ASHCROFT®

Reduced Cost RXLdp Ultra-Low Variable Capacitance Transducer/Transmitter

APPLICATIONS:

HVAC, fume hood control, lab/clean room pressurization, laminar flow, furnace/stack draft, leak detection, medical, fan tracking, glovebox and velocity measurements

BENEFITS & FEATURES:

- ***0.1˝-50˝-H_2O pressure ranges***
- ***Certified 1% accuracy***
- ***CE approval***
- ***High overpressure protection***
- ***Stainless steel & Lexan NEMA 1 construction***
- ***Five types of output signals available***
- ***Mounts inside standard 3½˝ electrical box***
- ***Board level OEM versions available***

The Ashcroft® RXLdp transmitter introduces a variable-capacitance sensor using a glass-clad 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 single crystal silicon diaphragm.

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 piezo-resistive pressure sensors.

The Si-Glas sensor is composed of sputtered metals and glass molecularly bonded to silicon. There are no epoxies or other organics in the sensor to contribute to drift or mechanical degradation over time.

PERFORMANCE SPECIFICATIONS

Standard Ranges (Inches W.C.)
Unidirectional Ranges:
Differential or Gage

0/0.1	0/1.0	0/3.0	0/50.0
0/0.25	0/1.5	0/5.0	
0/0.5	0/2.0	0/10.0	
0/0.75	0/2.5	0/25.0	

Bidirectional Ranges:
Compound or Vacuum

±0.1	±1.0	±10.0
±0.25	±2.5	±25.0
±0.5	±5.0	±50.0

Consult factory for nonstandard ranges.

Accuracy Class (F.S.): (Using T.P. method)	1%
Best fit straight line (BFSL)	±0.6
Hysteresis	±0.05
Nonrepeatability	±0.10
Stability: F.S./year	±1.0%

ENVIRONMENTAL CHARACTERISTICS

Temperature Limits:

Storage:	–40 to 180°F
Operating:	0 to 160°F
(10-95% R.H. noncondensing)	
Compensated Range:	40 to 125°F

Thermal Coefficients:

ZERO	±0.025%F.S./°F
SPAN	±0.025%F.S./°F

FUNCTIONAL CHARACTERISTICS

Overpressure Limits:

Proof	5 psid
Burst	25 psis

Mounting Position Effect:

0.5˝W.C. and higher	≤0.1% F.S.
Below 0.5˝W.C.	≤0.25% F.S.

ELECTRICAL SPECIFICATIONS

Output Signal:	**Power:**
4-20mA (2 wire)	12-36 Vdc
1-5 Vdc	12-36 Vdc
1-6 Vdc	12-36 Vdc
0-5 Vdc	12-36 Vdc
0-10 Vdc	12-36 Vdc

Output signal is independent of power supply changes.

Supply Current: <6mA for voltage output

Response Time: 250m sec (factory set)

Reverse Polarity Protected:
12-36 Vdc range without effect on output signal

Warm-up Time:
15 seconds max. to meet stated specifications

PHYSICAL CHARACTERISTICS

Weight: 4.5 oz, NEMA 1 Case

MATERIALS:

Case/Cap: Stainless steel/Lexan

Pressure Connections:
Nickel plated brass, ¼˝ and ⅛˝ barbed connection

Media: Clean, dry and noncorrosive gas (consult factory for use on other media)
NOT FOR USE ON LIQUIDS

OPTIONS

- Back plate adapter (XRK)
- Calibration report (XRH)
- Nonstandard calibration (XCL)
  Follow part number with XRK, XCL or XRH when ordering, additional charge, see price list

NOTES:

- Consult factory on other pressure range, temperature compensation, packaging variations or response times available

TO ORDER THIS TYPE RXLdp TRANSDUCER/TRANSMITTER:

Select: R X | 7 | | | | | S T | | | | | | | |

1. **Type Configuration (RXLdp)**
2. **Accuracy/TC**
   (7) 1.0%, ±0.025%/°F
3. **Pressure Connection**
   (MB2) ¼ Barbed **(MB1)** No Case OEM Option **(MB8)** ⅛ Barbed
4. **Output Signal**
   (05) 0/5 Vdc **(10)** 0/10 Vdc **(15)** 1/5 Vdc **(16)** 1/6 Vdc **(42)** 4-20mA
5. **Output Connection**
   (ST) Screw Terminal
6. **Pressure Range**
   Diff. or Gauge: (P1IW) 0.10˝W.C. **(P25IW)** 0.25˝W.C. **(P5IW)** 0.50˝W.C. **(P75IW)** 0.75˝W.C. **(1IW)** 1.00˝W.C. **(1P5IW)** 1.5˝W.C. **(2IW)** 2.00˝W.C. **(2P5IW)** 2.50˝W.C. **(2IW)** 2.00˝W.C. **(3IW)** 3.00˝W.C. **(5IW)** 5.00˝W.C. **(10IW)** 10.00˝W.C. **(25IW)** 25.00˝W.C. **(50IW)** 50.00˝W.C.
   Compound: (P1WL) ±0.10˝W.C. **(P25IWL)** ±0.25˝W.C. **(P5IWL)** ±0.5˝W.C. **(1IWL)** ±1.0˝W.C. **(2P5IWL)** ±2.5˝W.C. **(5IWL)** ±5.00˝W.C. **(10IWL)** ±10.00˝W.C. **(25IWL)** ±25.00˝W.C. **(50IWL)** ±50.00˝W.C.
7. **Optional X-Variation**
   (XRK) Back Plate Adapter **(XRH)** Calibration Report **(XCE)** CE Approval Option

Reference Bulletin CT-4

Consult factory for guidance in product selection
Phone (203) 783-6650, FAX (203) 783-6659 or
visit our web site at www.ashcroft.com

DRESSER INSTRUMENT
a Halliburton company