

High Accuracy Heavy-Duty Pressure Transducer



measuring
•
monitoring
•
analyzing

KPG



- Advanced Diffused Semi-conductor and Sputtered Thin Film Sensor Technology
- Variety of Output Signals
- CE Compliant to Suppress RFI, EMI, & ESD
- Absolute or Gauge Measuring Ranges
- High Overpressure Protection
- Fast Response Time
- Stainless Steel Construction
- Pressures up to 15000 PSIG and up to 300 PSIA
- Available with a Variety of Electrical Connections



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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High Accuracy Heavy-Duty Pressure Transducer Model KPG

Description

KOBOLD KPG series transducers are designed for heavy duty applications requiring high accuracy. Utilizing either advanced diffused semi-conductor or sputtered thin film technology, the KPG achieves accuracies of $\pm 0.125\%$ at pressures up to 145,000 PSIG. It offers shock resistance, extreme long term sensor stability, and excellent noise immunity (CE compliance). The KPG also offers protection against common installation problems such as reverse polarity wiring, overvoltage, and short circuiting.

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 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: $\pm 0.25\%$ of Full Scale BFSL
Optional: $\pm 0.125\%$ of Full Scale BFSL

Process Connection: 1/8", 1/4" NPT, 1/2" NPT, or 7/16 SAE Non-Adjustable

Materials of Construction

Wetted Parts:

Measuring Element: 316 Stainless Steel (≤ 300 PSIG)
17-4PH Stainless Steel (≥ 500 PSIG)

Connection: 316 Stainless Steel
Housing: 316 Stainless Steel

Temperature Specs

Compensated: 32...175 °F
Drift: $\pm 0.01\%$ / °F for zero and span
Media: -20...212 °F
Ambient: -4...175 °F
Storage: -40...212 °F



Pressure Limitations

0...2 PSIG to 0...200 PSIG

Proof Pressure: 3x range

Burst Pressure: 5x range

0...300 PSIG to 0...10,000 PSIG

Proof Pressure: 2x range

Burst Pressure: 4x range

0...15,000 PSIG

Proof Pressure: 1.5x range

Burst Pressure: 3x range

Adjustability: $\pm 10\%$ Full Scale for Zero and Span
Response Time: < 1 ms (10-90% Full Scale)
Service Life: $> 100,000,000$ Load Cycles

Output: 4-20 mA, 2-wire
0-5 V_{DC} , 3-wire
1-5 V_{DC} , 3-wire
0-10 V_{DC} , 3-wire
Input Power: 10-30 V_{DC} (4-20 mA, 1-5 V_{DC} , 0-5 V_{DC})
14-30 V_{DC} (0-10 V_{DC})

Shock Sensitivity: 1000g 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: 7.5 oz approx.



Order Details (Example: **KPG-005001288D**)

Model	Pressure Range		
	Gauge Pressure		Absolute Pressure
KPG-	..0015V.. = -15...0 PSIG	..00015.. = 0...15 PSIG	
	..15/15.. = -15...15 PSIG	..00030.. = 0...30 PSIG	
	..15/30.. = -15...30 PSIG	..00060.. = 0...60 PSIG	..02000.. = 0...2000 PSIG
	..15/60.. = -15...60 PSIG	..00100.. = 0...100 PSIG	..03000.. = 0...3000 PSIG
	..15/100.. = -15...100 PSIG	..00150.. = 0...150 PSIG	..04000.. = 0...4000 PSIG
	..15/150.. = -15...150 PSIG	..00200.. = 0...200 PSIG	..05000.. = 0...5000 PSIG
	..15/200.. = -15...200 PSIG	..00300.. = 0...300 PSIG	..06000.. = 0...6000 PSIG
	..15/300.. = -15...300 PSIG	..00500.. = 0...500 PSIG	..07500.. = 0...7500 PSIG
	..00002.. = 0...2 PSIG	..00600.. = 0...600 PSIG	..10000.. = 0...10000 PSIG
	..00003.. = 0...3 PSIG	..00750.. = 0...750 PSIG	..15000.. = 0...15000 PSIG
	..00005.. = 0...5 PSIG	..01000.. = 0...1000 PSIG	
	..00010.. = 0...10 PSIG	..01500.. = 0...1500 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	

Order Details (Continued) (Example: **KPG-005001288D**)

Accuracy	Output Signal	Fitting	Electrical Connection	Options
..1.. = 0.25% of Full Scale (Standard)	..1.. = 4-20 mA, 2-Wire (Standard)	..1.. = 1/8" NPT	..3 = 6-Pin Bendix (Ni-plated Aluminum)	
..2.. = 0.125% of Full Scale	..2.. = 0-5 VDC, 3-Wire	..2.. = 1/4" NPT	..7 = Mini-Hirschmann Mating Connector (Standard)	..D = Surge Damping Orifice
	..3.. = 1-5 VDC, 3-Wire	..8.. = 1/2" NPT Male (Standard)	..14 = Mini-Hirschmann Mating Connector with 1/2" NPT Conduit	..EC ¹⁾ = Extended Cable
	..5.. = 0-10 VDC, 3-Wire	..45.. = 7/16-20 SAE (Non-Adjustable)	..16 = 1/2" NPT Male Conduit with 36" Polyurethane-Clad Cable	
			..17 = Mini-Hirschmann Mating Connector with 36" Polyurethane-Clad Cable	
			..25 = M12 x 1(4-pin Micro DC)	
			..36 = 3 ft Cable	
Accessories: 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				

¹⁾ Only with Electrical Connection Options 1 or 6

Diaphragm Seals*

Model	Description
KP-120415	1-1/2" Tri-Clamp® 316 SS Diaphragm Seal with Glycerine Fill
KP-120420	2" Tri-Clamp® 316 SS Diaphragm Seal with Glycerine Fill
KP-2004 SSG	3/4" NPT 316 SS Flush Diaphragm Seal with Glycerine Fill

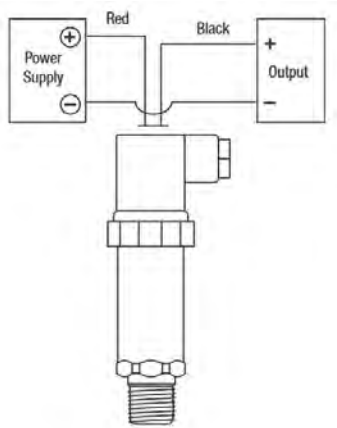
* Only for Ranges ≥ 0...60 PSIG and Fitting Option 8



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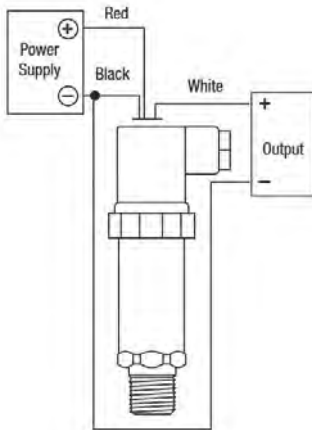
Wiring Diagrams and Electrical Connections

4-20 mA Output, 2 Wire



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

Voltage Output, 3 Wire



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

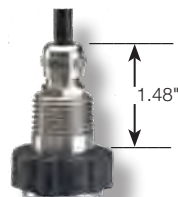
Dimensions

Option Code 7



Option Code 16

1/2" NPT Conduit with 36" Polyurethane-Clad Cable



Option Code 3*

6-Pin Bendix



Option Code 25*

M12 x 1 (4-Pin)



*Mate Supplied Separately or Customer Supplied