

2200 Series / 2600 Series

General Purpose Industrial Pressure Transducers

- ▶ Gauge, Vacuum, and Compound Pressure Models Available
- ▶ Submersible, General Purpose and Wash Down Enclosures
- ▶ High Stability Achieved by CVD Sensing Element
- ▶ Voltage and Current Output Models

The 2200 series features stability and accuracy in a variety of enclosure options. The 2600 series extends the packaging options via an all welded stainless steel back end for demanding submersible and industrial applications. The 2200 and the 2600 feature proven CVD sensing technology, an ASIC (amplified units), and modular packaging to provide a sensor line that can easily accommodate standard configurations while not sacrificing high performance.

Specifications

Input	
Pressure Range	Vacuum to 6000 psi (400 bar)
Proof Pressure	2 × Full Scale (FS) (1.5 × FS for 400 bar, ≥ 5000 psi)
Burst Pressure	>35 × FS ≤ 100 psi (6 bar); >20 × FS ≥ 1000 psi (60 bar); > 5 × FS ≤ 6000 psi (400 bar)
Fatigue Life	Designed for more than 100 million FS cycles
Performance	
Long Term Drift	0.2% FS/year (non-cumulative)
Accuracy	0.25% FS typical
Thermal Error	1.5% FS typical (optional 1% FS)
Compensated Temperatures	−5°F to +180°F (−20°C to +80°C)
Operating Temperatures	−40°F to +260°F (−40 °C to +125 °C) for elec. codes A, B, C, 1 −5°F to +180°F (−20 °C to +80 °C) for elec. codes 2, D, G, 3 −5°F to +125°F (−20 °C to +50 °C) for elec. codes F, M, P >100°C maximum 24 VDC supply
Zero Tolerance	1% of span
Span Tolerance	1% of span
Response Time	0.5 ms
Mechanical Configuration	
Pressure Port	See ordering chart
Wetted Parts	17-4 PH Stainless Steel
Electrical Connection	See ordering chart
Enclosure	316 SS, 17-4 PH SS IP65 NEMA 4 for elec. codes A, B, C, D, G, 1, 2, 3 IP67 for elec. code "F" IP68 for elec. codes M, (max depth 200 meters H ₂ O) IP30 for elec. code "3" with flying leads
Vibration	70 g, peak to peak sinusoidal, 5–2000 Hz (Random Vibration: 20–2000 Hz @ 20 g Peak per MIL-STD-810E Method 514.4)
Acceleration	100g steady acceleration in any direction 0.032% FS/g for 15 psi (1 bar) range decreasing logarithmically to 0.0007% FS/g for 6000 psi (400 bar) range.
Shock	20 g, 11 ms, per MIL-STD.-810E Method 516.4 Procedure I
Approvals	CE, UR (22IC, 26IC, 22CS, 26CS)
Weight	Approx. 100 grams (additional cable; 75 g/m)

Series 2200



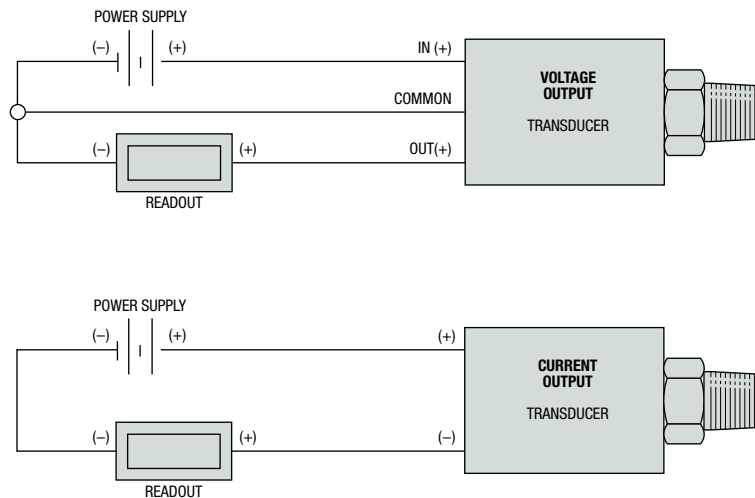
Series 2600



Individual Specifications

Voltage Output Units	
Output	see ordering chart
Supply Voltage (Vs)	1.5 VDC above span to 35 VDC @ 6 mA
Supply Voltage Sensitivity	0.01% FS/Volt
Min. Load Resistance	(FS output / 2) kΩ
Current Consumption	approx 6 mA at 7.5 V output
Current Output Units	
Output	4–20 mA (2 wire)
Supply Voltage (Vs)	24 VDC, (7–35 VDC)
Supply Voltage Sensitivity	0.01% FS/Volt
Max. Loop Resistance	$(V_s - 7) \times 50 \Omega$

Connection Code	Voltage Units				Current Units (4–20 mA)			
	IN+	COM	OUT+	EARTH	(+)	(-)	EARTH	
A, B, G "DIN" PIN	1	2	3	4	1	2	4	
C "10-6 Bayonet" PIN	A	C	B	E	A	B	E	
D "cable"	R	BK	W	DRAIN	R	BK	DRAIN	
F "IP 67 cable"	R	BK	W	DRAIN	R	BK	DRAIN	
M "Immersible"	R	W	Y	DRAIN	R	BL	DRAIN	
1 "8-4 Bayonet" PIN	A	C	B	D	A	B	D	
2 "cable"	R	BK	W	DRAIN	R	BK	DRAIN	
3 "conduit & cable"	R	BK	W	DRAIN	R	BK	DRAIN	



Electromagnetic Capability

Meets the requirement for CE marking of EN50081-2 for emissions and EN50082-2 for susceptibility.

Test Data:

- EN61000-4-2 Electrostatic Discharge. 8 kV air discharge, 4 kV contact discharge. Unit survived.
- ENV50140 Radiated RF Susceptibility. 10 V/m, 80 MHz–1 GHz, 1 kHz mod. Maximum recorded output error was $< \pm 1\%$
- ENV50204 Radiated RF Susceptibility to Mobile Telephones. 10 V/m, 900 MHz. Maximum recorded output error was $< \pm 1\%$.
- EN61000-4-4 Fast Burst Transient. 2 kV, 5/50 ns, 5 kHz for 1 minute. Unit survived.
- ENV50141 Conducted RF Susceptibility. 10 Vms, 1 kHz mod, 150 kHz–80 MHz. Maximum recorded output error was $< \pm 1\%$

Cable Legend:

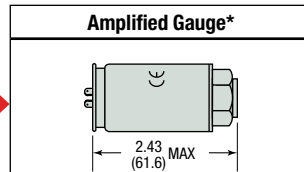
- R = Red
- BL = Blue
- BK = Black
- W = White
- Y = Yellow



Dimensions

2200 Series

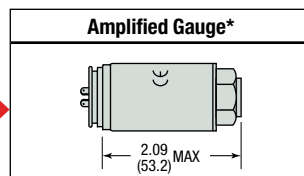
Mini 4-pin – No Connector	
Code B	
Mini 4-pin – With Connector	
Code A	
IP67 Cable (Waterproof)	
Code F	
24 AWG Shielded PVC	
IP65 or NEMA4 Cable	
Code D or 2	
24 AWG Shielded PVC	



* Maximum diameter 1.07" (27.3 mm)

2600 Series

10-6 or 8-4 Mil-C Connector	
10-6: Code C 8-4: Code 1	
Large DIN 43650 Plug	
Code G	
Conduit Connector with Cable	
Code 3	
24 AWG Shielded PVC	
Conduit Connector with Flying Leads	
Code 3 with length "U"	
Moulded, Immersible Cable	
Code M	
24 AWG, Vent, Shielded Polyurethane	



* Maximum diameter 1.07" (27.3 mm)

1/8-27 NPT	
Code 08	
1/4-18 NPT	
No Snubber: Code 02 w/ Snubber: Code 0J	
1/4-18 NPT Internal	
Code 0E	
1/2-14 NPT	
Code 0H	
7/16-20 UNF-2A	
Code 04	
9/16-18 UNF-2A	
Code 1P	
ISO 228 - G 1/8 Internal	
Code 09	
ISO 228 - G 1/4 External	
Code 01	
ISO 7 - R 1/4 External	
Code 0A	
Nose Cone – Black Acetal	
Code 19	
Nose Cone Sink Weight	
Code 29	

PRESSURE TRANSDUCERS

How to Order

Use the **bold** characters from the chart below to construct a product code

	XXXX	X	G	XXX	XX	X	3	X	A	
Series										Performance Code
2200 - 2200 Series										Accuracy/Thermal
2600 - 2600 Series										A - 0.25%/1.5%
Output										Cable Length¹
B - 4-20 mA										U - No Cable Fitted ^{1,2}
C - 1-6 V										D - 3' (1 m)
D - 1-11 V										E - 9' (3 m)
F - 0.1-5.1 V										F - 16' (5 m)
G - 0.2-10.2 V										G - 32' (10 m)
H - 1-5 V										Apparatus Protection
J - 0.5-5.5 V										3 - Amplified Only RFI Protected CE Mark, UR
R - 0-5 V										Electrical Connection (See Notes)
S - 0-10 V										2200 Series
Pressure Datum										A - 4 PIN DIN (Micro) Mating Connector Supplied
G - Gauge										B - 4 PIN DIN (Micro) Mating Connector Not Supplied
Pressure Range³										2 - Cable Nema 4 USA
F07 - 0-7.5 psi										D - Cable European Color Code
F15 - 0-15 psi										F - Cable Gland Metal IP67
F30 - 0-30 psi										2600 Series
F60 - 0-60 psi										C - Fixed Plug Size 10-6 Mating Plug Not Supplied
G10 - 0-100 psi										G - Fixed Plug To DIN 43650 Mating Plug Supplied
G15 - 0-150 psi										M - Moulded Cable Immersible
G20 - 0-200 psi										1 - Fixed Plug Size 8-4 Mating Plug Not Supplied
G30 - 0-300 psi										3 - Conduit Connector 1/2-14 NPT Ext. 1 m Cable ²
G50 - 0-500 psi										
G60 - 0-600 psi										
H10 - 0-1,000 psi										
H15 - 0-1,500 psi										
H20 - 0-2,000 psi										
H30 - 0-3,000 psi										
H40 - 0-4,000 psi										
H50 - 0-5,000 psi										
H60 - 0-6,000 psi										
Vac = -15 psi										
1F5 - Vac-0 psi										
3F0 - Vac-15 psi										
6F0 - Vac-45 psi										
1G0 - Vac-85 psi										
2G0 - Vac-185 psi										
3G0 - Vac-285 psi										
Pressure Port										
North American Threads										
08 - 1/8-27 NPT External										
02 - 1/4-18 NPT External										
0J - 1/4-18 NPT External w/ Snubber										
0E - 1/4-18 NPT Internal										
0H - 1/2-14 NPT External										
04 - 7/16-20 External (SAE #4, J514)										
1P - 9/16-18 External (SAE #6, J1926-2)										
IJ - 7/16-20 External (SAE #4, J1926-2)										
European Threads										
09 - G 1/8 Internal										
01 - G 1/4 External										
0A - R 1/4 External Submersible (2600 only)										
19 - Plastic Nose Cone										
29 - Sink Weight Nose Cone										

Notes:

- When electrical connection is cable please select a cable length from Table 1 below. When electrical connection is DIN or plug style "U" must be specified.
- Where electrical connection -3 and cable length -U occur in part number, the unit will be supplied with flying leads (4-1/2" IP30).
- Additional Pressure Ranges are available. Please consult factory.

Table 1 – Cable Length

(2600 Series) (2200 Series select "U" through "G")

Code	Length (M)	Code	Length (M)
U	No Cable Fitted	M	40
D	1	N	50
E	3	P	75
F	5	Q	100
G	10	R	125
H	15	S	150
J	20	4	170
K	25	5	200
L	30	6	225

Note: Maximum cable length on a 2200 is 10 meters.

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