

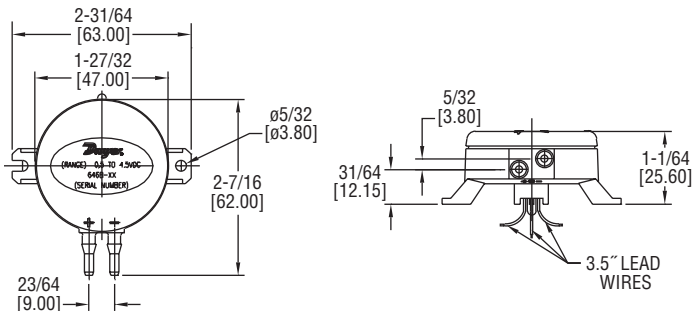


Series 646B Differential Pressure Transmitter

Specifications - Installation and Operating Instructions



Wiring	
Black	Ground
Green	Output
Red	Supply



The Series 646B Differential Pressure Transmitter is designed to be used with clean, dry air and other non-corrosive gases. Each unit features a flame retardant enclosure and a unique design which is suitable for circuit board mounting. Series 646B measures differential pressure at an accuracy of $\pm 2.0\%$ FS down to 0.5 in w.c. The transmitter contains a stainless steel sensor that provides resistance against corrosion combined with excellent performance and long term stability. The Series 646B transmitter features excellent stability, low hysteresis, accurate operation over a broad temperature range, and exceptional insensitivity to vibration. These features make the transmitters perfect for VAV systems, filter monitoring, HVAC fan control, building pressurization, and leak detection systems.

Installation

Installation of the Series 646B is simplified with the use of molded mounting pads and color coded lead wires. Pressure connections will accept 1/8" to 3/16" ID tubing. See Table 1 below for the appropriate wiring connections. The unit should be mounted vertically with the pressure ports down to eliminate the effect of gravity error and avoid condensation inside the sensor.

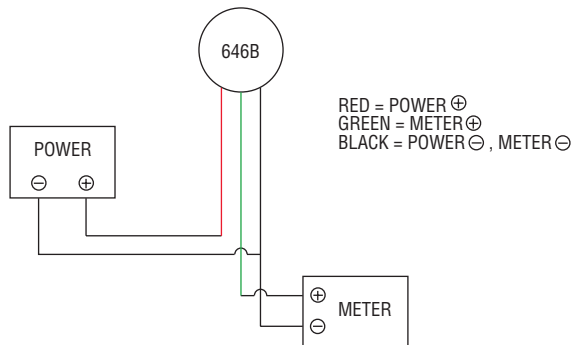
CONNECTIONS

Cable Color	Connection
Black	Ground
Green	Output
Red	Supply Voltage (Vs)

TABLE 1

Operation

The Series 646B Differential Pressure Transmitters are factory calibrated at 5.00 ± 0.25 VDC.



SPECIFICATIONS

- Service:** Air and non-combustible, compatible gases.
- Wetted Materials:** 302 SS, glass, nickel, polyethylene, acrylic and ABS.
- Accuracy:** $\pm 2.0\%$ FS* at room temperature.
 *RSS (Root Sum Square) includes non-linearity, hysteresis and non-repeatability.
- Temperature Limits:**
 Operating: 23 to 170°F (-5 to 77°C);
 Storage: -6 to 185°F (-21 to 85°C).
- Compensated Temperature:** 32 to 170°F (0 to 77°C).
- Zero/Span Shift:** < 0.05% FS/F (< 0.09% FS/C).
- Warm-Up Shift:** $\pm 0.1\%$ FS.
- Position Effect:** Unit is calibrated in a vertical position.
- Pressure Limits:** ± 10 psi (69 kPa).
- Output Signal:** 0.5 to 4.5 VDC ratiometric.
- Output Impedance:** < 5.0 Ω .
- Supply Voltage:** 5.0 ± 0.25 VDC.
- Response Time:** Approximately 10 ms.
- Electrical Connection:** Three stripped, color-coded lead wires, 26 AWG, approximately 3.5" length.
- Process Connections:** 3/16" OD barbed fitting for 1/8" ID push-on tubing.
- Housing:** PBT+ABS alloy.
- Weight:** 3.1 oz (90 g).

Model	Range in w.c.
646B-03	0 to 0.5
646B-04	0 to 0.1
646B-05	0 to 2.5
646B-06	0 to 5
646B-07	0 to 10

MAINTENANCE/REPAIR

Upon final installation of the Series 646B, no routine maintenance is required. The Series 646B is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN

Refer to "Terms and Conditions of Sales" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.