



FEATURES

- Accuracy to $\pm 0.25\%$ full scale (BFSL)
- Welded stainless steel pressure chamber
- Sputtered thin film sensor for maximum stability
- Designed to handle pressure spikes and process pulsation
- Off road capable due to high vibration and shock resistance
- CE compliant

APPLICATIONS

- Hydraulic and pneumatic systems
- Off road vehicles
- Refrigeration controls
- Industrial machinery and machine tools
- Pumps and compressors

660 SERIES

- Combine high performance with compact size
- Accuracy up to $\pm 0.25\%$ full scale (BFSL)
- Standard ranges from 200 psi to 15,000 psi
- Welded stainless steel pressure chamber for strength and durability
- Sputtered thin film sensor provides stainless steel media compatibility and long term measurement stability
- Designed to handle pressure spikes and process pulsation
- Off-road capable due to high vibration and shock resistance
- Variations in pressure connections, outputs and electrical connections are available and custom configurations are possible for volume applications
- CE compliant to suppress RFI, EMI and ESD

SPECIFICATIONS

Output signal	4 mA to 20 mA 2-wire, 1 Vdc to 5 Vdc 3-wire; 0.1 Vdc to 10 Vdc, 3-wire
Pressure ranges	Standard gauge ranges from 200 psig to 15,000 psig
Proof pressure	2 times full scale for ranges 0 psi to 200 psi through 0 psi to 10,000 psi 1.5 times full scale for 0 psi to 15,000 psi range
Burst pressure	9 times full scale for 0 psi to 200 psi through 0 psi to 1,000 psi 3 times full scale for ranges 0 to 3,000 psi through 0 psi to 15,000 psi
Accuracy	$\pm 0.25\%$ full scale (BFSL); (Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)
Repeatability	$\leq \pm 0.05\%$ full scale
Hysteresis	$\leq \pm 0.5\%$ full scale
Stability	$\leq \pm 2\%$ full scale for 1 year, non-accumulating
Response time	<2 ms (between 10% and 90% full scale)
Power supply*	10 Vdc to 36 Vdc (4 mA to 20 mA, 2-wire) 8 Vdc to 36 Vdc (1 Vdc to 5 Vdc, 3-wire) 14 Vdc to 36 Vdc (0.1 Vdc to 10 Vdc, 3-wire)
Load limitations	Requires 10 Vdc across transmitter connections minimum for the 4 mA to 20 mA output; requires receiving instrument input resistance greater than 5,000 Ω for the 1 Vdc to 5 Vdc, 0.1 Vdc to 10 Vdc outputs
Wetted materials	17-4PH stainless steel sensing diaphragm and 316 stainless steel pressure connection
Housing material	316 stainless steel
Temperature ranges	Compensated -4 °F to 185 °F (-20 °C to 85 °C) Zero effect $\pm 0.01\%$ full scale/ °F Span effect $\pm 0.01\%$ full scale/ °F Ambient -4 °F to 185 °F (-25 °C to 85 °C) Media -13 °F to 185 °F (-40 °C to 100 °C); -40 °F to 257 °F (-40 °C to 125 °C) available on special request Storage -40 °F to 212 °F (-40 °C to 100 °C)
Environmental rating	IP65, NEMA 4X according to EN 60529/IEC 529; IP67 M12x1 electrical connection for pressure ranges 0 psig to 1,500 psig or higher
Electromagnetic rating	CE compliant to EMC norm EN 61326:1997/A1:1998 RFI, EMI and ESD protection
Electrical protection	Reverse polarity, over-voltage and short circuit protection
Shock	1,000 g's per IEC 770
Vibration	20 g's per IEC 770
Weight	Approximately 1.75 oz.

* Unregulated power supplies

ORDERING INFORMATION

SERIES	660			
PRESSURE RANGES	200	0 psig to 200 psig	500	0 psig to 500 psig
	300	0 psig to 300 psig	1000	0 psig to 1,000 psig
			3000	0 psig to 3,000 psig
			5000	0 psig to 5,000 psig
			10000	0 psig to 10,000 psig
			15000	0 psig to 15,000 psig
psig = gauge pressure Other ranges available on special request				
ACCURACY	1	±0.25% full scale (BFSL)		
OUTPUT SIGNALS	1	4 mA to 20 mA, 2-wire	3	1 Vdc to 5 Vdc, 3-wire
			27	0.1 Vdc to 10 Vdc, 3-wire
PROCESS CONNECTIONS	1	1/8" NPT Male	2	1/4" NPT Male
ELECTRICAL CONNECTIONS	1	36" cable (connected to option 7)	7	Mini-Hirschmann (DIN EN 175301-803 Form C)
			25	M12 x 1 (4-pin)
OPTION	ORF Threaded Orifice			

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

EXAMPLE

	660 - 500 - 1 - 1 - 2 - 25 - ORF
Series	660
Pressure range	0 psig to 500 psig
Accuracy	±0.25% full scale
Output signal	4 mA to 20 mA
Process connection	1/4" NPT Male
Electrical connection	M12 x 1 (4-pin)
Option	Threaded orifice

Outline Dimensions



2-WIRE WIRING

Wiring	M12	Mini-Hirschmann	Cable
+ Supply	1	1	Red
+ Output	3	2	Black

3-WIRE WIRING

Wiring	M12	Mini-Hirschmann	Cable
+ Supply	1	1	Red
Common	3	2	Black
+ Output	4	3	White