

Data Sheet

K8 Pressure Transducer

FEATURES

- Superior long-term stability and repeatability
- All stainless steel wetted parts
- Pressure ranges from 45 psi to 20,000 psi

TYPICAL USES

- Hydraulic
- Hand / machine tools
- Compressor
- HVAC
- Medical
- Control valves
- Construction equipment
- General purpose industrial process and OEM applications



K8 Pressure Transducer



PERFORMANCE SPECIFICATIONS

Reference Temperature:	68°F (20°C)
Accuracy Class (% Span):	±0.5%, ±1.00% of span Terminal Point Method: Includes non-linearity, hysteresis, non-repeatability, zero offset and span setting errors
Best Fit Straight Line (BFSL):	±0.25%, ±0.40% of span
Durability:	<10 million cycles
Stability:	±0.5% span/year
Interchangeability:	±0.5%, ±1.0%

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: (ref. 68°F (20°C))	Accuracy:	0.5%	1%
	ZERO	±0.028%	±0.04%
	SPAN	±0.028%	±0.04%

Humidity Effects: No performance effect at 95% relative humidity-noncondensing

FUNCTIONAL SPECIFICATIONS

Response Time:	<5ms	
Pressure Ranges:	Vacuum to 20,000 psi	
Shock Effect:	<±0.05% F.S. effect for 100g's, 20ms shock in any axis	
Vibration Effect:	<±0.1% F.S. effect for 0-2,000Hz at 20g's in any axis	
Position Effect:	<±0.01% F.S.	
Overpressure:	Proof: Burst:	
≤2,000 psi	2 X Range	8 X Range
≥3,000 to ≤5,000 psi	1.5 X Range	3 X Range
≥7,500 to ≤20,000 psi	1.2 X Range	1.5 X Range

KEY BENEFITS

- Miniature size and light weight
- Superior long-term stability and repeatability
- Offered with millivolt output

ELECTRICAL SPECIFICATIONS

Circuit Protection: Reverse polarity and miss-wire protected

Insulation Resistance (Circuit Case): 100 MΩ @ 100 Vdc

Output (Sensitivity): 6-18mv/V F.S. depending upon pressure ranges

Excitation: 3-10 Vdc, regulated

Supply Current: 1.4 mA, nominal

Zero Offset: ±3mv/Vdc

Bridge Resistance: 3.5 Ω, nominal

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PHYSICAL SPECIFICATIONS

Environmental Rating:	NEMA 4X
Weight:	1 oz. (approx. without process connection or cable)
Cable:	4" polyethylene coated, 30 AWG or UL approved 36", shielded, vented cable (24 AWG)
Process Connection:	1/8 NPT Male or Female 1/4 NPT Male or Female 1/4 SAE-J-514 Male 1/4 AMINCO Female (pressures over 10,000 psi)

WETTED MATERIAL

Diaphragm	Process Connection
17-4PH SS	304 SS
NON-WETTED	
Case Material	
304 SS	

ORDERING CODE

Example:

K8 7 M01 MV F2 100#

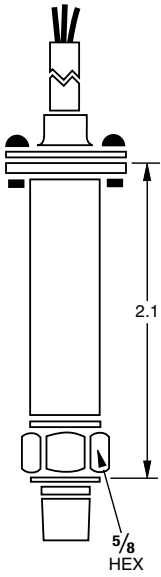
Model					
K8 - Pressure Sensor	K8				
Accuracy/Tem. Effects					
7 - 1.00%/±0.040%/ °F		7			
5 - 0.50%/±0.028%/ °F					
3 - 0.50%/±0.014%/ °F					
Pressure Connection Size					
M01 - 1/8 NPT Male			M01		
M02 - 1/4 NPT Male					
F02 - 1/4 NPT Female					
M04 - 1/2 NPT Male					
MEK - 7/16-20 SAE Male					
F09 - 9/16-18 (1/4) Female Aminco®					
Output Signal					
MV - mV/V				MV	
Electrical Termination					
F2 - 3' shielded cable Integral Cable (Pigtail)					F2
F1 - 4" leads					
Standard Pressure Ranges					
45# - 45 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					
3000# - 3,000 psi					
5000# - 5,000 psi					
7500# - 7,500 psi					
10000# - 10,000 psi					
15000# - 15,000 psi					
20000# - 20,000 psi					

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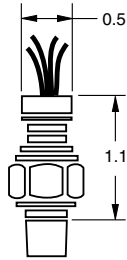
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

F2 Electrical Termination



F1 Electrical Termination with Pressure Connector



F1 Electrical Termination without Pressure Connector

