

Intrinsically Safe Pressure Transmitters



SERIES 625/626

HAZARDOUS ENVIRONMENT APPROVED PRESSURE TRANSMITTERS

The NOSHOK Series 625 and 626 pressure transmitters combine the reliability and long life of diffused semiconductor and sputtered thin film strain gage sensors with safe electronics for outstanding performance and value. These transmitters were designed for applications that require pressure measurement in hazardous environments. All wetted parts are made of stainless steel (Hastelloy® C4 optional on front flush model), welded with no internal O-rings, gaskets or seals.

These transmitters are available with a wide variety of pressure connections, ranges and electrical connections to suit most applications. All units undergo extensive testing during the manufacturing process to ensure that the highest performance is achieved in the demanding environments found in today's applications. The transmitters are available with standard threaded connections as well as flush diaphragm configurations and are Factory Mutual and Canadian Standards Association approved. All models incorporate significant levels of RFI, EMI and ESD protection.

FEATURES

- Accuracy to $\pm 0.125\%$ Full Scale (Best Fit Straight Line)
- Advanced diffused semiconductor and sputtered thin film sensor for maximum stability
- Welded 316 stainless steel, optional Hastelloy C4 on flush diaphragm model
- 1/2" NPT conduit connection
- Entity approved for use with all approved zener barriers where required

APPLICATIONS

- Hydraulic and pneumatic systems
- Pumps and compressors
- Test equipment and systems
- HVAC systems
- Power generation
- Water and wastewater
- Refrigeration equipment
- Laboratory and test equipment
- Chemical/Petrochemical
- Marine
- Pipeline gas compressors
- Oil field
- Offshore

SPECIFICATIONS

Output signal	4 mA to 20 mA, 2-wire
Accuracy	$\pm 0.25\%$ Full Scale (Best Fit Straight Line), including the effects of linearity, hysteresis and repeatability $\pm 0.125\%$ Full Scale accuracy optional
Hysteresis	$\leq \pm 0.1\%$ Full Scale
Repeatability	$\leq \pm 0.05\%$ Full Scale
Stability	$\leq \pm 0.2\%$ Full Scale for 1 year, non-accumulating
Pressure ranges	Standard ranges from vacuum to 60000 psi
Proof pressure	3.5 times Full Scale for ranges 0 psi to 5 psi through 0 psi to 200 psi 2 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 1.2 times Full Scale for ranges 0 psi to 25000 psi and 0 psi to 60000 psi
Burst pressure	3.5 times Full Scale for ranges 0 psi to 5 psi through 0 psi to 200 psi 2 times Full Scale for ranges 0 psi to 300 psi through 0 psi to 10000 psi 2 times Full Scale for 0 psi to 15000 psi range 2 times Full Scale for ranges 0 psi to 25000 psi and 0 psi to 60000 psi
Power supply	10 Vdc to 30 Vdc unregulated, 11 Vdc to 30 Vdc with integral junction box connector Minimum voltage across transmitter connections is 10 Vdc (11 Vdc with integral junction box electrical connection)
Load limitations	$\leq (V_{Power} - 10) / 0.020$ Amp
Response time	≤ 1 ms (between 10% and 90% Full Scale)
Durability	> 100,000,000 Full Scale cycles
Adjustment	$\pm 10\%$ Full Scale for zero and span
Temperature ranges	Compensated 32 °F to 176 °F (0 °C to 80 °C) Zero effect is $\pm 0.011\%$ Full Scale/°F Span effect is $\pm 0.011\%$ Full Scale/°F Ambient -22 °F to 212 °F (-30 °C to 100 °C); -58 °F to 220 °F optional Media -25 °F to 212 °F (-32 °C to 100 °C); -58 °F to 220 °F optional Storage -40 °F to 212 °F (-40 °C to 100 °C)
Wetted materials	Model 625 is 316 stainless steel for ranges up through 0 psi to 300 psi, 316 stainless steel with 17-4PH stainless steel diaphragm for ranges 0 psi to 300 psi and higher; Model 626 is 316 stainless steel with BUNA N O-ring; Hastelloy® C4 optional; Viton® O-ring optional
Housing material	316 stainless steel
Environmental rating	IP65 to IP68 depending upon electrical connection
Electromagnetic rating	Meets EMC norm EN61326: 1997/A1 1998 RFI, EMI and ESD protected
Electrical rating	Reverse polarity, over-voltage and short circuit protected
Shock	1000 g's according to IEC770 for mechanical shock
Vibration	20 g's according to IEC770 under resonance conditions
Hazardous approvals	Factory Mutual and Canadian Standards Association approved as indicated
Weight	Approximately 7 oz.

NOSHOK Model 625 and 626 transmitters are approved for use in hazardous location applications as follows:

Intrinsically Safe, entity approval for Class I, II and III, Division 1, Groups A, B, C, D, E, F and G; and Class I, Zone 0 Aex ia IIC Dust Ignition-proof for Class II and III, Division 1, Groups E, F and G

Non incensive for Class I, Division 2, Groups A, B, C and D FMRC 3600, 3610, 3611, 3810 (including supplement #1), ISA-S12.0. 01, IEC 60529 (including amendment #1)

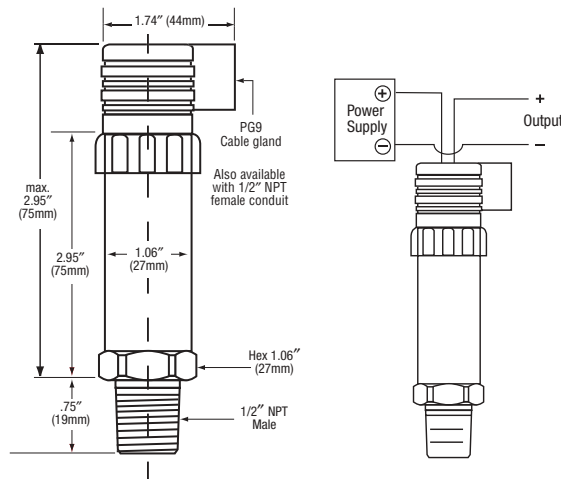
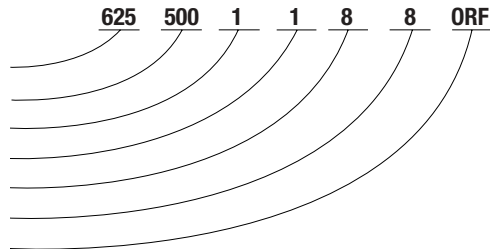
ORDERING INFORMATION

SERIES 625	Stainless steel threaded connection	Series 626S	316 stainless steel flush diaphragm	Series 626H	Hastelloy flush diaphragm					
PRESSURE RANGES	0 inH ₂ O to 50 inH ₂ O	50 IN	-30 inHg to 200 psig	30/200	0 psig to 150 psig	150	0 psig to 3000 psig	3000	0 psig to 40000 psig	40000
	0 inH ₂ O to 100 inH ₂ O	100 IN	0 psig to 5 psig	5	0 psig to 200 psig	200	0 psig to 5000 psig	5000	0 psia to 15 psia	15A
	-30 inHg to 0 psig	30V	0 psig to 15 psig	15	0 psig to 300 psig	300	0 psig to 8000 psig	8000	0 psia to 25 psia	25A
	-30 inHg to 30 psig	30/30	0 psig to 30 psig	30	0 psig to 750 psig	750	0 psig to 10000 psig	10000	0 psia to 30 psia	30A
	-30 inHg to 60 psig	30/60	0 psig to 50 psig	50	0 psig to 1000 psig	1000	0 psig to 15000 psig	15000	0 psia to 50 psia	50A
	-30 inHg to 100 psig	30/100	0 psig to 100 psig	100	0 psig to 1500 psig	1500	0 psig to 25000 psig	25000	0 psia to 100 psia	100A
-30 inHg to 150 psig	30/150			0 psig to 2000 psig	2000	0 psig to 60000 psig	60000	0 psia to 250 psia	250A	
	psig = Gauge Pressure		psia = Absolute Pressure	Other ranges available on special request						
NOTE: Series 626 is available for pressure ranges up to 0 psig to 8000 psig										
ACCURACY	1 ±0.25 % Full Scale (Best Fit Straight Line)				2 ±0.125 % Full Scale (Best Fit Straight Line)					
OUTPUT SIGNALS	1 4 mA to 20 mA, 2-wire									
PROCESS CONNECTIONS	2 1/4 " NPT male			3 7/16 "-20 UNF SAE #4 male			8 1/2 " NPT male			
	11 G1/2B male flush (model 626 only) (pressure ranges 0 psig to 30 psig and higher)			13 G1B male flush (model 626 only) (pressure ranges less than 0 psig to 30 psig)						
ELECTRICAL CONNECTIONS	1 36 " cable (connected to option 8)					23 Integral junction box PG11 cable gland - IP67				
	3 6-pin bendix style connector - IP65					25 M12x1 4-pin connector IP67				
	8 Hirschmann connector PG9 cable gland - IP65					29 Integral junction box 1/2 " NPT conduit -IP67				
	14 Hirschmann connector 1/2 " NPT conduit - IP65					36 Integral cable (vented) with free leads - IP67				
OPTIONS	ORF Threaded Orifice (model 625 only) (.3 mm)									

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

EXAMPLE

Series 625
Pressure Range 0 psig to 500 psig
Accuracy ± 0.25 % Full Scale
Output Signal 4 mA to 20 mA
Process Connection 1/2 " NPT Male
Electrical Connection Hirschmann
Option Threaded Orifice

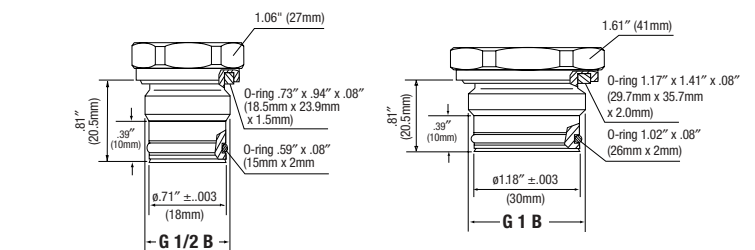


	Hirschmann	Cable	M12	Bendix	Internal Junction Box
+ Supply	1	Red/Brown	1	A	1
+ Output	2	Black/Green	3	B	2

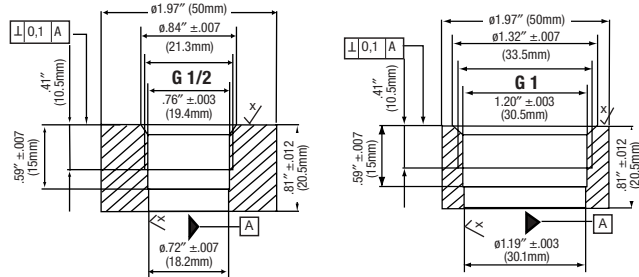
626 front flush process connections

For ranges 0 psig to 30 psig and higher

For ranges less than 0 psig to 30 psig



626 flush corresponding port weld-on adapters



For ranges 0 psig to 30 psig and higher

For ranges less than 0 psig to 30 psig