PRESSURE

Current Output Pressure Transmitters

SERIES 100

HIGH PERFORMANCE CURRENT OUTPUT PRESSURE TRANSMITTERS

NOSHOK 100 Series Current Output Pressure Transmitters are designed to provide a previously unequalled level of performance, utilizing diffused semiconductor and sputtered thin film strain gage technology. 100 Series transmitters are highly repeatable, shock resistant and are extremely stable over long periods of time. CE compliance which includes substantial levels of RFI, EMI and ESD noise protection combined with reverse polarity and over-voltage protection hardens the product so it performs well in the most demanding applications.

Advanced manufacturing techniques combined with technologically advanced standard features allow NOSHOK to offer a level of performance previously found only on transducers costing hundreds of dollars more. Final calibration tests performed on all NOSHOK transmitters prior to shipment ensures 100% “out of the box” reliability

FEATURES

- Accuracy up to ±0.25 % Full Scale (Best Fit Straight Line)
- Welded stainless steel pressure chamber
- Advanced diffused semiconductor 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 noise interference
- 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 15000 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 10000 psi 1.5 times Full Scale for 0 to 15000 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 10000 psi 3 times Full Scale for 0 to 15000 psi range
Accuracy	±0.5 % Full Scale (Best Fit Straight Line); ±0.25 % optional (Includes the combined effects of linearity, hysteresis and repeatability)
Repeatability	≤ ±0.05 % Full Scale
Hysteresis	≤ ±0.1 % Full Scale
Stability	≤ ±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, unregulated
Load limitations	Load in resistance must be ≤ (Vpower supply –10)/.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	±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 ±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
Weight	Approximately 3.5 oz.

ORDERING INFORMATION

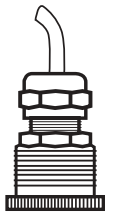
SERIES 100

PRESSURE RANGES	-30 inHg to 0 psig	**30V**	0 psig to 5 psig	**5**	0 psig to 200 psig	**200**	0 psig to 2000 psig	**2000**	0 psia to 15 psia	**15A**
	-30 inHg to 15 psig	**30/15**	0 psig to 10 psig	**10**	0 psig to 300 psig	**300**	0 psig to 3000 psig	**3000**	0 psia to 30 psia	**30A**
	-30 inHg to 30 psig	**30/30**	0 psig to 15 psig	**15**	0 psig to 500 psig	**500**	0 psig to 5000 psig	**5000**	0 psia to 60 psia	**60A**
	-30 inHg to 60 psig	**30/60**	0 psig to 30 psig	**30**	0 psig to 600 psig	**600**	0 psig to 6000 psig	**6000**	0 psia to 100 psia	**100A**
	-30 inHg to 100 psig	**30/100**	0 psig to 60 psig	**60**	0 psig to 750 psig	**750**	0 psig to 7500 psig	**7500**	0 psia to 150 psia	**150A**
	-30 inHg to 150 psig	**30/150**	0 psig to 100 psig	**100**	0 psig to 1000 psig	**1000**	0 psig to 10000 psig	**10000**	0 psia to 200 psia	**200A**
	-30 inHg to 200 psig	**30/200**	0 psig to 150 psig	**150**	0 psig to 1500 psig	**1500**	0 psig to 15000 psig	**15000**	0 psia to 300 psia	**300A**
	-30 inHg to 300 psig	**30/300**	psig = gauge pressure		psia = absolute pressure		Other ranges available on special request ranges			
ACCURACY	**1** ±0.5 % Full Scale (Best Fit Straight Line)				**2** ±0.25 % Full Scale (Best Fit Straight Line)					
OUTPUT	**1** 4 mA to 20 mA									
PROCESS CONNECTION	**1** 1/8 ″ NPT male		**2** 1/4 ″ NPT male		**3** 7/16 ″ -20 UNF #4 SAE J-514 male					
ELECTRICAL CONNECTION	**1** 36 ″ cable (connected to option 7)		**2** 4-pin bendix		**3** 6-pin bendix		**6** 1/2 ″ NPT conduit (with 36″ cable)			
	7 Mini-Hirschmann (DIN 43650C with mate)				**25** M12 x 1 4-pin					
OPTIONS	**ORF** Threaded orifice (.3mm)									

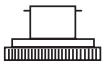
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

EXAMPLE **100 500 1 1 2 7 ORF**

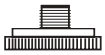
Series	100
Pressure Range	0 psig to 500 psig
Accuracy	±0.50 % Full Scale
Output Signal	4 mA to 20 mA
Process Connection	1/4 ″ NPT male
Electrical Connection	Mini-Hirschmann
Option	Orifice



1/2 ″ NPT Conduit with 36 ″ jacketed cable



4 and 6 pin Bendix (mate supplied separately or customer supplied)



M12 x 1 (mate supplied separately or customer supplied)

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

Outline Dimensions