

Low pressure differential transducer model CXLdp

Accuracy 0,4 % and 0,8 % F.S.

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 in a duct
- Detachable DIN style terminal block reduces wiring errors and field wiring time
- 25 standard pressure ranges all capable of withstanding 1 bar without damage or calibration change
- Digitally compensated, 0,4 % F.S. and 0,8 % F.S. accuracy models
- NIST traceable



Ranges

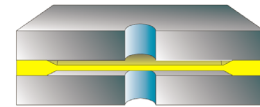
0 ... 25 Pa up to 0 ... 6 kPa dp
±0/25 Pa up to ±0/5 kPa dp

Applications

Low pressure measurement for building energy management and comfort control
Flow measurement
Filter monitoring

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

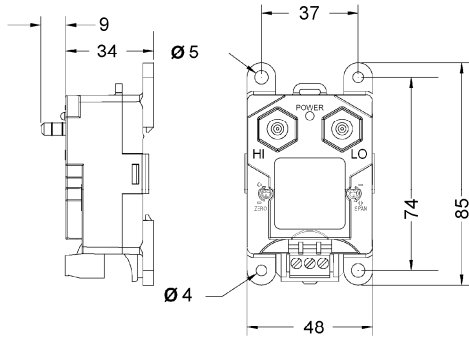


The silicon diaphragm sensor has no glues or other organics to contribute a drift or mechanical degradation over time.

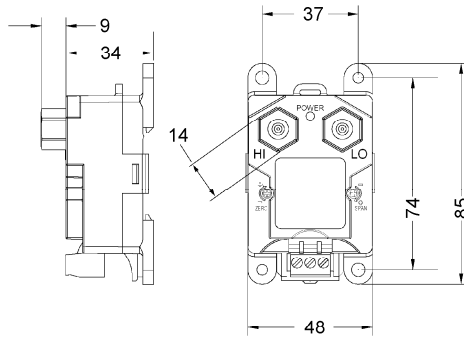
Technical specification	CXLdp																																																					
Measuring principle	Differential Si-glass/aluminum capacitor with single crystal silicon diaphragm																																																					
Ranges	<table border="1"> <tr> <td>unidirectional in Pa</td> <td>25</td> <td>60</td> <td>100</td> <td>160</td> <td>250</td> <td>400</td> <td>600</td> <td>1000</td> <td>1600</td> <td>2500</td> <td>4000</td> <td>6000</td> </tr> <tr> <td>in in. W.C.</td> <td>0,1</td> <td>0,25</td> <td>0,5</td> <td>0,75</td> <td>1</td> <td>1,5</td> <td>2</td> <td>2,5</td> <td>3</td> <td>5</td> <td>10</td> <td>15</td> <td>25</td> </tr> <tr> <td>bidirectional in Pa</td> <td>±25</td> <td>±60</td> <td>±100</td> <td>±160</td> <td>±250</td> <td>±400</td> <td>±600</td> <td>±1000</td> <td>±1600</td> <td>±2500</td> <td>±4000</td> <td>±5000</td> </tr> <tr> <td>in in. W.C.</td> <td>±0,05</td> <td>±0,1</td> <td>±0,25</td> <td>±0,5</td> <td>±1</td> <td>±2</td> <td>±2,5</td> <td>±3</td> <td>±5</td> <td>±10</td> <td></td> <td></td> </tr> </table>	unidirectional in Pa	25	60	100	160	250	400	600	1000	1600	2500	4000	6000	in in. W.C.	0,1	0,25	0,5	0,75	1	1,5	2	2,5	3	5	10	15	25	bidirectional in Pa	±25	±60	±100	±160	±250	±400	±600	±1000	±1600	±2500	±4000	±5000	in in. W.C.	±0,05	±0,1	±0,25	±0,5	±1	±2	±2,5	±3	±5	±10		
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in in. W.C.	0,1	0,25	0,5	0,75	1	1,5	2	2,5	3	5	10	15	25																																									
bidirectional in Pa	±25	±60	±100	±160	±250	±400	±600	±1000	±1600	±2500	±4000	±5000																																										
in in. W.C.	±0,05	±0,1	±0,25	±0,5	±1	±2	±2,5	±3	±5	±10																																												
Overpressure																																																						
Proof pressure in bar	1,0																																																					
Burst pressure in bar	1,7																																																					
Static pressure in bar	1,7																																																					
Pressure type	Differential, gauge, vacuum and compound																																																					
Process connection	1/4" barbed fittings, 1/8 NPT female, according to ANSI/ASME B1.20.1																																																					
Medium	Clean and dry air, non conducting and non corrosive gases																																																					
Material																																																						
Process connection	Brass																																																					
Sensor element	Silicon, aluminum, glass																																																					
Case	NEMA type 1 fire-retardant ABS (meets UL 94-5VA)																																																					
Power supply	12 ... 36 VDC for output signal 4-20 mA, 14 ... 36 VDC or 24 VAC (±20 %) for VDC output, reverse polarity protected																																																					
Output signal	4-20 mA (2-wire), 0-10 VDC (3-wire) with user selectable 0-5 VDC option																																																					
Max loop resistance for 4-20 mA	≤ (U _B - 12 V) / 0,022 A																																																					
Supply current	Max. 20 mA for 4-20 mA output signal																																																					
Optical process diagnostics	LED visual indicator																																																					
Accuracy according to DIN 16 086	0,4 % or 0,8 % F.S. (terminal point, includes the effects of linearity, hysteresis and repeatability)																																																					
Long term stability	≤ 0,5 % F.S./year																																																					
Response time (10 ... 90 %)	250 ms																																																					
Warm-up time	15 sec.																																																					
Permissible																																																						
Operation temperature	-18 ... 70 °C																																																					
Storage temperature	-40 ... 82 °C																																																					
Compensated temperature range	2 ... 54 °C																																																					
Temperature influence	±0,54 % / 10 K (ref. 20 °C)																																																					
Mounting position error (zero adjustable)	≤ 1 % / g (calibration in vertical position is standard)																																																					
Adjustments	Zero ±5 % F.S., Span ±5 % F.S., externally accessible																																																					
CE-mark/EMC	Compliant to EN 61326 (1997) + A1 (1998) + A2 (2001) Annex A																																																					
Electrical connection	Euro style pluggable terminal block accepts 12-26 gauge wire (0,128 bis 3,31 mm ²), optional 1/2" conduit/plenum mounting bracket, suitable for cable gland M20x1,5																																																					
Mounting	Threaded fastener for wall mounting or DIN rail types EN 50022, EN 50035 and 50045																																																					
Protection according EN 60 529/IEC 529	IP40, IP54 assembled with 1/2" conduit/plenum mounting bracket and cover kit																																																					
Weight in kg	0,07; complete with 1/2" conduit/plenum mounting bracket and cover kit 0,15																																																					

All specifications are subject to change without notice.

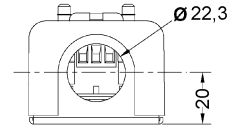
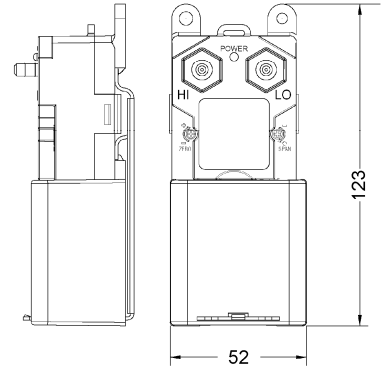
General dimensions in mm



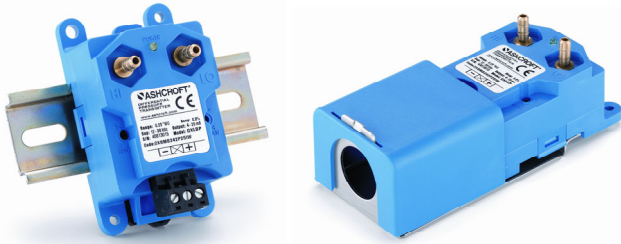
MB2 1/4" barbed fittings



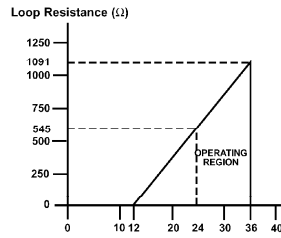
F01 1/8 NPT female fittings



Assembled with 1/2" conduit/plenum kit



Load Limitations 4-20mA Output



Assembled with 1/2" conduit/plenum kit

Rev. A

Standard DIN rail mount Optional 1/2" plenum/conduit kit

Order information

Type	Accuracy	Process connection	Output signal	Ranges		Options
				in. W.C.	Pa and kPa	
(CX) CXLdp	(4) 0,4 %	(MB2) 1/4" barbed male	(42) 4-20 mA	Unidirectional	Unidirectional	(NH) Tagging wired (AH) 1/2" conduit/plenum mounting bracket and cover kit (delivered with transducer) (101A213-01) 1/2" conduit/plenum mounting bracket and cover kit (separately ordered) (CD4S) 3-point calibration certificate (RH) 9-point calibration certificate, traceable to a national standard
	(8) 0,8 %	(F01) 1/8 NPT female	(10) 0-10 VDC ¹⁾	(P1IW) 0/ 0,1 (P25IW) 0/ 0,25 (P5IW) 0/ 0,5 (P75IW) 0/ 0,75 (1IW) 0/ 1,0 (2IW) 0/ 2,0 (2P5IW) 0/ 2,5 (3IW) 0/ 3 (5IW) 0/ 5 (10IW) 0/ 10 (25IW) 0/ 25	(25PA) 0/ 25 Pa (60PA) 0/ 60 Pa (100PA) 0/ 100 Pa (160PA) 0/ 160 Pa (250PA) 0/ 250 Pa (400PA) 0/ 400 Pa (6PA) 0/ 600 Pa (1KPA) 0/ 1 kPa (1P6KPA) 0/ 1,6 kPa (2P5KPA) 0/ 2,5 kPa (4KPA) 0/ 4 kPa (6KPA) 0/ 6 kPa	
				Bidirectional	Bidirectional	
				(P1IWL) ±0,1 (P25IWL) ±0,25 (P5IWL) ±0,5 (1IWL) ±1 (2IWL) ±2 (5IWL) ±5 (10IWL) ±10 (15IWL) ±15	(25PAL) ±25 Pa (60PAL) ±60 Pa (100PAL) ±100 Pa (160PAL) ±160 Pa (250PAL) ±250 Pa (400PAL) ±400 Pa (6PAL) ±600 Pa (1KPAL) ±1 kPa (1P6KPAL) ±1,6 kPa (2P5KPAL) ±2,5 kPa (4KPAL) ±4,0 kPa (5KPAL) ±5,0 kPa	

1) includes user selectable option 0-5 VDC output

Order example

Type	Accuracy	Process connection	Output signal	Range	Options
CX	8	MB2	42	100PA	AH

Ashcroft Instruments GmbH

Germany
 Max-Planck-Str. 1, D-52499 Baesweiler
 P.O. Box 11 20, D-52490 Baesweiler
 Tel.: +49 (0) 2401 808-0, Fax: +49 (0) 2401 808-125

France
 „206" ZA Le Mandinet Rue des Campanules
 F-77185 Lognes
 Tel.: +33 (0) 1 60 37 25 30, Fax: +33 (0) 1 60 37 25 39

Website: www.ashcroft.eu

United Kingdom
 Unit 5 William James House
 Cowley Road, Cambridge CB4 0WX
 Tel.: +44 (0) 12 23 39 55 00, Fax: +44 (0) 12 23 39 55 01

e-Mail: sales@ashcroft.com