Measurement Solutions Product Guide

Pressure & Level
Temperature
Force
Needle Valves
Manifold Valves
Diaphragm Seals
Digital Indicators
At NOSHOK, we pride ourselves on being innovators in the industry by continually offering the latest technology and measurement solutions, and providing the best customer support in the marketplace.

Established in 1967, NOSHOK was one of the first companies to offer liquid filled pressure gauges. We also took a bold step by backing our quality gauges with an extended 3-year warranty. That unwavering standard of quality has endured for over 50 years, and as we have expanded our product offering we continue to provide industry-leading warranties. NOSHOK also leads the industry as one of the first companies to offer corrosion-resistant zinc nickel plating standard on our carbon steel valves.

We have the capacity to put together special requirements which are so often hard to find. If you do not find what you need in this catalog, chances are we can still put a solution together.

NOSHOK is committed to providing excellence on every level. Thank you for choosing NOSHOK products.

Jeff N. Scott
President

NOSHOK Corporate Headquarters
Your Single Source Instrumentation Company

NOSHOK is a member and actively supports:

- FCI
- THE FPDA MOTION & CONTROL NETWORK
- ASME
- AHD

NOSHOK is an ISO 9001:2015 registered company
TABLE OF CONTENTS

PRESSURE AND LEVEL MEASUREMENT SOLUTIONS

Pressure Gauges:
100, 200, 300, 400/500, 402/502, 600/700, 800, 900 and 1000 SERIES .......................................................... 4-6
Pressure Gauge Accessories & Options ............................................................................................................... 6-8
Differential Pressure Gauges:
1000 and 1100 SERIES ....................................................................................................................................... 8
Digital Indicators:
1800, 1900C, 1950, 2000/2100 and 2200 SERIES ............................................................................................. 9
Pressure and Level Transmitters & Transducers:
100, 200, 300, 611, 612, 613, 615/616, 640, 650 and 660 SERIES ........................................................................ 10-13
Hazardous Location Transmitters:
621/622, 623/624, 625/626, 627 and 628 SERIES ............................................................................................. 11-12
Pressure Switches & Switch/Transmitters:
100, 200, 300, 400, 500 and 800 SERIES .......................................................................................................... 13-14
Sanitary Pressure Instruments:
10, 11, 20, 25 and 30 SERIES ............................................................................................................................ 15-16
Diaphragm Seals:
Type 5, 10, 10L, 10H, 12, 20, 25, 25H, 29, 30, 30H, 30L and 40 ........................................................................... 17-18

TEMPERATURE MEASUREMENT SOLUTIONS

Bimetal Thermometers:
100, 150, 300 and 350 SERIES .......................................................................................................................... 19
Vapor Actuated Remote Thermometers:
300/400/600/700/900 SERIES .............................................................................................................................. 19
Dial Indicating Thermometer Options ................................................................................................................ 20
Temperature Transmitters, Digital Temperature Indicators & Switch/Transmitter:
800, 810, 820/821, 822/823 and 850 SERIES ................................................................................................... 21
Industrial Resistance Temperature Devices (RTD):
900, 910/915 and 920 SERIES ......................................................................................................................... 22
Thermowells
50/75/100 SERIES ............................................................................................................................................. 22
RTD Accessories .................................................................................................................................................. 23

FORCE MEASUREMENT SOLUTIONS

Hydraulic Load Cells:
1000, 2000, 3000, 4000 and 5000 SERIES ......................................................................................................... 23-24
Custom Force Sensors ............................................................................................................................................ 25
Tension and Compression Force Transducers:
3540 SERIES ....................................................................................................................................................... 26
S-Type:
2351 SERIES ....................................................................................................................................................... 26
Chain Hoist Test Kit:
3010 SERIES ....................................................................................................................................................... 26
Weld Force Test Kit:
3020 SERIES ....................................................................................................................................................... 26

VALVE PRODUCT SOLUTIONS

Needle Valves:
100/150, 200/300, 400/500, 600/700, 800/850, 2070/2170 and 3070 SERIES ......................................................... 27-29
Manifold Valves:
2-Valve Static Pressure, Liquid Level & Natural Gas Manifolds
2000/2100, 2020/2120, 2000/2100, 200402/210402, 2530, 2620/2702, 2603/2703, 2604/2704, and 2180 SERIES ......................................................................................................................... 29-31
3-Valve Differential Pressure Manifolds
3013/3110, 3510 and 3610/3710 SERIES ............................................................................................................. 31-32
5-Valve Natural Gas Manifolds
5030/5130 and 5530 SERIES ............................................................................................................................... 32-33
Stabilized & Non-Stabilized Connectors ................................................................................................................ 33
Valve Accessories .................................................................................................................................................. 34-35
Canadian Registration Numbers .......................................................................................................................... 36

In keeping with and for purpose of product and/or manufacturing process improvements, NOSHOK, Inc. reserves the right to make design changes without prior notice.
PRESSURE GAUGES

SPECIFICATIONS
SIZES: 1-1/2", 2", 2-1/2" and 4"
CONNECTION: Bottom, back, panel mount, 1/8" NPT, SAE J1926-3.7/16-20 Adjustable, and 1/4" NPT
CASE: ABS is standard. Steel, chrome and stainless steel are available as options.
LENS: Acrylic is standard; others available
MEASURING ELEMENT: Phosphor bronze Bourdon tube
MOVEMENT: Brass and nylon
ACCURACY: ±1.6% full scale to ±2.5% full scale dependent on model
AVAILABLE RANGES: Vacuum and compound through 15,000 psi
OPTIONS AND ACCESSORIES: Panel mount options, cover rings, orifices, rubber case protectors, recalibrators, special connections and more
OPERATING LIMITATIONS WORKING PRESSURE:
DYNAMIC: 60% of dial range
STATIC: 90% of dial range
TEMPERATURE: -4 °F to 140 °F (-20 °C to 60 °C)

100 SERIES
NOSHOK STANDARD GAUGES are general purpose, non-fillable dry gauges designed to provide reliable service on applications not corrosive to brass. They are used in almost every area of manufacturing and are especially suited for applications in hydraulics, pneumatics, medical, pumps & compressors, refrigeration controls, utilities and water management.

WARRANTY: One Year†

200 SERIES
NOSHOK LOW PRESSURE DIAPHRAGM GAUGES are sensitive, capsule-type, non-fillable dry gauges designed for extremely low pressure and vacuum measurement. The ultra sensitive phosphor bronze diaphragm capsules are rated for pressure as low as 0 inH2O - 10 inH2O and as high as 0 psi - 10 psi. Applications include filter monitoring, gas distribution, HVAC, leak detection, level indication and medical.

WARRANTY: One Year†

300 SERIES
NOSHOK BRASS CASE LIQUID FILLED GAUGES are high quality, heavy-duty liquid filled gauges. Their one piece die cast brass case and heavy-duty Bourdon tube and movement enables them to stand up to shock and vibration encountered on the most demanding applications, including automotive, construction, hydraulics & pneumatics, mining, stamping & forming presses, and transportation.

WARRANTY: Three Years†

400/500 SERIES
NOSHOK ALL STAINLESS STEEL DRY AND LIQUID FILLED GAUGES are corrosion-resistant fillable dry or liquid-filled gauges. They are used in corrosive service world-wide where ruggedness and reliability are critical. Typical applications include chemical processing, oil field & offshore, paper mills, agriculture plants, marine, and water & wastewater. Ammonia gauges available in certain ranges.

WARRANTY: 400 Series: One Year†
500 Series: Three Years†

†For further warranty information please consult your specific product catalogs.
NOSHOK PROCESS GAUGES are turret style dry or liquid-filled gauges. These gauges are made with phosphor bronze, 316 stainless steel, and brass wetted parts, and phenolic cases that are specifically designed for demanding service in chemical, petroleum and industrial processing industries. They are widely used throughout the world on applications including injection molding machines, laboratory & test equipment, power generation, oil field & offshore, utilities, and water & wastewater.

Extreme high pressure and extreme low pressure diaphragm ranges available.

**WARRANTY:** 640/740 Series: One Year‡
660/760 Series: Three Years†

---

**NOSHOK EXTREME HIGH PRESSURE ALL STAINLESS STEEL, DRY AND LIQUID FILLED GAUGES**

These gauges are high quality gauges that incorporate unique design features aimed at extended service life and reliability. They are used world-wide where pulsation, vibration and shock are present and the media is not corrosive to brass, including automotive, construction, hydraulics & pneumatics, power generation, transportation and water management.

**WARRANTY:** Three Years†

---

**NOSHOK PRECISION TEST GAUGES**

These gauges are highly accurate dry gauges. They are used in laboratories, calibration stands, aerospace and wherever accuracy and sensitivity are critical parameters in measurement. The NOSHOK adjustable knife-edge pointer in conjunction with the mirror dial band eliminate parallax error. (*The difference in apparent direction of an object as seen from (two different points not on a straight line with the object.)*

**WARRANTY:** One Year‡

---

**NOSHOK ABS AND STAINLESS STEEL CASE LIQUID FILLED GAUGES**

These gauges are high quality gauges that incorporate unique design features aimed at extended service life and reliability. They are used world-wide where pulsation, vibration and shock are present and the media is not corrosive to brass, including automotive, construction, hydraulics & pneumatics, power generation, transportation and water management.

**WARRANTY:** Three Years†
PIGTAIL STEAM SYPHONS protect the instrument from the damaging effects of high temperature steam and should be used in all steam applications. They are available in 1/4" and 1/2" NPT sizes in welded steel, welded 316 stainless steel or seamless 316 stainless steel with ratings to 3800 psi @ 850 °F.

PISTON TYPE SNUBBERS resist clogging and are self-cleaning. Five different sized pistons are included with each snubber to insure the correct amount of snubbing for virtually every application. They are available in brass and 316 stainless steel in either 1/4" NPT, 1/2" NPT or 7/16-20 SAE-4.

WARRANTY: One Year†

SINTERED SNUBBERS are a cost-effective solution to protect expensive instrumentation. These snubbers increase gauge readability by smoothing out pressure surges, pulsations and spikes, and they eliminate instrument failure due to pressure shock. Five basic discs are available to accommodate 90% of applications. Snubbing action is achieved by utilizing a corrosion-resistant 316 stainless steel sintered element; exotic materials or intermediate disc grades are available on a per order basis. NOSHOK Sintered Snubbers provide long service life with no moving parts to wear out.

SWIVEL ADAPTERS are used with gauges and gauge valves to adjust the line of sight. The swivel adaptor rotates 360° to allow the connected instrument to be positioned in the desired direction and has temperature ratings of 15,000 psi @ 200 °F and 3,000 psi @ 1,000 °F. The pressure connection is achieved with a tapered cone style compression fitting simply by tightening the swivel hex nut. They feature all 316 stainless steel construction, and are standard with 1/2" NPT male process – 1/2" NPT female instrument connections. Also available with 1/4" NPT connections.

†For further warranty information please consult your specific product catalogs.
PANEL MOUNTING
Many panel mounting options are available and can be installed in the field. Options include polished brass front flanges (BFF), black painted steel front flanges (BLFF), chrome front flanges (CFF), polished stainless steel front flanges (SSFF), chrome triangular bezel front flanges with U-clamp (CBU), black painted steel triangular bezels with U-clamp (BUBU-clamp), polished stainless steel narrow bezel front flanges (SSBU), and panel mount clamps (PMC). Chrome-plated steel adapter rings (AR) are available in conjunction with several of these flanges to adapt to oversized panel cut outs. A selection of flange rings are also offered: polished stainless steel flange rings (SSFR), chrome plated steel flange rings (CFR), and black or chrome panel mount rings (BPMR & CPMR). Brass rear flanges (BRF) and black rear flanges (BLRF) for front of panel mounting are also available on some models. Rear Flanges are a factory installed option.

CASES AND COVER RINGS
Black painted steel (BCR), chrome plated steel (CCR) and 304 stainless steel (SSCR) cases and cover rings are available on many models as production options.

LENSES
Instrument glass lenses, laminated safety glass lenses, acrylic lenses, and homalite lenses (resistant to many industrial solvents) are available on many models. NOTE: A steel or stainless steel case and cover ring is required when other than acrylic lenses are utilized. Some models are also available with a solid front, safety case configuration as a production option.

MAXIMUM INDICATING POINTERS (MIP) are an invaluable tool for identifying pressure spikes in a system. They are very helpful during system start up and trouble shooting. MIPs add an additional ±1% error to the gauge because of the increased load on the Bourdon tube. On ranges of 60 psi and lower, MIPs may double the allowed error of the gauge.

SET POINTERS (SP) are used to identify an operating minimum or maximum pressure or vacuum value. Set pointers are available on most 100 Series gauges.

RUBBER CASE PROTECTORS (RCP) Rubber case protectors (RCP) are ideal for gauges that are subjected to direct physical shock. 2-1/2” covers are blue and 4” covers are black.

ORIFICES
Press-fit brass orifices or threaded 316 stainless steel orifices are available on all NOSHOK pressure gauges. They are standard with .012” I.D or .032” I.D, depending on the model. Orifices are used in a gauge to restrict the flow of rapidly increasing and decreasing pressures, thereby lessening the immediate effect of pulsations and pressure spikes. Orifices are recommended for all dynamic applications.

RECALIBRATORS
The option of an adjustment screw accessible through the dial facilitates re-setting the zero point without disassembling the gauge.

OVER PRESSURE PROTECTION
Over pressure protection of up to 200% of the dial range is available on some models as a production option.

AMMONIA REFRIGERATION GAUGES
Ammonia refrigeration gauges with dials reading in both pressure and temperature are available in 400/500 Series 2-1/2” and 4” sizes.

LIQUID FILLING OPTIONS
Many NOSHOK gauges are available with liquid filling options. Our standard fill is Glycerin and water; however, optional fill liquids include Dow Corning® 200 silicone and Halocarbon®.

SPECIAL CONNECTIONS
Special connections are available on most NOSHOK gauges. Some examples include: metric threads, female threads, straight threads (flare or swivel type) and special o-ring connections. Please contact us with your requirements for prices, availability and minimum quantities.

†For further warranty information please consult your specific product catalogs.
DIFFERENTIAL PRESSURE GAUGES

SPECIFICATIONS

**SIZES:** 2-1/2", 4-1/2", 6"

**CASE MATERIAL:** Engineered plastic

**LENS:** Shatter-resistant acrylic - standard; safety glass and MIP optional

**SENSOR HOUSING MATERIAL:** Clear anodized aluminum - standard; 316L stainless steel optional

**PROCESS CONNECTION:** 1/4" NPT female, back connection

**ACCURACY:** ±3/2/3% of full scale on rising pressure

**RANGES:** 0 psid to 5 psid through 0 psid to 110 psid

**OPTIONAL FILL FLUID:** Glycerin, Silicone

**OPERATING LIMITATIONS:**
- **TEMPERATURE:** -40 °F to 200 °F (-40 °C to 93 °C)
- **MAXIMUM WORKING STATIC PRESSURE:** Aluminum 2,000 psig; Stainless steel 6,000 psig

**1000 SERIES**

NOSHOK PISTON TYPE DIFFERENTIAL GAUGES are designed for measuring pressure drops across filters, strainers, separators and valves. The single piece construction of the ceramic magnet/piston is designed to reduce “blow by” and increase gauge accuracy. These gauges can be found in applications requiring high differential pressure from 0 psid to 5 psid through 0 psid to 110 psid with maximum working/static pressure to 3,000 psig (Aluminum) and 6,000 psig (Stainless steel).

**WARRANTY:** Five Years

**1100 SERIES**

NOSHOK DIAPHRAGM TYPE DIFFERENTIAL GAUGES are designed for applications where higher levels of solids are present in the measuring media. The magnetic piston and polymeric diaphragm are utilized to measure the low to high differential pressure. The isolation of the high and low inlets prevents fluid movement between the ports. They are used in measuring pressure drops across filters, strainers, separators, heat exchangers and more.

**WARRANTY:** Five Years

---

For further warranty information please consult your specific product catalogs.
1800 SERIES
NOSHOK ATTACHABLE LOOP-POWERED DIGITAL INDICATORS utilize a transmitter’s 4 mA to 20 mA output signal and the Hirschmann connector for local pressure indication. It is simply inserted between the transmitter body and the connector without the need for additional wiring or power source. The indicator is programmable to display a range of -999 to 9999 and may be tilted for better viewing. There is a user selectable digital filtering to improve readability in rapidly varying pressure pulsations. Available with optional relay that is programmable through the front of the meter.

WARRANTY: One Year†

1900C SERIES
NOSHOK COMPACT LOOP-POWERED DIGITAL INDICATORS provide digital display of any desired unit of pressure, temperature, level, and force or flow measurement. Their 3-1/2" digit display has a span range of 0 to 1999 and has a positive image reflective LCD.

WARRANTY: Two Years†

1950 SERIES
NOSHOK COMPACT SMART SYSTEM DIGITAL INDICATORS offer all the features of a full size panel meter compressed into a small design for ease of installation in almost any application. The 5 digit display has a span range of -9999 to 99999 and is available in reflective LCD and selectable red or green backlight versions. The display can accept a variety of process signals for applications in pressure, flow, level, force and temperature. All programming can be done easily through the front of the meter. The display is fully expandable to accommodate applications requiring relays, dual sinking outputs, and serial communications by RS232 or RS485. NOSHOK calibrates all of its indicators to your transducer requirements at no additional cost.

WARRANTY: Two Years†

2000/2100 SERIES
NOSHOK SMART SYSTEM “INTELLIGENT” DIGITAL INDICATORS are field upgradeable digital process indicators with single or dual input which suit a wide range of indication and control requirements. They can accept a variety of standard process signals and precisely scale them into any desired unit of measure. The indicator employs advanced technology for stable, drift free readout, while incorporating added features such as an optional analog output card, dual or quad relay cards or serial communication cards. The easy menu driven programming or available PC software allows the user to quickly and easily set system configurations.

WARRANTY: Two Years†

2200 SERIES
NOSHOK DUAL DISPLAY DIGITAL INDICATORS accept a wide variety of input signals including thermocouples or RTDs, current, voltage, resistance & process signals, and feature a dual display with tri-color and variable intensity digits. The NOSHOK 2200 Series Dual Display Digital Indicator has a universal power input accepting either AC or DC voltage, along with a 24 Vdc sensor excitation, as well as a built-in USB port for configuring with a computer. Plug-in option cards are available for field upgrading. Interface software available on request.

WARRANTY: Two Years†

†For further warranty information please consult your specific product catalogs.
100 SERIES

NOSHOK CURRENT OUTPUT PRESSURE TRANSMITTERS are designed utilizing advanced diffused semiconductor and proven sputtered thin film sensor technology for maximum stability. They are highly repeatable, shock resistant and extremely stable over long periods of time. CE compliance, which includes substantial levels of RFI, EMI and ESD protection combined with reverse polarity and over-voltage protection, ensures that these transmitters perform well in the most demanding applications.

WARRANTY: Three Years†

200 SERIES

NOSHOK VOLTAGE OUTPUT PRESSURE TRANSDUCERS are highly repeatable, shock resistant and extremely stable over long periods of time. Utilizing advanced diffused semiconductor and proven sputtered thin film sensor technology they are highly accurate and stable. CE compliant.

WARRANTY: Three Years†

300 SERIES

NOSHOK COMPACT OEM PRESSURE TRANSDUCERS® rugged, compact design delivers solid durability and long term stability during operation. Engineered for use in general industrial applications, it features technical specifications exceeding those of competitors’ transducers costing much more. A wide variety of electrical and mechanical connections are available for easy installation into most applications, along with most popular analog output signals. All electrical components carry a high degree of EMC protection compliant with EN 61326, which makes it ideal for areas where RFI, EMI or ESD signals are present. Its high quality stainless steel construction is compatible with chemically aggressive media.

WARRANTY: Three Years†

611 SERIES

NOSHOK SMALL DIAMETER SUBMERSIBLE PRESSURE & LEVEL TRANSMITTERS provide hydrostatic level measurement for use in applications including bore holes and wells with small diameters (outer diameter 0.87). Low power output signals are available for battery-powered applications, and optional temperature output is available. Features a 5:1 turndown using optional HART® signal. ATEX, CSA and IECex certifications pending.

WARRANTY: Three Years†

612 SERIES

NOSHOK SUBMERSIBLE LEVEL TRANSMITTERS offer a previously unequalled level of performance. Utilizing diffused semiconductor and proven sputtered thin film sensor technology they are highly accurate, shock resistant and extremely stable for long periods of time. Reverse polarity protection and short circuit protection have been installed as standard features. Lightning protection is optional.

WARRANTY: Three Years†
HAZARDOUS LOCATION PRESSURE TRANSMITTERS

613 SERIES

NOSHOK CAGE-PROTECTED SUBMERSIBLE LEVEL TRANSMITTERS are ideal for a wide variety of industrial and municipal liquid level measurement applications requiring watertight protection. These anti-clogging transmitters are designed for severe high solids environments such as sewage, lift stations, storm canals, wet wells and slurry tanks where sludge, slurry or turbulence may be present. It features durable all 316 stainless steel construction and a large 2.14” diameter diaphragm which is extremely responsive, even when monitoring low levels or buried in media.

WARRANTY: Three Years†

615/616 SERIES

NOSHOK HIGH ACCURACY HEAVY-DUTY PRESSURE TRANSDUCERS are designed for heavy-duty applications requiring high accuracy and durability. Utilizing advanced diffused semiconductor and proven sputtered thin film sensor technology they are stable, accurate, shock resistant and extremely durable. The durability is coupled with the mechanical integrity of the case, process connection, and wetted parts constructed of corrosion-resistant stainless steel.

WARRANTY: Three Years†

621/622 SERIES

NOSHOK EXPLOSION-PROOF PRESSURE TRANSMITTERS are designed for applications that require pressure measurement in hazardous environments. They combine proven sputtered thin film sensor technology or the reliable, long life diffused semiconductor with safe electronics to provide outstanding performance and value in a hazardous location transmitter. All wetted parts are made of stainless steel and Elgiloy welded with no internal o-rings, gaskets or seals.

WARRANTY: Three Years†

623/624 SERIES

NOSHOK NON-INCENDIVE PRESSURE TRANSMITTERS combine advanced diffused semiconductor and proven sputtered thin film sensor technology with safe electronics for outstanding performance and value in a hazardous environment pressure transmitter. The wetted parts are made of stainless steel and a welded pressure chamber with no internal o-rings, gaskets or seals.

WARRANTY: Three Years†

†For further warranty information please consult your specific product catalogs.
PRESSURE AND LEVEL TRANSMITTERS & TRANSDUCERS

HAZARDOUS LOCATION PRESSURE TRANSMITTERS

625/626 SERIES
NOSHOK INTRINSICALLY SAFE PRESSURE TRANSMITTERS combine the reliability and long life of diffused semiconductor or proven sputtered thin film strain gage sensors with safe electronics to provide outstanding performance and value. These transmitters are designed for applications that require pressure measurement in hazardous locations. Multiple pressure connections, ranges and electrical connections are available. Low pressure ranges are also available for vapor recovery applications.

WARRANTY: Three Years†

SPECIFICATIONS
OUTPUT SIGNAL: 4 mA to 20 mA, 2-wire
RANGES: From vacuum to 15,000 psi-gauge, compound or absolute
WETTED PARTS: Stainless steel standard, welded
ACCURACY: ±0.25% full scale (BFSL); Optional ±0.125% full scale (BFSL)
POWER SUPPLY: 10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire) - Unregulated power supplies

FM and CSA approved; IS / Class I, II and III / Division 1 / Groups A, B, C, D; E, F and G; Class I / Zone 0 / AEx ia / Group IIIC / DIP / Class II and III / Division 2 / Groups F and G; NI / Class I / Division 2 / Groups A, B, C and D

CE compliant to EMC norm EN 61326: 1997/A1 1998, RFI, EMI and ESD protection / ANSI/ISA-12.27.01-2003 approved single seal

627 SERIES
NOSHOK INTRINSICALLY SAFE SUBMERSIBLE LEVEL TRANSMITTERS combine the reliability and long life of diffused semiconductor or proven sputtered thin film strain gage sensors with safe electronics to provide outstanding performance and value in a liquid level transmitter designed for hazardous environments. They are available with a stainless steel nosecone, weighted stainless steel nosecone or NPT adapter and ranges to suit most applications.

WARRANTY: Three Years†

SPECIFICATIONS
OUTPUT SIGNAL: 4 mA to 20 mA, 2-wire
RANGES: From 50 inH2O to 350 psig
CABLE: PUR jacketed cable; PTFE cable optional
ACCURACY: ±0.25% full scale (BFSL); Optional ±0.125% full scale (BFSL)
POWER SUPPLY: 10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire) - Unregulated power supplies

FM and CSA approved; IS / Class I, II and III / Division 1 / Groups A, B, C, D; E, F and G; Class I / Zone 0 / AEx ia / Group IIIC / DIP / Class II and III / Division 2 / Groups F and G; NI / Class I / Division 2 / Groups A, B, C and D

628 SERIES
NOSHOK INTRINSICALLY SAFE HAMMER UNION TRANSMITTERS Constructed with a heavy-duty Inconel X-750 diaphragm and connection, the NOSHOK Intrinsically Safe Hammer Union Transmitter offers ranges from 5,000 psig through 20,000 psig and has a 4 mA to 20 mA, 2-wire output signal. Each sensor comes with a Certificate of Calibration. This transmitter is CSA compliant for hazardous location equipment, and is ideal for applications including acidizing, choke & kill manifold, fracturing & cementing, mud logging & mud pumps, oil field & offshore and wellhead measurement. Optional electrical connector cage is available to protect the electrical connection during installation or removal.

WARRANTY: One Year†

SPECIFICATIONS
OUTPUT SIGNAL: 4 mA to 20 mA, 2 wire
RANGES: 0 psig to 5,000 psig through 0 psig to 20,000 psig
WETTED PARTS: Inconel X-750
ACCURACY: ±0.25% full scale (BFSL) (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
POWER SUPPLY: 10 Vdc to 28 Vdc - Unregulated power supplies

CSA approved; IS / Class I, DIV 1, Groups A,B,C,D, -40°C,Tamb<+85°C T4 Class II, DIV 1, Groups E,F,G,Class III, Class I, Zone 0 AEx/Ex ic IIC T4 Non-Incendive / Class I, DIV 2, Groups A,B,C,D, -40°C,Tamb<+85°C T4 Class II, DIV 2, Groups F,G, Class III Class I, Zone 2 AEx/Ex ic IIC T4 seal

640 SERIES
NOSHOK PRECISION HEAVY-DUTY PRESSURE TRANSDUCERS have been designed for industrial and laboratory applications requiring high accuracy and repeatability with excellent compensation for temperature.

WARRANTY: Three Years†

SPECIFICATIONS
OUTPUT SIGNAL: 4 mA to 20 mA, 2-wire; 0 Vdc to 5 Vdc, 0 Vdc to 20 Vdc, 3-wire; 0 Vdc to 10 Vdc, 3-wire; 0 mA to 20 mA, 3-wire
RANGES: Standard gauge ranges from vacuum to 15,000 psi; absolute ranges also available
ACCURACY: ±0.05% full scale (BFSL); Optional ±0.025% full scale (BFSL)
POWER SUPPLY: 9 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire); 9 Vdc to 30 Vdc (0 Vdc to 5 Vdc, 3-wire); 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire);
Voltage supply via interface RS232-C - Unregulated

CE compliant to EMC norm EN 61326: 1997/A1 1998, RFI, EMI and ESD IP65, NEMA 4X (IEC 529)

†For further warranty information please consult your specific product catalogs.
**SPECIFICATIONS**

**WARRANTY:** One Year†

**200 SERIES**

NOSHOK MECHANICAL COMPACT SPDT PRESSURE SWITCHES operate using a high quality diaphragm or piston element to open or close a micro switch, and provide maximum versatility, excellent repeatability and superior contact ratings. These compact-sized switches have a frequency of 100 cycles per minute, and switching repeatability of ±2.0%. They also feature superior contact ratings: up to 28 Vdc (2A), and up to 50 Vac (4A), and are RoHS compliant. This switch features an SPDT (single changeover) contact configuration and is available in special versions with stainless steel or brass housing and gold contacts for low switching currents.

**WARRANTY:** One Year†

---

**SPECIFICATIONS**

**WARRANTY:** Three Years†

**650 SERIES**

NOSHOK HIGH VOLUME OEM PRESSURE TRANSDUCERS combine high performance with off road vehicle reliability under severe process and environmental conditions. They are designed to handle high pressure spikes and process pulsation. Utilize advanced diffused semiconductor and proven sputtered thin film sensor technology for maximum stability.

**WARRANTY:** Three Years†

---

**SPECIFICATION**

**WARRANTY:** Three Years†

**660 SERIES**

NOSHOK MICRO-SIZE PRESSURE TRANSDUCERS are designed with high overpressure capability to provide long service life and reliability in hydraulic and pneumatic applications containing process pulsations and high vibration. Utilizes proven sputtered thin film sensor technology for maximum stability and accuracy.

**WARRANTY:** Three Years†

---

**SPECIFICATIONS**

**WARRANTY:** One Year†

**100 SERIES**

NOSHOK MECHANICAL MINIATURE LOW-PRESSURE SWITCHES are constructed of a solid one-piece housing, making them highly durable for use in the most rugged applications. These switches utilize a proven diaphragm-type sensing element, and have an external adjustment screw for ease of setting the switching point on-site. Special versions are available with the alternate diaphragm, housing and contact materials to meet most current requirements. 100 Series is the ideal choice when reliability, accuracy and cost efficiency are a priority.

**WARRANTY:** One Year†
SPECIFICATIONS
CASE: Zinc-plated steel
MEASURING ELEMENT: NBR diaphragm ≤230 psig, stainless steel piston with NBR seal ≥500 psig
CONNECTION: 1/4" NPT and 7/16-20 SAE – standard
ELECTRICAL CONNECTION: Hirschmann (DIN EN175301-803 Form A), Optional M12 x 1 (4-pin)
SWITCHING FUNCTION: SPDT, micro-switch with silver plated contacts, gold plated contacts available on request
ADJUSTMENT: Adjustment screw from 3 psig to 4,600 psig depending on full scale range
AVAILABLE RANGES: 3 psig to 30 psig through 450 psig to 4000 psig
CONNECTION: 1/4" NPT standard, others available on request
ELECTRICAL CONNECTION: Hirschmann (DIN EN175301-803 Form A), Optional M12 x 1 (4-pin or 5-pin)
MEDIA TEMPERATURE: -4 °F to 176 °F (-20 °C to 80 °C)

300 SERIES
NOSHOK MECHANICAL COMPACT SPDT PRESSURE SWITCHES WITH ADJUSTABLE HYSTERESIS are constructed with a rugged zinc-plated steel housing and process connection, and provide adjustable hysteresis. Utilizing a proven diaphragm or piston type sensing technology, it provides excellent reliability, repeatability, and affordability for use in many applications. The micro switch contacts are silver plated for extended service life and exceptional dependability. Switching functions are field adjustable, while under pressure, and it features an SPDT single changeover contact configuration. These switches are Rohs compliant.

WARRANTY: One Year†

SPECIFICATIONS
CASE: Brass through 350 psi; aluminum 600 psi and higher
WETTED PARTS: Copper alloy; 316 stainless steel above 600 psi
CONNECTION: 1/4" NPT, brass
ELECTRICAL CONNECTION: M12 x 1 (4-pin or 5-pin)
SWITCHING FUNCTION: SPDT, micro-switch with silver-plated contacts
CE Compliant to EMC norm 61326: 1997/A1 1998, RFI, EMI and ESD

400 SERIES
NOSHOK MECHANICAL HEAVY-DUTY PRESSURE SWITCHES provide excellent repeatability and features a robust design for applications requiring maximum accuracy under extreme loads. With a switching point setting that remains stable for years, this switch converts pneumatic and hydraulic pressure into switching functions, and depending on the type of connection, it can easily be used as a N.C., N.O. or SPDT contact. The switching point is fully adjustable and includes a locking mechanism. This switch is fitted with DIN EN175301-803 Form A connectors for fast and easy installation. It is also available with a socket with an LED for easier switch point adjustment and visual status indication, or without the socket and an M12 x 1 (4-pin) electrical connection.

WARRANTY: One Year†

SPECIFICATIONS
CASE: Stainless steel
WETTED PARTS: <150 psi: 316L, ≥150 psi: 316L, PH grade steel
CONNECTION: 1/4" NPT standard, other options available
ELECTRICAL CONNECTION: M12 x 1 (4-pin or 5-pin)
ACCURACY: ±0.5 % of span
AVAILABLE RANGES: Vacuum and compound ranges fthrough 0 psig to 7,500 psig, absolute ranges available
SWITCHING FUNCTION: 1 or 2 N.O. or N.C. (PNP or NPN)
POWER SUPPLY: 15 Vdc to 38 Vdc
ANALOG OUTPUT: 4 mA to 20 mA and/or 0 Vdc to 10 Vdc; programmable and freely adjustable
CE compliant to EMC norm EN 61326: 1997/A1 1998, RFI, EMI and ESD

500 SERIES
NOSHOK ELECTRONIC MAG-SWITCHES are electronic pressure switches that utilize proven diaphragm pressure sensing technology coupled with Hall Effect magnetic field sensing technology and semiconductor switching technology to provide a highly reliable, accurate, repeatable pressure switch without mechanical contacts. The standard electrical connection is a M12 X 1 (4-pin) threaded connector which carries a NEMA 4: IP65 (IEC529) rating.

WARRANTY: Three Years†

SPECIFICATIONS
CASE: Zinc-plated steel
MEASURING ELEMENT: NBR diaphragm < 225 psig; Steel piston with NBR seal > 225 psig
SWITCHING FUNCTION: SPDT, micro switch with silver plated contacts, gold plated contacts available on request
ADJUSTMENT: Adjustment screw from 3 psig to 4,600 psig depending on full scale range
AVAILABLE RANGES: 0 psig to 300 psig through 450 psig to 4,600 psig
CONNECTION: 1/4" "NPT standard, others available on request
ELECTRICAL CONNECTION: Hirschmann (DIN EN175301-803 Form A), Optional M12 x 1 (4-pin)
MEDIA TEMPERATURE: -4 °F to 176 °F (-20 °C to 80 °C)

800 SERIES
NOSHOK’S ELECTRONIC INDICATING PRESSURE TRANSMITTER/SWITCHES are available in vacuum and compound ranges fthrough 0 psig to 7,500 psig, with current and voltage output options. This Pressure Transmitter/Switch features a display and electrical connection that can be rotated independently and offers seven different output configurations.

The new 800 Series NOSHOK Electronic Indicating Transmitter/Switch is constructed with 316L Stainless steel wetted parts and is RoHS compliant, and CE compliant to suppress RFI, EMI and ESD.

WARRANTY: Three Years†

†For further warranty information please consult your specific product catalogs.
SANITARY PRESSURE INSTRUMENTS

CAUTION: NOSHOK pressure transmitters are not to be used in heat sterilization systems as stated in 3A Standard 74-03 paragraph D10.1.2. Diaphragm seal must be installed facing downward or in a vertical position for drainability. Do not install diaphragm seal facing in an upward position.

10 SERIES FRACTIONAL

NOSHOK FRACTIONAL SANITARY PRESSURE GAUGES are designed for compact applications within the food & beverage, dairy, pharmaceutical, and biomedical industry while meeting the current 3A standards and ASME BPE-2009. The wetted materials are 316L stainless steel and electropolished to 32 μin Ra or better. Gauges can be cleaned in place (CIP), steamed in place (SIP) or Autoclaved to reduce system shutdown time.

WARRANTY: (dry): One Year†; (liquid filled): Three Years†

SPECIFICATIONS

SIZE: 2”
CASE MATERIAL: 304 stainless steel
COVER RING: 304 stainless steel
LENS: Polycarbonate – standard; safety glass – optional
BOURDON TUBE: 316 stainless steel
ACCURACY: ±2.5% full scale
PROCESS CONNECTION: 3/4” clamped-style
SEAL HOUSING: 316L stainless steel
DIAPHRAGM MATERIAL: 316L stainless steel
SEAL FILL: Glycerin, USP grade
RANGES: 0 psig to 30 psig through 0 psig to 600 psig
TEMPERATURE: -40 °F to 300 °F (-40 °C to 150 °C)

10 SERIES HEAVY-DUTY

NOSHOK HEAVY-DUTY SANITARY PRESSURE GAUGES meet the current standards for 3A and ASME BPE-2009. They are designed for applications throughout the pharmaceutical industry, food & beverage, dairy and biomedical industries. The available 1-1/2” or 2” clamped-style connections are constructed of 316L stainless steel welded to the all stainless steel 2-1/2” or 4” gauge for greater strength and durability. Wetted parts are electropolished to 32 μin Ra or better. Gauges can be cleaned in place (CIP), steamed in place (SIP) or Autoclaved to reduce system shutdown time.

WARRANTY: (dry): One Year†; (liquid filled): Three Years†

SPECIFICATIONS

SIZE: 2-1/2” or 4”
CASE MATERIAL: 304 stainless steel
COVER RING: 304 stainless steel
LENS: Safety glass – standard
BOURDON TUBE: 316 stainless steel
ACCURACY: ±1.5% full scale on 2-1/2” sizes; ±1.0% full scale on 4” sizes
OPTIONAL FILL FLUID: Glycerin or silicone
PROCESS CONNECTION: 1-1/2” or 2” clamped-style
SEAL HOUSING: 316L stainless steel
DIAPHRAGM MATERIAL: 316L stainless steel
SEAL FILL: Glycerin, USP grade
RANGES: Vacuum and compound through 0 psig to 600 psig
TEMPERATURE: -40 °F to 300 °F (-40 °C to 150 °C)

11 SERIES

NOSHOK CLAMPED-STYLE SANITARY PRESSURE TRANSMITTERS utilize diffused semiconductor and proven sputtered thin film sensor technology to produce a highly accurate, stable, shock resistant and durable pressure transmitter. They are suited for applications in the food & beverage, dairy, biotechnology and pharmaceutical industries and meet the current 3A standards as well as ASME BPE-2009 and CE compliant. Wetted parts are 316L stainless steel and electropolished to 32 μin Ra or better. Can be cleaned in place (CIP) and steamed in place (SIP) or Autoclaved to reduce system shutdown time.

WARRANTY: Three Years†

SPECIFICATIONS

OUTPUT SIGNALS: 4 mA to 20 mA, 2-wire: 0 Vdc to 5 Vdc, 0 to 10 Vdc, 1 Vdc to 5 Vdc, 1 Vdc to 6 Vdc & 1 Vdc to 11 Vdc; 3-wire: ±0.25% full scale (BFSL); Optional ±0.125% full scale (BFSL)
POWER SUPPLY: 10 Vdc to 30 Vdc: 4 mA to 20 mA, 2-wire; 10 Vdc to 30 Vdc (0 Vdc to 5 Vdc, 3-wire); 10 Vdc to 30 Vdc (1 Vdc to 5 Vdc, 3-wire); 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire); 14 Vdc to 30 Vdc (1 Vdc to 11 Vdc, 3-wire) - Unregulated
PROCESS CONNECTION: 1-1/2” or 2” clamped-style
SEAL HOUSING: 316L stainless steel
DIAPHRAGM MATERIAL: 316L stainless steel
SEAL FILL: White oil, USP grade
RANGES: Vacuum and compound through 0 psig to 400 psig
TEMPERATURE: -40 °F to 300 °F (-40 °C to 150 °C)

CE compliant to EMC norm EN 61326: 1997/A1 1998 RFI, EMI and ESD

†For further warranty information please consult your specific product catalogs.
**SPECIFICATIONS**

**OUTPUT SIGNALS:** 4 mA to 20 mA 2-wire, 4 mA to 20 mA 2-wire and Hart® signal

**ACCURACY:** 0.1% of adjusted span

**POWER SUPPLY:** 12 Vdc to 36 Vdc - Unregulated

**PROCESS CONNECTIONS:** E&H Universal adapter short version, E&H Universal adapter long version, Anderson Negele Type SL Short, Anderson Negele Type SL Long - 6", King Gage Short, King Gage Standard - 6", King Gage Long - 8", Rosemount Tank Spud - 2", Rosemount Tank Spud - 6", Tank Mate Medium - 6"

**HOUSING:** All polished 316 stainless steel

**RANGES:** 16 inH2O to 58 psig (1,600 inH2O)

**TEMPERATURE:** -4 °F to 212 °F (-20 °C to 100 °C); 293 °F (145 °C) for 45 min.

---

**20 SERIES**

NOSHOK INTELLIGENT SILO AND TANK LEVEL TRANSMITTERS feature programming via standard onboard display, and food, beverage and dairy specific process connections. Pressure and temperature sensors are mounted directly behind the diaphragm which minimizes fill fluid and allows the use of a smaller diaphragm. This provides active temperature compensation at the point of measurement to minimize temperature and position error. Turndown ratios up to 10:1 allow greater range adjustment, minimizing required inventory. Accuracies are based on adjusted span, not full scale range. Other features include all polished Stainless Steel construction and a 360° rotatable display.

**WARRANTY:** Three Years†

---

**SPECIFICATIONS**

**OUTPUT SIGNALS:** 4 mA to 20 mA 2-wire, 4 mA to 20 mA 2-wire and Hart® signal

**ACCURACY:** 0.2% of adjusted span

**POWER SUPPLY:** 12 Vdc to 36 Vdc - Unregulated

**TRI-CLAMP SIZES:** 1-1/2", 2" & 3"

**HOUSING:** All polished 316 stainless steel

**RANGES:** -160 inH2O vac to 1,160 psig

**TEMPERATURE:** 300 Series: 14 °F to 158 °F (-10 °C to 70 °C)

302/304 Series: -4 °F to 212 °F (-20 °C to 100 °C); 293 °F (145 °C) for 45 min.

---

**25 SERIES**

NOSHOK INTELLIGENT PRESSURE AND LEVEL TRANSMITTERS feature programming via standard onboard display and a compact, flush diaphragm. Pressure and temperature sensors are mounted directly behind the diaphragm which minimizes fill fluid and allows the use of a smaller diaphragm. This provides active temperature compensation at the point of measurement to minimize temperature and position error. Turndown ratios up to 4:1 allow greater range adjustment, minimizing required inventory. Accuracies are based on adjusted span, not full scale range. Other features include all polished Stainless Steel construction, and a 360° rotatable display.

**WARRANTY:** Three Years†

---

**SPECIFICATIONS**

**OUTPUT SIGNALS:** 4 mA to 20 mA 2-wire, 4 mA to 20 mA 2-wire and Hart® signal

**300 Series:**

**ACCURACY:** 0.2% of adjusted span

**POWER SUPPLY:** 12 Vdc to 36 Vdc - Unregulated

**TRI-CLAMP SIZES:** 1-1/2", 2" & 3"

**HOUSING:** All polished 316 stainless steel

**RANGES:** 300 Series: Ranges from 40 inH2O to 60 psig

302 Series: Adjustable ranges from 40 inH2O to 1,160 psig

304 Series: Adjustable ranges from 16 inH2O to 1,450 psig

**TEMPERATURE:** 300 Series: 14 °F to 158 °F (-10 °C to 70 °C)

302/304 Series: -4 °F to 212 °F (-20 °C to 100 °C); 293 °F (145 °C) for 45 min.

**30 SERIES**

NOSHOK “SNORKEL” PRESSURE AND LEVEL TRANSMITTERS are developed for wash down applications and where space restricts easy adjustment. Electronics can be remotely mounted in a safe and convenient location. The vented electrical cable connects the sensor to the electronics housing with no fill fluid. Pressure and temperature sensors are mounted directly behind the diaphragm which minimizes fill fluid and allows the use of a smaller diaphragm. This provides active temperature compensation at the point of measurement to minimize temperature and position error. Turndown ratios up to 10:1 allow greater range adjustment, minimizing required inventory. Accuracies are based on adjusted span, not full scale range. Other features include all polished Stainless Steel construction.

**WARRANTY:** Three Years†

---

†For further warranty information please consult your specific product catalogs.
**DIAPHRAGM SEALS**

### TYPE 5

**NOSHOK ALL NON-METALLIC, NON-REPLACEABLE DIAPHRAGM SEALS** are designed for wastewater and chemical feed applications, or any application with a corrosive media. These seals protect pressure or vacuum instruments used on ultra-pure or highly corrosive fluid lines such as demineralized water, sulfuric acid, hydrochloric acid, and caustics. Available 100% non-metallic construction assures maximum chemical and temperature compatibility.

**WARRANTY:** One Year†

### TYPE 10

**NOSHOK STANDARD PRESSURE BOLTED REPLACEABLE DIAPHRAGM SEALS** are designed to utilize a replaceable diaphragm clamped between the metal housings. They are rated to 2,000 psi with a displacement capability of 3.2 ml.

**WARRANTY:** One Year†

### TYPE 10L

**NOSHOK REDUCED PRESSURE, NON-METALLIC LOWER, BOLTED REPLACEABLE DIAPHRAGM SEALS** utilize a replaceable diaphragm and non-metallic lower housing. They are rated to 200 psi with a displacement capability of 3.2 ml.

**WARRANTY:** One Year†

### TYPE 10H

**NOSHOK ELEVATED PRESSURE BOLTED REPLACEABLE DIAPHRAGM SEALS** are a threaded connection, off-line seal with a replaceable diaphragm. They are designed for high pressure applications and are rated to 5,000 psi. Displacement capability is 1.4 ml.

**WARRANTY:** One Year†

### TYPE 12

**NOSHOK SANITARY, CLAMPED-STYLE, ASME-BPE NON-REPLACEABLE DIAPHRAGM SEALS** feature a flush mount diaphragm and all welded construction, making them ideal for food & beverage, pharmaceutical and sanitary markets. They can accommodate process connection pipes from 1-1/2" through 3" sizes. Their clamped connection allows ease of installation and removal of seal for maintenance and cleaning.

**WARRANTY:** One Year†

### TYPE 20

**NOSHOK FRONT FLUSH NON-REPLACEABLE DIAPHRAGM SEALS** are constructed with a 316 stainless steel housing and diaphragm. Maximum pressure rating is 9,000 psi. Available instrument connection sizes are 1/4 and 1/2" with a process connection size of 1/2" NPT male to 2" NPT male.

**WARRANTY:** One Year†

### TYPE 25

**NOSHOK STANDARD PRESSURE NON-REPLACEABLE DIAPHRAGM SEALS** utilize an all welded, all metallic housing design, pressure rated to 2,500 psi. The housing and diaphragm are offered in a variety of materials to suit most applications. A flushing port is offered as an option.

**WARRANTY:** One Year†

---

†For further warranty information please consult your specific product catalogs.
**DIAPHRAGM SEALS**

**TYPE 25H**

NOSHOK ELEVATED PRESSURE NON-REPLACEABLE DIAPHRAGM SEALS utilize an all welded, all metallic housing design pressure rated to 5,000 psi. The housing and diaphragm are offered in a variety of materials to suit most applications. A flushing port is offered as an option.

**WARRANTY:** One Year†

---

**TYPE 29**

NOSHOK HIGH VOLUMETRIC DISPLACEMENT NON-REPLACEABLE DIAPHRAGM SEALS are an all welded, all metallic housing design that does not utilize an o-ring or gasket. Displacement is limited to 1.5 ml requiring the use of gauges with less than 4-1/2" dial size and Bourdon tube range no lower than 0 psi to 15 psi. Pressure rating is 2,500 psi.

**WARRANTY:** One Year†

---

**TYPE 30**

NOSHOK STANDARD PRESSURE, BOLTED, NON-REPLACEABLE DIAPHRAGM SEALS utilize an all metallic diaphragm welded to the upper housing with a displacement capability of 1.5 ml. Standard pressure rating is 2,500 psi with a wide variety of instrument and process connections available. A flushing connection is offered as an option.

**WARRANTY:** One Year†

---

**TYPE 30H**

NOSHOK ELEVATED PRESSURE, BOLTED, NON-REPLACEABLE DIAPHRAGM SEALS utilize an all metallic diaphragm welded to the upper housing with a displacement capability of 1.5 ml. Pressure rating is 5,000 psi with a wide variety of instrument and process connections available. A flushing port is offered as an option.

**WARRANTY:** One Year†

---

**TYPE 30L**

NOSHOK REDUCED PRESSURE, NON-METALLIC LOWER, BOLTED, NON-REPLACEABLE DIAPHRAGM SEALS utilize an all metallic diaphragm welded to the upper housing. Displacement capability is 1.5 ml with a 2.4" diameter diaphragm. Maximum pressure rating is 200 psi with non-metallic lower housing materials.

**WARRANTY:** One Year†

---

**TYPE 40**

NOSHOK FLOW-THROUGH ANNULAR STYLE REPLACEABLE DIAPHRAGM SEALS are frequently used in abrasive media applications such as slurries, heavy sludges, chemical (synthetic polymers), and diffusers (flow measurement). Process liquid flowing through the pipe exerts pressure onto a flush-mounted flexible inner cylinder containing clean, captive liquid; completely isolating instrumentation from the process flow and preventing plugging.

**WARRANTY:** One Year†

---

†For further warranty information please consult your specific product catalogs.
DIAL INDICATING THERMOMETERS

SPECIFICATIONS

**100 SERIES**

NOSHOK INDUSTRIAL TYPE BIMETAL THERMOMETERS are heavy-duty, industrial thermometers with a weather-resistant, tamper proof case. These thermometers feature a highly sensitive bimetallic helix coil which is heat-treated for stress relief, and silicone-coated to minimize pointer vibration and maximize heat transfer and response time.

**WARRANTY:** One Year†

**150 SERIES**

NOSHOK TESTING AND GENERAL PURPOSE BIMETAL THERMOMETERS are designed for general purpose testing applications, and feature a weather-resistant, tamper-proof case. A pocket sized model is available for use by inspectors, service and maintenance personnel for spot checking.

**WARRANTY:** One Year†

**300 SERIES**

NOSHOK INDUSTRIAL TYPE BIMETAL THERMOMETERS WITH EXTERNAL RESET are the highest quality thermometers available on the market. They feature a sturdy, corrosion resistant 304 stainless steel case and bezel which provides a hermetic seal to prevent lens fogging and damage caused by moisture. 1/16” Allen key adjustment offers field calibration for maximum accuracy at a selected range.

**WARRANTY:** Eight Years†

**350 SERIES**

NOSHOK TESTING AND GENERAL PURPOSE BIMETAL THERMOMETERS WITH EXTERNAL RESET are designed for general purpose testing applications, and feature a weather-resistant, tamper-proof case. A pocket sized model is available for use by inspectors, service and maintenance personnel for spot checking. A friction adjustment nut design offers easy field calibration for maximum accuracy at a selected range. Adjustable pan clips are standard on 1-3/4", 2" and 3" models with 5" and 8" stems.

**WARRANTY:** One Year†

**300/400/600/700/900 SERIES**

NOSHOK VAPOR ACTUATED REMOTE THERMOMETERS operate using a temperature actuated liquid in the sensing element and a highly accurate, high quality pressure gauge to indicate media temperature. As the media temperature increases the capillary fill fluid vaporizes, causing an increase of pressure within the Bourdon tube, and activates the movement and pointer for proper indication. Dial scale graduations are non linear; therefore, the highest degree of accuracy and readability is found in the upper half of the scale.

**WARRANTY:** One Year†

---

†For further warranty information please consult your specific product catalogs.
DIAL INDICATING THERMOMETER OPTIONS

ADJUSTABLE UNION CONNECTION
Can be used to reposition the dial face for better viewing. Also helpful when installing a thermometer where space is limited.

CERTIFIED CALIBRATION
Certified calibration is available on all NOSHOK thermometers, and provides the user with a serial numbered thermometer along with a calibration sheet against a primary temperature standard, which is traceable to the National Institute of Standards and Technology.

CONNECTIONS
In addition to our standard 1/2” NPT connection, 1/4” or 3/8” NPT and metric connections are also available. If a special connection is required, please consult the factory. Other options include a plain stem with an adjustable compression fitting, or left, right or top connections.

GLOW DIAL
Allows up close daylight and/or distant night time viewing. 5” Adjustable angle or back connected. Includes reflective pointer and two reflective clips included to indicate custom minimum and maximum limits.

LENSES
Laminated safety glass lenses are available on all 3” and 5” NOSHOK bimetal thermometers. Acrylic and polycarbonate lenses are available on all NOSHOK bimetal thermometers also, however they should not be used where case temperature exceeds 300 °F/150 °C.

MINIMUM OR MAXIMUM INDICATING POINTER
The MIP allows you to view your minimum or maximum temperatures for visual clarification of safe operation. Available only on 30-310 and 50-310 models.

MINIMUM AND MAXIMUM INDICATING POINTER
The MIP2 allows you to view your minimum and maximum temperatures for visual clarification of safe operation. Available only on 30-310 and 50-310 models.

MOUNTING FLANGES
Various sizes and types of mounting flanges are available.

SILICONE FILLED
All 2”, 3” and 5” NOSHOK industrial bimetal thermometers are offered in a silicone filled version. This fill is used for applications where severe vibration may be a factor. Silicone dampens and lubricates the internal mechanism thus reducing pointer oscillation and premature wear. A polycarbonate lens is standard with a silicone filled thermometer. Maximum case temperature not to exceed 300 °F (150 °C).

SPECIAL DIALS
Special ranges and dials with company names, company logos, part numbers, telephone numbers, and custom layouts are available.

STEM TYPES
Multiple stem diameters, stem lengths up to 120”, sharp tip options and optional 316SS wetted parts are available.

†For further warranty information please consult your specific product catalogs.
## SPECIFICATIONS

**OUTPUT SIGNALS:** 4 mA to 20 mA, 2-wire; 0 Vdc to 5 Vdc, 3-wire; 1 Vdc to 5 Vdc, 3-wire and 0 Vdc to 10 Vdc, 3-wire

**RANGES:** Standard ranges from -40 °F to 120 °F to 50/550 °F

**ACCURACY:** Class B (+0.5% full scale)

**POWER SUPPLY:** 10 Vdc to 30 Vdc for 4 mA to 20 mA, 2-wire; and 0 Vdc to 5 Vdc, 3-wire; and 1 Vdc to 5 Vdc, 14 Vdc to 30 Vdc for 0 Vdc to 10 Vdc, 3-wire.

**HOUSING MATERIAL:** 316 stainless steel

**WETTED MATERIAL:** 316 stainless steel

**STEM LENGTHS:** From 2-1/2” to 12” - Stock

**PROCESS CONNECTION:** 1/2” NPT male; 1/4” NPT male and 1/4” NPT male with adjustable compression fitting available

---

### 800 SERIES

**NOSHOK PLATINUM RESISTANCE TEMPERATURE TRANSMITTERS** use the proven reliability and stability of the platinum 100 Ω sensor to provide unbeatable performance at an economical price.

Shown with 1800 Series Attachable Loop Indicator.

**WARRANTY:** Three Years†

---

### 810 SERIES

**NOSHOK COMPACT OEM TEMPERATURE TRANSMITTERS** are compact size transmitters at an economical price, with standard temperature ranges from -25 °F to 125 °F through 0 °F to 250 °F.

These transmitters feature a proven 100 Ω platinum resistance sensor which provides reliability, stability and unbeatable performance, and a 316 stainless steel housing. A 4 mA to 20 mA transmitter is included.

**WARRANTY:** Three Years†

---

### 820/821 SERIES

**NOSHOK DIGITAL TEMPERATURE INDICATORS** are an ideal replacement for bimetal, liquid bulb and glass thermometers in applications including pharmaceutical, food preparation, utilities and municipal, refineries, chemical and petrochemical plants, paper mills and hydraulics. Featuring a large 4-digit LED display, they are field re-programmable with optional PC interface module and software, which includes a security feature to prevent accidental reprogramming. NOSHOK Digital Indicators utilize a self-calibration feature for accurate and stable performance, and allow easy installation with various mounting configurations.

**WARRANTY:** Three Years†

---

### 822/823 SERIES

**NOSHOK BATTERY POWERED DIGITAL TEMPERATURE INDICATORS** are an ideal replacement for bimetal, liquid bulb and glass thermometers in applications including pharmaceutical, food preparation, utilities and municipal, refineries, chemical and petrochemical plants, paper mills and hydraulics. These indicators provide a 5 year minimum battery life, and feature a large 4-digit LCD display.

**WARRANTY:** Three Years†

---

### 850 SERIES

**NOSHOK ELECTRONIC INDICATING TEMPERATURE TRANSMITTER/SWITCHES** measure and display temperature, and have one or two switching outputs as well as optional current and voltage outputs. The three buttons on top allow simple adjustment of the temperature set points, reset points, switching functions and the measuring range of the optional analog output. A variety of process connections, including sliding compression fittings, add to the versatility of this sensor. All wetted parts, as well as the housing, are made of stainless steel.

**WARRANTY:** Three Years†

---

*For further warranty information please consult your specific product catalogs.*
900 SERIES

NOSHOK PROBE TYPE INDUSTRIAL RTDs are general purpose RTD probes with PVC or PTFE lead wires. They are ideal for OEM applications, and are offered in 2, 3 or 4-wire circuit types. Many options are available, including adjustable and welded fittings, a variety of fitting sizes and probe diameters, and custom designs. RTD PT100 is standard, others are available on request. Multiple electrical connections are available.

WARRANTY: Three Years†

910/915 SERIES

NOSHOK PROBE TYPE INDUSTRIAL RTD WITH CONNECTION HEAD are available in 2, 3 or 4-wire circuit configurations and they can be ordered with a fixed probe or spring loaded, depending on the application. These RTDs are available with a variety of NEMA 4 and NEMA 4X head types, including aluminum cast, explosion proof aluminum cast, polypropylene, stainless steel cast, and explosion proof stainless steel cast. Explosion proof versions are Class I, Division 1, Groups B, C and D; Class II, Division I, Groups E, F and H. Electrical connection options include connection head with 1/2" NPT conduit, and connection head with 3/4" NPT conduit. Stem length options range from 2.5" to 24", and stem diameter options range from 1/8" to 1/2", as well as 6 mm.

WARRANTY: Three Year†

920 SERIES

NOSHOK RTD TRANSMITTERS are high accuracy (±0.1%) transmitters with a 2-wire loop-powered 4 ma to 20 ma output. They feature a PT100 input with 3-wire compensation, and have an analog design with an adjustable potentiometers. These RTD transmitters are factory calibrated for a fixed range, and fit standard heads. An optional model is fully field re-programmable with module and PC-based software.

WARRANTY: Three Year†

THERMOWELLS

NOSHOK THERMOWELLS are recommended whenever the process being measured may be under pressure, is corrosive, abrasive or may be at a high velocity. They are also recommended as protection to the operator. The correct thermowell will reduce the possibility of damage to the temperature instrument and allows an instrument to be removed and replaced without shutting down and possibly draining the process. Standard thermowells are supplied with 1/2" NPSM instrument connection. The female thread will accept the 1/2" NPT male thread without galling or seizing.

WARRANTY: One Year†

†For further warranty information please consult your specific product catalogs.
**HYDRAULIC LOAD CELLS**

**SPECIFICATIONS**

**NOMINAL DIAMETER:** 20 cm²
 **LOAD CELL HOUSING MATERIAL:** Stainless steel
 **PISTON:** Stainless steel – standard; plastic – optional
 **CONNECTING LINE:** 50 mm adapter – standard; others available
 **RANGES:** From 300 lbf through 22,000 lbf
 **MEASURING INSTRUMENT**
 **PRESSURE GAUGE:** 2-1/2" 300 Series, one piece die cast brass case; dry or liquid filled
 **TRANSDUCER:** 100, 200 or 615 Series transducer
 **OUTPUT SIGNALS:** 4 mA to 20 mA, 2-wire: 0 Vdc to 5 Vdc, 0 Vdc to 10 Vdc, 1 Vdc to 5 Vdc, 1 Vdc to 6 Vdc & 1 Vdc to 11 Vdc, 3-wire
 **ACCURACY:** ±0.125% full scale (BFSL) to ±1.5% full scale
 **OPERATING TEMP.:** -4 °F to 122 °F (-10 °C to 50 °C)
 **AMBIENT TEMP.:** -4 °F to 140 °F (-20 °C to 60 °C)

**WARRANTY:** One Year†; Three Years† on liquid filled gauges & transducers

†For further warranty information please consult your specific product catalogs.

**2000 SERIES**

**NOSHOK 20 CM² NOMINAL DIAMETER HYDRAULIC LOAD CELLS** are designed for measuring axial loads and bearing forces in turning and drilling machines, extruders, and other compression or tension force applications. The stainless steel housing and piston provide for exceptional corrosion resistance and extended service life. Accuracy levels range from ±0.125% full scale (BFSL) to ±1.5% full scale depending on the measuring instrument.

**WARRANTY:** One Year†; Three Years† on liquid filled gauges & transducers

**RTD ACCESSORIES**

**RTD TERMINAL BLOCKS**

These terminal blocks are provided with a steatite ceramic base, brass terminal pieces and stainless steel screws, and can be used in the temperature sensor or low voltage Class 2 circuits. Material options include Bakelite and ceramic, and multiple configurations are available including 2, 3, 4 and 6 position.

**RTD CONNECTION HEADS** meet the NEMA requirements for indoor or outdoor use, providing protection against dust, rain, splashing and hose-directed water. Featuring easy access, one-turn caps, these connection heads accept standard and DIN terminal blocks and transmitters, and provide greater volume for ease of wiring. Available in aluminum, polypropylene, and stainless steel (explosion-proof versions available).

**RTD TERMINAL BLOCKS**

These terminal blocks are provided with a steatite ceramic base, brass terminal pieces and stainless steel screws, and can be used in the temperature sensor or low voltage Class 2 circuits. Material options include Bakelite and ceramic, and multiple configurations are available including 2, 3, 4 and 6 position.

**RTD CONNECTION HEADS** meet the NEMA requirements for indoor or outdoor use, providing protection against dust, rain, splashing and hose-directed water. Featuring easy access, one-turn caps, these connection heads accept standard and DIN terminal blocks and transmitters, and provide greater volume for ease of wiring. Available in aluminum, polypropylene, and stainless steel (explosion-proof versions available).
HYDRAULIC LOAD CELLS

SPECIFICATIONS

NOMINAL DIAMETER: 80 cm² to 250 cm²
LOAD CELL HOUSING MATERIAL: Stainless steel
PISTON: Stainless steel
CONNECTING LINE: Direct connection – standard; flexible tubing, capillary restrictor
RANGES: From 360 lb through 70,000 lb,
MEASURING INSTRUMENT
PRESSURE GAUGE: 2-1/2; 300 Series, one piece die-cast brass case; dry or liquid filled, 4" 901 Series stainless steel case; dry or liquid filled
TRANSUDER: 100, 200 or 615 Series transducer
OUTPUT SIGNALS: 4 mA to 20 mA, 2-wire: 0 Vdc to 5 Vdc, 0 Vdc to 10 Vdc, 1 Vdc to 5 Vdc, 1 Vdc to 6 Vdc & 1 Vdc to 11 Vdc, 3-wire
ACCURACY: ±0.125% full scale (BFSL) to ±1.5% full scale depending on the measuring element
OPERATING TEMP.: -4°F to 140°F (-20 °C to 60 °C)
AMBIENT TEMP.: -4°F to 140°F (-20 °C to 60 °C)

WARRANTY: One Year†; Three Years† on liquid filled gauges & transducers

3000 SERIES

NOSHOK 80 CM² NOMINAL DIAMETER HYDRAULIC LOAD CELLS are constructed from a high grade, corrosion resistant stainless steel and joined with a high quality NOSHOK pressure gauge or transducer to measure axial loads and bearing forces in turning and drilling machines, extruders and other compression force measurement applications. Accuracy levels range from ±0.125% full scale (BFSL) to ±1.5% full scale depending on the measuring instrument with measuring ranges from 360 lb through 70,000 lb.

WARRANTY: One Year†; Three Years† on liquid filled gauges & transducers

4000 SERIES

NOSHOK 10 CM² to 250 CM² NOMINAL DIAMETER HYDRAULIC LOAD CELLS are designed for level measurement, rope and belt tension and torque measurement, bearing support forces on lifting equipment and other compression force measurement applications. The cell housing is built from a durable galvanized and chrome plated steel while the piston is constructed from a high grade stainless steel for exceptional corrosion resistance.

WARRANTY: One Year†; Three Years† on liquid filled gauges & transducers

5000 SERIES

NOSHOK 40 CM² to 410 CM² NOMINAL DIAMETER HYDRAULIC LOAD CELLS are designed in a distinctive ring shaped form for compression and tension force measurement in injection molding machine screws, tailstock spindles, propeller shafts, rope and torque measurement applications and more. The high grade stainless steel housing and piston provide exceptional corrosion resistance and durability.

WARRANTY: One Year†; Three Years† on liquid filled gauges & transducers

† For further warranty information please consult your specific product catalogs.
The NOSHOK-TECsis Custom Force Sensor is a breakthrough in force measurement. Utilizing proven thin film sensor technology combined with an advanced automated production process, we create a highly adaptive force transmitter that is suitable for industrial use. This development process gives the customer complete freedom in creating a high-quality, highly accurate force sensor that is custom designed and engineered to meet their specific application needs.

NOSHOK-TECsis Custom Force Sensors provide the OEM and end user alike with unsurpassed flexibility to achieve a previously unattainable solution because of nonconforming standard designs and high accuracy requirements. NOSHOK achieves this solution in a way that is performance and reliability enhancing while remaining cost effective.

SPECIFICATIONS

- **Output Signal:** 4 mA to 20 mA, 2-wire, 0 Vdc to 5 Vdc, 3-wire, 0 Vdc to 10 Vdc, 3-wire
- **Nominal Ranges:** 1,000 lbf to 100,000 lbf (5 kN to 500 kN), standard. Others available, please consult factory.
- **Limit Force:** 150% Fnom
- **Fracture Force:** > 300% full scale
- **Accuracy:** < 1% full scale
- **Hysteresis:** < 0.5% full scale
- **Power Supply:** 10 Vdc to 30 Vdc; 14 Vdc to 30 Vdc for 0 Vdc to 10 Vdc output
- **Housing Material:** 316 stainless steel
- **Response Time:** ≤ 0.5s (between 10% to 90% full scale)
- **Environmental Rating:** IP 67, NEMA 4X to EN 60529/IEC 529
- **Electrical Protection:** Reverse polarity, over-voltage and short circuit protection
- **Vibration:** 20g’s per IEC 68-2
- **Electrical Connection:** M12 X 1 (4-pin) standard. Others available, please consult factory.

FEATURES

- Custom designed and built to the exact application specifications requiring less space for mounting and installation
- The NOSHOK-TECsis proven thin film sensor is LASER WELDED to the deformation body for superior strength and performance
- Extremely accurate, with the help of Finite Element Method Analysis, the sensor is able to reach accuracies from 0.2% to 1% full scale
- Available in a variety of standard current and voltage output signals, with others available upon request
- High quality product produced in an automated system with cost effective pricing
- Deformation body is constructed from a high grade, high quality stainless steel that provides exceptional durability and contributes to extended service life

†For further warranty information please consult your specific product catalogs.
NOSHOK TENSION AND COMPRESSION FORCE TRANSDUCERS are available in many different sizes and shapes to fit almost any application. They are available in measuring ranges as small as 0 kN to 1 kN and as high as 0 kN to 500 kN with an accuracy of ±0.2% of full scale.

Several outputs are available in both amplified and unamplified to interface with most electrical systems. Many versions are manufactured from stainless steel which makes them suitable for installation in harsh environments. Applications for use of this product include cable or rod tension, weight measurement, overload protection, clamping force and fill level measurement.

**SPECIFICATIONS**

- **OUTPUT SIGNAL:** 4 mA to 20 mA, 2-wire or 3-wire; 0 Vdc to 10 Vdc, 2-wire
- **MEASURING RANGES:** 0 kN to 1 kN through 0 kN to 500 kN
- **ACCURACY:** ±0.2% full scale of Cn
- **HOUSING MATERIAL:** 316 stainless steel or aluminum, dependent on version
- **ENVIRONMENTAL PROTECTION:** NEMA 4X, IP67 per EN 60529/IEC 529
- **OPERATING TEMPERATURE:** -4 °F to 176 °F (-20 °C to 80 °C)
- **ELECTRICAL PROTECTION:** Short circuit, overvoltage and reverse polarity protection

**3540 SERIES**

NOSHOK TENSION AND COMPRESSION FORCE TRANSDUCERS are available in many different sizes and shapes to fit almost any application. They are available in measuring ranges as small as 0 kN to 1 kN and as high as 0 kN to 500 kN with an accuracy of ±0.2% of full scale. Several outputs are available in both amplified and unamplified to interface with most electrical systems. Many versions are manufactured from stainless steel which makes them suitable for installation in harsh environments. Applications for use of this product include cable or rod tension, weight measurement, overload protection, clamping force and fill level measurement.

**WARRANTY:** One Year

---

**2351 SERIES**

NOSHOK S-TYPE FORCE TRANSDUCERS' conventional design features internal threads which allow force to be easily introduced via suitable swivel heads. Calibrations in the tension or compression direction only are available at no charge. The S-Type transducer features thin film sensors and an integrated amplifier for excellent sensitivity, provides high shock and vibration resistance, with an accuracy up to 0.1% of full scale value. This transducer can be used for either dynamic or static requirements, and its overload protection is rated for 150% of the maximum nominal load.

**WARRANTY:** One Year

---

**3010 SERIES**

NOSHOK CHAIN HOIST TEST KIT (CHTK) for overload cutoff is a precise, durable and dependable tester for slip couplings on chain hoists. The CHTK provides a wide range of measurement, with high accuracy, low weight and ease of use.

To perform the test, the force transducer is inserted into the chain, travels upwards with it against the base of the chain hoist and thereby blocks the chain. The display unit allows you to read the load at which the friction clutch stalls.

The CHTK consists of a force transducer with integrated handle and a display unit. Two chain adapters and three centering sleeves are also included in the kit, to ensure the CHTK can be used for most types of chain hoists in the specified load range. The large illuminated graphic display makes it very easy for the user to read the measured values. Optionally, 99 different data sets can be stored and transferred via an infrared interface to a PC. The CHTK's special feature is the single sensor concept for the entire load range.

---

**3020 SERIES**

NOSHOK WELD FORCE TEST KITS are designed to easily and accurately check electrode force in spot welding equipment. The WFTK consists of a force transducer, a handheld display unit, plastic carrying case, charger, 2-meter signal cable and Manufacturer’s Test Certificate. The WFTK weighs only 13 lbs, and features a Max/Min Value Memory, a large illuminated display, and electrode diameters of 14–20 mm.

To check the force acting on the electrodes, the force transducer is held between the electrodes. The concave surfaces center the force transducer. When the welding electrodes come together, the magnitude of the applied force can be read on the display unit. The force transducer is insensitive to transverse forces and torques. It has a measuring range of 0 kN -10 kN. The output signal is connected to the handheld display unit via a cable. This display unit carries the voltage supply for the transducer. Alternatively, the supply can be taken from a PLC. The sensor, which is laser welded, has all the advantages of the conventional bonded foil strain gauges, but without having their substantial disadvantages (temperature drifts due to the glue and creeping).

For further warranty information please consult your specific product catalogs.
**SPECIFICATIONS**

**MATERIALS:** Zinc-nickel plated steel, electropolished 316 stainless steel, 360 brass


**PRESSURE RATINGS:** Brass: 6,000 psi @ 200 °F; zinc-nickel plated steel: 10,000 psi @ 200 °F; stainless steel: 10,000 psi @ 200 °F

**FLOW COEFFICIENT:**
- 100/150 Series: C=0.172
- 200/300 Series: C=0.187
- 400 Series: C=0.44
- 500 Series: C=0.64

**STEM SEAL & TYPE:**
- All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional

**OPTIONS:**
- Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips

All NOSHOK valves are 100% helium leak tested to 1 X 10^-4 ml/s for guaranteed performance and reliability.

100/150 Series: U.S. Patent 6,820,857 and 7,758,014

**100/150 SERIES**

NOSHOK MINI VALVES are small in size but deliver maximum strength and durability. Available in zinc-nickel plated steel, electropolished stainless steel and brass, these rugged mini valves are equipped with an FKM o-ring and PTFE back-up ring below the stem threads to protect against corrosion and galling. Stem threads are rolled for greater strength and ease of operation. 100 Series feature a metal-to-metal hard seat, and have a maximum pressure of 10,000 psi for stainless steel and steel models, and 6,000 psi for brass. 150 Series valves feature a patented Delrin® non-rotating soft tip stem. They have a max pressure of 6,000 psi for stainless steel and steel models, and 3,000 psi for brass.

**WARRANTY:** Three Years†

**200/300 SERIES**

NOSHOK MULTIPORT VALVES reduce the number of gauge and other instrument connections to permanent piping installations, therefore decreasing possible leak points (paths). Optional bleed plugs further allow pressure to be bled off without disturbing the permanent piping installation. The metal-to-metal hard seat design has a maximum pressure rating to 10,000 psi @ 200 °F. The soft seat design, with the replaceable Delrin® seat, is pressure rated to 6,000 psi @ 200 °F.

**WARRANTY:** Three Years†

**400/500 SERIES**

NOSHOK STANDARD NEEDLE VALVES are the work horses of the industry. The 400 Series' metal-to-metal hard seat design is pressure rated to 10,000 psi @ 200 °F and helium leak tested to 1 x 10^-4 ml/s for guaranteed performance and reliability. The 500 Series valves are fitted with a precision molded, replaceable Delrin® soft seat which is the key to the bubble tight seal. They have a maximum pressure rating of 6,000 psi @ 200 °F with straight through porting for bi-directional, high capacity flow and easy roddable cleaning. The all 316 stainless steel blow out proof stem provides greater service life and provides a secondary stem seal in the full open position. On the 400 Series, the stem and the one piece bonnet provides greater service life and provides a secondary stem seal in the full open position. The 400 and 500 Series feature stem seal below the threads to protect against corrosion and galling.

**WARRANTY:** Three Years†

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.

All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

*For further warranty information please consult your specific product catalogs.*
### SPECIFICATIONS
**MATERIALS:** Zinc-nickel plated steel, electropolished 316 stainless steel  
**CONNECTIONS:** 1/4" & 1/2" NPT

**PRESSURE RATING:** 600 Series: 10,000 psi @ 200 °F;  
700 Series: 6,000 psi @ 200 °F  
**ORIFICE SIZE:** 600/700 Series: 0.187" (both series)  
**FLOW COEFFICIENT:** 600 Series: Cv 0.44;  
700 Series: Cv 0.76

**STEM SEAL & TYPE:** All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional  
**OPTIONS:** Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips

All NOSHOK valves are 100% helium leak tested to 1 X 10⁻⁶ ml/s for guaranteed performance and reliability.

### HARD SEAT & SOFT TIP

#### 600/700 SERIES

**NOSHOK BLOCK & BLEED NEEDLE VALVES** allow pressure to be bled off without disturbing the permanent piping installation thereby enabling the user to quickly and easily remove and/or replace instruments. The metal-to-metal hard seat design is pressure rated to 10,000 psi @ 200 °F and the soft seat design, with a replaceable Delrin® seat, is rated to 6,000 psi @ 200 °F. The all 316 stainless steel blow out proof stem provides greater service life and a secondary stem seal in the full open position. Stem seals, with the FKM o-ring and PTFE back up ring, are below the threads and protect against galling and corrosion.

**WARRANTY:** Three Years†

#### 800/850 SERIES

**NOSHOK BLEED VALVES** provide a convenient means to relieve process pressures trapped between a shut off valve and the instrument. The 800/850 Series valves use the same bonnet assemblies as the 100 and 150 Series mini valves with an integrated single threaded body for insertion into a vent port. NOSHOK Soft tip valves feature a patented Delrin® non-rotating soft tip stem, a back-up metal-to-metal seal and a 0.159" bleed port. Our patented body-to-bonnet, metal-to-metal seal is designed to significantly increase the pressure range of the valve. All stem threads are rolled for strength and ease of operation.

**WARRANTY:** Three Years†

#### 2070/2170 SERIES

**NOSHOK BLOCK & BLEED 2-VALVE NEEDLE VALVES** combine isolating and venting in a single valve, eliminating the need for tubing and fittings. The block valve isolates the downstream process fluids, and the bleed valve exhausting upstream fluids enabling instruments to be removed without disturbing the permanent piping installation. The 1/4" NPT vent plug may be removed and replaced with exhaust piping to direct the fluids to a safe location. The metal-to-metal hard seat design is pressure rated to 10,000 psi @ 200 °F and the soft seat design, with a replaceable Delrin® seat, is rated to 6,000 psi @ 200 °F. The all 316 stainless steel blow out proof stem provides greater service life and a secondary stem seal in the full open position. The standard stem seal is below the threads and protects against galling and corrosion.

**WARRANTY:** Three Years†

---

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.  
All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.  
†For further warranty information please consult your specific product catalogs.
**NEEDLE VALVES**

### 3070 SERIES

**NOSHOK DOUBLE BLOCK & BLEED 2-VALVE NEEDLE VALVES** combine double isolation and venting in a single valve, eliminating the need for tubing and fittings. The double block and bleed valve isolates the downstream process fluids, or isolates the upstream instrument pressure. The bleed valve exhausts either upstream or downstream fluid pressure depending on which block valve is used. The 1/4" NPT vent port is located on the opposite side of the process block valve and 90° from the instrument block valve. 10,000 psi hard seat pressure rating @ 200 °F. Blow-out proof stem provides a secondary stem seal in the full open position. All stem threads are rolled for strength and ease of operation. These valves feature a one-piece bonnet with a metal-to-metal seal to the valve body below the bonnet threads, and a slotted spring pin to prevent accidental loosening. Vinyl dust cap for bonnet and stem (non-packing).

**WARRANTY:** Three Years

### 2000/2100 SERIES

**NOSHOK BLOCK & BLEED 2-VALVE STATIC PRESSURE MANIFOLD VALVES** combine isolating and venting in a single manifold eliminating the need for tubing and fittings. The block valve isolates the downstream process fluids and the bleed valve exhausts upstream fluids enabling static pressure transmitters, switches or gauges to be removed without disturbing the permanent piping installation. The block valve is located on the side and the bleed valve is located on top in a 90° orientation. Venting is to the right. The all 316 stainless steel blow out proof stem provides longer service life and a secondary stem seal in the full open position. The stem seal, with the FKM o-ring and PTFE back up ring, is below the threads and protects against galling and corrosion. The block valve isolates the downstream process fluids, or isolates the upstream instrument pressure. The bleed valve exhausts either upstream or downstream fluid pressure depending on which block valve is used. The 90° NPT vent port is located on the opposite side of the process block valve and 90° from the instrument block valve. 10,000 psi hard seat pressure rating @ 200 °F. Blow-out proof stem provides a secondary stem seal in the full open position. All stem threads are rolled for strength and ease of operation. The 2-VALVE LIQUID LEVEL MANIFOLDS use the same valve configurations as the static pressure manifolds with the addition of a venting port to the right. The bleed valve exhausts either upstream or downstream fluid pressure depending on which block valve is used. The 90° NPT vent port is located on the opposite side of the process block valve and 90° from the instrument block valve.

**WARRANTY:** Three Years

### 2020/2120 SERIES

**NOSHOK 2-VALVE LIQUID LEVEL MANIFOLD VALVES** are designed for use with differential pressure transmitters in liquid level applications. These valves are available in either single flange or double flange connection for direct installation. The soft seat design features a replaceable Delrin® seat with straight through porting for bi-directional flow and easy roddable cleaning.

**WARRANTY:** Three Years

---

**SPECIFICATIONS**

**MATERIALS:** Zinc-nickel plated steel, electropolished 316 stainless steel  
**CONNECTION:** 1/2" NPT Male-female & Female-female configurations available, right venting optional  
**PRESSURE RATING:** 10,000 psi @ 200 °F  
**ORIFICE SIZE:** 0.187"  
**FLOW COEFFICIENT:** C: 0.44  
**STEM SEAL & TYPE:** All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional  
**LENGTH:** 4" standard and 5-3/8" extended length available  
**OPTIONS:** O-ring materials, handles, packings, regulating stem and stem tips  
All NOSHOK valves are 100% helium leak tested to 1 X 10⁻⁴ ml/s for guaranteed performance and reliability.

---

All NOSHOK valves products meet the requirements of NACE MR0175/ISO 15156-3. All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.  
†For further warranty information please consult your specific product catalogs.
SPECIFICATIONS
MATERIALS: Zinc-nickel plated steel, electropolished 316 stainless steel
CONNECTIONS: 200002/210002 Series: Flange-flange, 1/4" NPT vent; 200402/210402 Series: 1/2" NPT-flange, 1/4" NPT vent; 200202/210202 Series: 1/4" NPT-flange, 1/4" NPT vent; Left venting optional
PRESSURE RATINGS: 200002 & 200402 Series: 10,000 psi @ 200 °F; 210002 & 210402 Series: 6,000 psi @ 200 °F
Orifice size: 0.187"
FLOW COEFFICIENT: 200002 & 200402 Series: CV 0.44; 210002 & 210402 Series: CV 0.76
STEM SEAL: All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional
OPTIONS: O-ring materials, handles, packings, regulating stem and stem tips
All NOSHOK valves are 100% helium leak tested to 1 X 10⁻⁶ mls for guaranteed performance and reliability.

WARRANTY: Three Years†

HARD SEAT & SOFT SEAT
200002/210002 SERIES
200402/210402 SERIES
NOSHOK NARROW BLOCK & BLEED 2-VALVE STATIC PRESSURE MANIFOLD VALVES combine isolating and venting in a single manifold eliminating the need for tubing and fittings. The block valve isolates the downstream process fluids and the bleed valve exhausts upstream fluids enabling static pressure transmitters, switches or gauges to be removed without disturbing the permanent piping installation. The block valve is located on the side and the bleed valve is located on top in a 90° orientation. Venting is to the right. The all 316 stainless steel blow out proof stem provides greater service life and a secondary stem seal in the full open position. The stem seal, with the FKM o-ring and PTFE back up ring, is below the threads and protects against galling and corrosion.

WARRANTY: Three Years†

SPECIFICATIONS
MATERIALS: Zinc-nickel plated steel, electropolished 316 stainless steel
CONNECTIONS: Flange-flange 90° Angle
PRESSURE RATINGS: 6,000 psi @ 200 °F
Orifice size: 0.375"
FLOW COEFFICIENT: C: 3.0
STEM SEAL: All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads
OPTIONS: O-ring materials and soft seats
All NOSHOK valves are 100% helium leak tested to 1 X 10⁻⁶ mls for guaranteed performance and reliability.

WARRANTY: Three Years†

SOFT SEAT (0.375" ORIFICE)
2530 SERIES
NOSHOK LARGE BORE, 90° ANGLE NATURAL GAS MANIFOLD VALVES incorporate two isolation valves for natural gas applications. These valves feature a double flange 90° angle connection for remote or direct installation. The soft seat design features a replaceable Delrin® seat with straight through porting for bi-directional flow and easy roddable cleaning.

WARRANTY: Three Years†

SPECIFICATIONS
MATERIALS: Zinc-nickel plated steel, electropolished 316 stainless steel
CONNECTIONS: 1/4" NPT, 1/8" NPT, right venting optional
PRESSURE RATINGS: 2602 Series: 10,000 psi @ 200 °F; 2702 Series: 6,000 psi @ 200 °F
ORIFICE SIZE: 0.141"
FLOW COEFFICIENT: 2602 Series: C: 0.38; 2702 Series: C: 0.38
STEM SEAL & TYPE: All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional
OPTIONS: O-ring materials, handles, packings, regulating stem and stem tips
All NOSHOK valves are 100% helium leak tested to 1 X 10⁻⁶ mls for guaranteed performance and reliability.

U.S. Patent 6,820,857
U.S. Patent 7,758,014

WARRANTY: Three Years†

HARD SEAT & SOFT TIP (0.141" ORIFICE)
2602/2702 SERIES
NOSHOK MINI BLOCK & BLEED 2-VALVE STATIC PRESSURE MANIFOLD VALVES combine isolating and venting in a single manifold eliminating the need for tubing and fittings. The block valve isolates the downstream process fluids and the bleed valve exhausts upstream fluids enabling static pressure transmitters, switches or gauges to be removed without disturbing the permanent piping installation. The valves are located on the top to fit into compact spaces and two holes are provided for mounting. Venting is to the left. The all 316 stainless steel blow out proof stem provides greater service life and a secondary stem seal in the full open position. The stem seal, with the FKM o-ring and PTFE back up ring, is below the threads and protects against galling and corrosion.

WARRANTY: Three Years†

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.

All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

*For further warranty information please consult your specific product catalogs.
### 2-VALVE STATIC PRESSURE & NATURAL GAS MANIFOLDS

#### 2603/2703 SERIES

NOSHOK BLOCK & BLED 2-VALVE STATIC PRESSURE MANIFOLDS combine isolating and venting in a single manifold eliminating the need for tubing and fittings. The block valve isolates the downstream process fluids and the bled valve exhausts upstream fluids enabling static pressure transmitters, switches or gauges to be removed without disturbing the permanent piping installation. The block valve is located on the side and the bled valve is located on top in a 90° orientation. Venting is to the left. All 316 stainless steel blow out proof stem provides greater service life and a secondary stem seal in the full open position. The stem seal, with the FKM o-ring and PTFE back up ring, is below the threads and protects against galling and corrosion.

**WARRANTY:** Three Years

#### 2604/2704 SERIES

NOSHOK 2-VALVE STATIC PRESSURE NATURAL GAS METER MANIFOLDS are designed for use with orifice meters. These manifolds feature a replaceable Delrin® seat and straight through porting for bidirectional, high capacity flow and easy roddable cleaning. A blow-out proof stem provides a secondary stem seal in the full open position, and all stem threads are rolled for strength and ease of operation. These valves feature a one-piece bonnet with a metal-to-metal seal to the valve body below the bonnet threads, and a slotted spring pin to prevent accidental loosening. Vinyl dust caps are included for bonnets and stems (non-packing).

**WARRANTY:** Three Years

---

### SPECIFICATIONS

**MATERIALS:** Zinc-nickel plated steel, electropolished 316 stainless steel  
**CONNECTIONS:**  
2603/2703 Series: 3/8" NPT;  
2604/2704 Series: 1/2" NPT, right venting optional  
**PRESSURE RATINGS:**  
2603 & 2604 Series: 10,000 psi @ 200 °F;  
2703 & 2704 Series: 6,000 psi @ 200 °F  
**ORIFICE SIZE:** 0.156"  
**FLOW COEFFICIENT:** Cv 0.44  
**STEM SEAL & TYPE:** All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional  
**OPTIONS:** O-ring materials, handles, packings, regulating stem and stem tips  
All NOSHOK valves are 100% helium leak tested to 1 X 10^-4 mls for guaranteed performance and reliability.

### 2180 SERIES

NOSHOK 2-VALVE STATIC PRESSURE NATURAL GAS METER MANIFOLDS are designed for use with orifice meters. These manifolds feature a replaceable Delrin® seat and straight through porting for bidirectional, high capacity flow and easy roddable cleaning. A blow-out proof stem provides a secondary stem seal in the full open position, and all stem threads are rolled for strength and ease of operation. These valves feature a one-piece bonnet with a metal-to-metal seal to the valve body below the bonnet threads, and a slotted spring pin to prevent accidental loosening. Vinyl dust caps are included for bonnets and stems (non-packing).

**WARRANTY:** Three Years

Optional 3 and 5 valve configurations also shown. Additional needle valves sold separately.

### 3-VALVE DIFFERENTIAL PRESSURE MANIFOLDS

#### 3010/3110 SERIES

NOSHOK 3-VALVE DIFFERENTIAL PRESSURE MANIFOLD VALVES are designed for use with differential pressure transmitters incorporating two isolation valves and an equalizing valve in differential pressure measurement. These valves are available in block, single flange or double flange connection for remote or direct installation. The soft seat design features a replaceable Delrin® seat with straight through porting for bi-directional flow and easy roddable cleaning.

**WARRANTY:** Three Years

---

All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

For further warranty information please consult your specific product catalogs.

---

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.
3-VALVE DIFFERENTIAL PRESSURE MANIFOLDS

3610/3710 SERIES
NOSHOK MINI 3-VALVE DIFFERENTIAL PRESSURE MANIFOLD VALVES are identical to the 3000/3100 Series Manifold Valves, but in miniature version. They are designed for use with differential pressure transmitters incorporating two isolation valves and an equalizing valve in differential pressure measurement. These valves are available in block, single flange or double flange connection for remote or direct installation. The soft seat design features a replaceable Delrin® seat with straight through porting for bi-directional flow and easy roddable cleaning.

WARRANTY: Three Years†

5-VALVE NATURAL GAS MANIFOLDS

3510 SERIES
NOSHOK 3-VALVE DIFFERENTIAL PRESSURE MANIFOLD VALVES are designed for use with differential pressure transmitters incorporating two isolation valves and an equalizing valve in differential pressure measurement. These valves are available in block, single flange or double flange connection for remote or direct installation. The soft seat design features a replaceable Delrin® seat with straight through porting for bi-directional flow and easy roddable cleaning.

WARRANTY: Three Years†

5030/5130 SERIES
NOSHOK 5-VALVE NATURAL GAS MANIFOLDS are designed for use with differential pressure transmitters incorporating two isolation valves, two equalizing valves and a vent valve in natural gas applications. These valves are available in block, single flange or double flange connection for remote or direct installation. A Flare Pattern™ valve configuration is optional, which provides maximum clearance for fingers during operation. The soft seat design features a replaceable Delrin® seat with straight through porting for bi-directional flow and easy roddable cleaning*.

*Isolation valves only

WARRANTY: Three Years†

†For further warranty information please consult your specific product catalogs.
NOSHOK STABILIZED & NON-STABILIZED CONNECTORS

**SZ SERIES**

**NOSHOK STABILIZED & NON-STABILIZED CONNECTORS** are designed to reinforce the entire installation by shifting radial-stress load away from the NPT connections, and are available in 3-3/8” and 5” lengths.

SZ Series Stabilized & Non-Stabilized Connectors are available in zinc-nickel plated carbon steel and 316 stainless steel, and feature slotted bolt holes that allow for 2-1/8” and 2-1/4” bolt spacings.

A single piece dielectric gasket (DK1) is available as an option to create a non-conductive shield between the process piping and the instrument. A two piece dielectric kit (DK2) is also available as an alternative when a separate sealing gasket or o-ring is required.

**SV SERIES**

**NOSHOK STABILIZED CONNECTORS WITH INTEGRAL VALVE** are also designed to reinforce an installation by shifting radial-stress load away from the NPT connections, but also feature a block valve that can be installed on either side of stabilized body, allowing 1/2 turn installation.

SV Series Stabilized Connectors with Integral Valve are available in zinc-nickel plated carbon steel and 316 stainless steel, and feature slotted bolt holes that allow for 2-1/8” and 2-1/4” bolt spacings. The integral valve has a 0.375” bore for unrestricted passage of process gas, and a standard non-rotating stem tip. This application will work on both flat surfaces (orifice fitting) and round surfaces (orifice flange) with flange adaptor.

A single piece dielectric gasket (DK1) is available as an option to create a non-conductive shield between the process piping and the instrument. A two piece dielectric kit (DK2) is also available as an alternative when a separate sealing gasket or o-ring is required. Stainless steel bolts are also available.

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.

All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.
VALVE ACCESSORIES

50FA1 SERIES FUTBOLS
Futbols (flange adapters) bolt to the process side of a flange-flange manifold to allow connection of process flange taps or process root valves. Futbols also allow flanges to be connected to threaded process piping while maintaining the ease of removal or repair of the manifold. Maintenance is required.

The futbols provide a 1/16" offset connection from the bolt holes to give connection centers of 2", 2-1/8", or 2-1/4".

SPECIFICATIONS
MATERIAL: Zinc-nickel plated steel, 316 stainless steel
CONNECTIONS: 1/2" NPT
KIT INCLUDES: (2) Futbols, (4) hex bolts 7/16-20, (2) PTFE face seals

SA SERIES STATIC ADAPTORS
Static adaptors are used to join threaded ports to a flange style connection. They are often used to join the NPT port of a static transmitter with a flange mounted connection on a differential pressure to static adaptor plate. They are available in zinc-nickel plated steel and electropolished stainless steel.

SPECIFICATIONS
MATERIAL: Zinc-nickel plated steel, electropolished stainless steel
CONNECTIONS: 1/2" NPT Male - flange, 1/2" NPT Female-flange

DIELECTRIC KITS
The dielectric kit is designed to maintain the integrity and reliability of the pipeline and piping system through safety and corrosion protection. Dielectric kits provide a non-conductive barrier between the process piping and the instrument and isolate components from the effects of electrical current. By eliminating metal-to-metal contact, current is halted to prevent corrosion and aid in the cathodic protection of the system.

DK1
• Single piece design combining a Delrin® sealing gasket and dielectric
• Bolts, washers and dielectric bushings are included with the kits
• Cannot be used in conjunction with seal rings or o-rings

DK2
• Used as an alternative to a one piece design when a separate sealing gasket or o-ring is required
• Two piece design consisting of a PTFE sealing gasket and PVC dielectric shim
• Bolts, washers and dielectric bushings are included with the kits

SPECIFICATIONS
MATERIAL: Delrin®, PVC
MAX OPERATING TEMP: 150° F (66° C)
DIELECTRIC STRENGTH: Exceeds 1/32 air arc gap approx 2,500 Vdc

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.
All NOSHOK valve products conform to the MSS SP-89 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.
†For further warranty information please consult your specific product catalogs.
MANIFOLD MOUNTING KIT
Designed for direct or remote mounting to a 2" pipe stand, can be utilized with any NOSHOK 2, 3 or 5 valve manifold by mounting a steel or stainless steel bracket directly to the manifold body.

Δ PRESSURE TO STATIC ADAPTOR
Used in direct mount systems for gas pipelines, the pressure to static adaptor plate is used to mount a differential pressure transmitter and a static pressure transmitter to a five valve flange-flange manifold. They are available in zinc-nickel plated steel or electropolished stainless steel. An integral mini style bleed valve is incorporated in the plate and a 1/4" NPT vent plug is provided. The mini style bleed valve is equipped with a FKM o-ring and PTFE back up ring below the stem threads to protect against corrosion and galling. Stem threads are rolled for greater strength and ease of operation and all NOSHOK valves are 100% helium leak tested for guaranteed reliability. Maximum pressure rating of 10,000 psi for steel & stainless steel models.

Δ PRESSURE TO Δ PRESSURE ADAPTORS
NOSHOK differential pressure to differential pressure adaptors allow two differential pressure transmitters to be mounted on a single set of orifice taps. This configuration is ideal for applications such as bi-directional flow, and custody transfer where only a single set of orifice taps is available. Multiple adaptors are available for various application configurations and space restrictions.

VERTICAL TO HORIZONTAL ADAPTOR KIT
The Vertical to Horizontal Adaptor Kit converts vertically mounted Stabilized Connectors to a horizontal position for mounting additional valves and instrumentation.

All NOSHOK 316SS valve products meet the requirements of NACE MR0175/ISO 15156-3.

All NOSHOK valve products conform to the MSS SP-99 Instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.
**CRN documents are available at www.noshok.com.**

<table>
<thead>
<tr>
<th>Category:</th>
<th>C. Valves</th>
<th>F. Measuring Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Fitting:</td>
<td>All line valves</td>
<td>Including pressure gauges, level gauges, sight glasses, level or pressure transmitters</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Province/Region</th>
<th>CRN Numbers</th>
<th>CRN Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>0C15217.52</td>
<td>0F15217.52</td>
</tr>
<tr>
<td>British Columbia</td>
<td>Exempt</td>
<td>0F15217.51</td>
</tr>
<tr>
<td>Manitoba</td>
<td>0C15217.54</td>
<td>0F15217.54</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>0C15217.57</td>
<td>0F15217.57</td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>0C15217.50</td>
<td>0F15217.50</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>0C15217.5T</td>
<td>0F15217.5T</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>0C15217.58</td>
<td>0F15217.58</td>
</tr>
<tr>
<td>Nunavut</td>
<td>0C15217.5N</td>
<td>0F15217.5N</td>
</tr>
<tr>
<td>Ontario</td>
<td>0C15217.5</td>
<td>0F15217.5</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>0C15217.59</td>
<td>0F15217.59</td>
</tr>
<tr>
<td>Quebec</td>
<td>CSA-0C15217.56</td>
<td>CSA-0F15217.56</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>CSA-0C15217.56</td>
<td>CSA-0F15217.56</td>
</tr>
<tr>
<td>Yukon Territory</td>
<td>0C15217.5Y</td>
<td>0F15217.5Y</td>
</tr>
</tbody>
</table>
Quality Policy

NOSHOK

is committed to providing a high degree of value and continually improving processes to improve customer satisfaction by focusing on customer requirements for the design, manufacture and distribution of pressure, temperature, and force measurement instruments along with needle and manifold valves including custom manifold systems for industrial applications.
All from world class technology.

Combined with real-world stamina.

The highest value with the industry’s best warranty.

And all from a company with a 50+ year record of customer satisfaction.

All from your Single Source Instrumentation Company.