

## Industrial IXLdp Ultra-Low Variable Capacitance Pressure Transducer/Transmitter

### 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
- 0.1~200~H<sub>2</sub>O pressure ranges
- High overload protection
- FM approved for hazardous locations
- NEMA 4X metal construction
- Six types of output signals available
- Easy installation

The Ashcroft® Industrial IXLdp was designed for the measurement and control of very low pressure and flow in industrial and process plant environments. The Industrial IXLdp transmitter features a rugged NEMA 4X enclosure, built-in electrical terminal box isolated from the electronics and threaded process connections.

The Ashcroft IXLdp transmitter utilizes a state-of-the-art variable capacitance sensor with a glass-clad silicon chip. The Si-Glas™ technology combines the inherent high sensitivity of a variable capacitance transducer with the repeatability of a micro-machined, single-crystal silicon diaphragm.



3 Year Limited Warranty

The Si-Glas sensor is composed of 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.

### PERFORMANCE CHARACTERISTICS

#### Standard Ranges (Inches W.C.)

#### Unidirectional Ranges:

##### Differential or Gauge

0/0.1	0/2.0	0/10	0/50
0/0.25	0/2.5	0/15	0/100
0/0.50	0/3.0	0/20	0/150
0/1.0	0/5.0	0/25	0/200

#### Bidirectional Ranges:

##### Compound or Vacuum

±0.05	±0.5	± 5.0	± 25.0
±0.10	±1.0	±10.0	± 50.0
±0.20	±2.0	±15.0	±100.0
±0.25	±2.5	±20.0	

Scaling in other engineering units (eg. kPa, cmH<sub>2</sub>O) and special range calibration available – consult factory.

**Accuracy Class: (F.S.)**      0.25%      0.5%

(Using T.P. method)

<b>Best fit straight line (BFSL)</b>	±0.15	±0.3
Hysteresis	±0.02	±0.02
Nonrepeatability	±0.03	±0.05
Interchangeability	±0.25%	±0.5%

**Stability:** ±0.50% F.S./yr.

### ENVIRONMENTAL CHARACTERISTICS

#### Temperature Limits:

Storage: -40 to 210°F

Operating: -20 to 185°F

Compensated: 0 to 160°F

#### Thermal Coefficients:

	0.25% Acc.	0.5% Acc.
ZERO	±0.01%F.S./°F	±0.02%F.S./°F
SPAN	±0.01%F.S./°F	±0.02%F.S./°F

### FUNCTIONAL CHARACTERISTICS

#### Overpressure Limits:

Proof pressure: 15 psid

Burst differential pressure: 50 psid

Maximum static (line) pressure: 100 psid

Static pressure effect: less than 0.5% F.S.

#### Vibration Sweep:

Less than 0.2%F.S./g temporary effect 10-130 Hz

### Mounting Position Effect:

1" W.C. and higher	≤0.1% F.S./g
0.25" up to 0.5" W.C.	≤0.5% F.S./g
0.1" W.C.	≤0.8% F.S./g

### ELECTRICAL SPECIFICATIONS

#### Output Signal Options:

Current: 4-20mA two wire current loop

Voltage: All voltage outputs are 3 wire

0-5 Vdc	1-6 Vdc	±5 Vdc
1-5 Vdc	±2.5 Vdc	

#### Power Supply Range:

12-36 Vdc range without effect on output signal

#### Supply Current:

2.6mA typical for voltage output

#### Response Time:

Standard: 250ms

Optional: slow: 1 second Consult  
fast: 5ms Factory

#### Reverse Polarity Protected

#### Resolution: Infinite

#### Warm-up Time:

Full specification: Less than one second

**Internal Zero and Span:** ±10% F.S. Adjustment

**Turndown & Variable Damping Optional**

### PHYSICAL CHARACTERISTICS

#### Enclosure:

NEMA 4X, 300 series stainless steel

**Process Connections:** Two ¼ NPT female

**Electrical Connections:** Two ½" female electrical conduit connections isolated from the electronics. Separate access cover for terminal connections

**Media:** Clean, dry and noncorrosive gas (consult factory for use on other media)  
NOT FOR USE ON LIQUIDS

### HAZARDOUS LOCATION CERTIFICATIONS

FM approval is optional (see price sheet)

Factory Mutual approvals intrinsically safe for use in:

Class I, Div. 1, Groups A, B, C, D

Class II, Div. 1, Groups E, F, G

Class III, Div. 1, when wired in accordance with

Dresser drawings 71B241 (1-3)

- Consult factory on other pressure range, temperature compensation, packaging variations or response times available

### TO ORDER THIS TYPE IXLdp TRANSDUCER/TRANSMITTER:

#### Select:

- Type Configuration (XLdp) IX
- Accuracy/TC F02  
(3) 0.25%, ±0.01%/°F (5) 0.50%, ±0.02%/°F
- Pressure Connection ST  
(F02) ¼ NPT-Female
- Output (4-20mA) ST  
(05) 0/5 Vdc (15) 1/5 Vdc (16) 1/6 Vdc (25) ±2.5 Vdc (50) ±5.0 Vdc (42) 4-20mA
- Electrical Terminal ST  
(ST) Screw Termination
- Pressure Range XFM  
Diff. or Gauge: (P1IW) 0.10" W.C. (P25IW) 0.25" W.C. (P5IW) 0.50" W.C. (11IW) 1.00" W.C. (21IW) 2.00" W.C. (2P5IW) 2.50" W.C. (3IW) 3.00" W.C. (5IW) 5.00" W.C. (10IW) 10.00" W.C. (15IW) 15.00" W.C. (20IW) 20.00" W.C. (25IW) 25.00" W.C. (50IW) 50.00" W.C. (100IW) 100.00" W.C. (150IW) 150.00" W.C. (200IW) 200.00" W.C.  
Compound: (P05IWL) ±0.05" W.C. (P1IWL) ±0.10" W.C. (P2IWL) ±0.20" W.C. (P25IWL) ±0.25" W.C. (P5IWL) ±0.5" W.C. (11IWL) ±1.00" W.C. (21IWL) ±2.00" W.C. (2P5IWL) ±2.50" W.C. (3IWL) ±3.00" W.C. (5IWL) ±5.00" W.C. (10IWL) ±10.0" W.C. (15IWL) ±15.00" W.C. (20IWL) ±20.00" W.C. (25IWL) ±25.00" W.C. (50IWL) ±50.00" W.C. (100IWL) ±100.00" W.C.
- Optional X-Variation (XFM) FM Approval Option \_\_\_\_\_