# **Voltage Output Pressure Transducers**





### **FEATURES**

- Accuracy up to ±0.25 % Full Scale (Best Fit Straight Line)
- 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

# SERIES 200

### HIGH PERFORMANCE VOLTAGE OUTPUT PRESSURE TRANSDUCERS

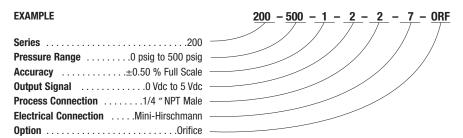
NOSHOK 200 Series Voltage Output Pressure Transducers are designed to provide a previously unequalled level of performance, utilizing diffused semiconductor and sputtered thin film strain gage technology. 200 Series transducers are highly repeatable, shock resistant and are extremely stable over long 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

	SPECIFICATIONS					
Output signals	0 Vdc to 5 Vdc, 3-wire; 0 Vdc to 10 Vdc, 3-wire; 1 Vdc to 5 Vdc, 3-wire;					
output signais	1 Vdc to 6 Vdc, 3-wire; 1 Vdc to 11 Vdc, 3-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 psi 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 psi 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	$\leq \pm 0.2$ % Full Scale per year, non-accumulating					
Response time	≤ 1 ms (between 10 % and 90 % Full Scale)					
Power supply	10 Vdc to 30 Vdc, 14 Vdc to 30 Vdc for 1 Vdc to 11 Vdc and 0 Vdc to 10 Vdc unregulated					
Load limitations	≥ 5000 for 0 Vdc to 5 Vdc, 1 Vdc to 5 Vdc, and 1 Vdc to 6 Vdc outputs; ≥10000 for 0 Vdc to 10 Vdc and 1 Vdc to 11 Vdc outputs. Current consumption 8 mA					
Wetted materials	316 stainless steel for vacuum through 300 psi; 17-4PH stainless steel sensing diaphragm and 316 stainless steel pressure 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 EN61326: 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 200													
PRESSURE RANGES	-30 inHg to -30 inHg to -30 inHg to -30 inHg to -30 inHg to -30 inHg to psig = Gauge	15 psig 30 psig 60 psig 100 ps 150 ps 200 ps	30/30 30/60 ig 30/100 ig 30/150 ig 30/200	-30 inHg to 0 psig to 5 0 psig to 1 0 psig to 1 0 psig to 3 0 psig to 6 0 psig to 1 lute Pressure	psig 0 psig 5 psig 0 psig 0 psig 00 psig	30/300 5 10 15 30 60 100 ggs available o	O psig to 150 ps O psig to 200 ps O psig to 300 ps O psig to 500 ps O psig to 600 ps O psig to 750 ps O psig to 1000 p	g 200 ig 300 ig 500 ig 600 ig 750	O psig to	0 1500 psig 0 2000 psig 0 3000 psig 0 5000 psig 0 6000 psig 0 7500 psig 0 10000 psig 0 15000 psig	1500 2000 3000 5000 6000 7500 10000 15000	O psia to 15 psia O psia to 30 psia O psia to 60 psia O psia to 60 psia O psia to 100 psia O psia to 150 psia O psia to 200 psia O psia to 300 psia	15A 30A 60A 100A 150A 200A 300A
ACCURACY		1 ±0	0.5 % Full Scale	e (Best Fit Stra	aight Line)		2 ±0.25 % Full S	Scale (Best F	it Straight Line	e)			
OUTPUT SIGNALS         2         0 Vdc to 5 Vdc, 3-wire         3         1 Vdc to 5 Vdc, 3-wire         4         1 Vdc to 6 Vdc, 3-wire         5         0 Vdc to 10 Vdc, 3-wire         6         1 Vdc to 11 Vdc, 3-wire													
PROCESS CONNEC	CTIONS		8 ″ NPT male 16 ″ -20 UNF #		/4 ″ NPT m female		3 7/16 " -20 UNF 10 1/4 " BSP male		514 male		4 1	1/8 " NPT female	
ELECTRICAL CONI	NECTIONS	6 1/	6 " cable (conno 2 " NPT condui D <b>TE:</b> 0 Vdc to 5	t ( with 36 " c	able)	c outputs are	2 4-pin bendix 7 Mini-Hirschma e also available in 4	,		Form C)	<b>25</b> 1	ntegral cable 36″ √112 x 1 4-pin stems.	
OPTIONS		(	<b>DRF</b> Threaded	Orifice									

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





### WIRING

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

\*Note: mate supplied separately or customer supplied



Mini-Hirschmann