

SERIES **755/756**

## FEATURES

- Accuracy to  $\pm 0.05\%$  Full Scale (Best Fit Straight Line)
- Up to 20:1 span turn down
- Advanced diffused semiconductor and sputtered thin film sensor for maximum stability
- Built-in process temperature display
- Built-in selectable process digital filtering
- Welded 316 stainless steel pressure chamber
- 32 point process linearization
- Adjustable display for easy viewing
- 12 different measurement units
- CE compliant

## APPLICATIONS

- Hydraulic and pneumatic systems
- Pumps and compressors
- Test equipment and systems
- Industrial machinery and machine tools
- HVAC systems
- Power generation
- Water and wastewater
- Refrigeration equipment
- Laboratory and test equipment
- Chemical/Petrochemical
- Marine

## HIGH PERFORMANCE DIGITAL PRESSURE TRANSMITTERS

The NOSHOK Series 755 and 756 digital pressure transmitters combine the reliability and long life of diffused semiconductor and sputtered thin film strain gage sensors with digital electronics for outstanding performance and value. With up to 20:1 span turn down and -2.5 to 99% zero point adjustment there is maximum flexibility to meet the most unusual application requirements.

Additional features including 32 point process linearization, adjustable display orientation and integral process temperature measurement give the Series 755 and 756 an advantage over many other pressure transmitters.

The high contrast easily readable display provides the pressure value in digital bar graph representation, measurement tendency indication, maximum/minimum pressure, and temperature value. User programming includes menus to allow the setting of user language, engineering units, zero and span calibration points and digital filtering to dampen pressure fluctuations. All wetted parts are made of stainless steel, totally welded with no internal O-rings, gaskets or seals.

## SPECIFICATIONS

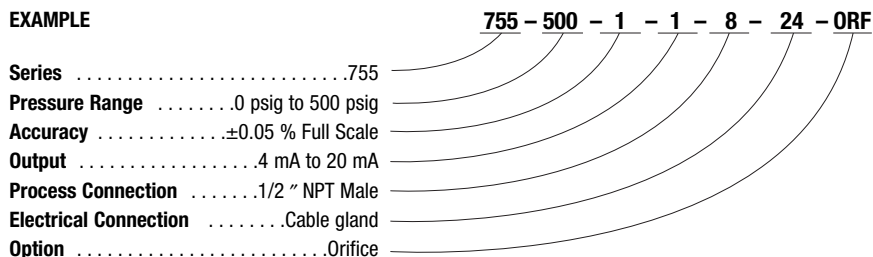
|                                     |                                                                                                                                                                                                                                                                                 |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Output</b>                       | 4 mA to 20 mA, 2 wire                                                                                                                                                                                                                                                           |
| <b>Accuracy</b>                     | $\pm 0.05\%$ Full Scale (Best Fit Straight Line), including the effects of linearity, hysteresis and repeatability; $\pm 0.15\%$ Full Scale for 0 psig to 15000 psig range                                                                                                      |
| <b>Total accuracy</b>               | $\pm 0.05\%$ Full Scale (BFSL) including the effects of linearity, hysteresis, repeatability and thermal effects from 50 °F to 104 °F; $\pm 0.15\%$ Full Scale for 0 psig to 15000 psig                                                                                         |
| <b>Hysteresis</b>                   | $\leq \pm 0.04\%$ Full Scale                                                                                                                                                                                                                                                    |
| <b>Repeatability</b>                | $\leq \pm 0.05\%$ Full Scale                                                                                                                                                                                                                                                    |
| <b>Stability</b>                    | $\leq \pm 0.1\%$ Full Scale for 1 year non-accumulating                                                                                                                                                                                                                         |
| <b>Pressure ranges</b>              | Standard ranges from vacuum through 15000 psig                                                                                                                                                                                                                                  |
| <b>Proof pressure</b>               | 5 times Full Scale for ranges 0 psi to 5 psi through 0 psi to 250 psi<br>2 times Full Scale for ranges 0 psi to 500 psi through 0 psi to 7500 psi<br>1.5 times Full Scale for 0 psi to 15000 psi range<br>*Proof pressure is based on Full Scale range prior to turndown        |
| <b>Burst pressure</b>               | 6 times Full Scale for ranges 0 psi to 5 psi through 0 psi to 250 psi<br>4 times Full Scale for ranges 0 psi to 500 psi through 0 psi to 7500 psi<br>3 times Full Scale for 0 psi to 15000 psi range<br>*Burst pressure is based on Full Scale range prior to turndown          |
| <b>Power supply</b>                 | 10 Vdc to 30 Vdc, unregulated                                                                                                                                                                                                                                                   |
| <b>Load limitations</b>             | $\leq (V_{Power} - 10)/0.020$ Amp                                                                                                                                                                                                                                               |
| <b>Zero adjustability</b>           | From -2.5 % Full Scale up to 99 % Full Scale                                                                                                                                                                                                                                    |
| <b>Span adjustability</b>           | 20:1 turndown for ranges up through 0 psig to 15000 psig                                                                                                                                                                                                                        |
| <b>Turn down effect on accuracy</b> | Turn down up to 5:1, no effect on accuracy<br>Turn down greater than 5:1, accuracy x turndown/5                                                                                                                                                                                 |
| <b>Response time</b>                | <10 milliseconds (between 10 % and 90 % Full Scale)                                                                                                                                                                                                                             |
| <b>Durability</b>                   | >100,000,000 Full Scale cycles                                                                                                                                                                                                                                                  |
| <b>Digital filtering</b>            | User selectable from 0 sec. to 40 sec. for display and output signal                                                                                                                                                                                                            |
| <b>Temperature ranges</b>           | Compensated -4 °F to 176 °F (-20 °C to 80 °C)<br>Zero effect is $\pm 0.01\%$ Full Scale/°F<br>Span effect is $\pm 0.01\%$ Full Scale/°F<br>Ambient -4 °F to 158 °F (-20 °C to 70 °C)<br>Media -22 °F to 221 °F (-30 °C to 105 °C)<br>Storage -31 °F to 176 °F (-35 °C to 80 °C) |
| <b>Wetted materials</b>             | Model 755 is 316 stainless steel (ranges up through 0 psig to 250 psig) 316 stainless steel with 17-4PH stainless steel diaphragm (ranges 0 psig to 500 psig and higher); Model 756 is 316 stainless steel with buna N O-ring; Hastelloy® C4 optional; Viton O-ring optional    |
| <b>Housing material</b>             | Fiberglass reinforced PBT (polybutene terephthalate)                                                                                                                                                                                                                            |
| <b>Environmental rating</b>         | IP65, NEMA 4X according to EN 60529/IEC529                                                                                                                                                                                                                                      |
| <b>Electromagnetic rating</b>       | CE compliant to EMC norm EN 61326:1997/A1:1998<br>RFI, EMI and ESD protection                                                                                                                                                                                                   |
| <b>Electrical rating</b>            | Reverse polarity, over-voltage and short circuit protection                                                                                                                                                                                                                     |
| <b>Shock</b>                        | 100 g's according to IEC770 for mechanical shock                                                                                                                                                                                                                                |
| <b>Vibration</b>                    | 5 g's according to IEC770 under resonance conditions                                                                                                                                                                                                                            |
| <b>Weight</b>                       | Approximately 24 oz.                                                                                                                                                                                                                                                            |

| ORDERING INFORMATION  |                                                                                                       |            |                          |              |                                                                                             |              |                    |             |
|-----------------------|-------------------------------------------------------------------------------------------------------|------------|--------------------------|--------------|---------------------------------------------------------------------------------------------|--------------|--------------------|-------------|
| SERIES 755            | Stainless steel threaded                                                                              |            | SERIES 756S              | 316 SS flush |                                                                                             | SERIES 756H  | Hastelloy C4 flush |             |
| PRESSURE RANGES       | 0 psig to 5 psig                                                                                      | <b>5</b>   | 0 psig to 250 psig       | <b>250</b>   | 0 psig to 3000 psig                                                                         | <b>3000</b>  | 0 psia to 5 psia   | <b>5A</b>   |
|                       | 0 psig to 25 psig                                                                                     | <b>25</b>  | 0 psig to 500 psig       | <b>500</b>   | 0 psig to 7500 psig                                                                         | <b>7500</b>  | 0 psia to 25 psia  | <b>25A</b>  |
|                       | 0 psig to 100 psig                                                                                    | <b>100</b> | 0 psig to 1500 psig      | <b>1500</b>  | 0 psig to 15000 psig                                                                        | <b>15000</b> | 0 psia to 100 psia | <b>100A</b> |
|                       | psig = Gauge Pressure                                                                                 |            | psia = Absolute Pressure |              |                                                                                             |              |                    |             |
| ACCURACY              | <b>1</b> ±0.05 % Full Scale (Best Fit Straight Line)                                                  |            |                          |              |                                                                                             |              |                    |             |
| OUTPUT                | <b>1</b> 4 mA to 20 mA, 2-wire                                                                        |            |                          |              |                                                                                             |              |                    |             |
| PROCESS CONNECTION    | <b>2</b> 1/4 " NPT male                                                                               |            |                          |              | <b>8</b> 1/2 " NPT male                                                                     |              |                    |             |
|                       | <b>11</b> G1/2B male flush (model 756 only)<br>(pressure ranges 0 psig to 100 psig and higher)        |            |                          |              | <b>13</b> G1B male flush (model 756 only)<br>(pressure ranges less than 0 psig to 100 psig) |              |                    |             |
| ELECTRICAL CONNECTION | <b>24</b> Cable gland M20x1.5 with internal terminal block, accepts cable diameter from .25 " to .5 " |            |                          |              |                                                                                             |              |                    |             |
| OPTION                | <b>ORF</b> Threaded orifice ( Model 755 Only)                                                         |            |                          |              |                                                                                             |              |                    |             |

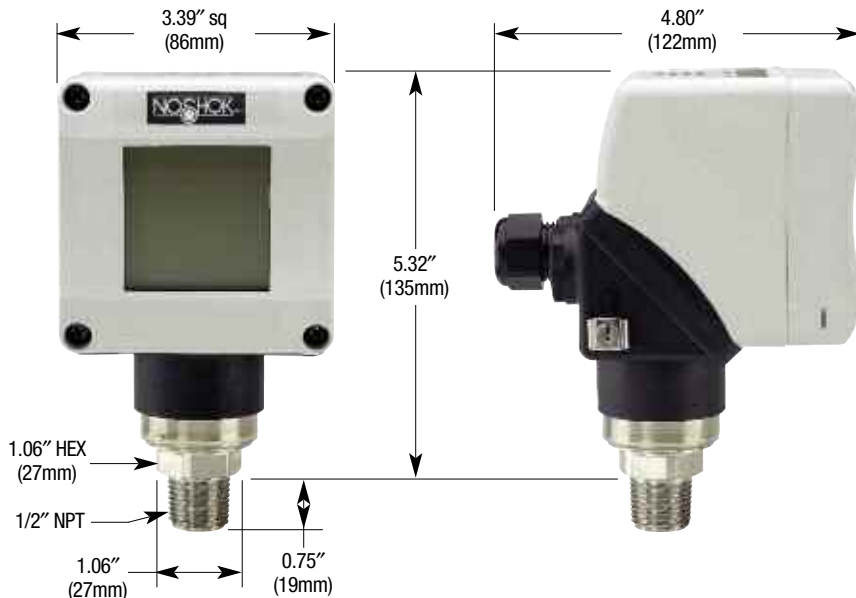
Specify actual calibration, otherwise transmitter will be set for full scale range

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

EXAMPLE



Outline Dimensions



Wiring Diagram

| Wiring       | Internal Junction Box |
|--------------|-----------------------|
| + Supply     | L+                    |
| + Output     | L-                    |
| Ground       | ⊖                     |
| Test Circuit | I                     |

See 621/622 Series for G1/2B and G1B  
Front Flush Process Connection Dimensions