

HPO Analog Pressure Transducer

FEATURES

- Accuracy ±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

SPECIFICATIONS							
Accuracy:	$\pm 0.05\%$ of span including nonlinearity, hysteresi and nonrepeatability at reference conditions (72 $^{\circ}$						
Temperature Effects:	Storage: -40 to 200 °F Operating: -40 to 150 °F Compensated Range: 20 to 120 °F Temperature coefficients: ±0.004% F.S. per °F from 72 °F Thermal Repeatability: ±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 mutally perpendicular axes – no effect on calibratiion						
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 Positon 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						



HPOAnalog Pressure Transducer

KEY BENEFITS

- Available with current or voltge 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 ±3% F.S. (typical)
Span Adjustment:	Externally accessible ±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



2 of 3

HPO Analog Pressure Transducer

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HP - HP - Transduceor	ORDERING CODE	Example:	HP	4	В	PV	N	G	53.90	МО
Output 1 - 0.5 V/dc 2 - 0.1 D/V/dc 3 - 5 V/dc 1 D/V/dc 4 - 4.2 D/M	HP - HPO Transduvcer		HP							
1 - 0.5 Vide 2 - 0.10 Vide 3 - 0.9 Vide 10 - 0.5 Vide (solated) 4 - 4.20 mA 5 - 0.5 Vide (solated) - 6.0 - 1.0 Vide (solated) - 7 5 Vide (solated) - 7 5 Vide 10 - 5 Vide (solated) - 7 5 Vide 10 - 5 Vid										
2 - 0 - 10 Vote 3 - 5 Vote to 4 - 5 Vote 4 - 4 - 20 mA 5 - 0 - 5 Vote (solated) 6 - 0 - 10 Vote (solated) 7 - 7 - 5 Vote to 4 - 5 Vote (solated) 8 - 1 - 10 Vote (solated) 8 - 4 - 0.05% of span 8 B Belectical Connection 8 V - 8 Floridal wrent of the solated voltage output) 8 V - 8 Floridal wrent of the solated voltage output) 8 I - 8 Floridal wrent of the solated voltage output) 8 I - 8 Floridal wrent of the solated voltage output) 8 I - 8 Floridal wrent of the solated voltage output) 9 I - 9 Floridal wrent of the solated voltage										
### Section Se	2 - 0-10 Vdc									
5 - 0.5 Vdc (Isolated) 6 - 0.10 Vdc (Isolated) 7 - 5 Vdc (Isolated) 8 - 4 - 0.05% of span 8 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	35 Vdc to +5 Vdc									
5 - 0.5 Vdc (Isolated) 6 - 0.10 Vdc (Isolated) 7 - 5 Vdc (Isolated) 8 - 4 - 0.05% of span 8 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	4 - 4-20 mA			4	-					
6 - 0.10 Vot (Isolated) 7 - 5 Vot (Celeolated) Accuracy B + -4 - 0.05% of span B Electrical Connection B - 3 - 8 - 4 - 0.05% of span B - 4 - 0.05% of span				•	-					
7 - 5 Vice (to 1-5 Vice (totaled) 8 - 1-V. 0.9% of span B - 1-Received (total section of the vice of t					_					
B										
B - 4/- 0.05% of span PV - 3 Foot pigtall vented PV PV - 5 Foot pigtall vented (for isolated voltage output) BI - Berdix connector (with mating connector) PI - 3 Foot pigtall vented (for isolated voltage output) BI - Berdix connector (vito related voltage output) N - 1										
PV - 3 Foot pictali wented PV S - PV - 3 Foot pictali wented PV S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictali wented (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage output) S - PV - 3 Foot pictalized (fire indicated voltage out					B					
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BV - Bendix connector (with mating connector) Pi - S foot pigtall vented (for isolated voltage output) B - Bendix connector (for Isolated voltage output) Pressure Connection						D\/	-			
Pi - 3 Foot pigital vented for isolated voltage output) Bi - Bendix connector (for Isolated voltage output) Pressure Connector (for Isolated voltage output) A - War Isolary 2B (6000 pia and higher) A - War Isolary 2B (6000 pia and higher) A - War Isolary 2B (6000 pia and higher) A - War Isolary 2B (6000 pia and higher) A - War Isolary 3B (6000 pia and higher) A - War						- · ·	-			
BI - Bandix connector for Isolated voltage output) Pressure Connection N - ½ NFT Male (standard up to 5000 psi) A - ½ - 18UNF 28 (5000 psi and higher) M - MS33656E flared tube fitting with gasket S - ½² VCR Gland with ½² - 18 gland nut, 3-5 Ra finish Pressure Type G - Gauge A - Absolute C - Compound Pressure Range (select next highest standard range, specify exact range and units in special instructions) Gauge and Absolute in psi 5-61 3.71 17-19 (absolute only) 17-67 (no absolute) 24-32 39-9 90-86 107-97 137-35 176-44 223-10 272-80 380 880 1000 2700 3800 4000 5500 6600 8250							-			
Pressure Connection N N MPT Made (standard up to 5000 psi) N A - 5", +18UNF 2B (5000 psi and higher) M - MS3866E4 flared ube fitting with gasket S - 3" VCR Cland with 5" ₈ - 18 gland nut, 10-20 Ra finish P - 3" VCR Cland with 5" ₈ - 18 gland nut, 3-5 Ra finish Pressure Type G G G G G G G G G							-			
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A - '%-18UNF 2B (5000 psi and higher) M - MS3365654 fatead tube fitting with gasket S - '%' VCR Cland with '%-18 gland nut, 10-20 Ra finish X - '%' VCR Cland with '%-18 gland nut, 10-20 Ra finish X - '%' VCR Cland with '%-18 gland nut, 3-5 Ra finish Pressure Type G - Gauge G G A - Absolute C - Compound 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 13.7 13.7 13.7 13.7 13.7 13.7 1										
M - MS33365E4 flared tube fitting with gasket S - 1½ VCR Gland with 1½ - 18 gland nut, 10-20 Ra finish X - 1½ VCR Gland with 1½ - 18 gland nut, 10-20 Ra finish X - 1½ VCR Gland with 1½ - 18 gland nut, 3-5 Ra finish Pressure Type G - Gauge G - Gauge G - Compound 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 17.79 (absolute only) 17.757 (no absolute) 24.32 37.62 59.90 69.40 90.86 107.97 137.795 107.97 137.395 1176.44 223.10 272.80 383 383 59.66 680 880 1100 1650 2700 3900 4400 5500 6600 8250							N			
S - ½ VCR Gland with ½ - 18 gland nut, 15-20 Rs finish X - ½ VCR Gland with ½ - 18 gland nut, 10-20 Rs finish X - ½ VCR Gland with ½ - 18 gland nut, 3-5 Rs finish Pressure Type G - Gauge										
P - ½ VCR Gland with ⅓₀ -18 gland nut, 10-20 Ra finish X - ½ VCR Gland with ⅓₀ -18 gland nut, 3-5 Ra finish Pressure Type G - Gaugue G - Gaugue G - Campound 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 17.19 (absolute only) 17.67 (no absolute) 24.32 37.62 5.90 69.40 90.86 107.97 137.35 176.44 223.10 272.80 363 363 550 660 880 1100 1100 1100 1100 1100 1100										
X - 'W' VCR Gland with % -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 13.7 17.19 (absolute onity) 17.67 (no absolute) 24.32 37.62 53.90 53.9										
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G - Gauge G - Compound										
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Gee Ordering (Continued Off Real Page)										
	Jee Ordering (Continued On Next Page)									

1.800.328.8258



HPO Analog Pressure Transducer

ORDERING CODE (Continued)	Example:	HP	4	В	PV	N	G	53.90	1
Compound psi									
5.10									
7.92									
12.46									
16.08									
22.11									
34.20									
51.38									
63.09									
32.60									
98.15									
129.50									
160.40									
213.35									
248									
Vacuum Vacuum									
5.61									
3.71									
13.70									
17.67									
Options									
M- Wall moutng bracket									
O - Cleaned for oxygen service									
S - Sealed housing (Bendix connector only)									
V - Atmospheric reference port									

DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings



