

DXLdp Low Pressure Differential Transducer/Transmitter

APPLICATIONS: High reliability HVAC, bio-pharm, bio-tech, room pressurization and control, environmental and pollution control

BENEFITS AND FEATURES:

- The exclusive patent pending Ashcroft® SpoolCal™ actuator provides in-place system calibration without disturbing process tubes
- Front access test jacks provide on-line signal reference without removing wiring
- LED range status indicators for instant troubleshooting information
- DIN Rail Mount – dramatically reduces installation and calibration costs

PERFORMANCE CHARACTERISTICS

Accuracy Class (F.S.):

Nonlinearity	0.25%	0.5%	1.0%
Terminal Point*	±0.2	±0.4%	±0.8%
B.F.S.L.	±0.15	±0.3%	±0.6%
Hysteresis	±0.02	±0.02%	±0.05%
Nonrepeatability	±0.03	±0.05%	±0.10%
Interchangeability	±0.25	±0.5%	±1.0%

*Includes hysteresis

Stability – Max. (F.S./year):

±0.5% non-cumulative

Standard Ranges (Inches W.C.)

Unidirectional Ranges:

Differential or Gage

0/0.1	0/1.0	0/3.0	0/20.0
0/0.25	0/1.5	0/5.0	0/25.0
0/0.5	0/2.0	0/10.0	0/50.0
0/0.75	0/2.5	0/15.0	

Bidirectional Ranges:

Compound

±.05	±0.5	±2.0	±5.0
±0.1	±0.75	±2.5	±10.0
±0.25	±1.0	±3.0	±25.0

Consult factory for non-standard ranges

Response Time: 250m sec

Consult factory for optional response times

ENVIRONMENTAL CHARACTERISTICS

Temperature Limits:

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

Thermal Coefficients:

ZERO	±0.02%F.S./°F
SPAN	±0.02%F.S./°F

FUNCTIONAL CHARACTERISTICS

Overpressure Limits:

Proof	5 psid
Burst	25 psid

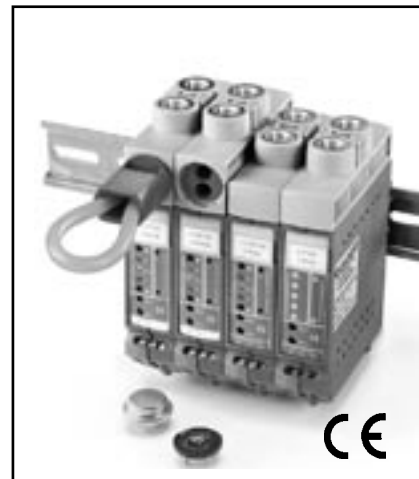
Mounting Position Effect:

0.5" W.C. and higher	0.1% F.S.
Below 0.5" W.C.	0.25% F.S.

The Ashcroft® DXLdp 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 piezo-resistive pressure sensors.

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

Output Signal:

4-20mA (2 wire)	12-36 Vdc
1-5 Vdc	12-36 Vdc
1-6 Vdc	12-36 Vdc
0-5 Vdc	12-36 Vdc
0-10 Vdc	12-36 Vdc

Zero and Span Potentiometers:

Front accessible, non-interactive

Zero: ±5%F.S.

Span: ±3%F.S.

Reverse Polarity Protected: 12-36 Vdc range without effect on output signals

Supply Current: < 10mA for voltage

Warm-up Time: 15 sec. max. to meet standard specifications from initial power-up

PHYSICAL CHARACTERISTICS

Pressure Connections: 1/8 NPT Female

Weight: 4.5 oz., NEMA 1 Case

MATERIALS:

Enclosure: Glass-filled polycarbonate (UL94-V-1)

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

NOT FOR USE ON LIQUIDS

Mounting: DIN rail types EN50022, 35 & 45

ENVIRONMENTAL CHARACTERISTICS

Select:

1. Type Configuration (DXLdp) D X F O I T S T X I
 2. Accuracy/TC (3) 0.25%, ±0.02%/°F (5) 0.50%, ±0.02%/°F (7) 1.0%, ±0.02%/°F
 3. Pressure Connection (FO1) 1/8 NPT Female
 4. Output Signal (05) 0/5 Vdc (10) 0/10 Vdc (15) 1/5 Vdc (16) 1/6 Vdc (42) 4-20mA
 5. Output Connection (ST) Screw Terminal
 6. Pressure Range Diff. or Gauge: (P11W) 0.10" W.C. (P251W) 0.25" W.C. (P51W) 0.50" W.C. (P751W) 0.75" W.C. (11W) 1.00" W.C. (1P51W) 1.5" W.C. (21W) 2.00" W.C. (2P51W) 2.50" W.C. (210W) 2.00" W.C. (31W) 3.00" W.C. (51W) 5.00" W.C. (101W) 10.00" W.C. (251W) 25.00" W.C. (501W) 50.00" W.C.
 7. Optional X-Variation (XDL) LED (XPV) Process Valve Actuator (X21) 2:1 Turn Down
- Compound: (P05WL) ±0.05" W.C. (P1WL) ±0.10" W.C. (P251WL) ±0.25" W.C. (P51WL) ±0.5" W.C. (P751WL) ±0.75" W.C. (11WL) ±1.0" W.C. (21WL) ±2.0" W.C. (2P51WL) ±2.5" W.C. (51WL) ±5.00" W.C. (101WL) ±10.00" W.C. (251WL) ±25.00" W.C.