

+GF+ SIGNET 2450 Pressure Sensors



Features

- S³L™ Output
- Standard 3/4 in. NPT Process Connection or 1/2 in. Male Union
- One-piece injection molded SYGEF® PVDF body
- Flush ceramic diaphragm
- Easy Installation
- Three (3) Pressure Ranges

Application

- Level or Depth Sensing
- HVAC Systems
- Scrubbers
- Pump Protection
- Marine
- Water Management
- Irrigation Systems
- Wastewater
- Chem Processing
- Pressure Regulation/ Monitoring

Description

The +GF+ SIGNET 2450 Pressure Sensor has a one-piece injection molded SYGEF® PVDF body and ceramic diaphragm for superior compatibility in corrosive liquids. Three (3) pressure versions allow for optimal resolution matched to your sensing needs. Solid state circuitry eliminates drift (no internal potentiometers.)

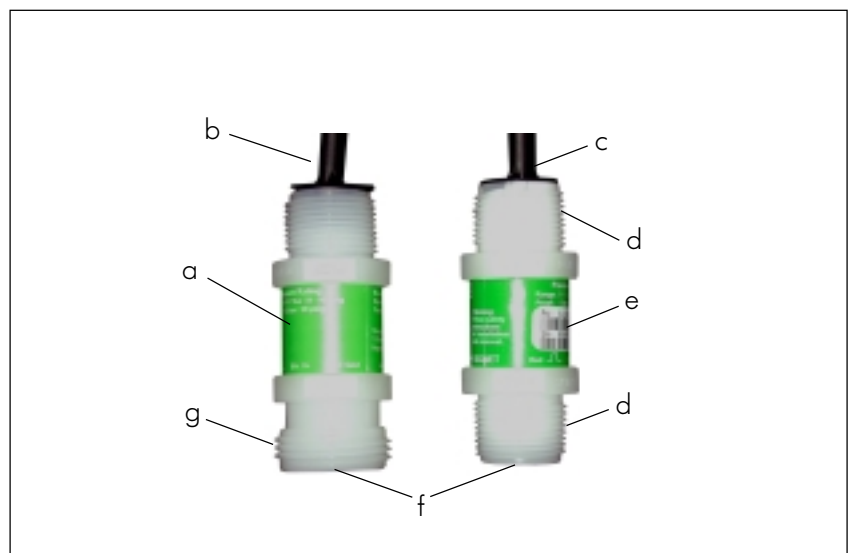
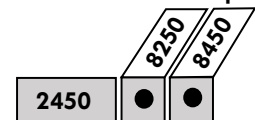
Built-in temperature compensation provides outstanding accuracy over wide temperature ranges. S³L™ output allows for wiring distances between sensor and +GF+ SIGNET 8450 Pressure Transmitter or 8250 Level Transmitter of up to 121m (400 ft.). An integral adapter (optional) allows for integration of the sensor and transmitter into a compact assembly.

Technical Features

- S³L™ output
- 4.5m (15 ft.) cable for remote installation, Model 3-2450-1X, -3X
- 152mm (6 in.) cable for integral installation, Model 3-2450-2X, -4X
- 3/4 in. NPT process connection
- One-piece injection molded SYGEF® PVDF body
- Flush diaphragm
- 1/2 in. Male Union (-3 and -4)

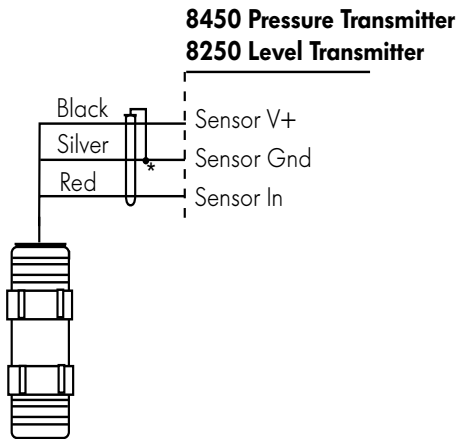
Options

Instrument Options

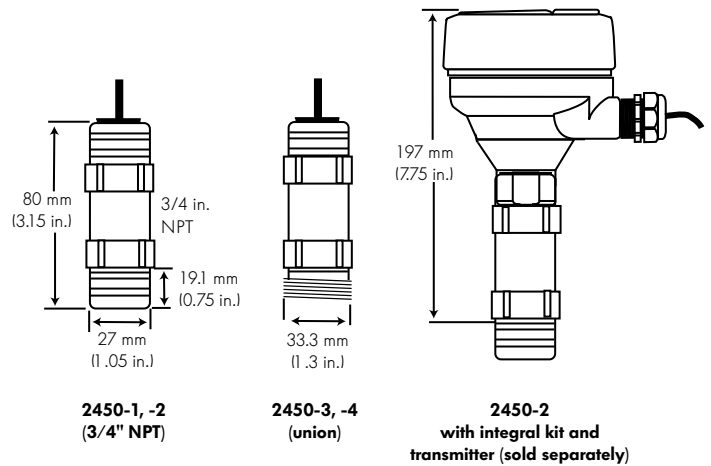


Wiring

The sensor cable leads are connected to the transmitter. Cable length is either 4.5m/15 ft. or 152mm/6 in. Cable may be extended up to 121m/400 ft. using 2 conductor shielded cable.



Dimensions

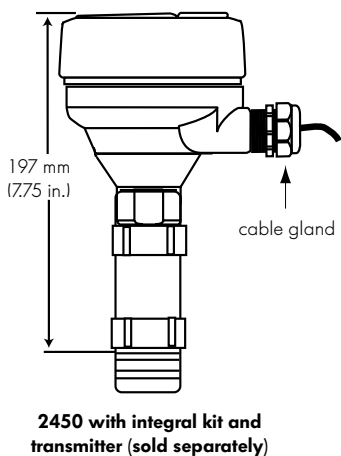


Installation

+GF+ SIGNET 2450 Pressure Sensors are gauge pressure sensors. Gauge pressure sensors measure the difference in pressure between the process on one side of a diaphragm and the atmospheric pressure on the opposite side of the diaphragm. Typically, a tiny capillary tube inside the sensor body is used to ensure that the back of the diaphragm remains at atmospheric pressure. If moisture is allowed to propagate down this tube to the rear of the diaphragm, damage to the sensor may occur. We offer the following installation tips.

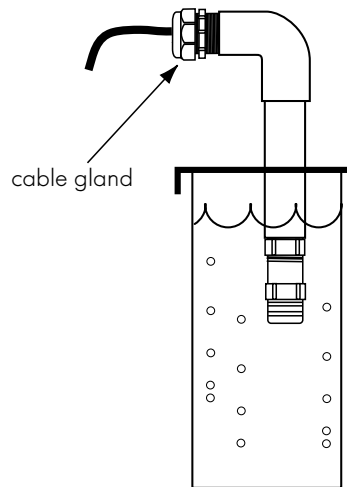
In-line Integral

Use the 3-8052 Kit for Integral Mount to the 8450 Pressure Transmitter and 8250 Level Transmitter. Be sure to use a cable gland to guard against moisture intrusion.



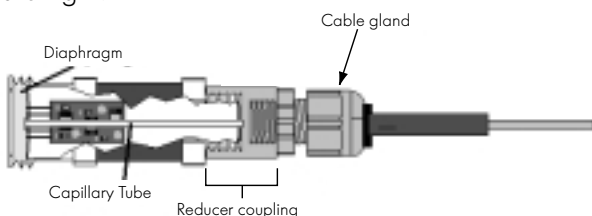
Submersible

Mount the sensor to an extension pipe or watertight conduit using thread sealant. Use a cable gland at the top end to prevent moisture intrusion/accumulation inside the pipe. **DO NOT** hermetically seal (i.e. applying silicone sealant or epoxy) the back of the sensor. To do so may introduce measurement errors resulting from changes in atmospheric pressure and/or temperature.



In-line Remote

Use 3/4 to 1/2 in. reducer coupling from sensor to cable gland. Finger tighten until fully secure and watertight.



Technical Data

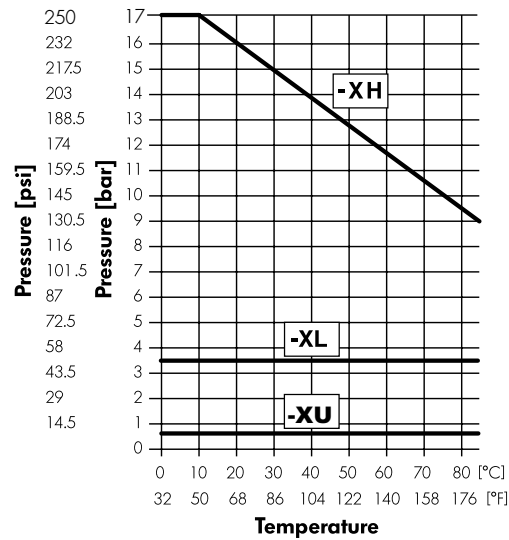
General

Output:	S ³ L™		
Operation Pressure:	<u>2450-xU</u>	<u>2450-xL</u>	<u>2450-xH</u>
	psig: 0 to 10	psig: 0 to 50	psig: 0 to 250
	bar: 0 to 0.7	bar: 0 to 3.5	bar: 0 to 17
Proof Pressure:	psig: 20	psig: 75	psig: 300
	bar: 1.5	bar: 5	bar: 20
Process Connection:	3/4 in. NPT or 1/2 in. Male Union		
Accuracy:	± 1% of full scale @ 25°C		
Thermal Sensitivity Shift:	± 0.03% of full scale per deg. C		
Repeatability:	± 0.5% of full scale		
Wetted Materials:	SYGEF® PVDF, Ceramic, FPM (Viton®)		
Cable Type:	PVC jacketed, 2-conductor twisted pair with shield (22 AWG)		
Shipping Weight:	0.151 kg (0.33 lbs.)		
Storage Temperature:	-55°C to 100°C (-67°F to 212°F)		

Standards and Approvals

- Manufactured under ISO 9001 and ISO 14001
- CSA, CE, UL listed

Application Limits



Ordering Information

Mfr. Part No.	Code	Description
3-2450-1L	159 000 024	Pressure Sensor 3/4" male NPT, 0 to 50 psi, 15 ft. cable
3-2450-2L	159 000 025	Pressure Sensor 3/4" male NPT, 0 to 50 psi, 6 in. cable
3-2450-3L	159 000 682	Pressure Sensor 1/2" Male Union, 0 to 50 psi, 15 ft. cable
3-2450-4L	159 000 685	Pressure Sensor 1/2" Male Union, 0 to 50 psi, 6 in. cable
3-2450-1H	159 000 026	Pressure Sensor 3/4" male NPT, 0 to 250 psi, 15 ft. cable
3-2450-2H	159 000 027	Pressure Sensor 3/4" male NPT, 0 to 250 psi, 6 in. cable
3-2450-3H	159 000 681	Pressure Sensor 1/2" Male Union, 0 to 250 psi, 15 ft. cable
3-2450-4H	159 000 684	Pressure Sensor 1/2" Male Union, 0 to 250 psi, 6 in. cable
3-2450-1U	159 000 679	Pressure Sensor 3/4" male NPT, 0 to 10 psi, 15 ft. cable
3-2450-2U	159 000 680	Pressure Sensor 3/4" male NPT, 0 to 10 psi, 6 in. cable
3-2450-3U	159 000 683	Pressure Sensor 1/2" Male Union, 0 to 10 psi, 15 ft. cable
3-2450-4U	159 000 686	Pressure Sensor 1/2" Male Union, 0 to 10 psi, 6 in. cable

Accessories

Mfr. Part No.	Code	Description
3-8450-1	159 000 041	Pressure Transmitter, Field mount
3-8450-1P	159 000 042	Pressure Transmitter, Panel mount
3-8450-2	159 000 043	Pressure Transmitter, Field mount with relays
3-8450-2P	159 000 044	Pressure Transmitter, Panel mount with relays
3-8450-3	159 000 045	Pressure Transmitter, Field mount with dual input/output
3-8450-3P	159 000 046	Pressure Transmitter, Panel mount with dual input/output

Accessories (continued)

Mfr. Part No.	Code	Description
3-8250-2	159 000 766	Level Transmitter, Field mount
3-8250-2P	159 000 767	Level Transmitter, Panel mount
3-8250-3	159 000 768	Dual Channel Level Transmitter, Field mount
3-8250-3P	159 000 769	Dual Channel Level Transmitter, Panel mount
3-8050	159 000 184	Universal mounting kit
3-8052	159 000 188	3/4 in. Integral mounting kit
5523-0222	159 000 392	Sensor cable (per ft.)

Engineering Specifications

- The sensor shall be constructed of a one-piece injection molded SYGEF® PVDF body, ceramic diaphragm, with a Viton® seal.
- The sensor shall be equipped with 3/4 in. NPT threads on both ends for in-line or submersion installations or 1/2 in. Male Union on one end.
- The sensor shall be supplied with either a 152 mm/6 in. cable for integral assembly or shall be supplied with 4.5m/15 ft. standard, maximum allowable cable 121m/400 feet.
- The operating ranges shall be either 0 to 10 psi, 0 to 50 psi, or 0 to 250 psi.
- The sensor shall be +GF+SIGNET 2450 Pressure Sensor.

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