ASHCROFT®

Type KS Thin Film Pressure Transducer/Transmitter For Sanitary Applications

APPLICATIONS:

Dairy, food, pharmaceutical and any 3A sanitary application

BENEFITS & FEATURES:

- ***316L stainless steel electropolished (1½˝-2˝) Tri-Clamp® style diaphragm***
- ***Vac.-1000 psi pressure range***
- ***Stainless steel NEMA 4X enclosure***
- ***Superior long-term stability and repeatability***
- ***Current/voltage/millivolt output***
- ***Wide range of electrical connections available***
- ***All-welded construction***

Dresser Instrument Division combines the proven polysilicon thin film transmitter technology with its long-time know-how of diaphragm seals to create the Ashcroft® KS Sanitary Pressure Transmitter. This all-welded stainless steel construction meets the 3A Sanitary Standard 74-02.

The KS Sanitary Pressure Transmitter introduces the benefits of polysilicon thin film performance at an affordable price. Modern low- pressure chemical vapor disposition methods provide simple, stable, molecular bonds between a proven metal diaphragm and polysilicon strain gage bridge. There are no epoxies or bonding agents to contribute to signal instability or drift.

The integral metal diaphragm and polysilicon bridge are virtually unaffected by shock, vibration or mounting position.

PERFORMANCE CHARACTERISTICS

Standard Ranges (psi)

0/30*†	0/300†	vac./30*†
0/60*†	0/500	vac./60*†
0/100†	0/750	vac./100†
0/150†	0/1000	
0/200†		

Consult factory for nonstandard ranges.

*T/C multiply by 1.5 times.
†NEMA 4X only with F2 and C1 electrical connections.

Accuracy Class (F.S.)	**1%**
(Using T.P. method)	
Best fit straight line (BFSL)	±0.4
Hysteresis	±0.2
Nonrepeatability	±0.07

ENVIRONMENTAL CHARACTERISTICS

Temperature

Storage	–65/+250°F
Operating	–20/+180°F
Compensated	+30/+130°F

Thermal Coefficients: (68°F ref.) %F.S./°F
Standard:

ZERO	±0.04%
SPAN	±0.04%

Humidity:
No performance effect at 95% relative humidity – noncondensing

FUNCTIONAL CHARACTERISTICS

Overpressure: (F.S.)

Proof	200%
Burst	800%

Vibration Sweep:
Less than ±0.1%F.S. effect for 0-2000 Hz at 20 g's in any axis

Shock:
Less than ±0.05%F.S. effect for 100 g's, 20ms shock in any axis

Position Effect: Less than 0.01% F.S.

ELECTRICAL SPECIFICATIONS

Transmitter Output Signal:
4-20mA (2 wire)
1-5 Vdc (3 wire)
1-6 Vdc (3 wire)

Supply Current:
Less than 3mA for voltage output

Power Requirements:
10-36 Vdc unregulated
Reverse polarity protected

Transducer Output Signal:
2m V/V ratiometric
3m V/V ratiometric
10m V/V ratiometric
20m V/V ratiometric

Power Requirements: 5-10 Vdc regulated

Circuit to Case Insulation Resistance:
100 M ohms @ 50 Vdc

PHYSICAL CHARACTERISTICS

Enclosure: NEMA 4X

Weight:
13.5 oz (approx. without cable)

MATERIALS

Case: 300 series stainless steel

Cable:
No. 24 AWG, 36˝ PVC, shielded, vented, UL approved

Diaphragm: 316L stainless steel

Standard Process Connections:
316L stainless steel electropolished Tri-Clamp® style 1½˝, 2˝

Fill: USP grade 99.5% glycerin fill, contact factory for other fill fluids

Consult factory for pricing, availability and required minimums for nonstandard products.

WARNING! Sensitive Diaphragm!

TO ORDER THIS TYPE KS TRANSDUCER/TRANSMITTER:

Select: K S 7 ☐☐ ☐☐ ☐☐ ☐☐☐☐☐

1. Type Configuration (KS)

2. Accuracy/TC
(7) 1.0%, ±0.040%/°F

3. Sanitary Seal
(S15) 1½ inch Sanitary Connection **(S20)** 2 inch Sanitary Connection

4. Output Signal
(42) 4-20mA **(16)** 1/6 Vdc **(15)** 1/5 Vdc **(02)** 2mV/V
(03) 3mV/V **(10)** 10mV/V **(20)** 20mV/V

5. Electrical Termination
(F2) 36˝ cable, shielded, PVC sheathing **(B4)** Bendix 4-pin # PT02A-8-4P*
(B6) Bendix 6-pin # PT02A-10-6P* **(B8)** WP Bendix 4-pin # PT02E-8-4P*
(B9) WP Bendix 6-pin # PT02E-10-6P* **(C1)** 1/2 NPT-M Conduit w/36˝ cable **(HM)** Hirschman miniature

6. Pressure Range
(Vac./30) vac./30 through **(1000)** 1000 psi (see standard ranges).

*Mating connector available as necessary

Consult factory for guidance in product selection
Phone (203) 385-0217, Fax (203) 385-0602 or
visit our web site at www.ashcroft.com

DRESSER Instruments