

## Model AXLdp Low Differential Pressure Transducer



SHOWN ACTUAL SIZE



The AXLdp is designed as a board mountable sensor with a compensated ratiometric output signal for OEM applications.

### APPLICATIONS:

- Flow measurements
- Room pressure control
- Energy management
- Fan control

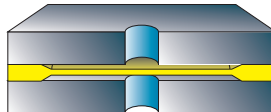
### FEATURES:

- UL94-V0 rated PBT case
- Calibrated ratiometric output
- Low voltage power requirement
- Through holes allow for easy mounting to PCBs
- Available in pressure ranges below 0.5 inH<sub>2</sub>O

The Ashcroft AXLdp transmitter uses the patented Si-Glas™ variable capacitance sensor technology. This MEMS sensor provides superior sensitivity, repeatability and long term stability when compared to other low pressure sensor technologies on the market. The Si-Glas™ sensor is used in conjunction with an Application Specific Integrated Circuit (ASIC) that allows for the digital compensation of the analog output signal. The compensation allows this low cost sensor to provide repeatable and accurate low pressure measurements.

*Featuring a highly reliable variable capacitance sensor using the patented Ashcroft® SiGlas™ 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.*

### PERFORMANCE SPECIFICATIONS

**Ref. Temperature:** 70°F ± 2°F (21°C ± 1°C)

#### Accuracy

**Class (Span):** ±2.0%, ±1.0% optional.

**Accuracy Includes:** non-linearity, hysteresis, non-repeatability, zero offset and span setting errors.

**Stability:** Max. change (span/year) ±0.50%

**Pressure Ranges:** (inches of W.C.)

#### - Unidirectional:

0/0.20	0/1.00	0/5.00
0/0.25	0/2.00	0/10.0
0/0.50	0/2.50	0/15.00
0/0.75	0/4.00	0/20.00

#### - Bidirectional:

-0.10/+0.10	-1.00/+1.00	-5.00/+5.00
-0.25/+0.25	-2.00/+2.00	-7.50/+7.50
-0.50/+0.50	-2.50/+2.50	-10.00/+10.00

- Custom Calibration Ranges: Consult factory

### 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)

**Humidity:** 95% max non-condensing

#### Thermal Coefficients:

**Zero:** 0.10% Span/°F (0.18% Span/°C)

**Span:** 0.10% Span/°F (0.18% Span/°C)

### FUNCTIONAL SPECIFICATIONS

**Proof Pressure:** 7.25 psi

**Burst Pressure:** 11.60 psi

**Mounting Position:** Vertical calibration

### ELECTRICAL SPECIFICATIONS

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

**Supply Voltage:** 4.75 to 5.25 Vdc

### PHYSICAL SPECIFICATIONS

**Pressure Conn:** 3/32" I.D. tubing

**Mating Electrical**

**Conn:** JST BHR-03VS-1

**Weight:** 0.35 oz without leads

**Protection Rating:** IP20/NEMA type 1

**Compatible Media:** Clean, dry, non corrosive gas

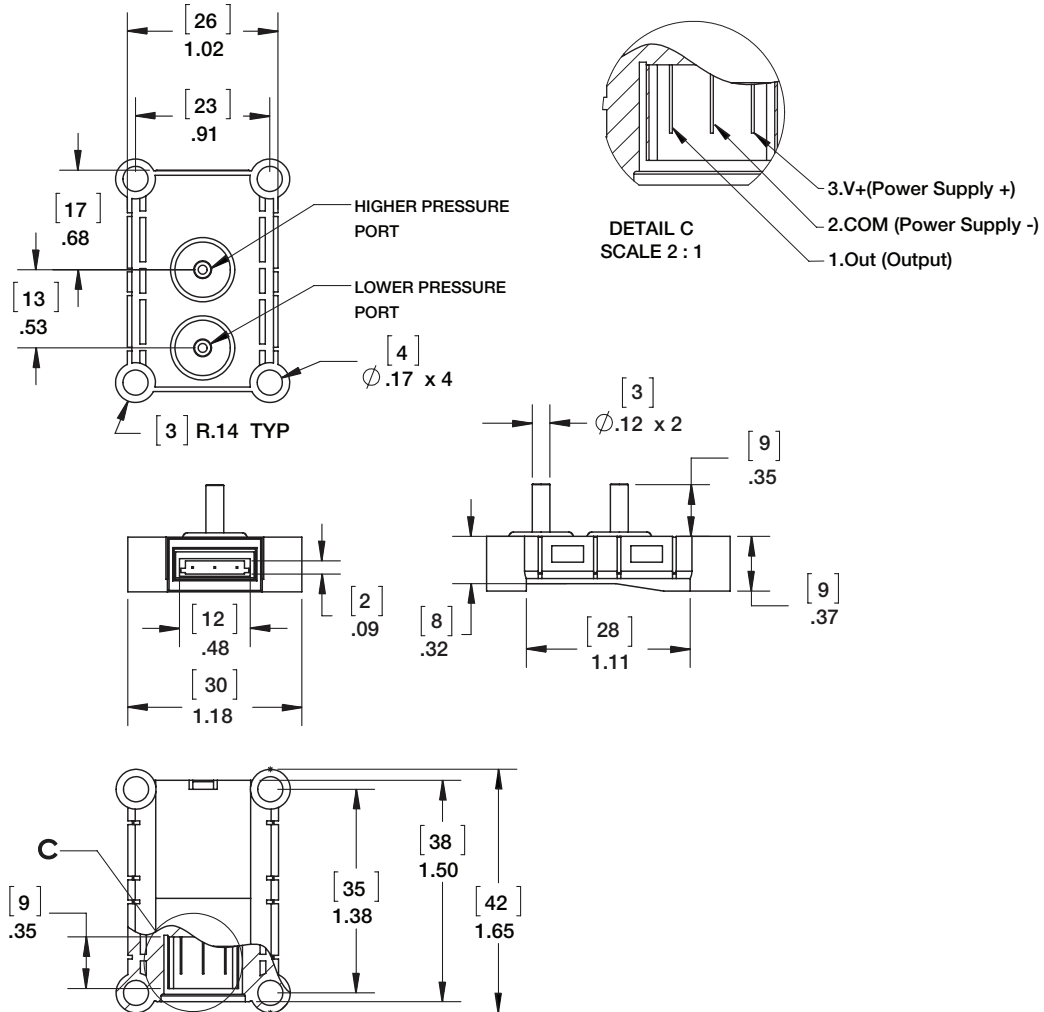
**Wetted Material:** Silicon, glass, gold, titanium, ceramic, silicone rubber, aluminum and PBT

**RoHS Compliant**

\* Other temperature compensation ranges available, consult factory

## Model AXLdp Low Differential Pressure Transducer

**DIMENSIONS** in inches and (metric):



### HOW TO CONFIGURE

A	X	9	M	B	3	R	M	N	C	P	2	5	I	W	L	-	#				
CLASS		ACCURACY	PRESSURE CONNECTION		OUTPUT		ELECTRICAL CONNECTION		RANGE							OPTIONAL VARIATIONS					
AXLdp series			MB3 3mm tube stub				NC-No leads ST-Leads with JST Connector									Note: All AXLdp product codes must contain a # variation					
9 ±2.0%/±0.05%/°C 7 ±1.0%/±0.05%/°C					RM 0.5-4.5Vdc																
UNIDIRECTIONAL RANGES																					
(P2IW) 0/0.20 IWC							(1IW) 0/1.00 IWC							(5IW) 0/5.00 IWC							
(P25IW) 0/0.25 IWC							(2IW) 0/2.00 IWC							(10IW) 0/10.00 IWC							
(P5IW) 0/0.50 IWC							(2P5IW) 0/2.50 IWC							(15IW) 0/15.00 IWC							
(P55IW)0/0.75 IWC							(4IW) 0/4.00 IWC							(20IW) 0/20.00 IWC							
BIDIRECTIONAL RANGES																					
(P1IW) -0.10/+0.10 IWC							(1IW) -1.00/+1.00 IWC							(5IW) -5.00/+5.00 IWC							
(P25IW) -0.25/+0.25 IWC							(2IW) -2.00/+2.00 IWC							(7P5IW) -7.50/+7.50 IWC							
(P5IW) -0.50/+0.50 IWC							(2P5IW) -2.50/+2.50 IWC							(10IW) -10.00/+10.00 IWC							

Note: All AXLdp product codes must contain a # variation