

## Data Sheet

# AXLdp Low Differential Pressure Transducer

### FEATURES

- UL94-V0 rated PBT case
- Calibrated ratiometric output
- Low voltage power requirement
- Easy mounting to PCBs
- Available in differential pressure ranges below 0.5 in. H<sub>2</sub>O

### TYPICAL USES

- Flow measurements
- Room pressure control
- Energy management
- Fan control
- HVAC/R 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 Transducer



### 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)

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### 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.

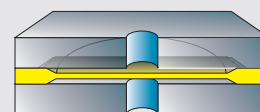
A unit from another manufacturer advertised as  $\pm 1.00\%$  best fit straight line may actually be a  $\pm 2.00\%$  to  $\pm 3.00\%$  device. Using best fit straight line method, the accuracy spec does not include zero and span setting errors, which can be as much as  $\pm 1.00\%$  each.

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

Consult factory for custom calibration ranges and other temperature compensation ranges

All specifications are subject to change without notice. All sales subject to standard terms and conditions.

Ashcroft®, Si-Glas™, TruAccuracy™, Trust the Shield® are trademarks of Ashcroft Inc.

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# Data Sheet

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**DIMENSIONS** are identified in inches and [millimeters]

For reference only, consult Ashcroft for specific dimensional drawings.

