

HPO Analog Pressure Transducer

FEATURES

- Accuracy $\pm 0.05\%$ of span or better
- Absolute, gauge, vacuum and compound pressure types
- Voltage or current output
- NEMA 4X housing
- External zero and span adjustment
- Broad pressure media compatibility
- 316 Stainless steel and Inconel wetted materials



HPO
Analog Pressure Transducer

SPECIFICATIONS

Accuracy:	$\pm 0.05\%$ of span including nonlinearity, hysteresis, and nonrepeatability at reference conditions (72 °F)
Temperature Effects:	Storage: -40 to 200 °F Operating: -40 to 150 °F Compensated Range: 20 to 120 °F Temperature coefficients: $\pm 0.004\%$ F.S. per °F from 72 °F Thermal Repeatability: $\pm 0.025\%$ F.S. (typical)
Response Time:	3ms (typical)
Frequency Response:	300 Hz
Warmup Time:	5 minutes to rated accuracy, 30 minutes to full stability
Shock:	1000G in 3 mutually perpendicular axes – no effect on calibration
Media Type:	Gas, vapor or liquid
Pressure Ranges:	0-5 psi through 0-10,000 psi or equivalent metric ranges
Pressure Types:	Gauge, absolute, vacuum, and compound
Overpressure Limit:	4 times span 0/5 to 0/250 psi 1.3 times span 0/300 to 0/10,000 psi
Sensor Volume:	Approximately 4 cc to 250 psi Approximately 0.38 cc above 250 psi
Volumetric Displacement:	Approximately 0.5 cc to 250 psi Negligible for ranges over 250 psi
Mounting Position Effect:	Less than the values indicated below per 30 degree inclination in any plane for zero only – no effect on span Up to 250 psi: 0.05% of span (max) Over 250 psi: 0.3% of span (max) Note: Correctable by zero adjustment

KEY BENEFITS

- Available with current or voltage output
- Available with gauge, compound, vacuum or absolute pressure ranges

Output Signals:	0-5 Vdc, 0-10 Vdc, -5 to +5 Vdc (3 wire or optional 4 wire), or 4-20 mA (2 wire)
Resolution:	0.01% Full scale
Power Requirements:	20-40 Vdc (3-wire non-isolated voltage output) 15-24 Vdc (4-wire isolated voltage output) 12-24 Vdc (current output)
Power Supply Effect:	Negligible over operating range
Zero Adjustment:	Externally accessible $\pm 3\%$ F.S. (typical)
Span Adjustment:	Externally accessible $\pm 3\%$ F.S. (typical)
Wetted Materials:	Inconel 718 and 300 Series stainless steel
Process Connection:	¼ male NPT through 5000 psi. 9/16-18 UNF-2B high pressure over 5000 psi
Electrical Connector:	3-foot pigtail – standard, Bendix PTO – optional
Housing:	304 stainless steel, sealed (NEMA 4X) with vent through pigtail connector
Mounting:	Stem, optional pipe/wall mounting bracket
Weight:	10 oz

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ORDERING CODE	Example:	HP	4	B	PV	N	G	53.90	MO
HP - HPO Transducer		HP							
Output									
1 - 0-5 Vdc									
2 - 0-10 Vdc									
3 - -5 Vdc to +5 Vdc									
4 - 4-20 mA			4						
5 - 0-5 Vdc (Isolated)									
6 - 0-10 Vdc (Isolated)									
7 - -5 Vdc to +5 Vdc (Isolated)									
Accuracy									
B - +/- 0.05% of span				B					
Electrical Connection									
PV - 3 Foot pigtail vented					PV				
BV - Bendix connector (with mating connector)									
PI - 3 Foot pigtail vented (for isolated voltage output)									
BI - Bendix connector (for Isolated voltage output)									
Pressure Connection									
N - 1/4 NPT Male (standard up to 5000 psi)						N			
A - 9/16-18UNF 2B (5000 psi and higher)									
M - MS33656E4 flared tube fitting with gasket									
S - 1/4" VCR Gland with 9/16 -18 gland nut, standard finish									
P - 1/4" VCR Gland with 9/16 -18 gland nut, 10-20 Ra finish									
X - 1/4" VCR Gland with 9/16 -18 gland nut, 3-5 Ra finish									
Pressure Type									
G - Gauge							G		
A - Absolute									
V - Vacuum									
C - Compound									
Pressure Range (select next highest standard range, specify exact range and units in special instructions)									
Gauge and Absolute in psi									
5.61									
8.71									
13.7									
17.19 (absolute only)									
17.67 (no absolute)									
24.32									
37.62									
53.90								53.90	
69.40									
90.86									
107.97									
137.35									
176.44									
223.10									
272.80									
363									
550									
660									
880									
1100									
1650									
2200									
2700									
3300									
4400									
5500									
6600									
8250									
11000									
See Ordering (Continued on Next Page)									

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ORDERING CODE (Continued)	Example:	HP	4	B	PV	N	G	53.90	MO
Compound psi									
5.10									
7.92									
12.46									
16.08									
22.11									
34.20									
51.38									
63.09									
82.60									
98.15									
129.50									
160.40									
213.35									
248									
Vacuum									
5.61									
8.71									
13.70									
17.67									
Options									
M - Wall mounting bracket									M
O - Cleaned for oxygen service									O
S - Sealed housing (Bendix connector only)									
V - Atmospheric reference port									

DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

Loop Resistance

