

AXLdp Low Differential Pressure Transmitter

FEATURES

- UL94-V0 rated PBT case
- Calibrated ratiometric output
- Low voltage power requirement
- Easy mounting to PCBs
- Available in pressure ranges below 0.5 in. H₂O

TYPICAL USES

- Flow measurements
- Room pressure control
- Energy management
- Fan control
- HVAC and VAV

PERFORMANCE SPECIFICATIONS

Reference Temperature: 70°F ±2°F (21°C ±1°C)

Accuracy: ±2.0%, ±1.0% of span
(Terminal Point Method: includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors)

Stability: ≤±0.50% span/year

Media: Clean, dry and non-corrosive gas
 Compatibility: NOT FOR USE WITH LIQUIDS

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits: Storage: -40°F to 158°F (-40°C to 70°C)
 Operating: -4°F to 140°F (-20°C to 60°C)
 Compensated: 37°F to 127°F (3°C to 53°C)

Thermal Coefficients: Zero: ±0.10% of span/°F (±0.18% span/°C)
 Span: ±0.10% of span/°F (±0.18% span/°C)

Humidity Effects: No performance effect at 10-95% R.H. noncondensing

FUNCTIONAL SPECIFICATIONS

Mounting Position: Calibration in vertical position (standard)

Overpressure Limits: Proof: 7.25 psid Burst: 11.60 psid

Max. Static Line Pressure: 11.60 psi

ELECTRICAL SPECIFICATIONS

Output Signal (Ratiometric): (10% to 90% of the supplied voltage)
 0.5 to 4.5 V with a 5 Vdc supply

Supply Voltage: 4.75 to 5.25 Vdc

PHYSICAL SPECIFICATIONS

Pressure Connection: 3/32" I.D. tubing

Mating Electrical Connection: JST BHR-03VS-1

Weight: 0.35 oz without leads

Environmental Rating: IP20, NEMA 1(meets UL94-V0)



AXLdp
Pressure Transmitter



KEY BENEFITS

- OEM product
- Broad temperature capability
- High performance ASIC based electronics
- Superior long-term stability and repeatability
- Compact design: 1.18" x 1.65" x 0.37"
- 3 year warranty

WETTED MATERIAL

Media

Clean, dry air/gases compatible with Silicon, Glass, Gold, Titanium, Ceramic, Silicone Rubber, Aluminum and PBT
 NOT FOR USE WITH LIQUIDS

NON-WETTED

Housing

PBT (meets UL94-V0)

Data Sheet

AXLdp Low Differential Pressure Transmitter

TruAccuracy™

What Does It Mean?

Ashcroft's TruAccuracy™ specification is exclusively based on terminal point methodology instead of statistically derived schemes like 'best fit straight line'.

TruAccuracy™ means the Ashcroft AXLdp has $\pm 1.00\%$ of span accuracy out of the box. Zero and span setting errors are already included in the $\pm 1.00\%$ of span accuracy spec.

The AXLdp is ready to be installed with no additional calibration adjustments required.

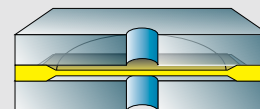
A unit from another manufacturer advertised as $\pm 1.00\%$ best fit straight line may actually be a $\pm 2.00\%$ to $\pm 3.00\%$ device. Using best fit straight line method, the accuracy spec does not include zero and span setting errors, which can be as much as $\pm 1.00\%$ each.

Ashcroft® Si-Glas™ Sensor Technology

Featuring a highly reliable variable capacitance sensor using the patented Ashcroft® Si-Glas™ sensor. This ultra-thin single crystal diaphragm provides inherent sensor repeatability and stability.

Sensor Cross Section

The silicon diaphragm sensor has no glues or other organics to contribute to drift or mechanical degradation over time.



ORDERING CODE	Example:	AX9	MB3	RM	ST	2IW
Model & Accuracy						
AX7 - AXLdp Series, $\pm 1.0\%$ of span						
AX9 - AXLdp Series, $\pm 2.0\%$ of span		AX9				
Pressure Connection						
MB3 - 3mm tube stub			MB3			
Output Signal						
RM - 0.5-4.5 Vdc ratiometric output				RM		
Electrical Termination						
NC - No leads						
ST - Leads with JST Connector					ST	
Pressure Range						
Unidirectional Ranges (differential)						
P2IW - 0.20 in. H ₂ O differential						
P25IW - 0.25 in. H ₂ O differential						
P5IW - 0.50 in. H ₂ O differential						
P75IW - 0.75 in. H ₂ O differential						
1IW - 1.00 in. H ₂ O differential						
2IW - 2.00 in. H ₂ O differential						2IW
2P5IW - 2.50 in. H ₂ O differential						
4IW - 4.00 in. H ₂ O differential						
5IW - 5.00 in. H ₂ O differential						
10IW - 10.00 in. H ₂ O differential						
15IW - 15.00 in. H ₂ O differential						
20IW - 20.00 in. H ₂ O differential						
Bi-directional Ranges						
P1IWL - ± 0.10 in. H ₂ O differential						
P25IWL - ± 0.25 in. H ₂ O differential						
P5IWL - ± 0.50 in. H ₂ O differential						
1IWL - ± 1.00 in. H ₂ O differential						
2IWL - ± 2.00 in. H ₂ O differential						
2P5IWL - ± 2.50 in. H ₂ O differential						
5IWL - ± 5.00 in. H ₂ O differential						
7P5IWL - ± 7.50 in. H ₂ O differential						
10IWL - ± 10.00 in. H ₂ O differential						

Consult factory for custom calibration ranges and other temperature compensation ranges

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DIMENSIONS are identified in inches and [millimeters]

For reference only, consult Ashcroft for specific dimensional drawings.

