



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

SPECIFICATIONS

Output signals	4 mA to 20 mA, 2-wire; 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc, 3-wire
Pressure ranges	Vacuum through 0 psig to 15,000 psig Absolute from 0 to 15 psia through 0 psia to 300 psia
Accuracy	±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)
Stability	≤ ±0.1% full scale; 5 psi ±0.2% full scale per year
Response time	< 300 ms (between 10% to 90% full scale)
Service life	> 100,000,000 load cycles
Temperature ranges	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)
Power requirement*	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)
Load limitations	≤ (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
Proof pressure	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
Burst pressure	4 times full scale for ranges 0 psi to 5 psi through 0 psi to 200 psi 4 times full scale for ranges 0 psi to 300 psi through 0 psi to 10,000 psi 3 times full scale for 0 psi to 15,000 psi
Measuring element	316 Stainless Steel for vacuum through 300 psi; 17-4PH Stainless Steel for ≥500 psi
Connection	316 Stainless Steel
Housing material	316 Stainless Steel
Environmental rating	IP65
Electromagnetic rating	CE compliant to EMC norm EN 61326:2014/A1:1998 RFI, EMI and ESD protection
Electrical protection	Reverse polarity, overvoltage and short circuit protection
Shock	100 g's according to IEC 60068-2-27
Vibration	15 g's according to IEC 60068-2-6
Weight	Approximately 11 oz.

* Unregulated

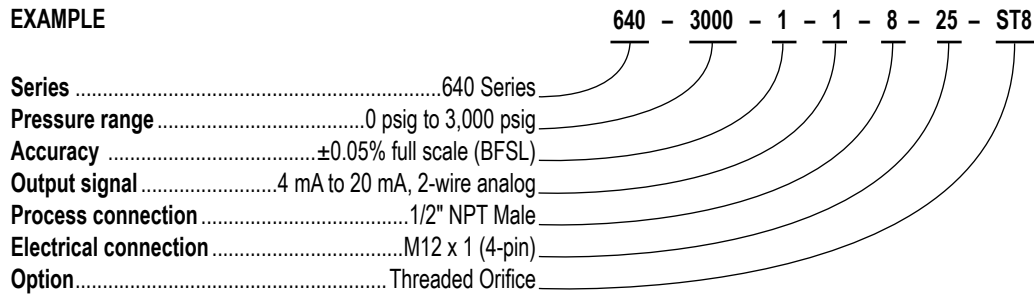
APPLICATIONS

- Aerospace equipment
- Laboratory & test equipment
- Precision measurement

ORDERING INFORMATION										
SERIES	640									
PRESSURE RANGES	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									
ACCURACIES	1 ±0.05% full scale (BFSL)			2 ±0.025% full scale (BFSL)						
OUTPUT SIGNALS	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									
PROCESS CONNECTIONS	2 1/4" NPT male				8 1/2" NPT male; other connections available upon request					
ELECTRICAL CONNECTIONS	1 54" Integral cable				25 M12 x 1 (4-pin)					
OPTION	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 _{min}	= 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