*Refer to the Signet Submersion brochure located in the K-Factors Fittings and More Kit (3-0000-709) for installation suggestions and options.

## Ordering Notes

- 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.
- Use the universal mount kit (3-8050) with the field mount instrument to mount to a pipe, tank or wall.
- To mount the panel version to a wall, use the heavy duty wall mount bracket
- Order RC filter kits to protect relays from voltage spikes.

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

## Ordering Information



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

## 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
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)
3-8050.392	<b>159 000 640</b>	1/4 DIN retrofit adapter
3-9900.396	<b>159 001 701</b>	Angle adjustment adapter kit
<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