

# High Accuracy Heavy-Duty



High pressure model

## APPLICATIONS

- Construction
- Hydraulics & pneumatics
- Laboratory & test equipment
- Power generation
- Stamping & forming presses
- Transportation



Also available with our 1800 Series Attachable Loop Indicator. Visit [www.noshok.com](http://www.noshok.com) for more information.

## 615/616 SERIES

- Vacuum ranges through 0 psig to 145,000 psig; absolute ranges from 0 psia to 15 psia through 0 psia to 300 psia
- Current and voltage outputs available
- 316 and 17-4PH Stainless Steel wetted parts
- CE compliant to suppress RFI, EMI and ESD

### SPECIFICATIONS

<b>Output signals</b>	4 mA to 20 mA, 2-wire; 0 Vdc to 5 Vdc, 0 Vdc to 10 Vdc, 1 Vdc to 5 Vdc, 3-wire
<b>Pressure ranges</b>	Vacuum through 0 psig to 145,000 psig Absolute from 0 psia to 15 psia through 0 psia to 300 psia
<b>Accuracy</b>	± 0.25% full scale (BFSL); optional ± 0.125% full scale (BFSL); (includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
<b>Stability</b>	≤ ±0.2% full scale for 1 year, non-accumulating
<b>Adjustment</b>	± 10% full scale for zero and span
<b>Response time</b>	Less than 1 ms (between 10% and 90% full scale)
<b>Service life</b>	>100,000,000 load cycles
<b>Temperature ranges</b>	Compensated 32 °F to 175 °F (0 °C to 80 °C) Effect ± 0.01%/ °F for zero and span Media -20 °F to 212 °F (-30 °C to 100 °C) Ambient -15 °F to 175 °F (-10 °C to 80 °C) Storage -40 °F to 212 °F (-40 °C to 100 °C)
<b>Power requirement*</b>	10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire, 1 Vdc to 5 Vdc, 3-wire, 1 Vdc to 6 Vdc, 3-wire, 0 Vdc to 5 Vdc, 3-wire) 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire, 1 Vdc to 11 Vdc, 3-wire)
<b>Load limitations</b>	≤ (VPower-10)/0.020 Amp for 4 mA to 20 mA ≥ 10,000 Ω for 0 Vdc to 10 Vdc, 3-wire ≥ 5,000 Ω for 0 Vdc to 5 Vdc, 3-wire
<b>Proof pressure</b>	3 times full scale for ranges 0 psi to 2 psi through 0 psi to 200 psi 1.75 times full scale for ranges 0 psi to 300 psi through 0 psi to 10,000 psi 1.5 times full scale for 0 psi to 15,000 psi 1.2 times full scale for ranges 0 psi to 20,000 psi through 0 psi to 145,000 psi
<b>Burst pressure</b>	3.8 times full scale for ranges 0 psi to 2 psi through 0 psi to 200 psi 4 times full scale for ranges 0 psi to 300 psi through 0 psi to 10,000 psi 3 times full scale for 0 psi to 15,000 psi 1.5 times full scale for ranges 0 psi to 20,000 psi through 0 psi to 145,000 psi
<b>Measuring element</b>	316 Stainless Steel for vacuum through 300 psi; 17-4PH Stainless Steel for ≥500 psi
<b>Connection</b>	316 Stainless Steel
<b>Housing material</b>	316 Stainless Steel
<b>Environmental rating</b>	IP65
<b>Electromagnetic rating</b>	CE compliant to EMC norm EN 61326:2014/A1:1998 RFI, EMI and ESD protection
<b>Electrical protection</b>	Reverse polarity, overvoltage and short circuit protection
<b>Shock</b>	1,000 g's according to IEC 60068-2-27
<b>Vibration</b>	15 g's according to IEC 60068-2-6
<b>Weight</b>	Approximately 7.2 oz.

\* Unregulated



**WARNING:** This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

ORDERING INFORMATION													
SERIES	615 (Internal diaphragm)			616 (Front flush diaphragm)									
<b>PRESSURE RANGES</b>	30vac	-30 inHg to 0 psig	2	0 psig to 2 psig	150	0 psig to 150 psig	2000	0 psig to 2,000 psig	20000	0 psig to 20,000 psig*	145000	0 psig to 145,000 psig	
	30/15	-30 inHg to 15 psig	3	0 psig to 3 psig	200	0 psig to 200 psig	3000	0 psig to 3,000 psig	30000	0 psig to 30,000 psig	15A	0 psia to 15 psia	
	30/30	-30 inHg to 30 psig	5	0 psig to 5 psig	300	0 psig to 300 psig	4000	0 psig to 4,000 psig	36000	0 psig to 36,000 psig	30A	0 psia to 30 psia	
	30/60	-30 inHg to 60 psig	10	0 psig to 10 psig	500	0 psig to 500 psig	5000	0 psig to 5,000 psig	58000	0 psig to 58,000 psig	60A	0 psia to 60 psia	
	30/100	-30 inHg to 100 psig	15	0 psig to 15 psig	600	0 psig to 600 psig	6000	0 psig to 6,000 psig	72000	0 psig to 72,000 psig	100A	0 psia to 100 psia	
	30/150	-30 inHg to 150 psig	30	0 psig to 30 psig	750	0 psig to 750 psig	7500	0 psig to 7,500 psig	87000	0 psig to 87,000 psig	150A	0 psia to 150 psia	
	30/200	-30 inHg to 200 psig	60	0 psig to 60 psig	1000	0 psig to 1,000 psig	10000	0 psig to 10,000 psig	100000	0 psig to 100,000 psig	200A	0 psia to 200 psia	
	30/300	-30 inHg to 300 psig	100	0 psig to 100 psig	1500	0 psig to 1,500 psig	15000	0 psig to 15,000 psig	115000	0 psig to 115,000 psig	300A	0 psia to 300 psia	
	psig = gauge pressure    psia = absolute pressure    Other ranges available on request <b>Note:</b> 616 Series is available for pressure ranges up to 0 psig to 8,000 psig												
<b>ACCURACIES</b>	1 ±0.25% full scale (BFSL)				2 ±0.125% full scale (BFSL)								
<b>OUTPUT SIGNALS</b>	1 4 mA to 20 mA, 2-wire				3 1 Vdc to 5 Vdc, 3-wire				<b>NOTE:</b> 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc outputs are also available in 4-wire configurations for use with other electrical systems.				
	2 0 Vdc to 5 Vdc, 3-wire				5 0 Vdc to 10 Vdc, 3-wire								
<b>PROCESS CONNECTIONS</b>	615: 2 1/4" NPT male				6 9/16" -18 UNF 2B high pressure cone** (Standard on 30,000 to 120,000 psig)				8 1/2" NPT male				
	616: 11 G 1/2 B (Pressure ranges ≥ 0 psig to 30 psig)				13 G 1 B (Pressure ranges ≤ 0 psig to 30 psig)				Other connections available upon request				
<b>ELECTRICAL CONNECTIONS</b>	1 DIN EN 175301-803 Form A w/ 36" Cable				8 DIN EN 175301-803 Form A				25 M12 x 1 (4-pin)				
	3 6-pin Bayonet				14 DIN EN 175301-803 Form A with 1/2" NPT female conduit				36 Integral 36" cable				
	6 1/2" NPT conduit w/ 36" cable												
<b>OPTIONS</b>	ST8 SS Threaded Orifice				G1 G 1 Weld-on adapter (616 only)				G½ G 1/2 Weld-on adapter (616 only)				

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

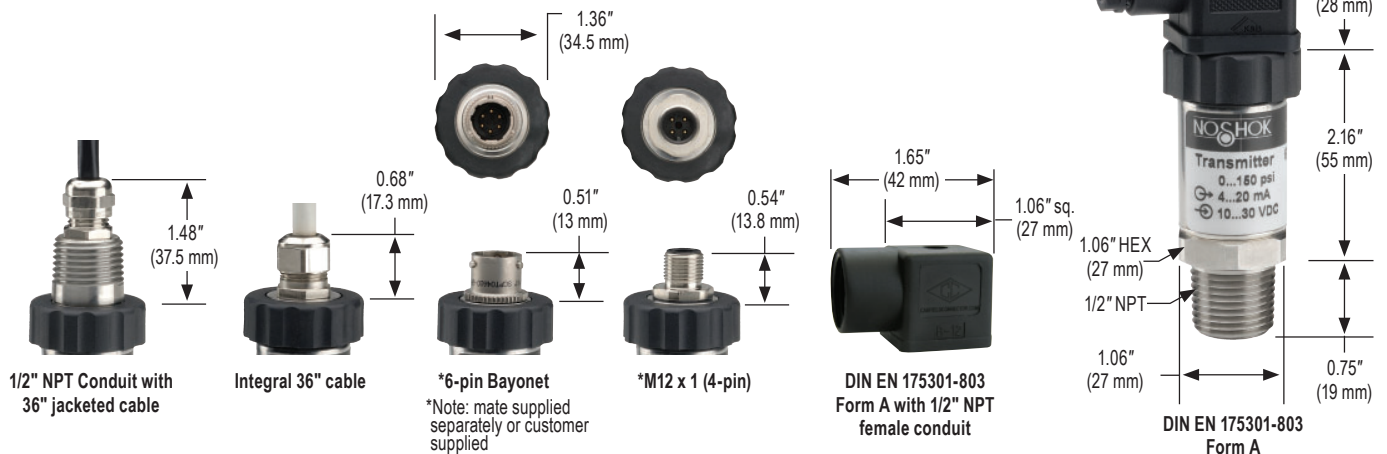
\* Not available with 1/4" NPT  
 \*\* Equivalent to F250C Parker Autoclave

**EXAMPLE**

Series ..... 615 Series  
 Pressure range ..... 0 psig to 500 psig  
 Accuracy ..... ±0.25% full scale (BFSL)  
 Output signal ..... 4 mA to 20 mA, 2-wire  
 Process connection ..... 1/2" NPT Male  
 Electrical connection ..... DIN EN 175301-803 Form A w/ 36" Cable  
 Option ..... Threaded Orifice

615 - 500 - 1 - 1 - 8 - 1 - ST8

**NOTE**  
 See 621/622 Series for G1/2B and G1B Front Flush Process Connection Dimensions pg. 85



615/616 Series Wiring	4 mA to 20 mA	
CONNECTION TYPE (CODE)	V+	V-
DIN EN 175301-803 Form A (8 or 14)	1	2
DIN EN 175301-803 Form A w/ Cable (1)	Red	Black
6-Pin Bayonet (3)	A	B
1/2" NPT Conduit w/ Cable (6)	Red	Black
M12 x 1, 4-Pin (25)	1	3
Integral Cable (36)	Red	Black

615/616 Series Wiring	0-5 Vdc, 1-5 Vdc, 1-6 Vdc, 0-10 Vdc, 1-11 Vdc		
CONNECTION TYPE (CODE)	V+	COMMON	OUTPUT
DIN EN 175301-803 Form A (8 or 14)	1	2	3
DIN EN 175301-803 Form A w/ Cable (1)	Red	Black	White
6-Pin Bayonet (3)	A	B	C
1/2" NPT Conduit w/ Cable (6)	Red	Black	White
M12 x 1, 4-Pin (25)	1	3	4
Integral Cable (36)	Red	Black	White

Load Limitations 4 mA to 20 mA output	
Vmin	= 10V + (.020 x RL)
RL	= Loop resistance (Ω) RL = RS + RW
RS	= Sensor resistance (Ω)
RW	= Wire resistance (Ω)