ASHCROFT®

Type KS Sanitary Thin Film Pressure Transducer/Transmitter

APPLICATIONS:

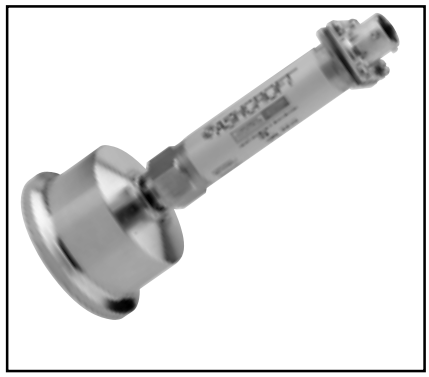
Dairy, food, pharmaceutical and any 3A sanitary application

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 longtime know-how of diaphragm seals to create the Ashcroft® KS Sanitary Pressure Transmitter. This all-welded stainless steel construction meets the 3A Sanitary Standard 37-01.

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 poly-silicon 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.) (Using T.P. method)	1%
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

Reference Bulletin PT-6

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