Intrinsically Safe Pressure Transmitters

FM APPROVED C US CE

SERIES 625/626

HAZARDOUS LOCATION 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 ±0.125 % Full Scale (Best Fit Straight Line)
- Advanced diffused semi-conductor 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
- ANSI/ISA-12.27.01-2003 Approved single seal

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

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 incendive 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)

SPECIFICATIONS

Output signal	4 mA to 20 mA, 2-wire
Accuracy	±0.25 % Full Scale (Best Fit Straight Line), including the effects of linearity, hysteresis and repeatability ±0.125 % Full Scale accuracy optional
Hysteresis	≤ ±0.1 % Full Scale
Repeatability	≤ ±0.05 % Full Scale
Stability	≤ ±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	4 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 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 Minimum voltage across transmitter connections is 10 Vdc
Load limitations	≤ (VPower–10)/0.020 Amp
Response time	≤ 1 ms (between 10 % and 90 % Full Scale)
Durability	> 100,000,000 Full Scale cycles
Adjustment	± 10 % Full Scale for zero and span
Temperature ranges	Compensated 32 °F to 176 °F (0 °C to 80 °C) Zero effect is ±0.011 % Full Scale/°F Span effect is ±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 IP67 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 ANSI/ISA-12.27.01-2003, Approved single seal
Weight	Approximately 7 oz.

ORDERING INFORMATION

SERIES 625 Stainless steel threaded connection **Series 626S** 316 stainless steel flush diaphragm **Series 626H** Hastelloy flush diaphragm

PRESSURE RANGES

0 inH_2O to 50 inH_2O	**50 IN**	0 psig to 2 psig	**2**	0 psig to 200 psig	**200**	0 psig to 5000 psig	**5000**	0 psia to 15 psia	**15A**
0 inH_2O to 100 inH_2O	**100 IN**	0 psig to 3 psig	**3**	0 psig to 300 psig	**300**	0 psig to 8000 psig	**8000**	0 psia to 30 psia	**30A**
-30 inHg to 0 psig	**30V**	0 psig to 5 psig	**5**	0 psig to 500 psig	**500**	0 psig to 10000 psig	**10000**	0 psia to 60 psia	**60A**
-30 inHg to 30 psig	**30/30**	0 psig to 15 psig	**15**	0 psig to 750 psig	**750**	0 psig to 15000 psig	**15000**	0 psia to 100 psia	**100A**
-30 inHg to 60 psig	**30/60**	0 psig to 30 psig	**30**	0 psig to 1000 psig	**1000**	0 psig to 25000 psig	**25000**	0 psia to 150 psia	**150A**
-30 inHg to 100 psig	**30/100**	0 psig to 50 psig	**50**	0 psig to 1500 psig	**1500**	0 psig to 40000 psig	**40000**	0 psia to 200 psia	**200A**
-30 inHg to 150 psig	**30/150**	0 psig to 100 psig	**100**	0 psig to 2000 psig	**2000**	0 psig to 60000 psig	**60000**	0 psito 300 psia	**300A**
-30 inHg to 200 psig	**30/200**	0 psig to 150 psig	**150**	0 psig to 3000 psig	**3000**				

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)
3 6-pin bendix - IP65
8 Hirschmann (DIN EN 175301-803 Form A)
14 Hirschmann connector 1/2 ″ NPT conduit - IP65
25 M12x1 4-pin IP67
36 Integral cable 36″ - IP67

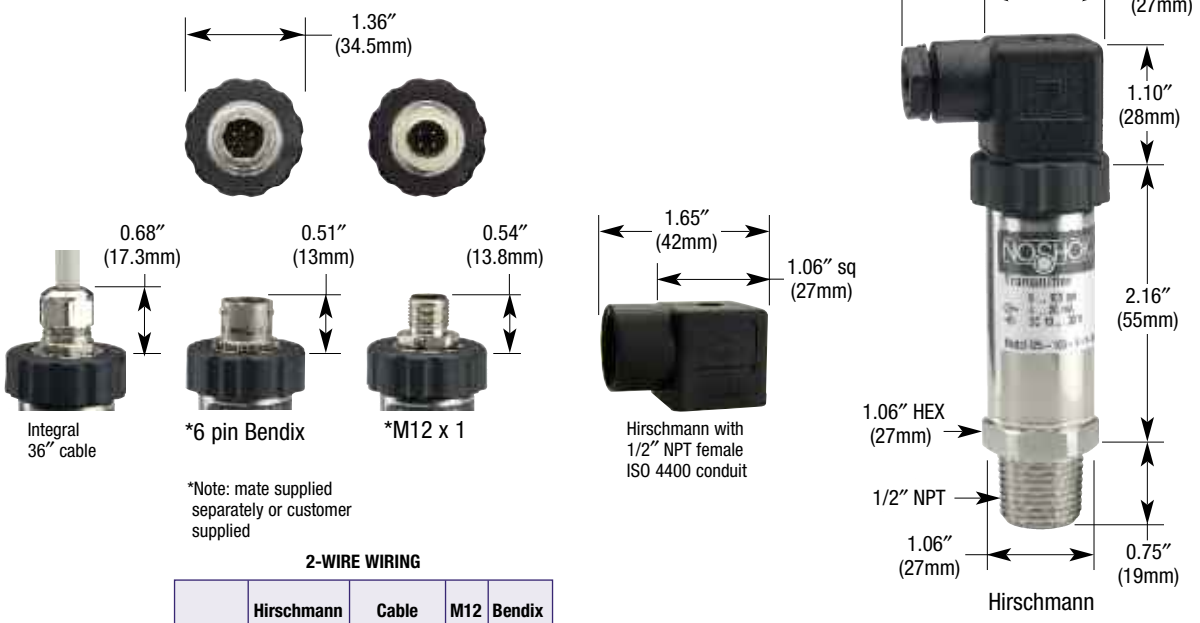
OPTIONS
ORF Threaded Orifice (model 625 only)

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

EXAMPLE **625 – 500 – 1 – 1 – 8 – 8 – ORF**

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

Outline Dimensions



*Note: mate supplied separately or customer supplied

2-WIRE WIRING

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

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