

Model A2 Heavy Industrial Pressure Transmitter



LOOK FOR THIS MARK ON OUR PRODUCTS

APPLICATIONS:

Test stands, compressor control, hydraulic systems, process automation, pump and pneumatic systems control

FEATURES:

- Pressure ranges from 5 psi through 10,000 psi
- CE mark
- 17-4 PH and 316L SS diaphragm materials available
- 304 SS case
- Six output signals to choose from
- Optional absolute pressure ranges available
- Optional external zero and span potentiometers
- Optional panel meter digital display – see Ashcroft model 2269

The Ashcroft® A2 pressure transmitter is ideal for a broad spectrum of pressure sensing requirements found in heavy industrial, and test and measurement applications. It offers the instrument specifier a wide choice of construction and performance variables.

The Ashcroft® A2 is designed and manufactured to provide the user with accurate, reliable, and stable output data. This is accomplished through the use of an on board microprocessor, that is programmed during a unique digital compensation process, to provide extremely linear and precise performance over the entire specified pressure and temperature range .

PERFORMANCE SPECIFICATIONS

Reference temperature 70°F (21°C)
Accuracy, Three Classes (% Span): ±.25 ±0.5 ±1.0
 Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors
 Best Fit Straight Line* (BFSL): ±.20 ±.40 ±.50
 Includes non-linearity hysteresis, non-repeatability errors
 *Add ±.05% for ranges above 5000 psi

Stability:

Sensor Material 316L SS: ±0.1% Span/year

Sensor Material 17-4PH: <±0.5% Span/year

Durability: Greater than 10 million cycles

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits:

Storage: -40 to +125°C (-40 to 257°F)
 Process: -40 to +125°C (-40 to 257°F)
 Operating: -40 to +125°C (-40 to 257°F)
 Compensated*: -20 to +85°C (-4 to 185°F)
 *Consult factory for other options

Temperature Effects: -20 to +85°C (-4 to 185°F)

- 1.0% of Span for .25% Accuracy Class
- 2.0% of Span for .50% and 1.0% Accuracy Classes

Humidity Effects: No performance effects from 0 to 95% relative humidity, non-condensing, 0-100% RH with "W" enclosure.

*Consult factory

FUNCTIONAL SPECIFICATIONS

Response Time: <2ms

Pressure Ranges: Vacuum, gauge, compound and absolute pressure from 0-5 psi through 0-10,000. Equivalent ranges in bar available. See order guide section (reverse.)

Vibration Effect:

Shock: 100g Peak, 11ms
 Random: 10g RMS, 20-2000Hz
 Sweep: 50-2000Hz, 5g peak

Position Effect: ± 0.02% Typical

CE Mark (standard): EN 61326:1997 + A1: 1998 Annex A Heavy Industrial Immunity (Annex A, Table A.1) Light Industrial/Residential Emission (Table 4)

Overpressure (F.S.):	Proof	Burst
0#/vac. to 2000 psi	2 x F.S.	min. 3 x F.S.
3000-5000 psi	1.5 x F.S.	min. 3 x F.S.
7500-10,000 psi	1.2 x F.S.	1.5 x F.S.

ELECTRICAL SPECIFICATIONS

Output Signal: **Supply Voltage: (unregulated)**

		Minimum	Maximum
0-5Vdc	(3 Wire)	12Vdc	36Vdc
0-10Vdc	(3 Wire)	14Vdc	36Vdc
1-5Vdc	(3 Wire)	10Vdc	36Vdc
1-6Vdc	(3 Wire)	10Vdc	36Vdc
4-20mA	(2 Wire)	12Vdc	36Vdc
0.5-4.5 Ratiometric	(3 Wire)	4.5Vdc	5.5Vdc

Power Requirements:

Supply Current: <5mA for voltage outputs

Electrical Terminations: See To Order section (reverse) for options

Circuit Protection: Reverse polarity and mis-wire protected
Insulation Resistance (Circuit to Case): 100Mohm @ 30Vdc

PHYSICAL SPECIFICATIONS

Case: Material 304SS

Wetted Materials: 17-4PH SS diaphragm and 316L SS pressure port, optional 316L SS diaphragm and pressure port, piezoresistive MEMS sensor with silicone oil fill, (see How to Order Section).

Ingress Protection Rating:

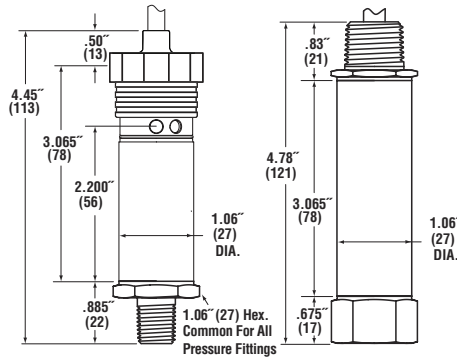
Enclosure	Code	Rating
Basic	(S)	IP65, NEMA 4X
Zero/Span	(Z)	IP65, NEMA 4X
All Welded (w/Z/S)	(Y)	IP65, NEMA 4X
All Welded (w/o Z/S)	(W)	IP67, NEMA 6

NOTE:

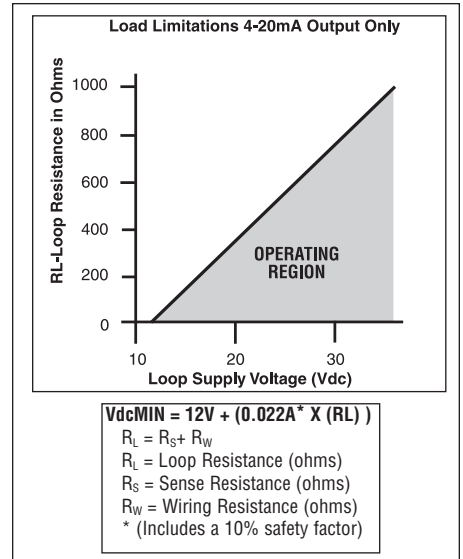
Refer to Ashcroft Model A2X for Explosion / Flame Proof configurations and Ashcroft Model A4 for Intrinsically Safe/Non-Incendive applications.

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DIMENSIONS dimensions in () are mm



HEAVY INDUSTRIAL (ENCLOSURE S, Z, Y, W)



NOTE:

Refer to Ashcroft Model A2X for Explosion / Flame Proof configurations and Ashcroft Model A4 for Intrinsically Safe /Non-Incendive applications.

How To Order

A 2									X
Type Configuration (A2)	Accuracy / Temp. Effect^S (A) 0.25%≤0.5% (-20°C to +85°C) (B) 0.50%≤1.0% (-20°C to +85°C) (C) 1.00%≤1.0% (-20°C to +85°C)			Output Signal (05) 0-5 Vdc (10) 0-10 Vdc (15) 1-5 Vdc (16) 1-6 Vdc (RM) 0.5-4.5 Vdc Ratio Metric (42) 4-20mA	Electrical Termination Integral Cable (Pigtail) (F2) 3' shielded cable ⁽¹⁾ (P1) (specify length) ⁽¹⁾ Hirschmann Style Form A DIN 43650-A (DN) w/o mating conn. ⁽¹⁾ (D0) with mate, no cable ⁽¹⁾ (D1) with mate, 3' cable ⁽¹⁾ (D2) with mate, (specify length) ⁽¹⁾ 4-Pin Bendix Style (B4) w/o mating conn. ⁽²⁾ (H1) with mate, no cable ⁽²⁾ (L1) with mate, 3' cable ⁽²⁾ (P2) with mate, (specify length) ⁽²⁾ 1/2 NPT-M Conduit (C1) 3' shielded cable ⁽³⁾ (P7) (specify length) ⁽³⁾ 1/2 NPT-M Conduit (C2) 3' flying leads ⁽³⁾ (C4) 15' flying leads ⁽³⁾ M12 Threaded (EW) w/o mating conn. ⁽¹⁾ (E0) with mate, no cable ⁽¹⁾ (E2) with mate, 3' cable ⁽¹⁾ (E1) with mate, (specify length) ⁽¹⁾	Pressure Range (5#) 5 psi* (1000#) 1000 psi (10#) 10 psi* (2000#) 2000 psi (15#) 15 psi* (3000#) 3000 psi (30#) 30 psi* (5000#) 5000 psi (7500#) 7500 psi (60#) 60 psi (10,000#) 10,000 psi (100#) 100 psi (0# & vac.) 0 psi/vac. (150#) 150 psi (15# & vac.) Vac./15 psi* (200#) 200 psi (30# & vac.) Vac./30 psi* (300#) 300 psi (45# & vac.) Vac./45 psi (500#) 500 psi (60# & vac.) Vac./60 psi *316L Sensor Required	Measurement Type (G) Gauge Pressure Sensor (A) Absolute Pressure Sensor	Optional X-Variations (XCL) Non-standard** calibration (XNS) 316L Sensor Material (X6B) Cleaned For Oxygen Service	
Enclosure (S) Basic (Z) Zero & Span Access (Y) Welded with Zero & Span Access (W) Welded w/out Zero & Span Access (See electrical termination coding for available selections)	Pressure Connection (M01) 1/8 NPT-M (F04) 1/8 NPT-F (M02) 1/4 NPT-M (MG4) G 1/2 M (F02) 1/4 NPT-F (VM2) VCR inlet fitting (MEK) 1/4-20 SAE-M 1/4" VCR gland with 3/16-18 male nut (F09) 3/16-18 (1/4)-F (Aminco) 1/4" VCR gland with 3/16-18 female nut (M04) 1/2 NPT-M (others available upon request)								
<p>NOTE: All A2 pressure transmitters include a 9 pt. NIST traceable calibration certificate</p>									
								<p>**Minimum 10 pieces for non-standard pressure ranges.</p>	