ASHCROFT®
Trust the shield.®

DXLdp Ultra-Low Differential Pressure Transmitter

FEATURES

- TruAccuracy™- Terminal Point Accuracy method includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors
- 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

TruAccuracy™

DXLdp
Pressure Transmitter

RoHS COMPLIANT

CE

KEY BENEFITS

- **SpoolCal® process valve actuator provides in-place system calibration without disturbing process tubes**
- **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**

PERFORMANCE SPECIFICATIONS

Reference Temperature:	70°F±2ºF (21°C±1ºC)
Accuracy:	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 WITH 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: ±0.02% of span/°F Span: ±0.02% of span/°F (From 70°F reference temperature)
Humidity Effects:	No performance effect at 10-95% R.H. noncondensing

FUNCTIONAL SPECIFICATIONS

Max. Static (Line) Pressure: 25 psi	Proof: 15 psid	Burst: 25 psid
Mounting Position Effect:	Mounting Position Effect easily corrected with zero potentiometer	
	≥0.5 in. H_2O	0.1% span/g
	<0.5 in. H_2O	0.25% span/g

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: 4-20 mA (2 wire) 1-5 Vdc (3 wire) 1-6 Vdc (3 wire) 0-5 Vdc (3 wire) 0-10 Vdc (3 wire)	Power: 12-36 Vdc 12-36 Vdc 12-36 Vdc 12-36 Vdc 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:	⅛ NPT Female, 11⁄64 barbed Male
Weight:	4.5 oz

WETTED MATERIAL

Media

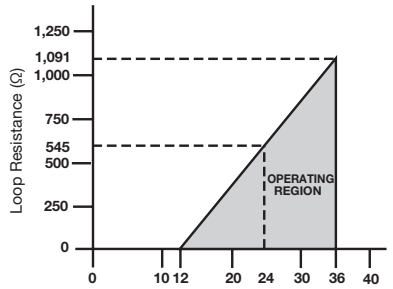
Clean, dry air/gases compatible with Aluminum, Titanium, PBT, Buna, Glass, Gold, Silicone Rubber, Silicon, Silicone RTV and Brass
NOT FOR USE WITH LIQUIDS

NON-WETTED

Housing

Glass-filled polycarbonate (UL94-V-1)

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY



V_{min} = 12V+ [0.022A*(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)

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 DXLdp 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.

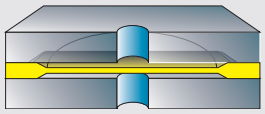
The DXLdp is ready to be installed with no additional calibration adjustments required.

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:	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 - ⅛ 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			
Eletrical Termination						
ST - Screw Terminal				ST		
Pressure Range						
Unidirectional Ranges (differential)						
P1IW - 0.10 in. H_2O differential						
P25IW - 0.25 in. H_2O differential						
P5IW - 0.50 in. H_2O differential					P5IW	
P75IW - 0.75 in. H_2O differential						
1IW - 1.00 in. H_2O differential						
1P5IW - 1.50 in. H_2O differential						
2IW - 2.00 in. H_2O differential						
2P5IW - 2.50 in. H_2O differential						
3IW - 3.00 in. H_2O differential						
5IW - 5.00 in. H_2O differential						
10IW - 10.00 in. H_2O differential						
15IW - 15.00 in. H_2O differential						
20IW - 20.00 in. H_2O differential						
25IW - 25.00 in. H_2O differential						
50IW - 50.00 in. H_2O differential						
Bi-directional Ranges						
P05IWL - ±0.05 in. H_2O differential						
P1IWL - ±0.10 in. H_2O differential						
P25IWL - ±0.25 in. H_2O differential						
P5IWL - ±0.50 in. H_2O differential						
P75IWL - ±0.75 in. H_2O differential						
1IWL - ±1.00 in. H_2O differential						
2IWL - ±2.00 in. H_2O differential						
2P5IWL - ±2.50 in. H_2O differential						
3IWL - ±3.00 in. H_2O differential						
5IWL - ±5.00 in. H_2O differential						
10IWL - ±10.00 in. H_2O differential						
25IWL - ±25.00 in. H_2O differential						
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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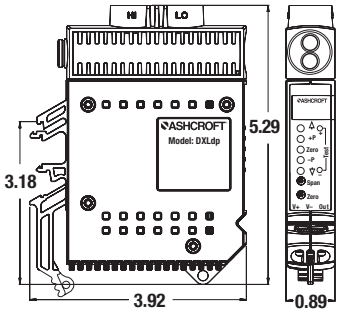
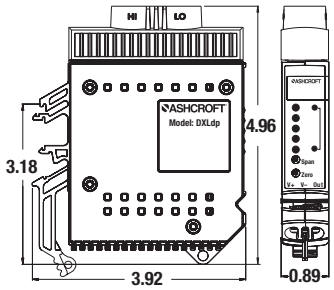
DIMENSIONS

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

SpoolCal and LED (OPT.)



Basic Unit



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