

DXLdp Ultra-Low Differential Pressure Transmitter

FEATURES

- The exclusive patented Ashcroft® SpoolCal™ actuator provides in-place system calibration
- 2:1 range turndown (OPT.)
- Front access test jacks provide on-line signal reference without removing wiring
- LED range status indicators for instant troubleshooting information
- Si-Glas™ technology enables precise measurement and control of very low pressures

TYPICAL USES

- HVAC/R
- Bio-pharm
- Bio-tech
- Room pressurization and control
- Velocity pressure
- Critical environments
- Building energy management/comfort control systems



DXLdp
Pressure Transmitter



PERFORMANCE SPECIFICATIONS

Reference Temperature:	70°F±2°F (21°C±1°C)
Accuracy Class:	Three Options: ±0.25%, ±0.5%, ±1.0% of span (Terminal Point Method: includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors)
Stability:	≤ ±0.25% of span/year
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 180°F (-40°C to 82°C)
	Operating:	-20°F to 160°F (-29°C to 71°C)
	Compensated:	35°F to 135°F (1.6°C to 57°C)
Thermal Coefficients:	Zero & Span: ±0.02% of span/°F (From 70°F (21°C) reference temperature)	
Humidity Effects:	No performance effect at 10-95% R.H. noncondensing	

FUNCTIONAL SPECIFICATIONS

Max. Static (Line) Pressure:		
Proof:	Burst:	
25 psi	15 psid	25 psid
Mounting Position Effect:	Mounting Position Effect easily corrected with zero potentiometer	
	≥0.5 IWC	0.1% span/g
	<0.5 IWC	0.25% span/g

KEY BENEFITS

- Broad temperature capability
- DIN rail mount dramatically reduces installation and calibration costs
- CE standard with all outputs
- On-board voltage regulation allows use of lower cost, unregulated power supply
- SpoolCal™ process valve actuator provides in-place system calibration without disturbing process tubes

ELECTRICAL SPECIFICATIONS

Potentiometers:	Front accessible, non-interactive Zero: ±5% F.S. Span: ±3% F.S.
Supply Current:	<10 mA for Voltage
Warm-up Time:	5sec Max. to meet stated specifications from initial Power-up
Output Signal:	Power:
4-20 mA (2 wire)	12-36 Vdc
1-5 Vdc (3 wire)	12-36 Vdc
1-6 Vdc (3 wire)	12-36 Vdc
0-5 Vdc (3 wire)	12-36 Vdc
0-10 Vdc (3 wire)	12-36 Vdc
	Output signal is independent of power supply changes: 12-36 Vdc range without effect on output signal
Circuit Protection:	Reversed wiring protection

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PHYSICAL SPECIFICATIONS

Electrical Connection:	Screw Termination
Enclosure Rating:	NEMA 1 case
Mounting:	DIN rail types EN50022, 35 and 45
Pressure Connections:	1/8 NPT Female, 1/4 barbed Male
Weight:	4.5 oz

WETTED MATERIAL

Media

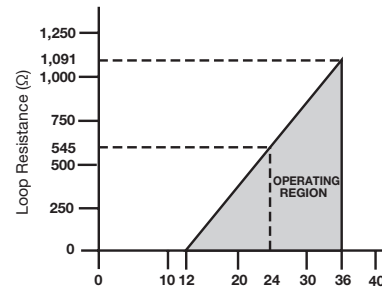
Clean, dry air/gases compatible with Aluminum, Titanium, PBT, Buna, Glass, Gold, Silicone Rubber, Silicon, Silicone RTV and Brass
NOT FOR USE ON LIQUIDS

NON-WETTED

Housing

Glass-filled polycarbonate (UL94-V-1)

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY

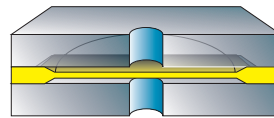


$$V_{max} = 12V + [0.022A \cdot (R_L)]$$

*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)

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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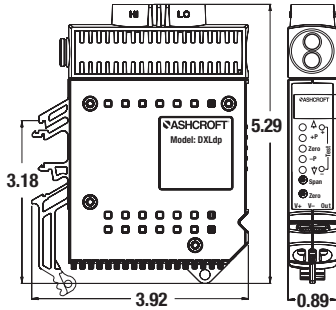
ORDERING CODE	Example:	DX3	F01	42	ST	P5IW	-XPV
Model							
DX3 - DXLdp Series, ±0.25% of span, ±0.02% span T.C. /°F		DX3					
DX5 - DXLdp Series, ±0.50% of span, ±0.02% span T.C. /°F							
DX7 - DXLdp Series, 1.00% of span, ±0.02% span T.C. /°F							
Pressure Connection							
F01 - 1/8 NPT Female			F01				
MB2 - 11/64 Barbed Male							
Output Signal							
05 - 0-5 Vdc							
10 - 0-10 Vdc							
15 - 1-5 Vdc							
16 - 1-6 Vdc							
42 - 4-20 mA				42			
Electrical Termination							
ST - Screw Terminal					ST		
Pressure Range							
Unidirectional Ranges (differential)							
P1IW - 0.10 IWD							
P25IW - 0.25 IWD							
P5IW - 0.50 IWD						P5IW	
1IW - 1.00 IWD							
1P5IW - 1.50 IWD							
2IW - 2.00 IWD							
2P5IW - 2.50 IWD							
3IW - 3.00 IWD							
5IW - 5.00 IWD							
10IW - 10.00 IWD							
15IW - 15.00 IWD							
20IW - 20.00 IWD							
25IW - 25.00 IWD							
50IW - 50.00 IWD							
Bi-directional Ranges							
P05IWL - ±0.05 IWD							
P1IWL - ±0.10 IWD							
P25IWL - ±0.25 IWD							
P5IWL - ±0.50 IWD							
P75IWL - ±0.75 IWD							
1IWL - ±1.00 IWD							
2IWL - ±2.00 IWD							
2P5IWL - ±2.50 IWD							
3IWL - ±3.00 IWD							
5IWL - ±5.00 IWD							
10IWL - ±10.00 IWD							
25IWL - ±25.00 IWD							
Options (if indicating an option(s) must include an "X")							-X__
21 - 2:1 Turndown							
CL - Custom pressure range calibration							
DL - LED range status indicators (includes front access test jacks)							
NH - SS tag							
NL - Front access test jacks (no LED indication)							
NN - Paper tag							
PV - SpoolCal™ process valve actuator							PV
RH - 9 pt. NIST traceable calibration report (OPT. for DX7/1.00% accuracy version, STD. for DX3 and DX5)							
X1 - Fast response time (10 ms)							
X2 - Slow response time (1 sec)							

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DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

SpoolCal and LED (OPT.)



Basic Unit

