

3100 SERIES AND 3200 HEAVY DUTY SERIES

Compact OEM Pressure Transmitters

- 0–100 psi to 0-30,000 psi ranges (0-7 bar to 0-2,200 bar)
- High Proof Pressures
- Broad Choice of Outputs
- RoHS Compliant

For OEMs that need consistent high levels of performance, reliability and stability the 3100 and 3200 Series sputtered thin film units offer unbeatable price performance ratio in a small package size. They feature all-stainless steel wetted parts, a broad selection of electrical and pressure connections, and wide choice of electrical outputs to allow

stock configurations suitable for most applications without modification. At the heart of both these series is a sputter element that also provides exceptional temperature specifications. Plus, our manufacturing process for the 3100 and 3200 Series include the latest automated equipment, producing the most consistent and best price to performance sensor on the market today.

Additionally, 3200 Series transmitters feature thicker diaphragms and a pressure restrictor to withstand the rigors of cavitations or extreme pressure spikes, delivering years of reliable and stable performance in pulsating applications.

The compact construction of both these series makes them ideal for installation where space is at a premium.

Specifications

Performance	
Long Term Drift	0.2% FS/YR (non-cumulative)
Accuracy	
3100	0.25% FS
3200	0.5% FS for <1000 psi (60 bar)
Thermal Error	
3100	0.83% FS/100°F (1.5% FS/100°C)
3200	2% FS/100°C for <1000 psi (60 bar)
Compensated Temperatures	-40°F to +257°F (-40°C to +125°C)
Operating Temperatures	-40°F to +257°F (-40°C to +125°C)
Zero Tolerance	
3100	0.5% of span
3200	1% FS for <1000 psi (60 bar)
Span Tolerance	
3100	0.5% of span
3200	1% FS for <1000 psi (60 bar)
Response Time	1 ms
Fatigue Life	Designed for more than 100 M cycles
Mechanical Configuration	
Pressure Port	See under "How to Order," last page
Wetted Parts	17-4 PH Stainless Steel
Electrical Connection	See under "How to Order," last page
Enclosure	IP67 (IP65 for electrical code G)
Vibration	40G peak to peak sinusoidal, (Random Vibration: 20 to 1000 Hz @ approx. 40G peak per MIL-STD-810E)
Shock	Withstands free fall to IEC 68-2-32 procedure 1
EMC (Radiated Immunity)	100 V/m
Approvals	CE, conforms to European Pressure Directive, Fully RoHS compliant, UL recognized files # E219842 & E174228
Weight	35 grams



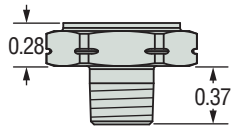
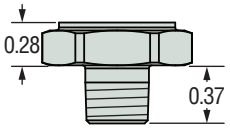
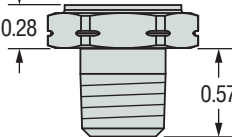
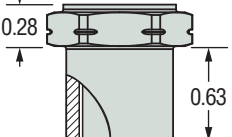
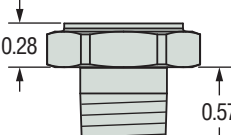
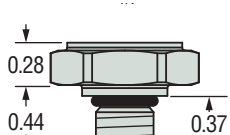
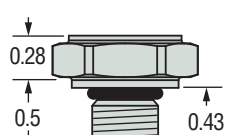
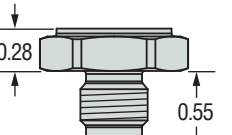
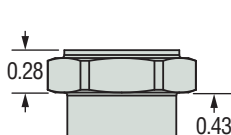
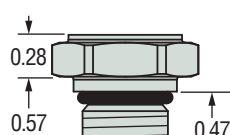
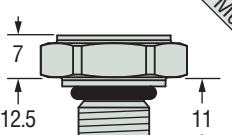
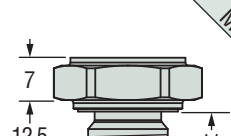
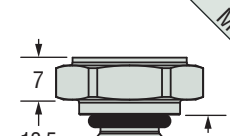
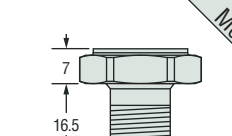
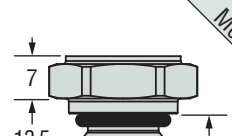
Individual Specifications

Voltage	
Output (3-wire)	0 V min. to 10 V max. See under "How to Order," last page
Supply Voltage	2 Volts above full scale to 30 Vdc max @ 4.5 mA (6.5 mA on dual output version)
Source and Sinks	2 mA
Current	
Output (2-wire)	4-20 mA
Supply Voltage	8-30 Vdc
Maximum Loop Resistance	(Supply Voltage-8) x 50 ohms
Ratiometric	
Output	0.5 to 4.5 Vdc @ 4 mA (6.5 mA on dual output version)
Supply Voltage	5 Vdc ±10%

Pressure Capability

Pressure Range PSI (Bar)	Proof Pressure (x Full Scale)		Burst Pressure (x Full Scale)	
	3100	3200	3100	3200
100-300 (7-25)	3.00 x FS	3.00 x FS	40 x FS	
500-1,500 (40-100)	2.00 x FS		20 x FS	
2,000-6,000 (160-400)			10 x FS	
7,500-9,000 (600)	1.40 x FS	2.50 x FS	4 x FS	10 x FS
10,000 (700)			1.8 x FS	>60,000 PSI (4,000 bar)
15,000 (1,000)	1.40 x FS	—	1.5 x FS	—
25,000 (1,800)				
30,000 (2,200)				

Pressure Ports

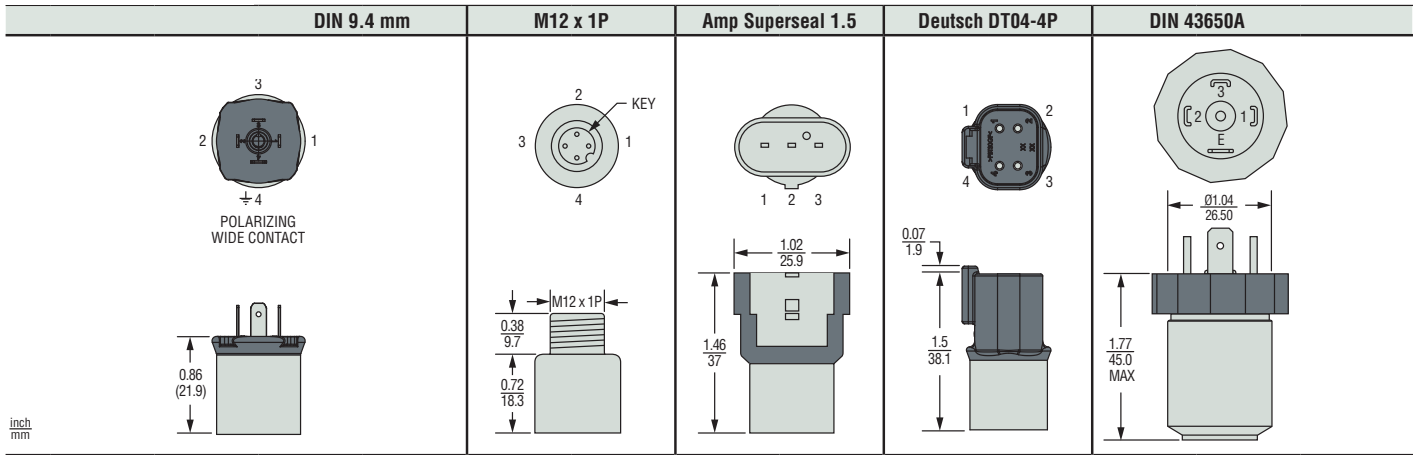
SAE Dimensions in Inches				
	Fitting Code	08 = 1/8"-27 NPT	4D = 1/8"-27 NPTF Dryseal	02 = 1/4"-18 NPT
Torque	2-3 TFFT*	2-3 TFFT*	2-3 TFFT*	2-3 TFFT*
SAE Dimensions in Inches				
	Fitting Code	4C = 1/4"-18 NPTF Dryseal	4N = SAE J1926/2:3/8-24	1J = 7/16"-20 UNF
Torque	2-3 TFFT*	18-20 NM	18-20 NM	15-16 NM
Metric Dimensions in MM			Metric Dimensions in MM →	
	Fitting Code	1G = SAE 4 Female 7/16" Schraeder	1P = 9/16-18 "Heavy Duty"	01 = G1/4"-27 External
Torque	18-20 NM	18-20 NM	30-35NM	
Metric Dimensions in MM				
	Fitting Code	05 = G1/4" A Integral Face Seal	0L = M12 x 1.5	2T = M12x1.5 HP Metal Washer Seal
Torque	30-35 NM	28-30 NM	30-35 NM	2-3 TFFT*

*NPT Threads 2-3 turns from finger tight. Wrench tighten 2-3 turns.

General Notes:

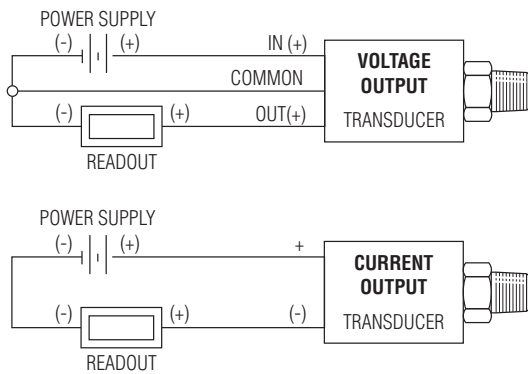
1. The diameter of all cans is 19 mm (0.748")
2. Hex is 22 mm (0.866") Across Flats (A/F) for deep socket mounting
3. O-Ring material, where applicable, is Nitrile® unless otherwise specified.

Electrical Connector

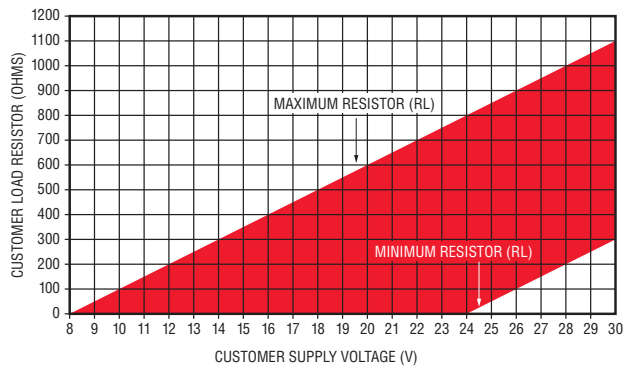


Code B		Code R		Code E		Code 6		Code 8		Code G		
Pin #	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode
1	V_{out}^1 (pressure)	No Connect	V_{supply}	Supply	V_{supply}	Supply	V_{out}	No Connect	Ground	Return	V_{supply}	Supply
2	V_{supply}	Supply	Ground	Return	V_{out}	No Connect	Ground	Return	V_{supply}	Supply	Ground	Return
3	V_{out}^2 (temp)	No Connect	V_{out}	No Connect	Ground	Return	V_{supply}	Supply	No Connect	No Connect	V_{out}	No Connect
4	Ground	Return	No Connect	No Connect	No Connect	No Connect	—	—	V_{out}	No Connect	No Connect	No Connect

Wiring Diagram



Current Output Mode (Load Resistor Range)



Minimum Resistor Value = $50 \cdot (+V - 24)$ for $+V > 24V$
 Maximum Resistor Value = $50 \cdot (+V - 8)$ for $+V > 8V$

