

IXLdp Ultra-Low Differential Pressure Transmitter

FEATURES

- Current and voltage output signals available
- Custom ranges available
- FM approval for hazardous locations (OPT.)
- 5:1 turndown option
- Si-Glass™ 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



IXLdp Pressure Transmitter



PERFORMANCE SPECIFICATIONS

Reference Temperature:	70°F ±2°F (21°C ±1°F)
Accuracy Class:	±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 ON 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:	Zero and Span: 0.25% Accuracy: ±0.01% of span/°F 0.5% Accuracy: ±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

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

FUNCTIONAL SPECIFICATIONS

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

Consult Factory for: Other pressure range, temperature compensation, packaging variations or response times

WETTED MATERIAL

Media

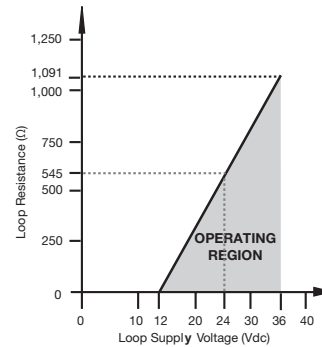
Clean, dry air/gases compatible with Aluminum, Titanium, PBT, Buna, Silicon, Glass, Gold, Silicone RTV and Stainless steel
NOT FOR USE ON LIQUIDS

NON-WETTED

Housing

300 series SS

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY



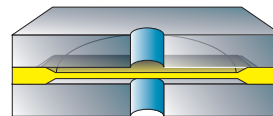
$$V_{min} = 12V + (0.022A \times R_L)$$

$$R_L = R_s + R_w$$

R_L = Loop Resistance (ohms)
 R_s = Sense Resistance (ohms)
 R_w = Wire Resistance (ohms)

Featuring a highly reliable variable capacitance sensor using the patented Ashcroft[®] Si-Glass[™] 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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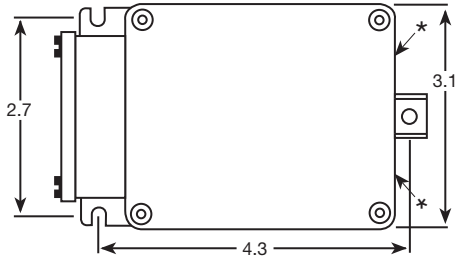
ORDERING CODE	Example:	IX3	F02	42	ST	2IW	-XNH
Model							
IX3 - IXLdp Series, ±0.25% of span, ±0.01% of span T.C. /°F		IX3					
IX5 - IXLdp Series, ±0.5% of span, ±0.02% of span T.C. /°F							
Pressure Connection							
F02 - ¼ NPT Female			F02				
Output Signal							
05 - 0-5 Vdc							
15 - 1-5 Vdc							
16 - 1-6 Vdc							
25 - ±2.5 Vdc							
42 - 4-20 mA						42	
50 - ±5.0 Vdc							
Electrical Termination							
ST - Screw Terminal					ST		
Pressure Range							
Unidirectional Ranges (differential)							
P1IW - 0.10 IWC							
P25IW - 0.25 IWC							
P5IW - 0.50 IWC							
1IW - 1.00 IWC							
2IW - 2.00 IWC						2IW	
2P5IW - 2.50 IWC							
3IW - 3.00 IWC							
5IW - 5.00 IWC							
10IW - 10.00 IWC							
15IW - 15.00 IWC							
20IW - 20.00 IWC							
25IW - 25.00 IWC							
50IW - 50.00 IWC							
100IW - 100.00 IWC							
150IW - 150.00 IWC							
200IW - 200.00 IWC							
Bi-directional Ranges							
P05IWL - ±0.05 IWC							
P1IWL - ±0.10 IWC							
P2IWL - ±0.20 IWC							
P25IWL - ±0.25 IWC							
P5IWL - ±0.50 IWC							
1IWL - ±1.00 IWC							
2IWL - ±2.00 IWC							
2P5IWL - ±2.50 IWC							
3IWL - ±3.00 IWC							
5IWL - ±5.00 IWC							
10IWL - ±10.00 IWC							
15IWL - ±15.00 IWC							
20IWL - ±20.00 IWC							
25IWL - ±25.00 IWC							
50IWL - ±50.00 IWC							
100IWL - ±100.00 IWC							
Option (if indicating an option(s) must include an "X")							
1D - Variable dampening, 0-30sec							-X
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 - SS tag							NH
NN - Paper tag							
X1 - Fast response time							
X2 - Slow response time							

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DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

Front View



*-1/4 NPT Female pressure connection

Side View

