

# +GF+ SIGNET 8450 Pressure Transmitters



## Features

- S<sup>3</sup>L™ input
- psi, Bar, or kPa display
- Integral or remote mounting
- Single point calibration
- Dual input/output option
- Output simulation function for complete system testing
- Relay option
- Output scalability
- NEMA 4X/IP65
- Splashproof enclosure
- 2 x 16 character dot matrix LCD
- Chemical resistant enclosure and self-healing window
- Large pushbuttons

## Description



The +GF+ SIGNET 8450 Pressure Transmitter is a unique instrument that converts the signal from the +GF+ SIGNET 2450 pressure sensor into a 4 to 20 mA output for long distance transmission. State-of-the-art electronic

design offers a single-point calibration. Configuration flexibility is maximized with optional relays for process control, packaging options for integral/pipe mount or panel installation and dual input/output capability.

## Application

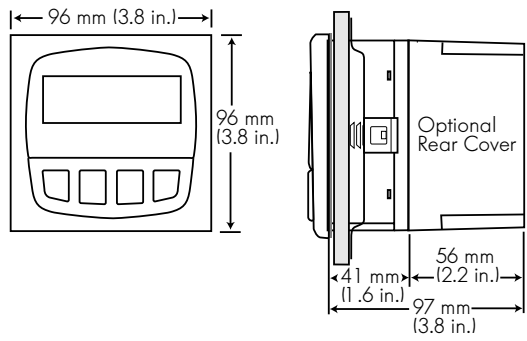
- Pump, filter or pipe protection
- Pressure regulation/monitoring
- Over or under pressure alarm
- Pump servicing
- HVAC systems
- Chemical processing
- Scrubbers
- Marine
- Water management
- Irrigation systems
- Waste water

## Technical Features

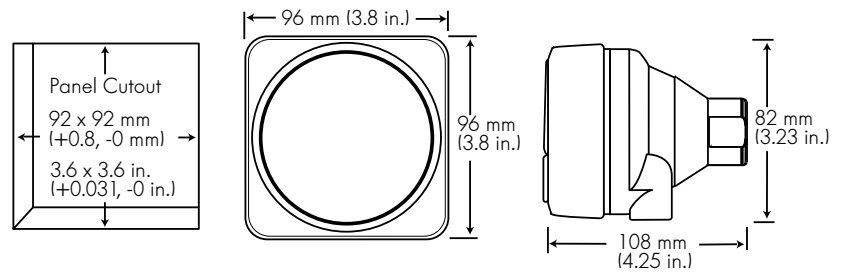
Mounting Version	Part No.	Wire Power	Sensor Input	4 to 20 mA Output	Open Collector/Relay
<b>Field</b> 	3-8450-1	2	1	1	1 O.C. Hi, Lo or Off
	3-8450-2	4	1	1	2 Relays Hi, Lo or Off
	3-8450-3	4	2	2 Sensor 1, Sensor 2 or delta P	2 O.C.'s Hi, Lo or Off
<b>Panel</b> 	3-8450-1P	2	1	1	1 O.C. Hi, Lo or Off
	3-8450-2P	4	1	1	2 Relays Hi, Lo or Off
	3-8450-3P	4	2	2 Sensor 1, Sensor 2 or delta P	2 O.C.'s Hi, Lo or Off

# Dimensions

## Panel Mount



## Integral/Universal Mount

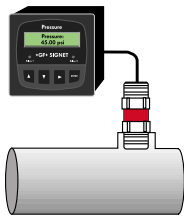


# Installation

The transmitter is available in a panel mount or a field version. Select either the universal mount kit (3-8050) to mount the transmitter on a surface near the sensor or select the integral mount kit (3-8052) to mount the transmitter onto the sensor.

## 1. Panel Mount

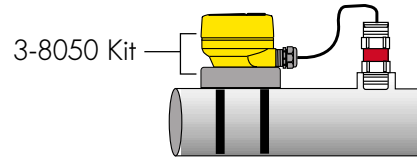
3-8450-XP



All panel mount transmitters (3-8450-XP) include everything for panel installation. Panel mount transmitters fit into a standard 1/4 DIN panel cutout.

## 2. Universal Mount

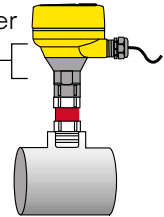
3-8450-X Transmitter



The Universal Mount Kit (3-8050) includes a conduit base, locking ring, and universal adapter for mounting the transmitter on a pipe, wall, or other stationary surface.

## 3. Integral Mount

3-8450-X Transmitter  
3-8052 Kit



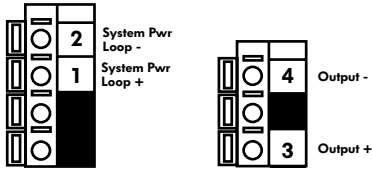
The Integral Mount Kit (3-8052) includes a conduit base, locking ring, and integral adapter for mounting the transmitter and sensor directly into a pipe.

<p><b>Pressure Transmitter</b> (3-8450-XP) includes: mounting bracket and panel gasket</p>
<p><b>Pressure Sensor (example)</b> (3-2450-1U) (3-2450-1H) (3-2450-1U)</p>
<p><b>PPStandard 3/4 in. NPT Fitting</b></p>

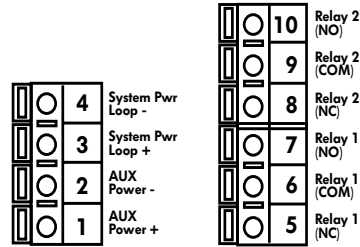
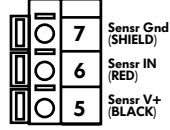
<p><b>Pressure Transmitter</b> (3-8450-X)</p>	
<p><b>Universal Adapter Kit</b> (3-8050) includes: locking ring conduit base universal adapter (for pipe, wall)</p>	
<p><b>Pressure Sensor (example)</b> (3-2450-1U) (3-2450-1H) (3-2450-1U)</p>	
<p><b>Standard 3/4 in. NPT Fitting</b></p>	

<p><b>Pressure Transmitter</b> (3-8450-X)</p>	
<p><b>Integral Adapter Kit</b> (3-8052) includes: locking ring conduit base integral adapter</p>	
<p><b>Pressure Sensor (example)</b> (3-2450-2L) (3-2450-2H) (3-2450-2U)</p>	
<p><b>Standard 3/4 in. NPT Fitting</b></p>	

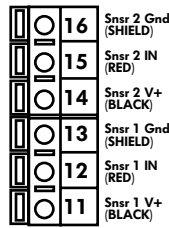
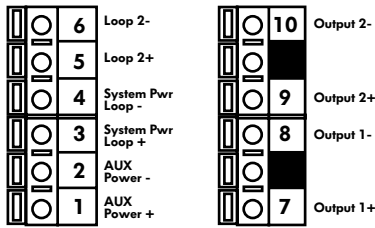
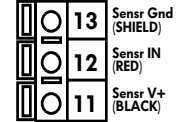
## Rear Terminal View



**Terminal 8450-1**



**Terminal 8450-2**



**Terminal 8450-3**

Note: The terminal blocks are not labeled on the back of the unit. An adhesive label is supplied with terminal descriptions to serve as a remote terminal display.

## Technical Data

### General

Compatibility: +GF+ SIGNET 2450 Pressure Sensor (S<sup>3</sup>L™ input)

Accuracy: ±1% of full scale

Repeatability: ±0.5% of full scale

Enclosure:

- Rating: NEMA 4X/IP65 front
- Case: PBT
- Panel case gasket: Neoprene
- Window: Polyurethane coated polycarbonate
- Keypad: Sealed 4-key silicone rubber

Display:

- Alphanumeric 2 x 16 LCD
- Update rate: 1 second
- Contrast: User selected, 5 levels

Shipping Weight: 0.325 kg (0.8 lbs.)

### Environmental

Operating temperature:  
-10 to 70°C (14 to 158°F)

Storage temperature:  
-15 to 80°C (5 to 176°F)

Relative humidity:  
0 to 95%, non-condensing

### Standards and Approvals

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

### Electrical

Power:

- 12 to 24 VDC ±10% regulated
- (-1) 21 mA max.: (-2) 220 mA max.:
- (-3) 60mA max.

Sensor Input:

- Range: 0 to 250 psig, 0 to 17 bar, 0 to 1700 kPa

Current output:

- 4 to 20 mA, isolated, fully adjustable and reversible
- Max loop impedance:  
50Ω max. @ 12 V  
325Ω max. @ 18 V  
600Ω max. @ 24V
- Update rate: 100 ms
- Accuracy: ±0.03 mA

Relay output:

- Mechanical SPDT contacts:  
Hi, Lo, Off
- Maximum voltage rating: 5 A @ 30 VDC, 5 A @ 250 VAC resistive load
- Hysteresis: User adjustable
- Open-collector output: Hi, Lo, Off
- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage.
- Hysteresis: User adjustable

## Ordering Information

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

Mfr. Part No.	Code	Description
3-8050	159 000 184	Universal mounting kit
3-8050.395	159 000 186	Transmitter NEMA 4X cover
3-8052	159 000 188	3/4 in. Integral mounting kit
3-8052-1	159 000 755	3/4 in. NPT mount junction box
3-8050.396	159 000 617	RC Filter kit (for relay use)
3-0000.596	159 000 641	Heavy duty wall mount bracket
3-5000.598	198 840 225	Surface Mount Bracket
3-9000.392	159 000 368	Liquid tight connector kit for rear cover (includes 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)

## Engineering Specifications

- The transmitter shall be CSA, UL and CE listed.
- The transmitter shall be manufactured under ISO 9001 and ISO 14001 certified processes.
- The transmitter shall be field or panel mountable.
- The pressure shall be displayed in bar, psi, or kPa
- The display units shall be fully scaleable.
- The device shall meet NEMA 4X and IP65 standards.
- The operating voltage shall be 12 to 24 VDC.
- The transmitter shall have a 4 to 20 mA output with an open collector output, 5 to 30 VDC or a 4 to 20 mA output with 2 relays, or a 4 to 20 mA output with dual open collector with delta capability.
- The transmitter shall have simulate capability.
- The transmitter shall be +GF+ SIGNET 8450 Pressure Transmitter.