

Model CXLdp Differential Pressure Transmitter



APPLICATION

Low-pressure measurement for building energy management and comfort control

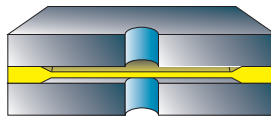
FEATURES

- *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% Span and 0.8% Span accuracy models*
- *NIST traceable*
- *Board level, no housing, options*

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% or ±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

0/0.10	0/0.75	0/2.50	0/10.00
0/0.25	0/1.00	0/3.00	0/15.00
0/0.50	0/2.00	0/5.00	0/25.00

Bidirectional Ranges:

Compound

±0.10	±0.50	±2.00	±10.00
±0.25	±1.00	±5.00	±15.00

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

CE Marked: Per DoC

EMC Directive 2004/108/EC

IEC/EN 61326-1: Edition 1.0 Industrial

IEC/EN 61326-2-3: Edition 1.0 Annex BB 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

Voltage Output: **Supply Voltage:** **Supply Current:**

4-20mA (2 wire) 12-36 Vdc 21.5mA

0-5 Vdc (3 wire) 11.5-36 Vdc 4.5mA

0-10 Vdc (3 wire) 14-36 Vdc or 24 Vac 6mA

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

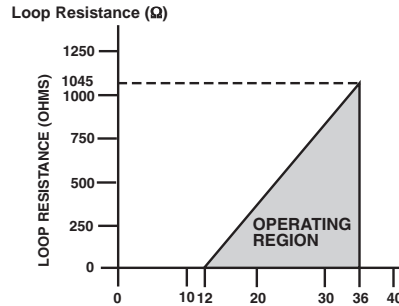
Mounting: Threaded fastener and 35mm DIN rail mount standard.

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



LOOP SUPPLY VOLTAGE (VDC)

$$V_{min} = 12V + [.022A \times (R_L)]$$

*includes a 10% safety factor

$$R_L = R_S + R_W$$

R_L = Loop Resistance (ohms)

R_S = Sense Resistance (ohms)

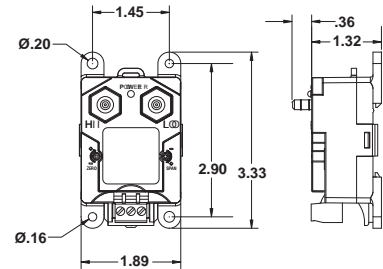
R_W = Wire Resistance (ohms)



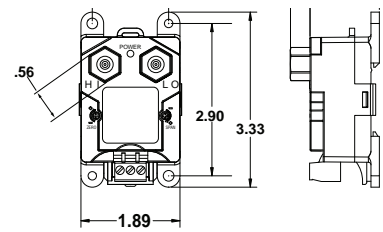
Standard DIN rail mount

Optional 1/2" plenum/conduit kit

DIMENSIONS (in inches)

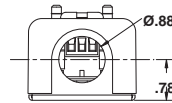
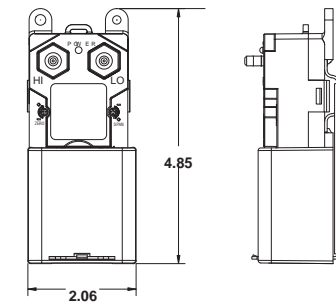


"MB2" 1/4 BARBED FITTINGS



"F01" 1/8 FEMALE NPT FITTINGS

"F01" 1/8 FEMALE NPT FITTINGS



ASSEMBLED WITH 101A213-01 1/2" PLENUM/CONDUIT KIT

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

(MB1) No Housing⁽¹⁾
(MB2) 1/4 Barbed Male
(F01) 1/2 NPT Female

Output Signal

(42) 4-20mA
(10) 0-10Vdc⁽¹⁾

Pressure Range

Diff. or Gauge: Compound:

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

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

Notes:

- (1) Includes user selectable option 0-5Vdc output.
- (2) Note: XAH option is for the conduit kit assembled with the CXLdp. To get the conduit kit separately request Part No. 101A213-01.
- (3) Consult factory for board level, no housing, options.

Contact:
Industrial Process Measurement, Inc.
3910 Park Avenue, Unit 7
Edison, NJ 08820
732-632-6400
support@instrumentation2000.com
http://www.instrumentation2000.com

All specifications are subject to change without notice.
All sales subject to standard terms and conditions.
© Ashcroft Inc. 2015 10/15