

MODEL BL • PRESSURE TRANSMITTER

APPLICATIONS

- DEPTH SENSING
- WATER RESOURCE MANAGEMENT
- PROCESS CONTROL
- MARINE INSTRUMENTATION
- CHEMICAL MANUFACTURE
- PAINT SPRAYING
- TANK/LIQUID LEVEL

The BL pressure transmitter has a conventional 4-20 mA output and is available with accuracies to 0.25%. It has Factory Mutual approval as an intrinsically safe device* for use in hazardous areas Class I, Division I, Groups A through G.

All PSIS or PSIA BL's are hermetically sealed. The pressure sensitive diaphragm is either 316L or 15-5PH stainless steel, depending on the pressure range selected.

The BL's flush diaphragm is especially suited to measuring viscous fluids, slurries, and media where system flushing is necessary. Its overall price/performance ratio makes it ideal for many process environments.



*When used with approved barriers.

FEATURES

- Accuracies to 0.25%
- Flush diaphragm
- 0-5 to 0-20,000 PSI ranges
- Absolute models available

BENEFITS

- For critical applications
- Easily cleaned/adaptable
- Wide range of application
- Can measure vacuum

MODEL BL • PRESSURE TRANSMITTER

TECHNICAL SPECIFICATIONS

RANGE

| | | |
|-----------------------------|--|--------------------------|
| 0-5, 15, 25, 50 PSIG | 0-100, 200, 500, 1000, 2000, 3000, 5000 PSIS | 0-10,000, 20,000 PSIS |
| (0-0.3, 1, 2, 3.5 bar g) | (0-7, 14, 35, 70, 138, 207, 345 bar s) | (0-689, 1380 bar s) |

(bar values are approximate)

PHYSICAL

| | | |
|---------------------------------------|---|------------|
| Proof Pressure | 2 x rated range 30,000 PSI (2070 bar) maximum | |
| Burst Pressure | 5 x rated range 50,000 PSI (3450 bar) maximum | |
| Material in Contact With Media | 316L SS | 15-5 PH SS |
| Shock | 50 g's peak (11 milliseconds) | |
| Vibration | Meets MIL-STD-810-C, Figure 514.2-5, Curve AH, 11.9 g rms minimum | |
| Weight | Less than 2.5 oz (70 gm) without adapter or mating connector | |

ELECTRICAL

| | | |
|------------------------------------|--|-------------------------|
| Full Scale Output | 16 ± 0.16 mA into 0-800 Ω | loop resistance at 25°C |
| Zero Output | 4 ± 0.04 mA @ 25°C | |
| Excitation | 12 to 30 Vdc For nonhazardous locations up to 36 Vdc | |
| Reverse Polarity Protection | Yes | |
| Insulation Resistance | 1000 M | 50 Vdc |
| Electrical Connection | 6 pin PTIH-10-6P or equivalent (PT06E-10-6S mating connector available) | |

PERFORMANCE

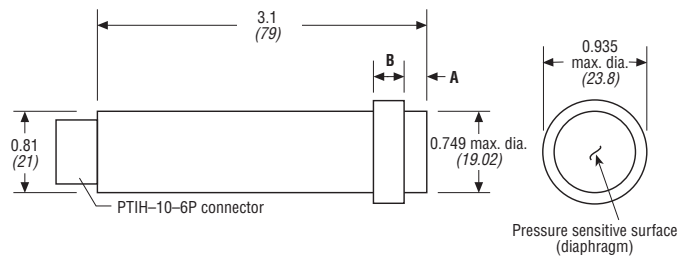
| | | |
|--|---|--|
| Accuracy | ± 1% FSO from best fit straight line including effects of nonlinearity, hysteresis and nonrepeatability | |
| Operating Temperature Range | -40° to 82°C (-40° to 180°F) | |
| Compensated Temperature Range | -1° to 54°C (30° to 130°F) | |
| Thermal Effect on Zero | Less than ± 2% FSO within compensated temperature range | |
| Thermal Effect on Full Scale Output | Less than ± 1% within compensated temperature range | |

OPTIONS

- Absolute pressure version available in 0-15, 25, and 50 PSIA.
- Improved accuracy to less than ±0.5% span; improved thermal effect on zero to less than ±1% FSO within compensated range. Ranges 0-5, 15, 25, 50, and 10,000 PSI only.
- Improved accuracy to less than ±0.25% span; improved thermal effect on zero to less than ±1% FSO within compensated range. Ranges 0-100, 200, 500, 1000, 2000, 3000, 5000 PSI only.

DIMENSIONS

xx.xx = inches
(xx.x) = mm



| Pressure Range (PSI) | Dim. A MAX | | Dim. B | |
|----------------------|------------|-------|--------|-------|
| 0-5 | .271 | (6.9) | .25 | (6.4) |
| 1-15 to 0-50 | .232 | (5.9) | .25 | (6.4) |
| 0-100 to 0-200 | .238 | (6.1) | .25 | (6.4) |
| 0-500 to 0-1000 | .238 | (6.1) | .19 | (4.8) |
| 0-2000 to 0-5000 | .273 | (6.9) | .19 | (4.8) |
| 0-10000 to 0-15000 | .287 | (7.3) | .19 | (4.8) |
| 0-20000 | .295 | (7.5) | .19 | (4.8) |

PIN CODES

| Pin Code | Function |
|----------|-----------------------|
| A | + Excitation |
| B | - Excitation (Return) |
| C & D | Bridge Balance |
| E | Case Shield |

Note:

- All specifications are measured at 25°C and rated excitation unless otherwise stated
- For mounting devices, see Adapters (page 54-55)
- O-ring included