

## Model CXLdp Differential Pressure Transmitter



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### APPLICATION

*Low-pressure measurement for building energy management and comfort control*

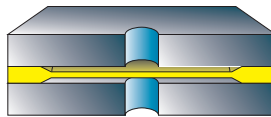
### FEATURES

- *Rugged ABS package capable of DIN rail or standard panel mounting*
- *LED power status indicator to assist in trouble shooting or quickly locating the instrument on a duct*
- *Detachable Euro style terminal block reduces wiring errors and field wiring time*
- *19 standard pressure ranges all capable of withstanding 15 psi without damage or calibration change*
- *Digitally compensated, 0.4% F.S. and 0.8% F.S. accuracy models*
- *NIST traceable*

The Ashcroft® CXLdp transmitter uses the patented Ashcroft Si-Glas™ variable capacitance sensor. This MEMS sensor provides extraordinary sensitivity and long term stability. New digital compensation is accomplished using a highly reliable application specific integrated circuit (ASIC).

*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):** ±0.8% ±0.4%  
Includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors.

**Stability – Max. Change (Span/year):** ≤0.25% ≤0.25%

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

**Unidirectional Ranges:**

**Differential**

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

**Bidirectional Ranges:**

**Compound**

±0.1	±1.0	±10.0
±0.25	±2.0	±15.0
±0.5	±5.0	

**Response Time:** 250 msec

### ENVIRONMENTAL SPECIFICATIONS

**Temperature Limits:**

Storage	–40 to 180°F
Operating	+0 to 160°F
Compensated Range	+35 to 130°F
(10-95% R.H. non-condensing)	

**Temperature Coefficients:**

Zero & Span ±0.03% Span/°F

**EMC:** CE Compliant to EN61326: 1997+A1: 1998+A2: 2001 Annex A (Heavy Industrial)

### FUNCTIONAL SPECIFICATIONS

**Overpressure Limits:**

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

**Mounting Position Effect:** ±1%/g (lowest range)

**Note:** Calibration in vertical position is standard

### ELECTRICAL SPECIFICATIONS

**Output Signal:**

4-20mA (2 wire)	12-36 Vdc
0-10Vdc* (3 wire)	14-36 Vdc or 24Vac (±20%)
*(User selectable 0-5Vdc option)	

**Output signal is independent of power supply changes**

**Reverse Wiring Protected**

**Zero and Span Adjustment:**

Externally accessible

Zero: ±5% F.S.

Span: ±5% F.S.

### PHYSICAL SPECIFICATIONS

**Pressure Connections:**

¼" brass barbed fittings

½ NPT Female brass

**Electrical Connection:** Euro style pluggable terminal block accepts 12-26 gauge wire

**Enclosure:** NEMA Type 1 Fire-retardant ABS (meets UL 94-5VA)

**LED visual indicator standard**

**Weight:** Approx. 2.5 oz

**Media:** Clean, dry and non-corrosive gas

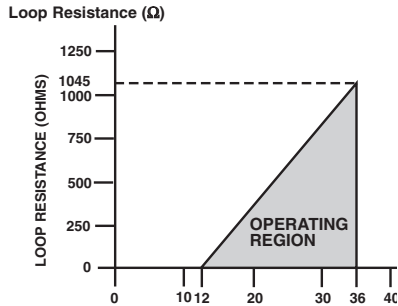
**Mounting:** Threaded fastener and 35mm DIN rail mount standard.

**Option:** ½" plenum/conduit mounting bracket and cover kit (order part #101A213-01)

**XRH:** (9 point NIST Calibration Certification)

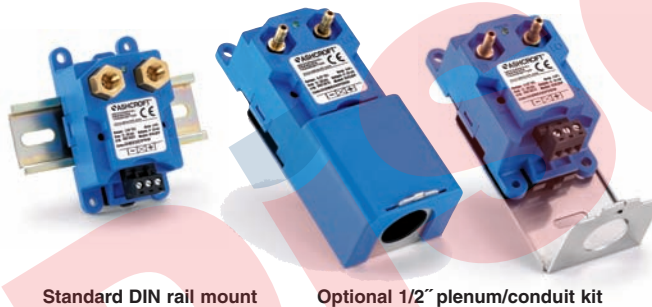
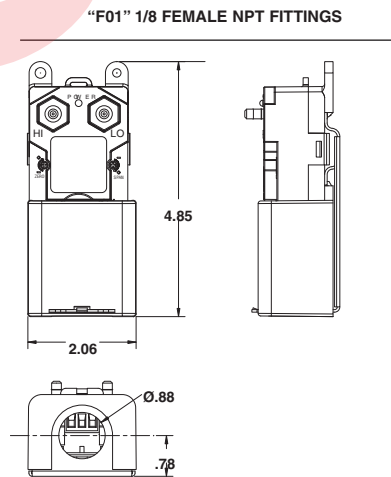
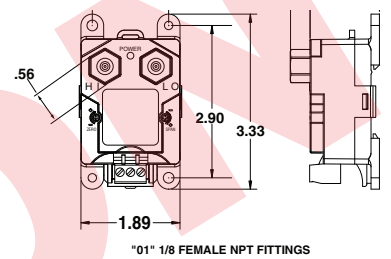
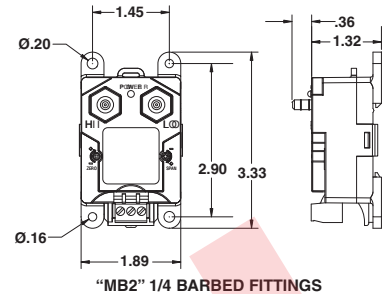
# Model CXLdp Low Pressure Differential Transmitter

## Load Limitations 4-20mA Output



$V_{min} = 12V + [.022A \cdot (R_L)]$   
 \*includes a 10% safety factor  
 $R_L = R_S + R_W$   
 $R_L$  = Loop Resistance (ohms)  
 $R_S$  = Sense Resistance (ohms)  
 $R_W$  = Wire Resistance (ohms)

## DIMENSIONS (in inches)



## How To Order

C X

Type  
(CX) CXLdp

Accuracy/TC

(8) 0.8%,  $\pm 0.03\%/^{\circ}F$   
 (4) 0.4%,  $\pm 0.03\%/^{\circ}F$

Connection

(MB2) 1/4 Barbed Male  
 (F01) 1/8 NPT Female

Output Signal

(42) 4-20mA  
 (10) 0-10Vdc\*

Pressure Range

Diff. or Gauge: Compound:

(P1IW) 0.10" W.C.	(P1IWL) $\pm 0.10$ " W.C.
(P25IW) 0.25" W.C.	(P25IWL) $\pm 0.25$ " W.C.
(P5IW) 0.50" W.C.	(P5IWL) $\pm 0.50$ " W.C.
(P75IW) 0.75" W.C.	(11IW) $\pm 1.00$ " W.C.
(1IW) 1.00" W.C.	(2IWL) $\pm 2.00$ " W.C.
(2IW) 2.00" W.C.	(5IW) $\pm 5.00$ " W.C.
(2P5IW) 2.50" W.C.	(10IWL) $\pm 10.00$ " W.C.
(3IW) 3.00" W.C.	(15IWL) $\pm 15.00$ " W.C.
(5IW) 5.00" W.C.	
(10IW) 10.00" W.C.	
(15IW) 15.00" W.C.	
(25IW) 25.00" W.C.	

XAH\*\*

Conduit Kit Packaged with the CXLdp  
 XRRH  
 Traceable 9 Point Calibration Report

### Notes:

\*Includes user selectable option 0-5Vdc output.  
 \*\*Note: XAH option is for the conduit kit assembled with the CXLdp.  
 To get the conduit kit separately request Part No. 101A213-01