

Explosion-Proof Pressure Transmitters



SERIES 621/622

HAZARDOUS ENVIRONMENT APPROVED PRESSURE TRANSMITTERS

The NOSHOK Series 621 and 622 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 and Elgiloy welded with no internal O-rings, gaskets or seals.

These transmitters are available with a wide variety of pressure ranges 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 a standard threaded connection as well as a flush diaphragm configuration and are Factory Mutual approved. All models incorporate significant levels of RFI, EMI and ESD protection.

FEATURES

- Accuracy to $\pm 0.25\%$ Full Scale (Best Fit Straight Line)
- Advanced diffused semiconductor and sputtered thin film sensor for maximum stability
- Welded 316 stainless steel, and Elgiloy
- 1/2" NPT conduit connection
- NACE MR-01-75 compliant
- Low power voltage outputs available

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

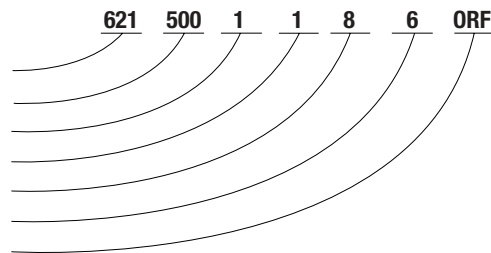
Output signals	4 mA to 20 mA, 2-wire; 1 Vdc to 5 Vdc, 3-wire; .5 Vdc to 4.5 Vdc, 3-wire
Accuracy	$\pm 0.25\%$ Full Scale (Best Fit Straight Line), including the effects of linearity, hysteresis and repeatability
Hysteresis	$\leq \pm 0.1\%$ Full Scale
Repeatability	$\leq \pm 0.05\%$ Full Scale
Stability	$\leq \pm 0.2\%$ Full Scale for 1 year, non-accumulating
Pressure ranges	Standard ranges from vacuum to 15000 psi
Proof pressure	3 times Full Scale for ranges 0 psi to 15 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 15 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
Power supply	10 Vdc to 30 Vdc unregulated, for 4 mA to 20 mA output, 6 Vdc to 30 Vdc for 1 Vdc to 5 Vdc low power and .5 Vdc to 4.5 Vdc low power (≤ 2 mA for Power Supply ≤ 12 Vdc) output
Load limitations	$\leq (V_{Power} - 10)/0.020$ Amp for 4 mA to 20 mA $\geq 10,000\Omega$ for 1 Vdc to 5 Vdc, 3-wire
Zero/Span offset	$\leq 0.5\%$ Full Scale
Response time	≤ 1 ms (between 10 % and 90 % Full Scale)
Durability	$>100,000,000$ Full Scale cycles
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 621 is 316 stainless steel for ranges up through 0 psi to 300 psi, 316 stainless steel with Elgiloy ranges 0 psig to 500 psig and higher; Model 622 is 316 stainless steel with BUNA N O-ring; (Viton® O-ring optional)
Housing material	316 stainless steel
Environmental rating	NEMA 4x (IP67)
Electromagnetic rating	RFI, EMI and ESD protection
Electrical rating	Reverse polarity, over-voltage and short circuit protected
Shock	1000 g's according to IEC 770 for mechanical shock
Vibration	20 g's according to IEC 770 under resonance conditions
Hazardous approvals	Factory Mutual approved Explosion-proof with entity approve for: Class I, Division 1, Groups A, B, C and D Dust Ignition-proof with entity approval for class II/III, Division 2, Groups E, F and G Maximum electrical ratings 30V, 20 mA
Weight	Approximately 7 oz.

ORDERING INFORMATION						
Series 621	Stainless steel threaded connection	Series 622S	316 stainless steel flush diaphragm	Series 622H	Hastalloy C flush diaphragm	
PRESSURE RANGES	-30 inHg to 0 psig	30V	0 psig to 30 psig	30	0 psig to 500 psig	500
	-30 inHg to 30 psig	30/30	0 psig to 60 psig	60	0 psig to 1000 psig	1000
	-30 inHg to 60 psig	30/60	0 psig to 100 psig	100	0 psig to 1500 psig	1500
	-30 inHg to 100 psig	30/100	0 psig to 200 psig	200	0 psig to 2000 psig	2000
	0 psig to 15 psig	15	0 psig to 300 psig	300	0 psig to 3000 psig	3000
psig = Gauge Pressure		psia = Absolute Pressure		Other ranges available on special request		
NOTE: Series 622 is available for pressure ranges up to 0 psig to 8000 psig						
ACCURACY	1 ±0.25 % Full Scale (Best Fit Straight Line)					
OUTPUT SIGNALS	1 4 mA to 20 mA, 2-wire		3 1 Vdc to 5 Vdc, 3-wire, Low Power		31 .5 Vdc to 4.5 Vdc 3-wire, Low Power	
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 622 only) (pressure ranges 0 psi to 30 psi and higher)				13 G1B male flush (model 622 only) (pressure ranges less than 0 psi to 30 psi)	
ELECTRICAL CONNECTIONS	6 1/2" NPT male conduit with 6 foot integral cable.			37 1/2" NPT male conduit with 6 foot flying leads		
OPTIONS	ORF Threaded Orifice (model 621 only)					

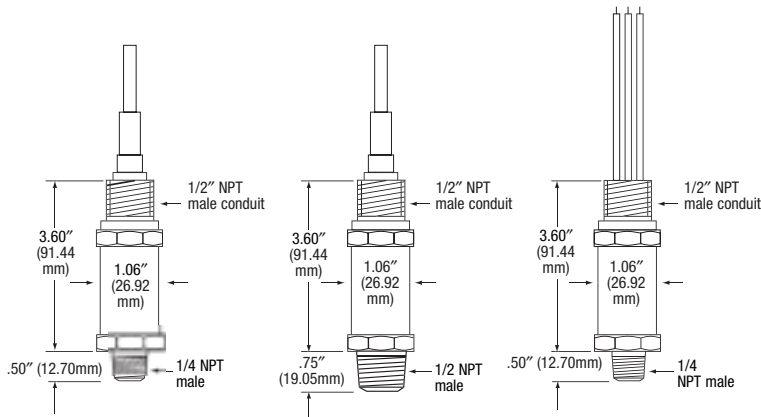
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

EXAMPLE

Series 621
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 Integral cable
Option Threaded orifice

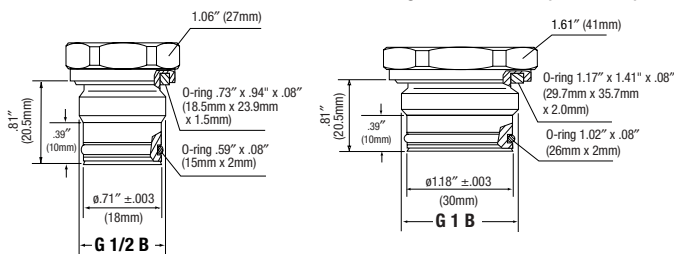


Outline Dimensions



Model 622 front flush process connections

For ranges 0 psi to 30 psi and higher For ranges less than 0 psi to 30 psi



Model 622 flush corresponding port weld-on adapters

For ranges 0 psi to 30 psi and higher For ranges less than 0 psi to 30 psi

