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NASHCROFT

Type XLdp - Ultra-Low Variable Capacitance Pressure Transducer/Transmitter

APPLICATIONS:

HVAC, fume hood control, lab/clean/ hospital room pressurization, medical lung function or breathing equipment, fan tracking, filter monitoring, or very low velocity measurements FEATURES:

- Certified 0.25% and 0.5% accuracy
- 0.1 ~- 50 ~- H²O pressure ranges
- CE approved
- High overpressure protection
- NEMA 2 stainless steel construction
- Three output signals available
- Easy installation
- On-board voltage regulation allows use of lower cost, non-precise, unregulated power supply
- 9 point NIST Traceable Calibration Certificate

PERFORMANCE SPECIFICATIONS

PERFURN	IANCE SP	ECIFICATI	UNS				
		ature: 70°					
Accuracy		S.):	<u>0.25%</u>	0.50%			
Non-linear		(DEOL)	0 4 5 0 /	0.00/			
Best fit straight line (BFSL)		±0.15%					
Hysteresis				±0.02%			
Non-repeatability				±0.05%			
Stability – Max. Change (F.S./year): ± 0.25 % Standard Ranges (Inches W.C.)							
			U.)				
Unidirecti							
Differentia			0.05	•			
0/0.1		0/3.0	0/25				
0/0.25	0/1.5	0/5.0	0/50	.0			
0/0.5	0/2.0						
0/0.75		0/15.0					
Bidirectio		es:					
Compound							
±0.05		±5.0					
±0.1	±2.0	±10.0					
±0.25	±2.5	±25.0					
±0.5							
		pecial rang	je calibrat	ions			
(XCL) – co							
		e Time: 2					
(Consult fa	actory fo	r damping	options)				
ENVIRON	MENTAL	SPECIFICA	TIONS				
Temperat	ure Limit	s:					
Storage:			-40 to	180°F			

remperature Linnis.	
Storage:	-40 to 180°F
Operating:	-20 to 160°F
(10-95% R.H. non-cor	ndensing)
Compensated Range:	+35 to 135°F
Thermal Coefficients:	
ZERO ±0.015%	F.S./°F
SPAN ±0.015%	F.S./°F
Vibration Sweep: Less	s than 0.05% F.S. tempo-
rary effect with 5 g's 0	-60 Hz
	iant to EN61326: 1997
	heavy industrial transmitter
specification	-
•	

FUNCTIONAL SPECIFICATIONS

Overpressure Limits:	
Proof	15 psid
Burst	25 psid
Max. static line pressure	25 psi

The Ashcroft[®] XLdp is a variable capacitance sensor within a glassclad 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.

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TRANSCA

The Ashcroft Si-Glas sensor 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 piezoresistive pressure sensors.

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

Mounting Position Effect: 0.5" W.C. and higher ± 0.10% F.S./g 0.25" W.C. ± 0.25% F.S./g 0.1" W.C. ± 0.50% F.S./g Note: Calibrated horizontally standard unless otherwise specified. Mounting Position Effect easily corrected with zero potentiometer.
ELECTRICAL SPECIFICATIONS
Output Signal: Power: 4-20mA (2 wire)* 12-36 Vdc 1-5 Vdc (3 wire) 12-36 Vdc 1-6 Vdc (3 wire) 12-36 Vdc *Optional CE version 12-36 Vdc Output Signal is Independent at Power Supply Changes: 12-36 Vdc range without effect on output signal Reverse Wiring Protected Zero and Span Potentiometers: Externally accessible, non-interactive, ±10% F.S. adjustment Supply Current: <6mA for voltage output
PHYSICAL SPECIFICATIONS
Pressure Connections: 1/4" barbed stainless steel 1/6" barbed stainless steel (optional) 1/4 NPT female stainless steel (optional)
TO ORDER THIS TYPE XLdp TRANSDUCER/TRANSM
X L Select: X 1. Type Configuration (XLdp)
4. Output Signal
(15) 1-5 Vdc (16) 1-6 Vdc (42) 4-20mA 5. Output Connection

7. Optional X-Variations (Includes all options in noted in "Options" section above)



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 Connections: Teminal strip Weight: 14 oz, NEMA 2 Case MATERIALS: Case: 300 series stainless steel Media: Clean, dry, non-corrosive gas (consult factory for use on other media)

DO NOT USE ON LIQUIDS

NOTES:

- · Consult factory for use with media other than air or nonconducting gases
- Calibration curve (0.25%) or data (0.50%) supplied with each transmitter
- · Consult factory on other pressure range, temperature compensation or packaging variations

OPTIONS

- (XCL) Custom calibration
- (XCE) CE compliant 4-20mA only
- (XV9) Calibrated vertically

- (XX1) Fast response time 5 msec. (XX2) Slow response time 1 sec.
- NOTES

ITTER:

· Consult factory for additional options including pressure ranges, temperature compensation, packaging variations and signal response time.

_	alect:
2.	Accuracy % F.S
3.	Pressure Connection
4.	Output Signal
5.	Output Connection
6.	Pressure Range
	Compound: (PO5IWL) ±0.05 [°] W.C. (P1IWL) ±0.10 [°] W.C. (P25IWL) ±0.25 [°] W.C. (P5IWL) ±0.50 [°] W.C. (1IWL) ±1.00 [°] W.C. (2PIWL) ±2.00 [°] W.C. (2P5IWL) ±2.50 [°] W.C. (3IWL) ±3.00 [°] W.C. (5IWL) ±5.00 [°] W.C. (10IWL) ±10.00 [°] W.C. (25IWL) ±25.00 [°] W.C.
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