ATEX-Approved Explosion-Proof Pressure Transmitters

APPROVED

SERIES 619/620

ATEX-APPROVED HAZARDOUS LOCATION PRESSURE TRANSMITTERS

NOSHOK Series 619 and 620 heavy-duty pressure transmitters feature a pressure-tight encapsulated design and are ATEX II 2 G Ex d II C approved. Available in a wide variety of pressure ranges, they are ideal for use in volatile environments such as oil & gas, petrochemical and borehole applications.

These transmitters feature corrosion-resistant stainless steel construction, and a welded pressure connection and measuring cell for exceptional shock and vibration resistance. Their standard output signal is 4-20 mA, 2-wire, however other options are available with voltage outputs in a 3-wire system. The 619 Series transmitter features a ½" NPT standard connection, while the front flush 620 Series version eliminates extra space in which the measuring medium can crystallize or form residue.

NOSHOK 619 and 620 Series transmitters also provide significant levels of RFI, EMI and ESD protection.

FEATURES

- ATEX approved II 2G Ex d II C
- For dynamic and static measurements
- High accuracy and long term stability
- Excellent overload protection
- Wide variety of pressure ranges
- Corrosion-resistant stainless steel design
- Excellent repeatability

APPLICATIONS

- Gas pressure measurement
- Oil drilling platforms/ pipelines
- Refineries/Petrochemical industry
- Borehole monitoring

SPECIFICATIONS

Output signals	4 mA to 20 mA, 2-wire; 1 Vdc to 5 Vdc, 3-wire; 0 Vdc to 10 Vdc, 3-wire; 0.5 Vdc to 4.5 Vdc low power, 3-wire
Accuracy	±0.25% Full Scale (BFSL); (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
Hysteresis	≤±0.1% Full Scale
Repeatability	≤±0.05% Full Scale
Stability	≤±0.2% Full Scale for 1 year, non-accumulating
Pressure ranges	Standard gauge ranges from vacuum to 15000 psig Standard absolute ranges from 15 psia to 200 psia
Proof pressure	3.5 times Full Scale for ranges 0 psi to 15 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
Burst pressure	5 times Full Scale for ranges 0 psi to 15 psi through 0 psi to 200 psi 3.5 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
Power supply	10 Vdc to 30 Vdc unregulated for 4 mA to 20 mA output 6 Vdc to 30 Vdc unregulated for 1 Vdc to 5 Vdc output 14 Vdc to 30 Vdc unregulated for 0 Vdc to 10 Vdc output 5 Vdc to 30 Vdc unregulated for 0.5 Vdc to 4.5 Vdc output
Load limitations	≤(VPower-10)/0.020 Amp for 4 mA to 20 mA >10,000 Ω for 1 Vdc to 5 Vdc, 3-wire and 0 Vdc to 10 Vdc > 5,000 Ω for 0.5 Vdc to 4.5 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 ≤±0.011% Full Scale /°F Span effect is ≤±0.011% Full Scale /°F Ambient -22°F to 221°F (-30°C to 105°C); optional -40°F to 221°F (-40°C to 105°C) Media -22°F to 212°F (-30°C to 100°C); optional -40°F to 221°F (-40°C to 105°C) Storage -22°F to 212°F (-30°C to 100°C); optional -40°F to 221°F (-40°C to 105°C)
Wetted materials	Series 619 is 316 stainless steel for ranges up through 0 psi to 300 psi, 316 stainless steel with Elgiloy for ranges 0 psi to 500 psi and higher; Series 620 is 316 stainless steel with NBR o-ring; optional FPM or EPDM o-ring
Housing material	316 stainless steel
Environmental rating	NEMA 4x (IP 67 according to EN 60 529/IEC529)
Electromagnetic rating	89/336/EEC emissions (class B) and immunity according to EN 61326
Electrical rating	Reverse polarity, over voltage and short circuit protection
Shock	1000 g's according to IEC 60068-2-27
Vibration	20 g's according to IEC 60068-2-63
CE	Pressure equipment directive 97/23EC Directive ATEX 94/9/EC
HF immunity	10 V/m
Burst	4 KV
Hazardous approval	Explosion proof protection type ATEX; EX d II c T4-T6
Weight	Approximately 8 oz.

ORDERING INFORMATION

SERIES 619 Stainless steel threaded connection **SERIES 620** 316 stainless steel flush diaphragm

PRESSURE RANGES	-30 inHg to 0 psig	**30V**	0 psig to 30 psig	**30**	0 psig to 500 psig	**500**	0 psig to 5000 psig	**5000**
	-30 inHg to 30 psig	**30/30**	0 psig to 60 psig	**60**	0 psig to 1000 psig	**1000**	0 psig to 8000 psig	**8000**
	-30 inHg to 60 psig	**30/60**	0 psig to 100 psig	**100**	0 psig to 1500 psig	**1500**	0 psig to 10000 psig	**10000**
	-30 inHg to 100 psig	**30/100**	0 psig to 200 psig	**200**	0 psig to 2000 psig	**2000**	0 psig to 15000 psig	**15000**
	0 psig to 15 psig	**15**	0 psig to 300 psig	**300**	0 psig to 3000 psig	**3000**	0 psia to 15 psia	**15A**
	psig = Gauge Pressure		psia = Absolute Pressure		Other ranges available on special request		0 psia to 100 psia	**100A**
	NOTE: Series 620 is available for pressure ranges up to 0 psig to 8000 psig							

ACCURACY	**1** ±0.25 % Full Scale (BFSL)	**2** ±0.125 % Full Scale (BFSL)
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 **11** G1/2B Male flush (model 620 only) (pressure ranges 0 psi to 30 psi and higher)	**8** 1/2 ″ NPT Male **13** G1B Male flush (model 620 only) (pressure ranges less than 0 psi to 30 psi)
ELECTRICAL CONNECTIONS	**6** 1/2 ″ NPT Male conduit with 6 foot integral cable	
OPTIONS	**ORF** Threaded Orifice (model 619 only)	**15** 15 ′ cable/lead (attached to option 6)

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

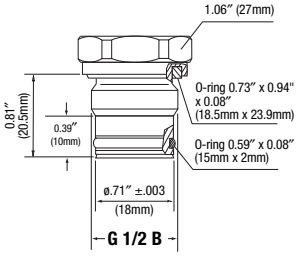
EXAMPLE **619 - 500 - 1 - 1 - 8 - 6 - ORF**

Series 619
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

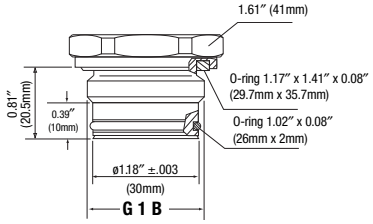
Outline Dimensions

Front flush process connections

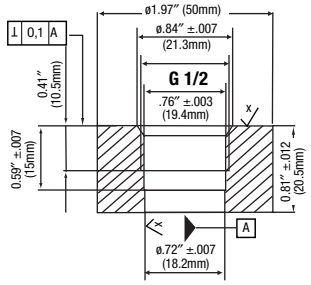
For ranges 0 psi to 30 psi and higher

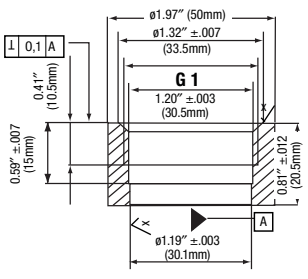


For ranges less than 0 psi to 30 psi



Flush corresponding port weld-on adapters





2-WIRE WIRING

+ Supply	Red
+ Output	Black

3-WIRE WIRING

+ Supply	Red
Common	Black
+ Output	Brown

Explosion-Proof Pressure Transmitters

APPROVED C US

SERIES 621/622

HAZARDOUS LOCATION 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 ±0.25 % Full Scale (BFSL)
- Advanced diffused semiconductor and sputtered thin film sensor for maximum stability
- Welded 316 stainless steel, and Elgiloy
- 1/2″ NPT conduit connection
- NACE MR0175/ISO 15156 compliant
- ANSI/ISA-12.27.01-2003 Approved single seal
- 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	±0.25 % Full Scale (BFSL); (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
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 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, unregulated
Load limitations	≤ (VPower-10)/0.020 Amp for 4 mA to 20 mA ≥ 10,000 Ω for 1 Vdc to 5 Vdc, 3-wire
Zero/Span offset	≤ 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 ±0.011 % Full Scale/°F Span effect is ±0.011 % Full Scale/°F Ambient -22 °F to 212 °F (-30 °C to 100 °C); -46 °F to 220 °F optional Media -25 °F to 212 °F (-32 °C to 100 °C); -46 °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 and CSA 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 1, Groups E, F and G Maximum electrical ratings 30V, 20 mA ANSI/ISA-12.27.01-2003, Approved single seal
Weight	Approximately 12 oz.

ORDERING INFORMATION

SERIES 621 Stainless steel threaded connection **622S** 316 stainless steel flush diaphragm **622H** Hastelloy C flush diaphragm

PRESSURE RANGES	-30 inHg to 0 psig	**30V**	0 psig to 15 psig	**15**	0 psig to 300 psig	**300**	0 psig to 5000 psig	**5000**
	-30 inHg to 30 psig	**30/30**	0 psig to 30 psig	**30**	0 psig to 500 psig	**500**	0 psig to 6000 psig	**6000**
	-30 inHg to 60 psig	**30/60**	0 psig to 60 psig	**60**	0 psig to 1000 psig	**1000**	0 psig to 8000 psig	**8000**
	-30 inHg to 100 psig	**30/100**	0 psig to 100 psig	**100**	0 psig to 1500 psig	**1500**	0 psig to 10000 psig	**10000**
	-30 inHg to 200 psig	**30/200**	0 psig to 200 psig	**300**	0 psig to 2000 psig	**2000**	0 psig to 15000 psig	**15000**
					0 psig to 3000 psig	**3000**	0 psia to 15 psia	**15A**
	psig = Gauge Pressure psia = Absolute Pressure Other ranges available on special request						0 psia to 100 psia	**100A**
	NOTE: Series 622 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	**2** 0 Vdc to 5 Vdc, 3-wire	**3** 1 Vdc to 5 Vdc, 3-wire, Low Power
	5 0 Vdc to 10 Vdc, 3-wire	**31** .5 Vdc to 4.5 Vdc 3-wire, Low Power	
PROCESS CONNECTIONS	**2** 1/4 ″ NPT Male	**8** 1/2 ″ NPT Male	**11** G1/2B Male flush (model 622 only) (pressure ranges less than 0 psi to 30 psi)
	13 G1B Male flush (model 622 only) (pressure ranges 0 psi to 30 psi and higher)		
ELECTRICAL CONNECTIONS	**6** 1/2 ″ NPT Male conduit with 6 foot integral cable	**37** 1/2 ″ NPT Male conduit with 6 foot flying leads with epoxy seal	
OPTIONS	**ORF** Threaded Orifice (model 621 only)	**20** 20 ′ cable/lead (attached to options 6 or 37)	**30** 30 ′ cable/lead (attached to options 6 or 37)

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

EXAMPLE

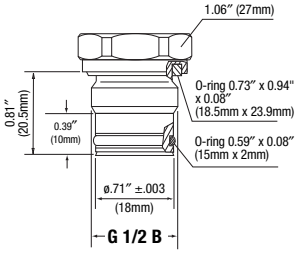
621 - 500 - 1 - 1 - 8 - 6 - ORF

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

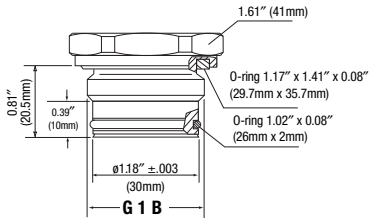
Outline Dimensions

Front flush process connections

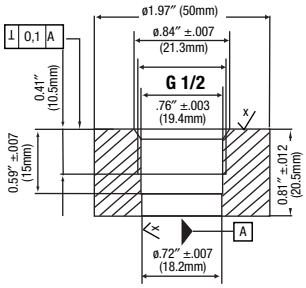
For ranges 0 psi to 30 psi and higher

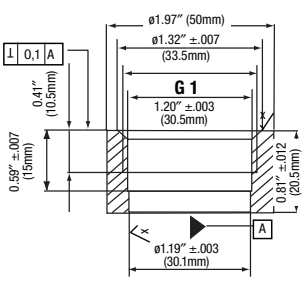


For ranges less than 0 psi to 30 psi



Flush corresponding port weld-on adapters





2-WIRE WIRING

+ Supply	Red
+ Output	Black

3-WIRE WIRING

+ Supply	Red
Common	Black
+ Output	Brown

Non-Incendive Pressure Transmitters

SERIES 623/624

HAZARDOUS LOCATION PRESSURE TRANSMITTERS

The NOSHOK Series 623 and 624 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. The pressure chamber is 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 and Canadian Standards Association approved. All models incorporate significant levels of RFI, EMI and ESD protection.

FEATURES

- Accuracy to ±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

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	±0.25 % Full Scale (BFSL); (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
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 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; 6 Vdc to 30 Vdc for 1 Vdc to 5 Vdc, and .5 Vdc to 4.5 Vdc output, unregulated
Load limitations	≤ (VPower -10)/0.020 Amp for 4 mA to 20 mA ≥ 10,000 Ω 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 .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 ±0.011 % Full Scale/°F within compensated range Span effect is ±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 BUNA N O-ring; Viton® 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 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 and Canadian Standards Association approved Non Incendive with entity approval for: Class I, Division 2, Groups A, B, C and D; Class II and III, 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.

ORDERING INFORMATION

Series	**623** Stainless steel threaded connection				**624*** 316 stainless steel flush diaphragm								
PRESSURE	-30 inHg to 0 psig	**30vac**	0 psig to 15 psig	**15**	0 psig to 200 psig	**200**	0 psig to 1500 psig	**1500**	0 psig to 8000 psig	**8000**			
	-30 inHg to 30 psig	**30/30**	0 psig to 30 psig	**30**	0 psig to 300 psig	**300**	0 psig to 2000 psig	**2000**	0 psig to 10000 psig	**10000**			
	-30 inHg to 60 psig	**30/60**	0 psig to 60 psig	**60**	0 psig to 500 psig	**500**	0 psig to 3000 psig	**3000**	0 psig to 15000 psig	**15000**			
	-30 inHg to 100 psig	**30/100**	0 psig to 100 psig	**100**	0 psig to 1000 psig	**1000**	0 psig to 5000 psig	**5000**	0 psia to 15 psia	**15A**			
							0 psig to 6000 psig	**6000**	0 psia to 100 psia	**100A**			
	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			**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 **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 CONNECTIONS	**6** 1/2 ″ NPT Male conduit with 5 foot integral cable												
OPTIONS	**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.**

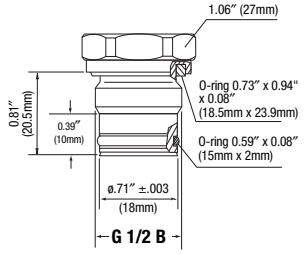
EXAMPLE **623 - 500 - 1 - 1 - 8 - 6 - ORF**

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

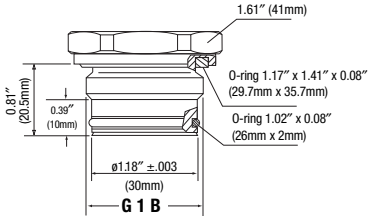
Outline Dimensions

Front flush process connections

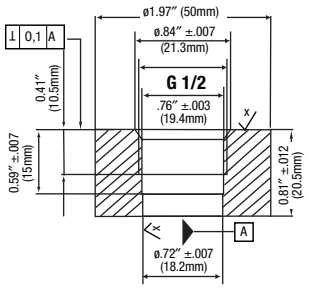
For ranges 0 psi to 30 psi and higher

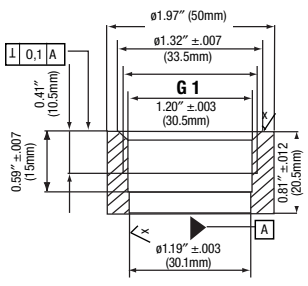


For ranges less than 0 psi to 30 psi



Flush corresponding port weld-on adapters





2-WIRE WIRING

+ Supply	Brown
+ Output	Green

3-WIRE WIRING

+ Supply	Brown
Common	Green
+ Output	White

Intrinsically Safe Pressure Transmitters

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 (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
- 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 (BFSL); Optional ±0.125% Full Scale (BFSL); (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
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 -4 °F to 176 °F (-20 °C to 80 °C) Media -4 °F to 185 °F (-20 °C to 85 °C) Storage -22 °F to 221 °F (-30 °C to 105 °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 psia to 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

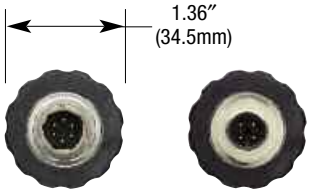
ACCURACY	**1**	±0.25 % Full Scale (BFSL) **2** ±0.125 % Full Scale (BFSL)
OUTPUT SIGNALS	**1**	4 mA to 20 mA, 2-wire
PROCESS CONNECTIONS	**2**	1/4 ″ NPT Male **3** 7/16 ″-20 UNF SAE #4 Male **8** 1/2 ″ NPT Male
	11	G1/2B Male flush (model 626 only) (pressure ranges 0 psig to 30 psig and higher) **13** 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**

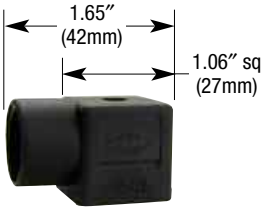
Series 625
Pressure Range . . . . . 0 psig to 500 psig
Accuracy . . . . . ± 0.25 % Full Scale
Output Signal . . . . . 4 mA to 20 mA
Process Connection . . . . . 1/2 ″ NPT Male
Electrical Connection . . . . . Hirschmann
Option . . . . . Threaded Orifice

Outline Dimensions



Integral 36″ cable *6 pin Bendix *M12 x 1

*Note: mate supplied separately or customer supplied



Hirschmann with 1/2″ NPT Female ISO 4400 conduit

Hirschmann

2-WIRE WIRING

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

NOTE
See 621/622 Series for G1/2B and G1B Front Flush Process Connection Dimensions pg. 27