



## 640 SERIES

- Vacuum ranges through 0 psig to 15,000 psig; absolute ranges from 0 psia to 15 psia through 0 psia to 300 psia
- Standard 4 mA to 20 mA output
- 316 and 17-4PH Stainless Steel wetted parts
- CE compliant to suppress RFI, EMI and ESD

### APPLICATIONS

- Aerospace equipment
- Laboratory & test equipment
- Precision measurement

### SPECIFICATIONS

<b>Output signals</b>	4 mA to 20 mA, 2-wire; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc, 3-wire
<b>Pressure ranges</b>	Vacuum through 0 psig to 15,000 psig Absolute from 0 to 15 psia through 0 psia to 300 psia
<b>Accuracy</b>	±0.05% full scale (BFSL); optional ±0.025% full scale (BFSL); (includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
<b>Stability</b>	≤ ±0.1% full scale; 5 psi ±0.2% full scale per year
<b>Response time</b>	< 300 ms (between 10% to 90% full scale)
<b>Service life</b>	> 100,000,000 load cycles
<b>Temperature ranges</b>	Compensated 32 °F to 160 °F (0 °C to 70 °C) Effect: ±0.005% °F (32 °F to 50 °F) to zero point and pressure range no effect (50 °F to 104 °F) for zero and span ±0.005%/ °F (104 °F to 158 °F) to zero point and pressure range Media -5 °F to 160 °F (-20 °C to 70 °C) Ambient 32 °F to 160 °F (0 °C to 70 °C) Storage -5 °F to 160 °F (-20 °C to 70 °C)
<b>Power requirement*</b>	9 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire, 0 Vdc to 5 Vdc, 3-wire) 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire) Voltage supply via RS232 interface (RS232)
<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 5 psi through 0 psi to 200 psi 2 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
<b>Burst pressure</b>	4 times full scale for ranges 0 psi to 5 psi through 0 psi to 200 psi 4 times full scale for ranges 0 psi to 300 psi through 0 psi to 10,000 psi 3 times full scale for 0 psi to 15,000 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>	100 g's according to IEC 60068-2-27
<b>Vibration</b>	15 g's according to IEC 60068-2-6
<b>Weight</b>	Approximately 11 oz.

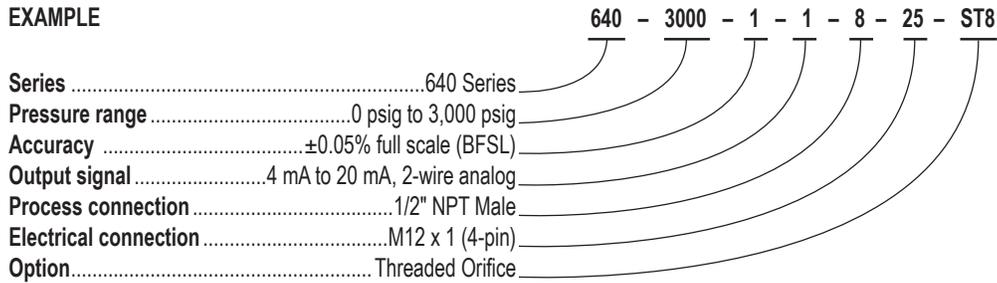
\* Unregulated



ORDERING INFORMATION						
<b>SERIES</b>	640					
<b>PRESSURE RANGES</b>	30vac -30 inHg to 0 psig	30/300 -30 inHg to 300 psig	150 0 psig to 150 psig	3000 0 psig to 3,000 psig	30A 0 psia to 30 psia	
	30/15 -30 inHg to 15 psig	5 0 psig to 5 psig	200 0 psig to 200 psig	5000 0 psig to 5,000 psig	60A 0 psia to 60 psia	
	30/30 -30 inHg to 30 psig	10 0 psig to 10 psig	300 0 psig to 300 psig	6000 0 psig to 6,000 psig	100A 0 psia to 100 psia	
	30/60 -30 inHg to 60 psig	15 0 psig to 15 psig	500 0 psig to 500 psig	7500 0 psia to 7,500 psig	150A 0 psia to 150 psia	
	30/100 -30 inHg to 100 psig	30 0 psig to 30 psig	750 0 psig to 750 psig	10000 0 psia to 10,000 psig	200A 0 psia to 200 psia	
	30/150 -30 inHg to 150 psig	60 0 psig to 60 psig	1000 0 psig to 1,000 psig	15000 0 psia to 15,000 psig	300A 0 psia to 300 psia	
	30/200 -30 inHg to 200 psig	100 0 psig to 100 psig	2000 0 psig to 2,000 psig	15A 0 psia to 15 psia		
	psig = gauge pressure    psia = absolute pressure    Other ranges available on request					
<b>ACCURACIES</b>	1 ±0.05% full scale (BFSL)	2 ±0.025% full scale (BFSL)				
<b>OUTPUT SIGNALS</b>	1 4 mA to 20 mA, 2-wire analog	5 0 Vdc to 10 Vdc, 3-wire analog				
	2 0 Vdc to 5 Vdc, 3-wire analog					
<b>PROCESS CONNECTIONS</b>	2 1/4" NPT male			8 1/2" NPT male; other connections available upon request		
<b>ELECTRICAL CONNECTIONS</b>	1 54" Integral cable			25 M12 x 1 (4-pin)		
<b>OPTION</b>	ST8 Threaded Orifice					

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

**EXAMPLE**



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

640 Series Wiring	4 mA to 20 mA	
CONNECTION TYPE (CODE)	V+	V-
M12 x 1, 4-Pin (25)	1	3
Integral Cable (1)	Brown	Blue

640 Series Wiring	0-5 Vdc, 0-10 Vdc, 0-20 mA		
CONNECTION TYPE (CODE)	V+	COMMON	OUTPUT
M12 x 1, 4-Pin (25)	1	3	4
Integral Cable (1)	Brown	Blue	Black