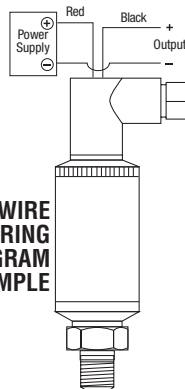
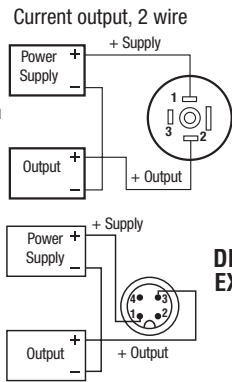


## KPK

Wiring -  
Mini-Hirschmann  
connector



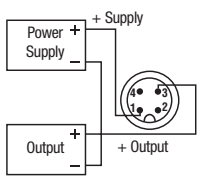
**2 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

**Load Limitations  
4 mA to 20 mA Output Only**  
 $V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_S + R_W$   
 $R_L$  = Loop Resistance (ohms)  
 $R_S$  = Sense Resistance (ohms)  
 $R_W$  = Wire Resistance (ohms)

KPK	4 mA to 20 mA 2-Wire
+ Supply	Red/1/A/1/Brown
+ Output	Black/2/B/3/Blue

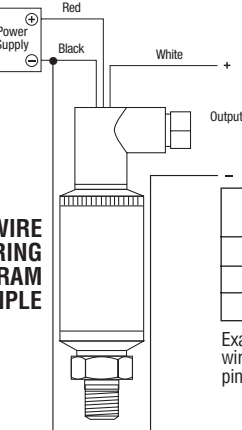
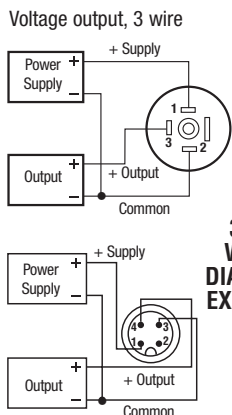
Example: Red/1/A/1 = Applicable color wire/din plug number/bendix pin/M12 x 1 pin number/M12 color wire

Wiring -  
M12 x 1 4-pin  
round connector



## KPK

Wiring -  
Mini-Hirschmann  
connector

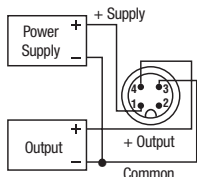


**3 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

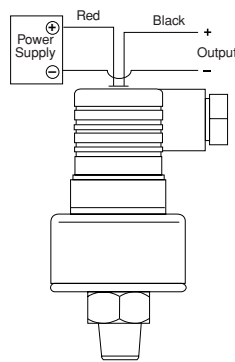
KPK	0-5, 1-6, 0-10 1 Vdc to 11 Vdc 3-WIRE
+ Supply	Red/1/A/1/Brown
Common	Black/2/B/3/Blue
+ Output	White/3/C/4/Black

Example: Red/1/A/1 = Applicable color wire/din plug number/bendix pin/M12 x 1 pin number/M12 color wire

Wiring -  
M12 x 1 4-pin  
round connector



## KPO



**2 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

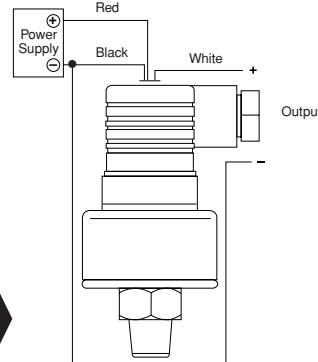
**Load Limitations  
4 mA to 20 mA Output Only**

$V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_S + R_W$   
 $R_L$  = Loop Resistance (ohms)  
 $R_S$  = Sense Resistance (ohms)  
 $R_W$  = Wire Resistance (ohms)

KPO	4 mA to 20 mA 2-Wire
+ Supply	Red/1
+ Output	Black/2

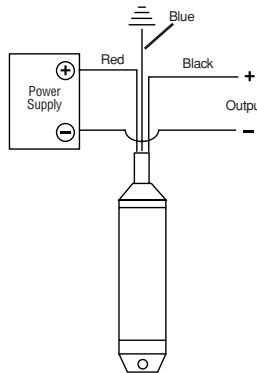
KPO	Voltage Output
+ Supply	Red/1
Common	Black/2
+ Output	White/3

Example: Red/1 = Applicable color wire/din plug number.



**3 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

## KPW



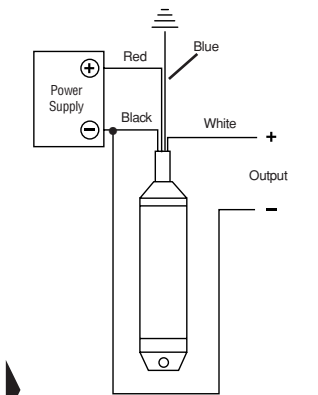
**2 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

**Load Limitations  
4 mA to 20 mA Output Only**  
 $V_{min} = [10V + (.020 \times R_L)] - 0.137 \# \times$   
 cable length

$R_L = R_S + R_W$   
 $R_L$  = Loop Resistance (ohms)  
 $R_S$  = Sense Resistance (ohms)  
 $R_W$  = Wire Resistance (ohms)

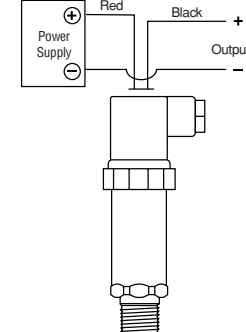
KPW	4 mA to 20 mA 2-Wire
+ Supply	Red
+ Output	Black
Case ground	Blue

KPW	Voltage Output
+ Supply	Red
Common	Black
+ Output	White
Case ground	Blue



**3 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

## KPG



**2 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

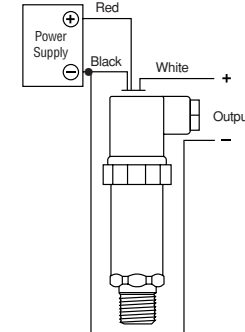
**Load Limitations  
4 mA to 20 mA Output Only**

$V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_S + R_W$   
 $R_L$  = Loop Resistance (ohms)  
 $R_S$  = Sense Resistance (ohms)  
 $R_W$  = Wire Resistance (ohms)

KPG	4 mA to 20 mA 2-Wire
+ Supply	Red/1/A/1/1/Brown
+ Output	Black/2/B/2/3/Blue

KPG	Voltage Output
+ Supply	Red/1/A/1/1/Brown
Common	Black/2/B/2/3/Blue
+ Output	White/3/C/3/4/Black

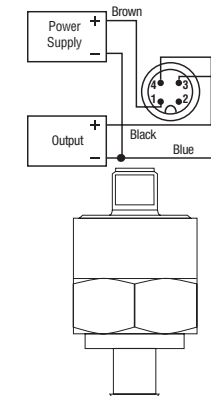
Example: Red/1/A/1/1 = Applicable color wire/din plug number/bendix pin/junction box pin/M12 x 1 pin number/M12 color wire



**3 WIRE  
WIRING  
DIAGRAM  
EXAMPLE**

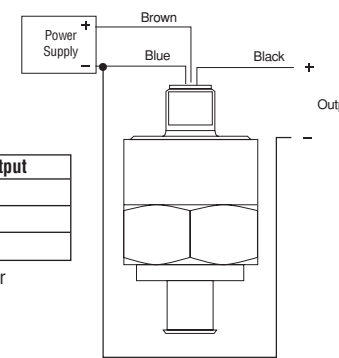
## KPC

Wiring - M12 x 1 4-pin  
round connector



KPC	Voltage Output
+ Supply	Brown/1
Common	Blue/3
+ Output	Black/4

Example: Brown/1 = Applicable color wire/M12 x 1 pin number.

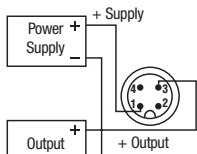


**WIRING  
DIAGRAM  
EXAMPLE**

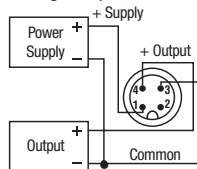
## KPB

### Wiring - M12 x 1 4-pin round connector

Current output, 2 wire



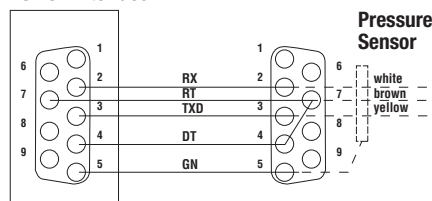
Voltage output, 3 wire



### Load Limitations 4 mA to 20 mA Output Only

$V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_s + R_w$   
 $R_L$  = Loop Resistance (ohms)  
 $R_s$  = Sense Resistance (ohms)  
 $R_w$  = Wire Resistance (ohms)

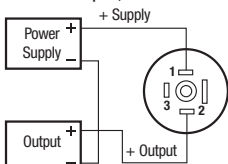
### RS 232 Interface



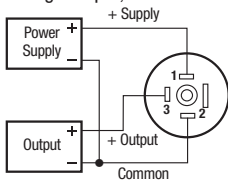
## KPL

### Wiring - Mini-Hirschmann connector

Current output, 2 wire



Voltage output, 3 wire



### Load Limitations 4 mA to 20 mA Output Only

$V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_s + R_w$   
 $R_L$  = Loop Resistance (ohms)  
 $R_s$  = Sense Resistance (ohms)  
 $R_w$  = Wire Resistance (ohms)

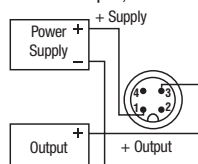
KPL	4 mA to 20 mA 2-Wire
+ Supply	Brown/1/1/Brown
+ Output	Green/2/3/Blue

KPL	Voltage Output
+ Supply	Brown/1/1/Brown
Common	Green/2/3/Blue
+ Output	White/3/4/Black

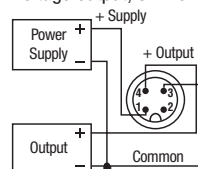
Example: Brown/1/1 = Applicable color wire/din plug number M12 x 1 Pin number/M12 color wire

### Wiring - M12 x 1 4-pin round connector

Current output, 2 wire



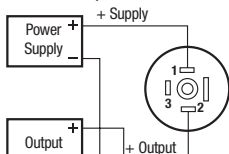
Voltage output, 3 wire



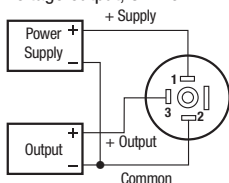
## KPT

### Wiring - Mini-Hirschmann connector

Current output, 2 wire



Voltage output, 3 wire



### Load Limitations 4 mA to 20 mA Output Only

$V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_s + R_w$   
 $R_L$  = Loop Resistance (ohms)  
 $R_s$  = Sense Resistance (ohms)  
 $R_w$  = Wire Resistance (ohms)

KPT	4 mA to 20 mA 2-Wire
+ Supply	Red/1/1/Brown
+ Output	Black/2/3/Blue

KPT	Voltage Output
+ Supply	Red/1/1/Brown
Common	Black/2/3/Blue
+ Output	White/3/4/Black

Example: Red/1/1 = Applicable color wire/din plug number M12 x 1 Pin number/M12 color wire

## KTT

### Load Limitations 4 mA to 20 mA Output Only

$V_{min} = 10V + (.020 \times R_L)$   
 $R_L = R_s + R_w$   
 $R_L$  = Loop Resistance (ohms)  
 $R_s$  = Sense Resistance (ohms)  
 $R_w$  = Wire Resistance (ohms)

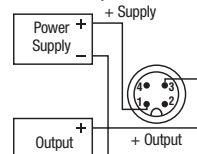
KTT	4 mA to 20 mA 2-Wire
+ Supply	Red/1
+ Output	Black/2

KTT	Voltage Output
+ Supply	Red/1
Common	Black/2
+ Output	White/3

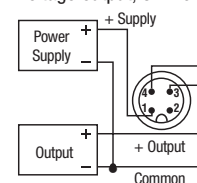
Example: Red/1 = Applicable color wire/din plug number.

### Wiring - M12 x 1 4-pin round connector

Current output, 2 wire



Voltage output, 3 wire



### Installation:

KOBOLD pressure transmitters/transducers may be mounted in any plane with negligible effect on performance. Although these units are designed and manufactured to withstand substantial shock and vibration, it is recommended that they be mounted in an area of minimal vibration. Always use a wrench on the wrench flats when installing. NEVER use a pipe wrench on the housing or in the area of the electrical connection.

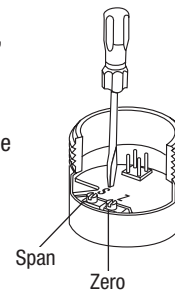
### Maintenance/Calibration:

KOBOLD pressure transmitters/transducers require no maintenance. Recalibration is dependent on the users Quality Assurance Program. If no program is in place, KOBOLD recommends a 1 year cycle.

### Alignment Procedure (applies only to KPK, KPG, and KPB series):

Using a pressure source and meter with adequate accuracy, perform the following steps:

- Open sensor
- With no pressure applied, adjust the "Z" potentiometer for the correct Zero output
- Apply the correct full scale pressure to the unit
- Adjust the "S" potentiometer for the correct Span output



# KOBOLD TRANSMITTERS TRANSDUCERS

## Wiring Diagrams & Electrical Connections for:

KPK, KPO, KPW, KPG,  
KPB, KPC, KPT, KPL and KTT

**KOBOLD INSTRUMENTS INC.**  
 1801 Parkway View Drive  
 Pittsburgh, PA 15205  
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 FAX: 412-788-4890  
 E-mail: kobold@koboldusa.com

**KOBOLD INSTRUMENTS CANADA INC.**  
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 Pointe Claire, QC H9R 4Z2  
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 FAX: 514-428-8899  
 E-mail: kobold@kobold.qc.ca

Web: www.kobold.com