

APPLICATIONS:

HVAC, fume hood control, lab/clean room pressurization, laminar flow, furnace/stack draft, leak detection, medical, fan tracking, filter monitoring, glovebox and velocity measurements

BENEFITS & FEATURES:

- Certified 0.25% and 0.5% accuracy
- 0.1~50" H₂O pressure ranges
- CE approved
- High overpressure protection
- Flame proof NEMA 2 stainless steel construction
- Three types of output signals available
- Easy installation
- On-board voltage regulation allows use of lower cost, non-precise, unregulated power supply

PERFORMANCE CHARACTERISTICS

Accuracy Class (F.S.):	0.25%	0.50%
Non-linearity		
Terminal point*	±0.2%	±0.4%
Best fit straight line (BFSL)	±0.15%	±0.3%
Hysteresis	±0.02%	±0.02%
Non-repeatability	±0.03%	±0.05%

*Includes Hysteresis

Stability – Max. Change (F.S./year): ±0.5 %

Standard Ranges (Inches W.C.)

Unidirectional Ranges:

Differential or Gage

0/0.1	0/1.0	0/3.0	0/25.0
0/0.25	0/1.5	0/5.0	0/50.0
0/0.5	0/2.0	0/10.0	
0/0.75	0/2.5	0/15.0	

Bidirectional Ranges:

Compound

±0.05	±1.0	±5.0
±0.1	±2.0	±10.0
±0.25	±2.5	±25.0
±0.5	±3.0	

Custom Ranges: Special range calibrations (XCL) – consult factory

Standard Response Time: 250msec
(Consult factory for damping options)

ENVIRONMENTAL CHARACTERISTICS

Temperature Limits:

Storage:	-40 to 180°F
Operating:	-20 to 160°F
(10-95% R.H. non-condensing)	
Compensated Range:	+35 to 135°F

Thermal Coefficients:

ZERO	±0.015% F.S./°F
SPAN	±0.015% F.S./°F

Vibration Sweep: Less than 0.05% F.S. temporary effect with 5 g's 0-60 Hz

EMC: CE model compliant to EN61326: 1997 Annex A. Harmonized heavy industrial transmitter specification

FUNCTIONAL CHARACTERISTICS

Overpressure Limits:

Proof	15 psid
Burst	25 psi
Max. static line pressure	25 psi

The Ashcroft® XLdp is a variable capacitance sensor within a glass-clad silicon chip. The patented Si-Glas™ technology combines the inherent high sensitivity of a variable capacitance transducer with the repeatability of a micro-machined, ultra-thin silicon diaphragm.

The Ashcroft Si-Glas sensor now enables precise measurement and control of very low pressure. Although the ultra-thin silicon diaphragm deflects only a micron, the sensor is 100 times more sensitive to pressure than available silicon piezoresistive pressure sensors.

The Si-Glas sensor is composed of only sputtered metals and glass molecularly bonded to silicon. There

Mounting Position Effect:

0.5" W.C. and higher	± 0.10% F.S./g
0.25" W.C.	± 0.25% F.S./g
0.1" W.C.	± 0.50% F.S./g

Note: Calibrated horizontally standard unless otherwise specified. Mounting Position Effect easily corrected with zero potentiometer.

ELECTRICAL SPECIFICATIONS

Output Signal:	Power:
4-20mA (2 wire)*	12-36 Vdc
1-5 Vdc (3 wire)	12-36 Vdc
1-6 Vdc (3 wire)	12-36 Vdc

*Optional CE versions available

Output Signal is Independent at Power Supply

Changes: 12-36 Vdc range without effect on output signal

Reverse Wiring Protected

Zero and Span Potentiometers: Externally accessible, non-interactive, ±10% F.S. adjustment

Supply Current: <6mA for voltage output

Warm-up Time: 5 seconds max. to meet stated specifications

PHYSICAL CHARACTERISTICS

Pressure Connections: 1/4" barbed stainless steel
1/8" barbed stainless steel (optional)
1/4 NPT female stainless steel (optional)

TO ORDER THIS TYPE XLdp TRANSDUCER/TRANSMITTER:

Select:

- Type Configuration (XLdp) X L S T
- Accuracy % F.S. _____
(3) 0.25%, ±0.015%/°F (5) 0.50%, ±0.015%/°F
- Pressure Connection _____
(FO2) 1/4 NPTF (MB2) 1/4 Barbed (MB8) 1/8 Barbed
- Output Signal _____
(15) 1-5 Vdc (16) 1-6 Vdc (42) 4-20mA
- Output Connection _____
(ST) Screw Terminal
- Pressure Range _____
Diff. or Gage: (P11W) 0.10" W.C. (P25IW) 0.25" W.C. (P51W) 0.50" W.C. (P75IW) 0.75" W.C. (11W) 1.00" W.C. (1P51W) 1.50" W.C. (21W) 2.00" W.C. (2P51W) 2.50" W.C. (31W) 3.00" W.C. (51W) 5.00" W.C. (101W) 10.00" W.C. (151W) 15.00" W.C. (251W) 25.00" W.C. (501W) 50.00" W.C.
Compound: (P051WL) ±0.05" W.C. (P11WL) ±0.10" W.C. (P251WL) ±0.25" W.C. (P51WL) ±0.50" W.C. (11WL) ±1.00" W.C. (21WL) ±2.00" W.C. (2P51WL) ±2.50" W.C. (31WL) ±3.00" W.C. (51WL) ±5.00" W.C. (101WL) ±10.00" W.C. (251WL) ±25.00" W.C.
- Optional X-Variations (XCE) CE Approval Option (Includes all options in list) _____



3 Year Warranty

LOOK FOR THIS AGENCY MARK ON OUR PRODUCTS

are no epoxies or other organics in the sensor to contribute to drift or mechanical degradation over time. The glass-clad silicon diaphragm withstands extreme overpressure as well as severe shock and vibration.

Electrical Connections: Terminal strip

Weight: 14 oz, NEMA 2 Case

MATERIALS:

Case: 300 series stainless steel

Media: Clean, dry, non-corrosive gas (consult factory for use on other media)

DO NOT USE ON LIQUIDS

NOTES:

- Consult factory for use with media other than air or nonconducting gases
- Calibration curve (0.25% or 0.50%) supplied with each transmitter
- Consult factory on other pressure range, temperature compensation or packaging variations

OPTIONS

- (XCL) Custom calibration
- (XCE) CE compliant 4-20mA only
- (XV9) Calibrated vertically
- (XX1) – Fast response time 5 msec.
- (XX2) – Slow response time 1 sec.

NOTES:

- Consult factory for additional options including pressure ranges, temperature compensation, packaging variations and signal response time.

