

# KPG HIGH PRECISION PRESSURE TRANSDUCER



Flow  
Pressure  
Level  
Temperature  
measurement  
monitoring  
control



P2

- **Advanced Thin Film or Piezoresistive Sensing Technology**
- **Variety of Output Signals**
- **CE EMI Compliant**
- **Absolute or Gauge Measuring Ranges**
- **High Overpressure Protection**
- **Fast Response Time**
- **Stainless Steel Construction**
- **Pressures to 60,000 PSIG**
- **Easy-to Use Hirschmann Connectors Standard**



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Model:  
KPG

**Features**

- Advanced thin film or piezoresistive sensing technology
- Variety of output signals
- CE EMI compliant
- Absolute or Gauge measuring ranges
- High overpressure protection
- Fast response time
- Stainless steel construction
- Pressures to 60,000 PSIG
- Easy-to-use Hirschmann connectors standard

KOBOLD KPG series transducers are intended for heavy duty, high accuracy applications. Utilizing either thin film or piezoresistive technologies, the KPG can achieve accuracies of  $\pm 0.12\%$  at pressures up to 60,000 PSIG while offering shock resistance, extreme long term sensor stability and excellent noise immunity (CE compliance.) Along with these features, the KPG offers “snafu” protection against common installation problems such as reverse polarity wiring, overvoltage and short circuiting.

As with all sensors in the KP line, KPG sensors undergo 100% inspection and testing to ensure a trouble-free installation process.



**KOBOLD KPG Pressure Transducer**

**Specifications**

**Accuracy**

- Standard:**  $\pm 0.25\%$  of full scale
- Optional:**  $\pm 0.12\%$  of full scale

**Included Components**

- Repeatability:**  $\pm 0.05\%$  of full scale
- Hysteresis:**  $\pm 0.1\%$  of full scale

- Fittings:**  $1/4"$ ,  $1/2"$  male NPT or 9/16-18 aminco

**Materials of Construction**

- Wetted Parts:** 316 SS
- Case:** 304 SS

**Temperature Information**

- Compensation:** 32°F to 175°F
- Drift:**  $\pm 0.02\%/50^\circ\text{F}$
- Medium:** -22°F to 212°F
- Ambient:** 14°F to 175°F
- Storage:** -40°F to 212°F

- Shock Sensitivity:**  $< \pm 0.05\%$  full scale @100g for 20 ms

- Vibration Sensitivity:**  $< \pm 0.01\%$  full scale @20g & 0-2000 Hz

**Pressure Limitations**

**Vacuum & 15-7,500 PSI Ranges**

- Proof Pressure:** 2 x range
- Burst Pressure:** 4 x range

**10,000-60,000 PSI Ranges**

- Proof Pressure:** 1.2 x range
- Burst Pressure:** 2 x range

**Electrical Data**

- Output:** -See ordering table
- Adjustability:**  $\pm 5\%$  of span

**Input Power**

- Current Output:** 12-30 VDC
- Voltage Output:** 14-30 VDC

- Response Time:**  $< 1$  ms, 10-90% FS
- Frequency Limit:** 150 Hz

**Protection**

- Environmental:** NEMA 4X
- Fault:** Reverse polarity, overvoltage, short circuit

**Applications**

- Hydraulic & pneumatic systems
- Industrial machinery & machine tools
- Injection molding machines
- Stamping & forming presses
- Pumps & compressors
- Laboratory & test equipment
- Railroad equipment
- HVAC systems
- Refrigeration equipment
- Marine
- Power generation
- Construction
- Petrochemical
- Water management

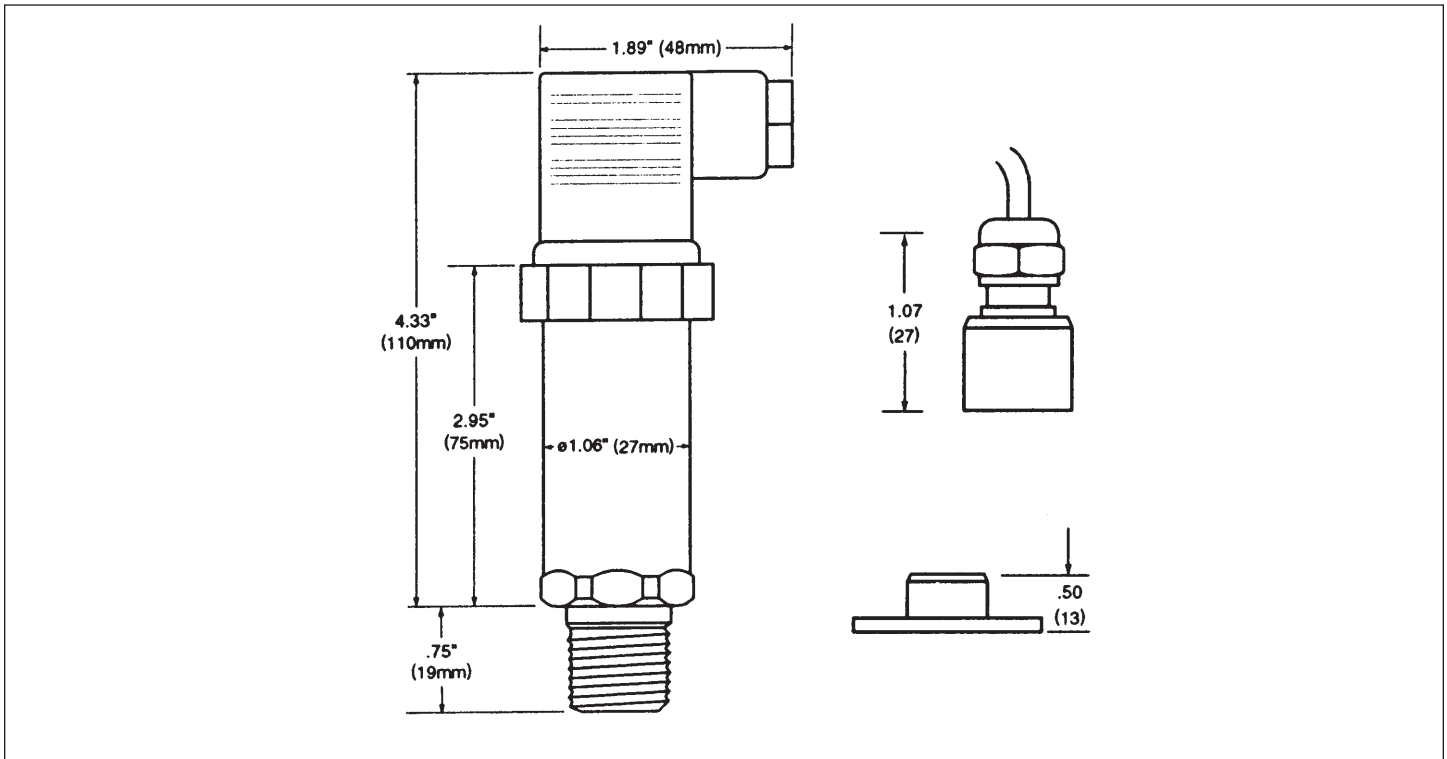


KPG Ordering Information		
<b>KPG</b>	= High Precision, Heavy Duty Pressure Transducer	
<b>Range</b>	= Pressure Range Abbreviation	<b>Available Measuring Ranges</b>
	<b>0030V</b> = 0 to 30" Hg <b>30/15</b> = -30" Hg to 15 PSIG <b>30/30</b> = -30" Hg to 30 PSIG <b>30/45</b> = -30" Hg to 45 PSIG <b>30/60</b> = -30" Hg to 60 PSIG	<b>00002</b> = 2 PSIG <b>00003</b> = 3 PSIG <b>00005</b> = 5 PSIG <b>00010</b> = 10 PSIG <b>00015</b> = 15 PSIG <b>00030</b> = 30 PSIG <b>00060</b> = 60 PSIG <b>00100</b> = 100 PSIG <b>00150</b> = 150 PSIG <b>00200</b> = 200 PSIG <b>00300</b> = 300 PSIG <b>00500</b> = 500 PSIG <b>00750</b> = 750 PSIG <b>10000</b> = 10000 PSIG <b>01000</b> = 1000 PSIG <b>02000</b> = 2000 PSIG <b>03000</b> = 3000 PSIG <b>05000</b> = 5000 PSIG <b>07500</b> = 7500 PSIG <b>10000</b> = 10000 PSIG <b>15000</b> = 15000 PSIG <b>20000</b> = 20000 PSIG <b>30000</b> = 30000 PSIG <b>40000</b> = 40000 PSIG <b>50000</b> = 50000 PSIG <b>60000</b> = 60000 PSIG
<b>1</b>	= ± 0.25% of full scale (standard)	<b>Accuracy</b>
<b>2</b>	= ± 0.12% of full scale	
<b>1</b>	= 4-20 mA, 2-wire (standard)	<b>Output Signal</b>
<b>2</b>	= 0-5 VDC, 3-wire	
<b>3</b>	= 1-5 VDC, 3-wire	
<b>5</b>	= 0-10 VDC, 3-wire	
<b>2</b>	1/4" NPT (20,000 PSIG max.)	<b>Fittings</b>
<b>6</b>	9/16 - 18 aminco female (standard on 30,000 to 60,000 PSI versions)	
<b>8</b>	1/2" NPT male (standard)	
<b>1</b>	= 36" cable with Hirschmann connector	<b>Electrical Connections</b>
<b>3</b>	= 6 pin Bendix (Ni-plated aluminum)	
<b>6</b>	= 1/2" NPT male conduit with 36" cable (polyurethane cladding)	
<b>8</b>	= Hirschmann with mating connector (standard)	
<b>D</b>	= Surge damping orifice	<b>Options</b>
<b>KPG -00500 -1 -2 -8 -8 -D</b>	<b>Sample KPG Specification</b>	
<b>Diaphragm Seals *</b>		
KP-1240	1 1/2"	Tri clamp® diaphragm Seal with glycerine fill
KP-1250	2"	Tri clamp® diaphragm Seal with glycerine fill
KP-2002 SSG	3/4"	NPT 316 SS Flush diaphragm Seal with glycerine fill
KP-2002 HB2H	3/4"	NPT Hastelloy B2 Flush diaphragm Seal with halocarbon fill

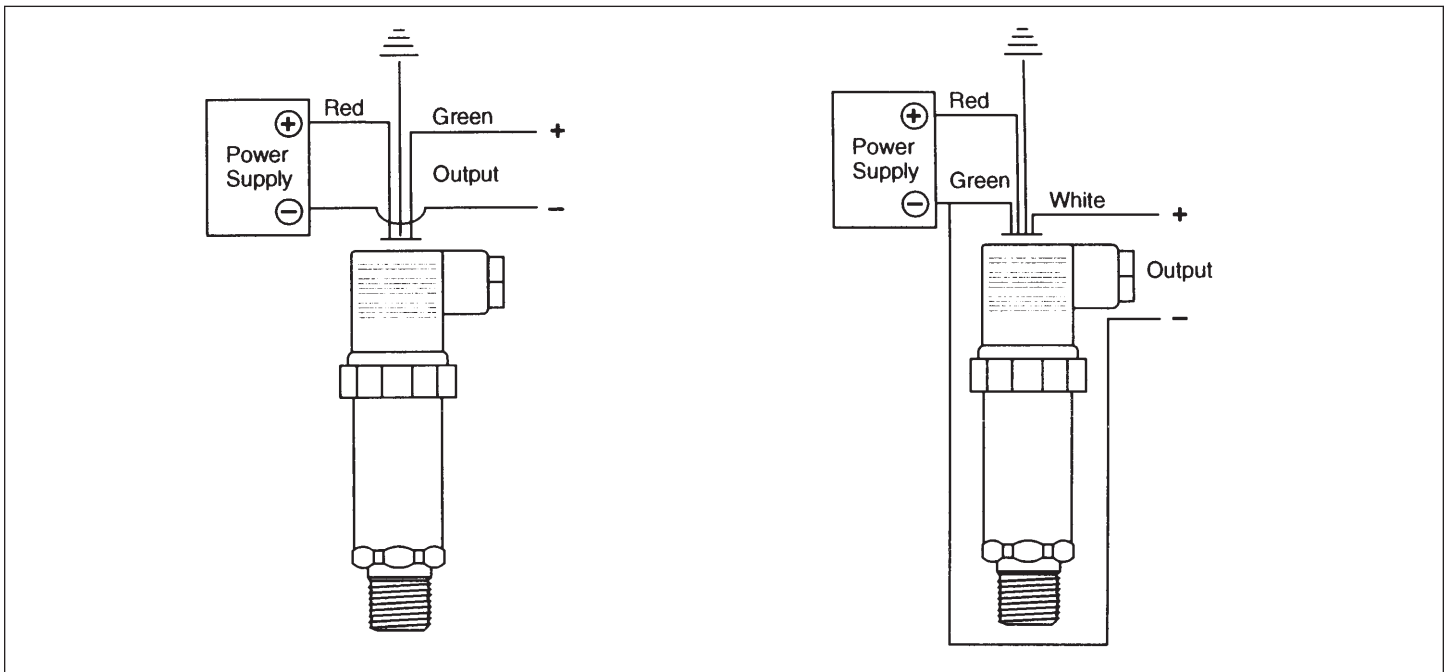
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\* Diaphragm Seals -usable on ranges 0-60 PSIG and higher.

Dimensions



Wiring Diagrams and Electrical Connections



2 WIRE WIRING DIAGRAM EXAMPLE

4-20 mA 2-Wire Current Loop

Signal	DIN 43650	Wire Color
Supply + (12-30 VDC)	Pin 1, A	RED/BROWN
Signal - (4-20mA)	Pin 2, B	GREEN

3 WIRE WIRING DIAGRAM EXAMPLE

3-Wire Voltage Output

Signal	DIN 43650	Wire Color
Supply + (14-30 VDC)	Pin 1, A	RED/BROWN
- Supply, - Signal	Pin 2, C	GREEN
Signal + -	Pin 3, B	WHITE