



Signet 8250 Level Transmitters

Member of the Process Pro® family of Transmitters



Panel Mount



Pipe, Wall, Tank and Integral Mount

Features

- Level units for: ft, in., m, cm, %
- Volume units for: gal., in³, lbs., l, m³, kg, %
- Available with single or dual input
- Advanced relay control supports up to 4 relays
- Output simulation
- Manual (up to 10 pts.) and automatic level-to-volume conversion
- Display level, volume or both
- Specific gravity entry for use with pressure sensors and mass unit conversion
- User-selectable averaging for display and output
- Accepts other level sensors with 4 to 20 mA output (via 8058 signal converter)
- NEMA 4X/IP65

Description

Signet 8250 Level Transmitters are compatible with the Signet 2250 level sensor and 2450 Pressure Sensor. The instrument is available in field and panel mount configurations, single or dual-channel input and equipped with one 4 to 20mA output, fully scaleable and reversible for each input channel. The unit also features two relays, plus the ability to support two additional externally mounted relays (for a total of four). Relay operation is selectable for High, Low, Window or Off, and

includes fully adjustable hysteresis and trigger time delay. The unit also has the ability to accept other level sensors with 4 to 20mA output via the Signet 8058 Signal Converter. Automatic level-to-volume conversion allows display and control of tank volume and/or level in units such as gallons, kilograms, feet or meters. Simply enter the dimensions of your tank or vessel, and the instrument will calculate volume from the level measurement.

System Overview

In-Line Installation			Submersible Installation*
Panel Mount Signet 8250 Level Instrument 	Pipe, Tank, Wall Mount Signet 8250 Level Instrument 	Integral Mount Signet 8250 Level Instrument 	Panel, Pipe, Tank, Wall Mount Signet 8250 Level Instrument
	Signet Universal Adapter Kit (3-8050) (sold separately) 	Signet Integral Adapter Kit (3-8052) (sold separately) 	Pipe extension or conduit with 3/4 in. FNPT threads
Signet 2250, 2450 Sensor (sold separately) 	Signet 2250, 2450 Sensor (sold separately) 	Signet 2250, 2450 Sensor (sold separately) 	Signet 2250, 2450 Sensor (sold separately)
Fittings - Customer supplied			

8058 signal converter & 8059 external relay module also compatible

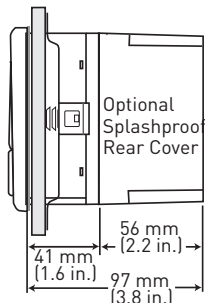
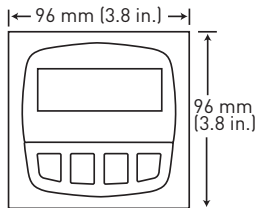
*For submersible pipe, tank or wall mount installations, user must use the Universal Adapter Kit (3-8050)

Application

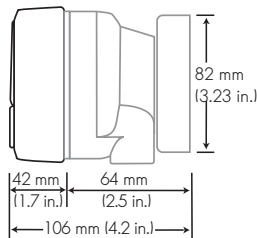
- Continuous level and/or volume monitoring
- Local or remote display
- Fill start/stop control
- Pump protection
- Inventory management
- Storage tank monitoring
- Pump station control
- Waste sumps
- Clarifiers
- Plating lines
- Neutralization tanks
- Overflow protection
- Leak detection

+GF+ Dimensions

3-8250-XP



Field version with universal mount



Model 8250

Ordering Notes:

- Field mount instruments can be mounted with a sensor in an integral configuration by choosing the following:
 - Order integral adapter kit 3-8052 (sold separately) to connect the instrument directly onto the sensor.
- An optional splashproof rear cover can be ordered separately if needed.
- Use the universal mounting kit with the field mount instrument to mount to a pipe, tank or wall.
- Two additional relays can be used with this product. See part numbers 3-8059-2 or 3-8059-2AC
- To mount the panel version on a wall, use heavy duty wall mount bracket.
- Order RC filter kit to protect relays from voltage spikes.

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

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Specifications

General

Compatible Sensors:

- Signet 2450 pressure sensor versions with digital (S³L) output or other sensors with 4 to 20mA output (via Model 8058)
- Signet 2250 level sensor

Display:

- Alphanumeric 2 x 16 LCD
- Sealed 4-button keypad
- Display update rate: 1 second
- Contrast: User selected, 5 levels

Materials

- Case: Polybutylene (PBT)
- Panel case gasket: Neoprene
- Window: Polyurethane-coated polycarbonate
- Keypad: Silicone rubber

Electrical

Input Power:

12 to 24VDC ±10% regulated, 250mA max. current

Sensor power:

5VDC ± 1% @ 25°C, regulated (provided by 8250)

Current output:

- 4 to 20mA, isolated, passive, fully adjustable and reversible
- Max. loop impedance:
 - 50Ω max. @ 12V
 - 325Ω max. @ 18V
 - 600Ω max. @ 24V
- Update rate: 300 ms
- Output accuracy: ± 0.03mA

Electrical (continued)

Relay outputs:

- 2 sets mechanical SPDT contacts standard with all units
- Software supports 2 additional relays via optional external relay module (3-8059)
- Maximum voltage rating:
 - 5A @ 30VDC
 - 5A @ 250VAC, resistive load
- Programmable for High or Low setpoint or for Window range, with adjustable hysteresis
- Time delay: programmable from 0 to 6400sec

Environmental

Enclosure rating: NEMA 4X/IP65 front

Operating temp.:

-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

Maximum altitude: 2,000m (6,562ft.)

Shipping Weight: 0.325 kg (0.8 lbs)

Standards and Approvals

- CE, UL listed
- Immunity: EN50082-2
- Emissions: EN55011
- Safety: EN61010
- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

Ordering Information

Instrument Part Number	
3-8250	Level Transmitter
↓	Input(s), Outputs, and Power - Choose one
	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 two relays; 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
3-8250	-2 P Example Part Number

Mfr. Part No.	Code	Mfr. Part No.	Code
3-8250-2	159 000 766	3-8250-3	159 000 768
3-8250-2P	159 000 767	3-8250-3P	159 000 769

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
3-8052	159 000 188	3/4" Integral mounting kit
3-0000.596	159 000 641	Heavy duty wall mount bracket (for panel mount only)
3-5000.598	198 840 225	Surface mount bracket
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 piece)
3-9000.392-2	159 000 841	Liquid tight connector kit, PG13.5 (1 piece)
Other		
3-8050.396	159 000 617	RC Filter Kit (for relay use), 2 per kit
3-8058-1S	special order	4 to 20mA to digital signal converter, single input, loop powered
3-8058-2S	special order	4 to 20mA to digital signal converter, dual input, loop powered
3-8059-2	159 000 770	External relay module, 2 relays; requires 12 to 24VDC
3-8059-2AC	159 000 771	External relay module, 2 relays; w/power supply, 100 to 240VAC