

Introducing the TDG series Intrinsically Safe Industrial Pressure Transducers. (When used with approved barrier)

SERIES: TDG01/03/04 I.S.



FEATURES

- Gauge, Absolute, Vacuum and Compound Pressure Models Available
- Submersible, General Purpose and Wash Down Enclosures
- High Stability Achieved by CVD Sensing Element
- Voltage and Current Output Models
- Custom pressure ranges available
- ASIC Technology, No Zero/Span Potentiometers

DESCRIPTION

The TDG series features stability and accuracy in a variety of enclosure options. The TDG series extends the packaging options via an all welded stainless steel back end for demanding submersible and industrial applications.

The TDG series feature proven CVD sensing technology, an ASIC (amplified units), and modular packaging to provide a sensor line that can easily accommodate specials while not sacrificing high performance.

ELECTRICAL CONNECTIONS

Power Supply Requirements

Voltage Units: 1.5 vdc Over Max Output (voltage outputs)

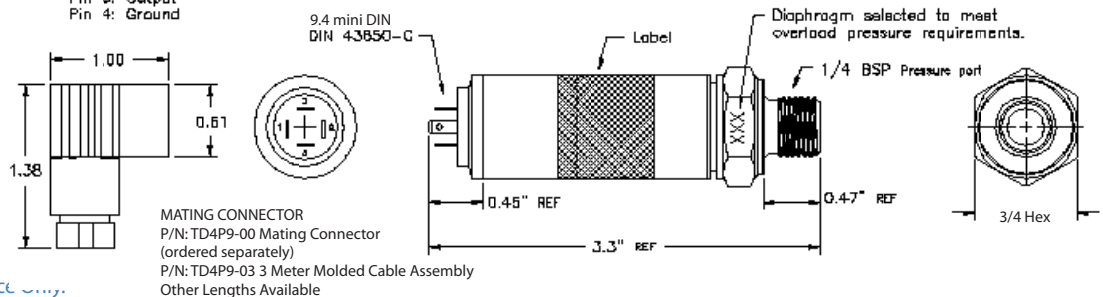
Current Units: 7-35vdc for 4-20 ma

Voltage Units with conduit/cable
Red= +Power
Black= -Power
White= Output

Voltage Units with Din
Pin 1: +Power Supply
Pin 2: -Power Supply
Pin 3: Output
Pin 4: Ground

Current Units with conduit/cable
Red= +Power
Black= Output
Pin 1 +Power Supply

Current Units with Din
Pin 1 +Power Supply
Pin 2 Output
Pin 3 N/C
Pin 4 Gr



Dimensions In Inches And Are Reference Only.

SPECIFICATIONS

| | |
|--------------------------|---|
| Input | |
| Pressure Range | Vacuum to 400 bar (6000 psi) |
| Proof Pressure | 2 x / 4 x Full Scale (FS) (1.5 x Fs for 400 bar, >= 5000 psi) |
| Burst Pressure | >35 x FS <= 6 bar (100 psi); >20 x FS >=60 bar (1000 psi); >5 x FS <= 400 bar (6000 psi) |
| Fatigue Life | Designed for more than 100 million FS cycles |
| Performance | |
| Long Term Drift | 0.2% FS/year (non-cumulative) |
| Accuracy | 0.25% / 0.5% FS typical (optional 0.15%) |
| Thermal Error | 1.5% FS typical (optional 1% FS) |
| Compensated Temperatures | -20° to 80° C (-5° to 180° F) |
| Operating Temperatures | -40° to 125° C (-22° to 260° F) for the mini DIN -20° to 80° C (-5° to 180° F) for the Conduit/Cable Amplified units >100°C maximum 24 Vdc supply |
| Zero Tolerance | 1% of span |
| Span Tolerance | 1% of span |
| Response Time | 0.5 ms |
| Mechanical Configuration | |
| Pressure Port | See ordering chart |
| Wetted Parts | 17-4 PH Stainless Steel |
| Electrical Connection | See ordering chart |
| Enclosure | 316 ss, 17-4 PH ss IP65 for the mini DIN |
| Vibration | 70g, peak to peak sinusoidal, 5 to 2000 Hz (Random Vibration: 20 to 2000 Hz @ 1 20g Peak per MIL-STD.-810E Method 514.4) |
| Acceleration | 100g steady acceleration in any direction 0.032% FS/g for 1 bar (15 psi) range decreasing logarithmically to 0.0007% FS/g for 400 bar (6000 psi) range. |
| Shock | 20g, 11 ms, per MIL-STD.-810E Method 516.4 Procedure I |
| Approvals | (Intrinsically safe) class 1, division 1 & 2, groups C & D (check electrical connection code to determine division) |
| Weight | Approx. 100 grams (additional cable; 75 g/m) |

ORDERING

| Series | Output | Pressure Type | Pressure Range | Pressure Port | Electrical Connection | Accuracy | I.S. |
|-----------------------------------|--|---------------|---|---|--|---------------------------------------|-----------------------|
| TDG03 | D | G | 1000 | 03 | D | 2 | S |
| TDG03= 2X Over Pressure | B= 4-20ma H= 1-5 vdc | G = Gauge | vac-0 0-15 vac-15 0-30 vac-45 0-60 vac-85 0-100 vac-135 0-150 vac-185 0-200 vac-285 0-250 | 03= 1/4" NPT Male 09= 7/16" x 20 SAE #4 (J1926-2) 01= 1/8" NPT MALE ** | D= 4 pin Mini 9.4 DIN (class 1, div 1) O= 1/2"npt conduit w/ 1 meter cable (class 1, div 2) | 3= 0.5% 2= 0.25% 1= 0.15% ** | S= intrinsically safe |
| TDG01= 4X Over Pressure | K= 0.5 - 4.5 vdc | | 0-300 0-500 0-600 0-1000 0-1500 0-2000 0-3000 0-4000 0-5000 0-6000 | OR | | | |
| TDG04 = when "O" | C= 0-5 vdc | | | Pressure Type | Pressure Range | | |
| Electrical Connection is Selected | all voltage outputs are 3 wire non-ratiometric ** | | | A= Absolute | 0060 | | |

Proper Barriers must be used with this product.
**= Consult factory for further options.