



Series 626 & 629 Pressure Transmitters with LED Display

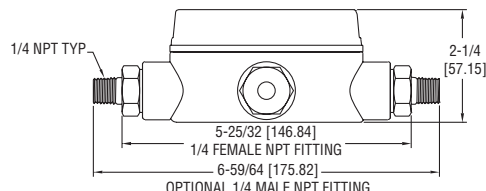
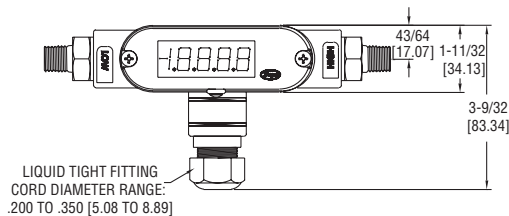
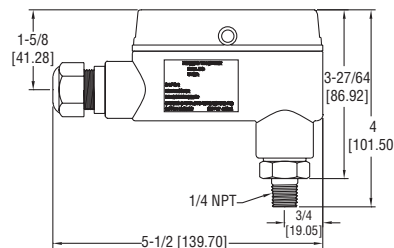
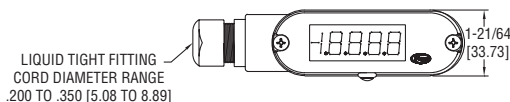
Specifications - Installation and Operating Instructions



626 with LED Display



629 with LED Display



The Dwyer Series 626 and 629 Pressure Transmitters convert positive pressure into a standard 4-20 mA output signal. The Series 626 and 629 can be used to accurately measure compatible gases and liquids; with full scale accuracy of 0.25% for 626 and 0.5% for 629. Designed for industrial environments with a NEMA 4X (IP66) housing, these transmitters resist most effects of shock and vibration.



CAUTION: Do not exceed specified supply voltage ratings. Permanent damage not covered by warranty will result. This device is not designed for 120 or 240 volt AC operation. Use only on 13 to 30 VDC.

Series 626 Pressure Ranges		
Pressure Range (psig)	Maximum Pressure (psig)	Over Pressure (psig)
-15-0	30	150
-15-0-15	30	150
-15-0-30	60	300
-15-0-45	100	300
-15-0-60	200	500
-15-0-100	200	500
0-5	10	50
0-15	30	150
0-30	60	300
0-50	100	300
0-100	200	500
0-150	300	750
0-200	400	1000
0-300	600	1500
0-500	1000	2500
0-1000	2000	5000
0-1500	3000	5000
0-2000	4000	5000
0-3000	6000	7500
0-5000	7500	10000

SPECIFICATIONS

- Service:** Compatible gases & liquids.
- Wetted Materials:** Types 316, 316L SS.
- Accuracy:** 629: ±0.5% F.S. 626: ±0.25% F.S. (includes linearity, hysteresis & repeatability).
- Temperature Limits:** 0 to 200°F (-18 to 93°C).
- Compensated Temperature Limits:** 0 to 175°F (-18 to 79°C).
- Pressure Limits:** See charts.
- Thermal Effect:** 0.02%/°F (0.036%/°C) includes zero & span.
- Power Requirements:** 13-30 VDC.
- Current Consumption:** 140 mA.
- Output Signal:** 4 to 20 mA. Optional 0-5, 1-5, 0-10, 2-10 VDC.
- Response Time:** 50 msec.
- Loop Resistance:** 0-1300 ohms maximum for current output. For voltage outputs, minimum load resistance: 2000 ohms.
- Electrical Connections:** Terminal block. 1/2" female NPT conduit.
- Process Connections:** 1/4" female NPT for 629-CH standard. 1/4" male NPT for 626-CH standard.
- Enclosure Rating:** Designed to meet NEMA 1.
- Mounting Orientation:** Not position sensitive.
- Weight:** 10.1 oz (286 g).
- Agency Approvals:** CE: EN 61000-4-2
EN 61000-4-3
EN 61000-4-4
EN 61000-4-5
EN 61000-4-6

Series 629 Pressure Limits		
Range (psid)	Working* Pressure (psid)	Over Pressure (psi)
10	20	100
25	50	250
50	100	250
100	200	500

* Pressures exceeding the working pressure limit may cause a calibration shift of up to ±3% of full scale.

INSTALLATION

1. Location: Select a location where the temperature of the transmitter will be between 0 and 175°F (-18 to 79°C). Distance from the receiver is limited only by total loop resistance. The tubing or piping supplying pressure to the unit can be practically any length required but long lengths will increase response time slightly.

2. Position: The transmitter is not position sensitive. However all standard models are originally calibrated with the unit in a position with the pressure connection downward. Although they can be used at other angles, for best accuracy it is recommended that units be installed in the position calibrated at the factory.

3. Pressure Connection: Use a small amount of plumbers tape or other suitable sealants to prevent leaks. Be sure the pressure passage inside the port is not blocked.

4. Electrical Connections:

Wire Length - The maximum length of wire connecting the transmitter and receiver is a function of wire size and receiver resistance. Wiring should not contribute more than 10% of the receiver resistance to total loop resistance. For extremely long runs (over 1000 feet), choose receivers with higher resistance to minimize the size and cost of connecting leads. Where wiring length is under 100 feet, wire as small as 22 AWG can be used.

CURRENT (4-20 mA) OUTPUT OPERATION

An external power supply delivering 13-30 VDC with minimum current capability of 140 mA DC (per transmitter) is required to power the control loop. See Fig. A for connection of the power supply, transmitter and receiver. The range of appropriate receiver load resistance (R_L) for the DC power supply voltage available is expressed by the formula:

$$R_L \text{ Max} = \frac{V_{ps} - 13}{20 \text{ mA DC}}$$

Shielded cable is recommended for control loop wiring.

Current Output

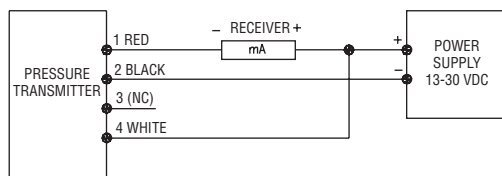


Fig. A

Electrical connections to the pressure transmitters are made to the terminal block located inside the housing. Remove the screws and lift off the cover. Wire as shown below in Fig. B. Terminal 1 is positive (+), terminal 2 is negative (-) and terminal 4 is LED positive supply.

If ordering optional pre-wired cable, black wire is negative (-) and red wire is positive (+) and white wire is LED positive supply.

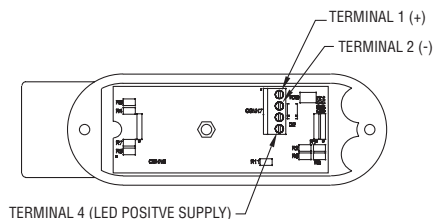


Fig. B

VOLTAGE (0-5, 1-5, 0-10 or 2-10 Volt) OUTPUT OPERATION

(Other outputs contact the factory) See Fig. C for connection of the power supply, transmitter and receiver.

Voltage Output

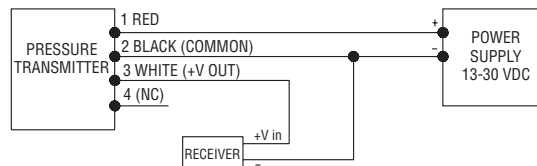


Fig. C

Electrical connections to the pressure transmitters are made to the terminal block located inside the housing. Remove the screws and lift off the cover. Wire as shown below in Fig. D. Terminal 1 is positive (+), terminal 2 is negative (-), terminal 3 is V_{out}. If ordering optional pre-wired cable, black wire is negative (-), red wire is positive (+) and white wire is output.

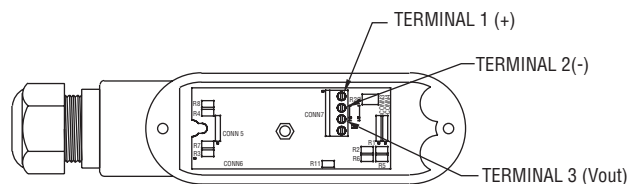
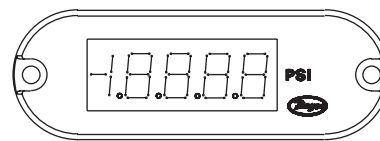


Fig. D

5. Zeroing the Display:

Before zeroing the display make sure that no pressure is connected to the transmitter or that the pressure line is properly vented. Locate plug on bottom of display. Remove plug, then press button until display reads zero (see Fig. E).



TO ZERO THE DISPLAY: VENT THE PRESSURE PORT TO ATMOSPHERE, REMOVE THE PLUG AND PRESS THE INNER SWITCH

Fig. E

MAINTENANCE

After final installation of the pressure transmitter and its companion receiver, no routine maintenance is required. A periodic check of system calibration is suggested. The Series 626 and 629 transmitters are not field repairable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.