



100 SERIES

- Highly repeatable, shock resistant transmitters with excellent long-term stability
- Standard ranges from vacuum to 15,000 psi; Standard absolute ranges from 15 psia to 300 psia
- Accuracy up to $\pm 0.25\%$ full scale (BFSL)
- Compact size, affordable price
- Advanced diffused semi-conductor and sputtered thin film sensor for maximum stability
- Welded stainless steel pressure chamber
- High alternating load resistance
- High overpressure protection
- Compatible with NOSHOK Smart System Indicators
- CE compliant to suppress RFI, EMI and ESD, combined with reverse polarity and over-voltage protection to ensure reliable performance in the most demanding applications
- Final calibration tests prior to shipment ensures 100% "out of the box" reliability

FEATURES

- Accuracy up to $\pm 0.25\%$ full scale (BFSL)
- Welded stainless steel pressure chamber
- Advanced diffused semi-conductor and sputtered thin film sensor for maximum stability
- Compact size
- High alternating load resistance
- High overpressure protection
- CE compliant to suppress RFI, EMI and ESD
- Compatible with NOSHOK Smart System Indicators

APPLICATIONS

- Hydraulic and pneumatic systems
- Injection molding machines
- Railroad engine controls
- HVAC systems
- Stamping and forming presses
- Refrigeration controls
- Industrial machinery and machine tools
- Pumps and compressors

SPECIFICATIONS

| | |
|------------------------|--|
| Output signal | 4 mA to 20 mA, 2-wire |
| Pressure ranges | Standard gauge ranges from vacuum to 15,000 psi; standard absolute ranges from 15 psia to 300 psia |
| Proof pressure | 3 times full scale for ranges 0 psi to 5 psi through 0 psi to 200 psi 1.75 times full scale for ranges 0 psi to 300 psi through 0 psi to 10,000 psi 1.5 times full scale for 0 to 15,000 psi range |
| Burst pressure | 3.8 times full scale for ranges 0 psi to 5 psi through 0 psi to 200 psi 4 times full scale for ranges 0 psi to 300 psi through 0 psi to 10,000 psi 3 times full scale for 0 to 15,000 psi range |
| Accuracy | $\pm 0.5\%$ full scale (BFSL); optional $\pm 0.25\%$ full scale (BFSL); (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors) |
| Repeatability | $\leq \pm 0.05\%$ full scale |
| Hysteresis | $\leq \pm 0.1\%$ full scale |
| Stability | $\leq \pm 0.2\%$ full scale for 1 year, non-accumulating |
| Response time | ≤ 1 ms (between 10% and 90% full scale) |
| Power supply* | 10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire) |
| Load limitations | $\leq (V_{\text{power supply}} - 10) / 0.020$ Amp |
| Wetted materials | 316 stainless steel for vacuum through 300 psi; 17-4PH stainless steel sensing diaphragm and 316 stainless steel process connection for higher ranges |
| Housing material | 316 stainless steel |
| Adjustment | $\leq \pm 10\%$ full scale for zero and span |
| Pressure cycle limit | 150 Hz |
| Durability | $> 100,000,000$ full scale cycles |
| Temperature ranges | Compensated 32 °F to 176 °F (0 °C to 80 °C) Effect $\pm 0.017\%$ full scale/ °F for zero and span Ambient -40 °F to 185 °F (-40 °C to 85 °C) Media -22 °F to 212 °F (-30 °C to 100 °C) Storage -40 °F to 212 °F (-40 °C to 100 °C) |
| Environmental rating | IP65, NEMA 4X according to EN 60529/IEC 529 |
| Electromagnetic rating | CE compliant to EMC norm EN 61326:1997/A1:1998 RFI, EMI and ESD protection |
| Electrical protection | Reverse polarity, over-voltage and short circuit protection |
| Shock | 1000 g's per IEC 770 |
| Vibration | 30 g's per IEC 770 |
| Non-linearity | $\leq \pm 0.25\%$ BFSL; optional $\pm 0.125\%$ BFSL |
| Weight | Approximately 3.5 oz. |

* Unregulated power supplies

ORDERING INFORMATION

| SERIES | 100 | | | | | | | | | |
|------------------------|--------|-----------------------------------|-----------------------|--|--------------------------|---|-------|-----------------------|------|--------------------|
| PRESSURE RANGES | 30vac | -30 inHg to 0 psig | 5 | 0 psig to 5 psig | 200 | 0 psig to 200 psig | 3000 | 0 psig to 3,000 psig | 15A | 0 psia to 15 psia |
| | 30/15 | -30 inHg to 15 psig | 10 | 0 psig to 10 psig | 300 | 0 psig to 300 psig | 4000 | 0 psig to 4,000 psig | 30A | 0 psia to 30 psia |
| | 30/30 | -30 inHg to 30 psig | 15 | 0 psig to 15 psig | 500 | 0 psig to 500 psig | 5000 | 0 psig to 5,000 psig | 60A | 0 psia to 60 psia |
| | 30/45 | -30 inHg to 45 psig | 25 | 0 psig to 25 psig | 600 | 0 psig to 600 psig | 6000 | 0 psig to 6,000 psig | 100A | 0 psia to 100 psia |
| | 30/100 | -30 inHg to 100 psig | 30 | 0 psig to 30 psig | 750 | 0 psig to 750 psig | 7500 | 0 psig to 7,500 psig | 150A | 0 psia to 150 psia |
| | 30/150 | -30 inHg to 150 psig | 60 | 0 psig to 60 psig | 1000 | 0 psig to 1,000 psig | 10000 | 0 psig to 10,000 psig | 200A | 0 psia to 200 psia |
| | 30/200 | -30 inHg to 200 psig | 100 | 0 psig to 100 psig | 1500 | 0 psig to 1,500 psig | 15000 | 0 psig to 15,000 psig | 300A | 0 psia to 300 psia |
| | 30/300 | -30 inHg to 300 psig | 150 | 0 psig to 150 psig | 2000 | 0 psig to 2,000 psig | | | | |
| | | | psig = gauge pressure | | psia = absolute pressure | Other ranges available on special request | | | | |
| ACCURACIES | 1 | ±0.5% full scale (BFSL) | 2 | ±0.25% full scale (BFSL) | | | | | | |
| OUTPUT SIGNAL | 1 | 4 mA to 20 mA, 2-wire | | | | | | | | |
| PROCESS CONNECTIONS | 1 | 1/8" NPT Male | 3 | SAE J1926-3-7/16-20 Adjustable | 9 | SAE J1926-1:7/16-20 | | | | |
| | 2 | 1/4" NPT Male | 4 | 1/8" NPT Female | 10 | G1/4 Male | | | | |
| ELECTRICAL CONNECTIONS | 1 | 36" cable (connected to option 7) | 6 | 1/2" NPT conduit (with 36" cable) | 25 | M12 x 1 (4-pin) | | | | |
| | 2 | 4-pin Bendix | 7 | Mini-Hirschmann (DIN EN 175301-803 Form C) | 36 | Integral cable 36" | | | | |
| | 3 | 6-pin Bendix | | | | | | | | |
| OPTION | ORF | Threaded orifice | | | | | | | | |

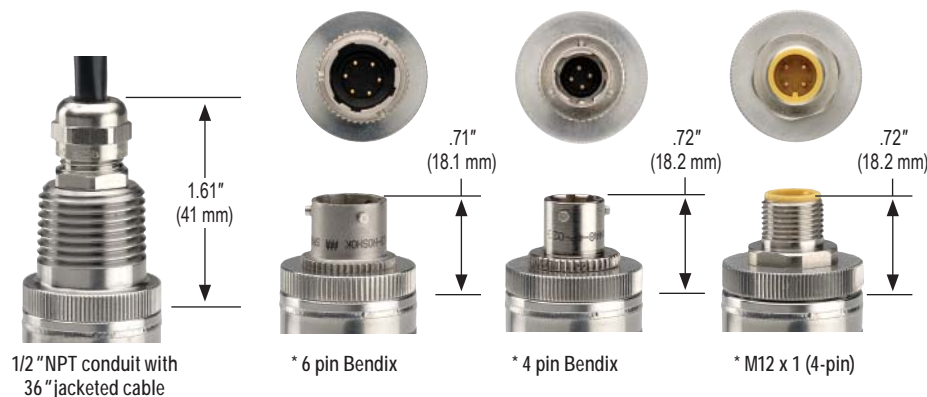
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

EXAMPLE

| | |
|-----------------------|--------------------|
| Series | 100 |
| Pressure range | 0 psig to 500 psig |
| Accuracy | ±0.50% full scale |
| Output signal | 4 mA to 20 mA |
| Process connection | 1/4" NPT Male |
| Electrical connection | Mini-Hirschmann |
| Option | Threaded orifice |

| Load Limitations 4 mA to 20 mA output | |
|--|---------------------------------------|
| Vmin | = 10V + (.020 x RL) |
| RL | = Loop resistance (Ω) RL = RS + RW |
| RS | = Sensor resistance (Ω) |
| RW | = Wire resistance (Ω) |

Outline Dimensions



| WIRING | | | | |
|----------|--------------------------|---------------------|-------|---------|
| Wire | Bendix 4-pin or 6-pin | Mini- Hirschmann | Cable | M12 x 1 |
| + Supply | pin A | pin 1 | Red | pin 1 |
| + Output | pin B | pin 2 | Black | pin 3 |

* Note: Mate supplied separately or customer supplied.