

## K1, KS, KX Pressure Transducers

### FEATURES

- Pressure ranges from vacuum through 20,000 psi
- Choice of  $\pm 0.5\%$  or  $\pm 1.0\%$  accuracy
- All SS wetted parts



### PERFORMANCE SPECIFICATIONS

Reference Temperature:	68°F (20°C)
Accuracy Class (% Span):	$\pm 0.5\%$ , $\pm 1.00\%$ of span Terminal Point Method: includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors
Best Fit Straight Line (BFSL):	$\pm 0.25\%$ , $\pm 0.40\%$ of span. Add $\pm 0.05\%$ for ranges above 5000 psi
Durability:	> 10 million cycles
Stability:	$\pm 0.5\%$ Span/year at reference conditions

### ENVIRONMENTAL SPECIFICATIONS

Temperature Limits:	
Storage:	-65°F to 250°F (-54°C to 121°C)
Operating:	-20°F to 180°F (-28°C to 82°C)
Compensated:	-20°F to 160°F (-28°C to 71°C)
Thermal Coefficients: (68°F (20°C) ref.)	<b>Accuracy: 0.5% 1%</b>
	ZERO $\pm 0.028\%$ $\pm 0.04\%$
	SPAN $\pm 0.028\%$ $\pm 0.04\%$
	<b>Optional (0.5% Accuracy):</b>
	ZERO $\pm 0.014\%$ N/A
	SPAN $\pm 0.014\%$ N/A
Humidity Effects:	No performance effect at 95% relative humidity-noncondensing

### FUNCTIONAL SPECIFICATIONS

Response Time:	<5ms	
Pressure Ranges:	K1: 15 to 20,000 psig, compound to 60 psig KX: 100 to 5000 psi KS: 30 to 1000 psig, compound to 100 psig	
Shock Effect: (K1 only)	Less than $\pm 0.05\%$ F.S. effect for 100 g's, 20ms shock in any axis	
Vibration Effect: (K1 only)	Less than $\pm 0.1\%$ F.S. effect for 0-2000 Hz at 20 g's in any axis	
Position Effect:	Less than $\pm 0.01\%$ F.S.	
Overpressure:	Proof: Burst:	
	$\leq 2,000$ psi	2 X Range 8 X Range
	$\geq 3,000$ to $\leq 5,000$ psi	1.5 X Range 3 X Range
	$\geq 7,500$ to $\leq 20,000$ psi	1.2 X Range 1.50 X Range

### ELECTRICAL SPECIFICATIONS

Circuit Protection:	Reverse polarity and miss-wire protected
Insulation Resistance (Circuit Case)	100 M $\Omega$ @ 100 Vdc



### PHYSICAL SPECIFICATIONS

Environmental Rating:	NEMA 4X
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### HAZARDOUS SPECIFICATIONS

(K1 only with XFM option)	Intrinsically Safe – FM/CSA Intrinsic Safety: Class I, II and III Div. 1 Groups A, B, C, D, F and G when used with safety barriers in accordance with Ashcroft drawing 71B212 Sht (1-3). Non-incendive: Class I, II and III Div. 2, Groups A, B, C, D, F and G, no barriers needed
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### WETTED MATERIAL

Models	Diaphragm	Process Connection
K1	17-4PH SS	304 SS
KS	316L SS	316L SS
KX	316Ti	316

### NON-WETTED

Housing	304 SS
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ORDERING CODE	Example:	K1	7	M01	42	F2	100#	XCL
<b>Model</b>								
K1 - Pressure transducer		K1						
KX - Flush mount pressure transducer								
KS - Sanitary pressure transducer								
<b>Accuracy/Tem. Effects</b>								
7 - 1.00%/±0.040%/ °F			7					
5 - 0.50%/±0.028%/ °F								
3 - 0.50%/±0.014%/ °F								
<b>Pressure Connection Size</b>								
M01 - 1/8 NPT Male (K1 only)				M01				
M02 - 1/4 NPT Male (K1 only)								
F02 - 1/4 NPT Female (K1 only)								
MEK - 7/16-20 SAE Male (K1 only)								
F09 - 9/16-18 (1/4) Female Aminco® (K1 only)								
M04 - 1/2 NPT Male (K1 and KX only)								
MG4 - G 1/2 (KX only)								
RS1 - O-Ring seal (max. 150 psi) (KS only)								
S15 - 1 1/2" sanitary connection (KS only)								
S20 - 2" sanitary connection (KS only)								
<b>Output Signal</b>								
42 - 4-20 mA					42			
15 - 1-5 Vdc								
16 - 1-6 Vdc								
11 - 1-11 Vdc								
12 - 0.1-10 Vdc								
<b>Electrical Termination</b>								
F2- 3' shielded cable Integral Cable (Pigtail)						F2		
HM - W/o mating connection Hirschmann® G series connector (miniature type)								
B4 - W/o mating connection 4-Pin Bendix® style								
B6 - W/o mating connection 6-Pin Bendix® style								
B8 - W/o mating connection environmental sealed/moisture proof 4-Pin Bendix® style								
B9 - W/o mating connection environmental sealed/moisture proof 6-Pin Bendix® style								
C1 - 3' shielded cable 1/2 NPT Male conduit shielded cable								
M1 - Mating connector, no cable (KX only) EN 175301-803 Form A (DIN 43650, Form A)								
M2 - Mating connector, 3' of cable (KX only)								
<b>Standard Pressure Ranges</b>								
15# - 15 psi (K1)								
30# - 30 psi								
60# - 60 psi								
100# - 100 psi							100#	
150# - 150 psi								
200# - 200 psi								
300# - 300 psi								
500# - 500 psi								
750# - 750 psi								
1000# - 1,000 psi								
2000# - 2,000 psi (K1 and KX only)								
3000# - 3,000 psi (K1 and KX only)								
5000# - 5,000 psi (K1 and KX only)								
7500# - 7,500 psi (K1 only)								
10000# - 10,000 psi (K1 only)								
15000# - 15,000 psi (K1 only) with F09 code process conn.								
20000# - 20,000 psi (K1 only) with F09 code process conn.								
0#&VAC - 0/vac (K1 only)								
15#&VAC - vac/15 psi (K1 only)								
30#&VAC - vac/30 psi (K1 and KX only)								
45#&VAC - vac/45 psi (K1 and KX only)								
60#&VAC - vac/60 psi (K1 and KX only)								
100#&VAC - vac/100 psi (K1 and KX only)								
<b>Option (if including an option(s) must include an "X")</b>								
CL - Non-standard calibration								X__
FM - FM Approval option (K1 only with 4-20 mA)								CL