



623/624 SERIES

- Designed for applications that require pressure measurement in hazardous locations
- Accuracy to $\pm 0.25\%$ full scale (BFSL)
- Wide variety of pressure ranges available
- Advanced diffused semi-conductor and sputtered thin film sensor for maximum stability
- Available with a standard threaded connection as well as a flush diaphragm configuration
- Welded 316 stainless steel with no internal o-rings, gaskets or seals – optional Hastelloy C4 on flush diaphragm model
- 1/2" NPT conduit connection
- Zener barriers are not required to meet non-incendive approval
- CE compliant to suppress RFI, EMI, and ESD
- NACE MR0175/ISO 15156 compliant
- ANSI/ISA-12.27.01-2003 approved single seal
- Factory Mutual & Canadian Standards Association approved

SPECIFICATIONS

Output signals	4 mA to 20 mA, 2-wire; 1 Vdc to 5 Vdc low power, 3-wire; .5 Vdc to 4.5 Vdc low power, 3-wire
Accuracy	$\pm 0.25\%$ full scale (BFSL) (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
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 15,000 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 10,000 psi 1.5 times full scale for 0 psi to 15,000 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 10,000 psi 3 times full scale for 0 psi to 15,000 psi range
Power supply*	10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire) 6 Vdc to 30 Vdc (1 Vdc to 5 Vdc, 3-wire) 6 Vdc to 30 Vdc (0.5 Vdc to 4.5 Vdc, 3-wire) 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire)
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
Power consumption	20 mA maximum for 4 mA to 20 mA output and 2 mA for 1 Vdc to 5 Vdc and 0.5 Vdc to 4.5 Vdc outputs with power supply ≤ 12 Vdc
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 within compensated range Span effect is $\pm 0.011\%$ full scale/ °F within compensated range Ambient -22 °F to 212 °F (-30 °C to 100 °C) Media -25 °F to 212 °F (-32 °C to 100 °C) Storage -40 °F to 212 °F (-40 °C to 100 °C)
Wetted materials	Model 623 is 316 stainless steel for ranges up through 0 psi to 300 psi, 316 stainless steel and Elgiloy for ranges 0 psig to 500 psig and higher; Model 624 is 316 stainless steel with NBR o-ring; FKM o-ring optional
Housing material	316 stainless steel
Environmental rating	NEMA 4x, IP65 to IP67 dependent upon electrical connection
Electromagnetic rating	RFI, EMI and ESD protection
Electrical protection	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 and Canadian Standards Association approved Non-Incendive for: Class I, Division 2, Groups A, B, C and D.I.P.; Class II, Division 1, Groups E, F and G Maximum ratings 30 Vdc, 20 mA ANSI/ISA-12.27.01-2003, Approved single seal
Weight	Approximately 12 oz.

* Unregulated power supplies

FEATURES

- Accuracy to $\pm 0.25\%$ full scale (BFSL)
- 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
- Low power voltage outputs available
- NACE MR0175/ISO 15156 compliant
- ANSI/ISA-12.27.01-2003 Approved single seal
- Zener barriers are not required to meet non-incendive approval

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

ORDERING INFORMATION

SERIES	623 Stainless steel threaded connection	624* 316 Stainless steel flush diaphragm
PRESSURE RANGES	30vac -30 inHg to 0 psig	500 0 psig to 500 psig
	30/30 -30 inHg to 30 psig	1000 0 psig to 1,000 psig
	30/60 -30 inHg to 60 psig	1500 0 psig to 1,500 psig
	30/100 -30 inHg to 100 psig	2000 0 psig to 2,000 psig
	15 0 psig to 15 psig	3000 0 psig to 3,000 psig
		5000 0 psig to 5,000 psig
		6000 0 psig to 6,000 psig
		8000 0 psig to 8,000 psig
		10000 0 psig to 10,000 psig
		15000 0 psig to 15,000 psig
		15A 0 psia to 15 psia
		100A 0 psia to 100 psia
psig = gauge pressure psia = absolute pressure Other ranges available on special request		
NOTE: Series 624 is available for pressure ranges up to 0 psig to 8000 psig		
ACCURACY	1 ±0.25% full scale (BFSL)	
OUTPUT SIGNALS	1 4 mA to 20 mA, 2-wire	31 1 Vdc to 5 Vdc, 3-wire, low power
PROCESS CONNECTIONS	2 1/4" NPT Male	11 G1/2B Male flush (model 624 only) (pressure ranges 0 psi to 30 psi and higher)
	8 1/2" NPT Male	13 G1B Male flush (model 624 only) (pressure ranges less than 0 psi to 30 psi)
ELECTRICAL CONNECTION	6 1/2" NPT Male conduit with 6' integral cable	
OPTION	ORF Threaded orifice (Model 623 only)	

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

*Hastelloy flush diaphragm available upon request.

EXAMPLE

Series 623
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

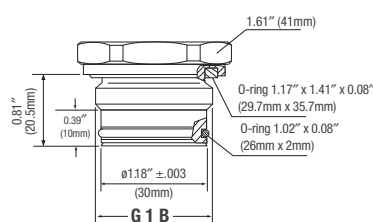
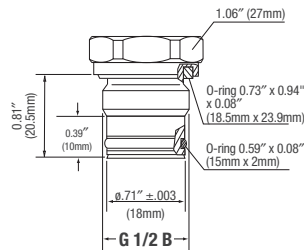
623 - 500 - 1 - 1 - 8 - 6 - ORF

Outline Dimensions

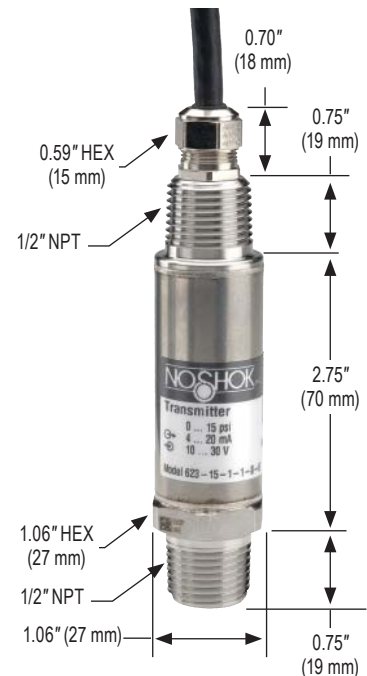
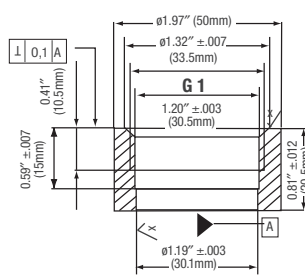
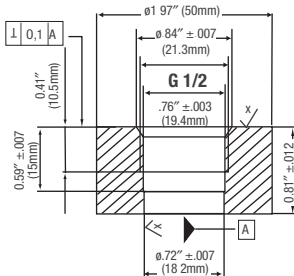
Front flush process connections

For ranges 0 psi to 30 psi and higher

For ranges less than 0 psi to 30 psi



Flush corresponding port weld-on adapters



2-WIRE WIRING

+ Supply	Brown
+ Output	Green

3-WIRE WIRING

+ Supply	Brown
Common	Green
+ Output	White