ASHCROFT®
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IXLdp Ultra-Low Differential Pressure Transmitter

FEATURES

- TruAccuracy™- Terminal Point Accuracy method includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors.
- Current and voltage output signals available
- Custom ranges available
- FM approval for hazardous locations (optional)
- 5:1 turndown option
- Si-Glas™ technology enables precise measurement and control of very low pressures

TYPICAL USES

- HVAC
- Fume Hood Control
- Lab/Clean/Hospital Room Pressurization
- Laminar Flow
- Furnace/Stack Draft
- Leak Detection
- Pollution/Filtering Monitoring
- Medical Equipment
- Fan Tracking
- Filter Monitoring
- Velocity Measurements
- Building Energy Management/Comfort Control Systems

TruAccuracy™

IXLdp Pressure Transmitter

FM APPROVED

KEY BENEFITS

- **Broad temperature capability**
- **Superior long-term stability and repeatability**
- **High overpressure protection**
- **On-board voltage regulation allows use of lower cost, unregulated power supply**
- **3 year warranty**

PERFORMANCE SPECIFICATIONS

Reference Temperature:	70°F ±2°F (21°C ±1°F)
Accuracy:	±0.25% of span, ±0.5% of span (**Terminal Point Method**: includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors)
Stability:	±0.25% of span/year at reference conditions
Media Compatibility:	Clean, dry and non-corrosive gas NOT FOR USE WITH LIQUIDS
Standard Response Time:	250ms

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits:	Storage:	–40°F to 210°F (–40°C to 99°C)
	Operating:	–20°F to 185°F (–29°C to 85°C)
	Operating (FM):	–4°F to 104°F (–20°C to 40°C)
	Compensated:	0°F to 160°F (–18°C to 71°C)
Thermal Coefficients 0.25% Accuracy:	Zero: ±0.01% of span/°F Span: ±0.01% of span/°F	
Thermal Coefficients 0.5% Accuracy:	Zero: ±0.02% of span/°F Span: ±0.02% of span/°F	
Vibration Sweep:	<0.2% span/g temporary effect 10-130Hz	
Humidity Effects:	No performance effect at 0-95% R.H. noncondensing	

FUNCTIONAL SPECIFICATIONS

Mounting Position Effect:	≥1 in H_2O: ±0.1% of span/g 0.25 in H_2O to 0.5 in H_2O: ±0.5% of span/g 0.1 in H_2O: ±0.8% of span/g Calibrated horizontally standard unless otherwise specified. Mounting position effect easily corrected with zero potentiometer

Max. Static (Line) Pressure:	Proof:	Burst:
100 psi	20 psid	50 psid

ELECTRICAL SPECIFICATIONS

Circuit Protection:	Reverse wiring protected
Potentiometers:	Internal Zero: ±10% of span Span: ±10% of span
Supply Current:	2.6 mA typical for Voltage output
Warm-up Time:	<1 second

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Output Signal:	4-20 mA (2-wire) 12-36 Vdc 0-5 Vdc (3-wire) 12-36 Vdc 1-5 Vdc (3-wire) 12-36 Vdc 1-6 Vdc (3-wire) 12-36 Vdc ±2.5 Vdc (3-wire) 12-36 Vdc ±5 Vdc (3-wire) 12-36 Vdc Output signal is independent of power supply changes: 12-36 Vdc range without effect on output signal

PHYSICAL SPECIFICATIONS

Electrical Connection:	½″ female electrical conduit connections isolated from the electronics. Separate access cover for terminal connections
Environmental Rating:	NEMA 4X
Process Connection:	¼ NPT Female

HAZARDOUS SPECIFICATIONS

FM (OPT.) Approval:	Intrinsically Safe: Class I, II, III Div. 1 Groups A, B, C, D, E, F and G when properly installed with an approved FM intrinsically safe barrier. Non-incendive: Class I, II and III Div. 2, Groups A, B, C, D, E, F and G (4-20 mA output only) The output signal is limited to 12-30 Vdc for FM version units.
Consult Factory for:	Other pressure range,temperature compensation, packaging variations or response times

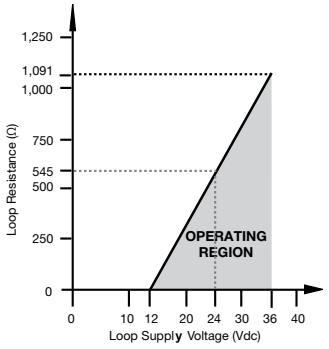
WETTED MATERIAL

Media:	Clean, dry air/gases compatible with Aluminum, Titanium, PBT, Buna, Silicon, Glass, Gold, Silicone RTV and Stainless steel NOT FOR USE WITH LIQUIDS

NON-WETTED

Housing:	300 series SS

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY



V_{min} = 12V+ (0.022A x R_L)
R_L = R_S + R_W
R_L = Loop Resistance (ohms)
R_S = Sense Resistance (ohms)
R_W = Wire Resistance (ohms)

TruAccuracy What Does It Mean?

Ashcroft's TruAccuracy™ specification is exclusively based on terminal point methodology instead of statistically derived schemes like 'best fit straight line'.

TruAccuracy™ means the Ashcroft IXLdp has ±0.25% of span accuracy out of the box. Zero and span setting errors are already included in the ±0.25% of span accuracy spec.

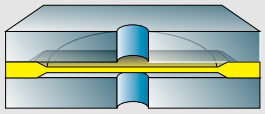
The IXLdp is ready to be installed with no additional calibration adjustments required.

A unit from another manufacturer advertised as ±0.25% best fit straight line may actually be a ±1.25% to ±2.25% device. Using best fit straight line method, the accuracy spec does not include zero and span setting errors, which can be as much as ±1.00% each.

Ashcroft® Si-Glas™ Sensor Technology

Featuring a highly reliable variable capacitance sensor using the patented Ashcroft® Si-Glas™ 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.



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ORDERING CODE Example:	IX3	F02	42	ST	2IW	–XNH
Model						
IX3 - IXLdp Series, ±0.25% of span, ±0.01% of span T.C. /°F	IX3					
IX5 - IXLdp Series, ±0.5% of span, ±0.02% of span T.C. /°F						
Pressure Connection						
F02 - ¼ NPT Female		F02				
Output Signal						
05 - 0-5 Vdc						
15 - 1-5 Vdc						
16 - 1-6 Vdc						
25 - ±2.5 Vdc						
42 - 4-20 mA			42			
50 - ±5.0 Vdc						
Eletrical Termination						
ST - Screw Terminal				ST		
Pressure Range						
Unidirectional Ranges (differential)						
P1IW - 0.10 in. H_2O						
P2IW - 0.20 in. H_2O						
P25IW - 0.25 in. H_2O						
P5IW - 0.50 in. H_2O						
1IW - 1.00 in. H_2O						
2IW - 2.00 in. H_2O					2IW	
2P5IW - 2.50 in. H_2O						
3IW - 3.00 in. H_2O						
5IW - 5.00 in. H_2O						
10IW - 10.00 in. H_2O						
15IW - 15.00 in. H_2O						
20IW - 20.00 in. H_2O						
25IW - 25.00 in. H_2O						
50IW - 50.00 in. H_2O						
100IW - 100.00 in. H_2O						
150IW - 150.00 in. H_2O						
200IW - 200.00 in. H_2O						
Bi-directional Ranges						
P05IWL - ±0.05 in. H_2O						
P1IWL - ±0.10 in. H_2O						
P2IWL - ±0.20 in. H_2O						
P25IWL - ±0.25 in. H_2O						
P5IWL - ±0.50 in. H_2O						
1IWL - ±1.00 in. H_2O						
2IWL - ±2.00 in. H_2O						
2P5IWL - ±2.50 in. H_2O						
3IWL - ±3.00 in. H_2O						
5IWL - ±5.00 in. H_2O						
10IWL - ±10.00 in. H_2O						
15IWL - ±15.00 in. H_2O						
20IWL - ±20.00 in. H_2O						
25IWL - ±25.00 in. H_2O						
50IWL - ±50.00 in. H_2O						
100IWL - ±100.00 in. H_2O						
Option (if indicating an option(s) must include an "X")						–X__
1D - Variable dampening, 0-30 sec						
41 - 5:1 Turndown						
CL - Custom pressure range calibration						
FM - FM Approval (with 4-20 mA output only. FM cannot be offered with options X1D or XX2)						
NH - Stainless steel tag						NH
NN - Paper tag						
X1 - Fast response time (8 msec)						
X2 - Slow response time (1 sec)						

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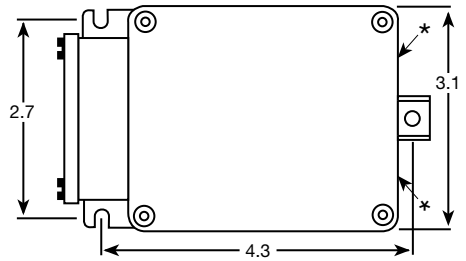
DIMENSIONS

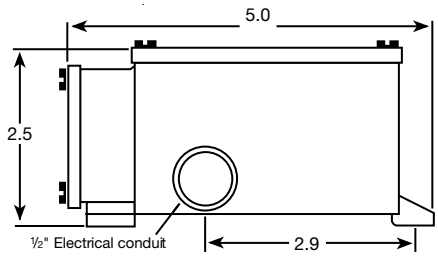
For reference only, consult Ashcroft for specific dimensional drawings.
All dimensions are identified in inches.

Front View



*–¼ NPT Female pressure connection

Side View



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