

## Compact High Precision Pressure Transducer



measuring  
•  
monitoring  
•  
analyzing

KPK



- Outputs: 4-20 mA, 0-5 VDC or 0-10 VDC
- EMI Compliant
- High Overpressure Protection
- Fast Response Time
- Stainless Steel Construction
- Easy to Use Hirschmann DIN Connector



KOBOLD companies worldwide:

AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHINA, CZECHIA, FRANCE, GERMANY, GREAT BRITAIN, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, RUSSIA, SPAIN, SWITZERLAND, THAILAND, TUNISIA, TURKEY, USA, VIETNAM

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## Compact, High Precision Pressure Transducer Model KPK

### Description

The KOBOLD KPK Compact Pressure Transducer is designed to deliver high performance at an economical price. The KPK series offers precision, shock resistance, and long term sensor stability. Noise immunity is assured by compliance. Installation is simplified by providing protection against common installation mistakes such as reverse polarity wiring and short circuiting. All KPK sensors undergo inspection and testing to assure a trouble-free installation.

### Applications:

- Hydraulic and Pneumatic Systems
- Industrial Machinery and Machine Tools
- Injection Molding Machines
- Stamping and Forming Processes
- Pumps and Compressors
- Laboratory and Test Equipment
- HVAC Systems
- Refrigeration Equipment
- Petrochemical

### Technical Specifications

**Pressure Ranges:** -15...0 PSIG to 0...15,000 PSIG,  
0...15 PSIA to 0...300 PSIA

#### Accuracy

(Includes the effects of non-linearity, hysteresis, non-repeatability, zero point and full scale errors)

**Standard:** ±0.25% of Full Scale BFSL

**Process Connection:** 1/4" Male NPT, 1/2" Male NPT, 7/16-20  
(SAE J1926-2)

#### Materials of Construction

##### Wetted Parts:

**Measuring Element:** 316 Stainless Steel

**Connection:** 316 Stainless Steel

**Housing:** 304 Stainless Steel

#### Temperature Specs

**Compensated:** -4...185 °F

**Media:** -22...221 °F

**Ambient:** -4...185 °F

**Storage:** -40...257 °F



#### Pressure Limitations

<0...75000 PSIG

**Proof Pressure:** 2x range

**Burst Pressure:** 3x range

0...7500 PSIG to 0...10,000 PSIG

**Proof Pressure:** 1.5x range

**Burst Pressure:** 2x range

0...15,000 PSIG

**Proof Pressure:** 1.2x range

**Burst Pressure:** 1.5x range

**Response Time:** <1 ms (10-90% Full Scale)

**Service Life:** >10,000,000 Load Cycles

**Output:** 4-20 mA, 2-wire

0-5 V<sub>DC</sub>, 3-wire

0-10 V<sub>DC</sub>, 3-wire

12-36 V<sub>DC</sub>

**Input Power:**

**Load Limitations:**

**4-20 mA:** ≤(V<sub>power Supply</sub> -10)/0.020 Amp

**Shock Sensitivity:** 200g according to IEC 60068-2-27

**Vibration Sensitivity:** 20g according to IEC 60068-2-6

#### Protection

**Environmental:** IP65

**Electrical:** Reverse Polarity, Overvoltage and Short Circuit

**Electromagnetic Rating:** CE Compliant to EMC Norm

EN 61326:1997/A1:1998

RFI, EMI, and ESD Protection

**Weight:** 4.5 oz. Approx.



**Order Details** (Example: **KPK-005001127D**)

Model	Compound Ranges	Gauge Pressure		Absolute Ranges
KPK-	..0015V.. = -15...0 PSIG	..00002.. = 0...2 PSIG	..00600.. = 0...600 PSIG	..0015A.. = 0...15 PSIA ..0030A.. = 0...30 PSIA ..0060A.. = 0...60 PSIA ..0100A.. = 0...100 PSIA ..0150A.. = 0...150 PSIA ..0200A.. = 0...200 PSIA ..0300A.. = 0...300 PSIA
	..15/15.. = -15...15 PSIG	..00005.. = 0...5 PSIG	..00750.. = 0...750 PSIG	
	..15/30.. = -15...30 PSIG	..00010.. = 0...10 PSIG	..01000.. = 0...1000 PSIG	
	..15/60.. = -15...60 PSIG	..00015.. = 0...15 PSIG	..01500.. = 0...1500 PSIG	
	..15/100.. = -15...100 PSIG	..00030.. = 0...30 PSIG	..02000.. = 0...2000 PSIG	
	..15/200.. = -15...200 PSIG	..00060.. = 0...60 PSIG	..03000.. = 0...3000 PSIG	
	..15/300.. = -15...300 PSIG	..00100.. = 0...100 PSIG	..04000.. = 0...4000 PSIG	
		..00150.. = 0...150 PSIG	..05000.. = 0...5000 PSIG	
		..00200.. = 0...200 PSIG	..06000.. = 0...6000 PSIG	
		..00300.. = 0...300 PSIG	..07500.. = 0...7500 PSIG	
	..00500.. = 0...500 PSIG	..10000.. = 0...10000 PSIG		
		..15000.. = 0...15000 PSIG		

**Order Details** (Continued) (Example: **KPK-005001127D**)

Accuracy	Output Signal	Fitting	Electrical Connection	Options
..1.. = 0.25% of Full Scale	..1.. = 4-20 mA, 2-Wire (Standard)	..2.. = 1/4" NPT (Standard)	..2 = 4-pin Bendix (Ni-plated Aluminum) ..3 = 6-pin Bendix (Ni-plated Aluminum)	..D = Surge Damping Orifice
	..2.. = 0-5 VDC, 3-Wire	..8.. = 1/2" NPT	..7 = Mini Hirschmann Connector (Standard)	
	..5.. = 0-10 VDC, 3-Wire	..50.. = 7/16-20 Male (J1926-2)	..17 = Mini Hirschmann Connector with 36" Polyurethane-Clad Cable ..25 = M12 x 1 (4-pin Micro-DC)	
<b>Accessories:</b> P/N 807.037 = 4-Pin Micro-DC Connector with 6-foot Cable for Electrical Connection 25 P/N 807.037/5M = 4-Pin Micro-DC Connector with 16-foot Cable for Electrical Connection 25 P/N 807.037/10M = 4-Pin Micro-DC Connector with 32-foot Cable for Electrical Connection 25				

**Diaphragm Seals\***

Model	Description
KP-120215	1-1/2" Tri-Clamp® 316 SS Diaphragm Seal with Glycerine Fill
KP-120220	2" Tri-Clamp® 316 SS Diaphragm Seal with Glycerine Fill
KP-2002 SSG	3/4" NPT 316 SS Flush Diaphragm Seal with Glycerine Fill

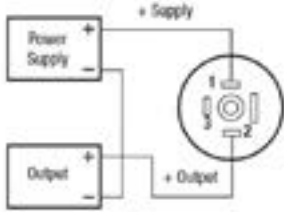
\* Only for Ranges ≥ 0...60 PSIG and Fitting Option 2



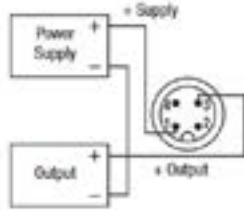
**Compact, High Precision Pressure Transducer Model KPK**

**Wiring Diagrams and Electrical Connections**

**4-20 mA Output, 2 Wire**



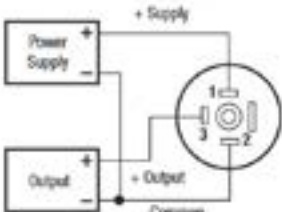
Mini Hirschman Connector



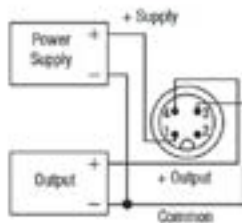
M12x1 4-pin Round Connector

4-20 mA Output, 2 Wire				
Wire	Bendix, 4-Pin or 6-Pin	Mini Hirschmann	Cable	M12x1
+ Supply	pin A	pin 1	Red	pin 1
+ Output	pin B	pin 2	Black	pin 3

**Voltage Output, 3 Wire**



Mini Hirschman Connector



M12x1 4-pin Round Connector

Load Limitations 4-20 mA Output Only	
$V_{min} = 10V + (0.022 \times R_L)$	$R_L = R_S + R_W$
	$R_L = \text{Loop Resistance (ohms)}$
	$R_S = \text{Sensor Resistance (ohms)}$
	$R_W = \text{Wire Resistance (ohms)}$

Voltage Output, 3 Wire				
Wire	Bendix, 4-Pin or 6-Pin	Mini Hirschmann	Cable	M12x1
+ Supply	pin A	pin 1	Red	pin 1
Common	pin B	pin 2	Black	pin 3
+ Output	pin C	pin 3	White	pin 4

**Dimensions**



\*Mate Supplied Separately or Customer Supplied