ASCO® Sensors

Stainless steel

Leak proof, one piece cavity design

Available for hazardous locations

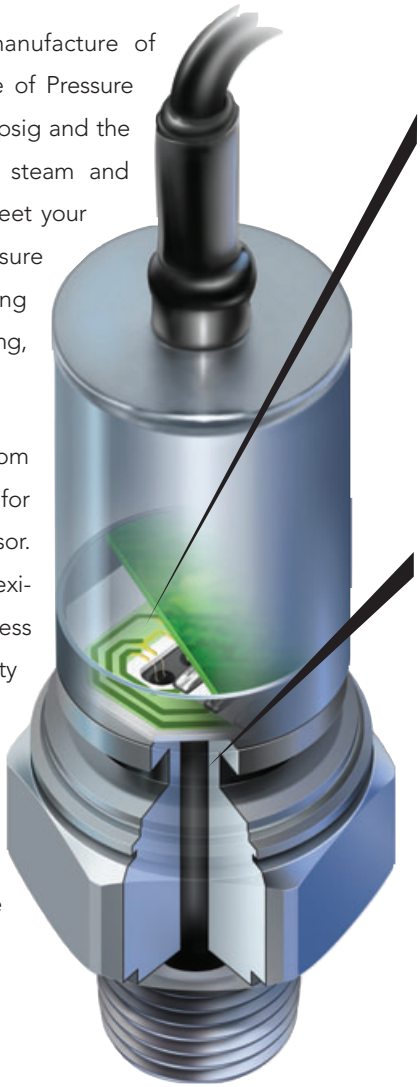
Broad industrial pressure range

ASCO® Sensors

ASCO, the leader in the design and manufacture of solenoid valves, now offers a complete line of Pressure Sensors. With pressure ratings up to 10,000 psig and the ability to handle difficult applications like steam and refrigeration, ASCO Pressure Sensors will meet your most demanding needs. The ASCO Pressure Sensor line is ideal for accurately measuring many process fluids in the most demanding, pulsating, and vibrating environments.

The one piece pressure cavity is machined from 17.4 PH stainless steel, which offers no source for contamination of the process fluid or the sensor. This design provides the stability, accuracy, flexibility, and EMI resistance that your process needs. This single, machined, pressure cavity will also allow you to handle a wide variety of applications, thus standardizing on fewer sensors, as well as reducing your inventory.

ASCO Pressure Sensors demonstrate ASCO's commitment to the most reliable flow control solutions.



Sensing Element

- Sensor elements are bonded with inorganic material to provide low drift repeatable signal
- Sensor technology provides high sensitivity permitting thicker cavities
- MEM's technology
- Wide operating temperature range
- Ranges up to 10,000 psig
- Rugged construction for harsh environments

No Leak Path Design

- Pressure cavity is one piece (17.4 PH stainless steel) construction
- Pressure sensing surface is integral to body – no separate diaphragm
- Excellent isolation, over-pressure, and burst characteristics
- No fill fluids utilized

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Series 40

Stainless Steel Media Isolated Pressure Sensor

Features

- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Ranges up to 10,000 psig
- Rugged design survives harsh environments
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.5% BFSL
Stability (1 year)	±0.25% FS, typ.
Proof Pressure	2X Rated Pressure
Burst Pressure	5X or 20,000 psig, whichever is less
Pressure Cycles	> 100 Million

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚ F)
Storage	-40 to 100˚C (-40 to 212˚ F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
TC Zero	<±1.5% of FS (<±3.0% for 0-25 psig)
TC Span	<±1.5% of FS
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	20G Peak, 20 to 2400 Hz
Rating	IP-66
EMI/RFI Protection	Yes

Electrical Data			
Output	4-20mA	1-5VDC, 1-6VDC	0.5-4.5 V ratiometric
Excitation	10-28VDC	10-28VDC	5VDC, reg
Output Impedance	>10k Ohms	<100 Ohms, nom.	<100 Ohms, nom.
Current Consumption	20mA, typ.	<10mA	<10mA
Bandwith (-3dB):	DC to 250 Hz	DC to 1kHz	DC to 1kHz
Output Noise:	-	<2mV RMS	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS	<±1% of FS
Span Tolerance	<±2.0% of FS	<±1.5% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.	10k Ohms, min.
Reverse Polarity Protection	Yes	Yes	No

Pressure Ranges*+			
Gage psig	Proof psig	Burst psig	Pressure Range Code
0-25	50	250	00025
0-50	100	250	00050
0-100	200	500	00100
0-200	400	1,000	00200
0-500	1,000	2,500	00500
0-1,000	2,000	5,000	01000
0-2,500	5,000	12,500	02500
0-5,000	10,000	20,000	05000
0-7,500	15,000	20,000	07500
0-10,000	20,000	20,000	10000

* Typical Ranges. All ranges between 0-25 psig and 0-10,000 psig are available. Please consult factory.

+ Vacuum calibration available. Please consult factory.

Specifications are subject to change without notice.

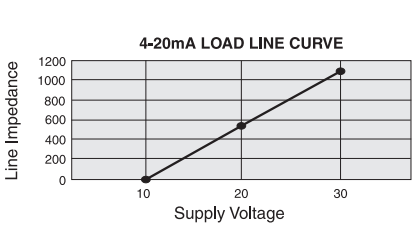
Ordering Information

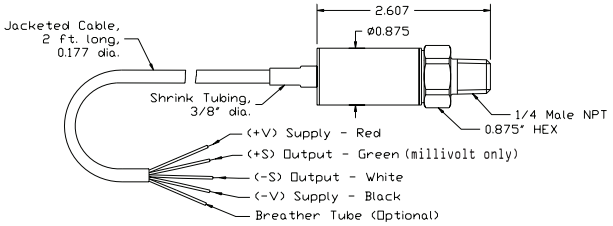
Construct a product code using the chart below. (Consult factory for other options)

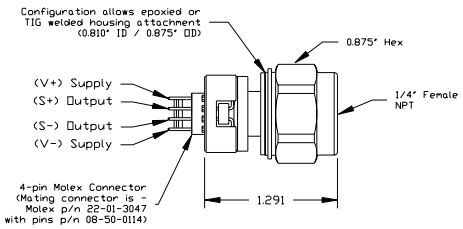
40 - A - 00500 - B - 3 - E - 0 - 000

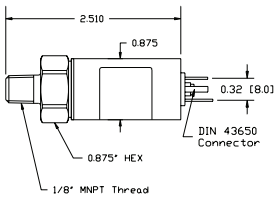
Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
40 Standard	**X**= Special	**XXXXX=** Special	**X**= Special	**X**= Special	**X**= Special	**X**= Special	**XXX**= Special
	A= 1/4" MNPT	Insert pressure range code from pressure range chart.	**B**= BAR	**A**= 0-50mV/V	**A**= 2ft. cable	**0**= 17.4 PH	**000**= No options
	B= 1/8" MNPT	**Vacuum = V0000** -14.7psig/-1.01bar	**K**= kg/cm^2	**B**= 20mV/V	**B**= 4ft. cable	**1**= 316 L	**A10**= ±0.10 accuracy
	C= 1/4" BSPP Male	For vacuum replace first zero with (V) in pressure code. (Ex. V0500 = Vacuum to 500 psig)	**P**= psig	**G**= 1-10V	**C**= 6ft. cable	**2**= Inconel	**A25**= ±0.25 accuracy
	E= 1/2" MNPT		**W**= Inches of H_2O column	**T**= 3mV/V	**D**= 10ft. cable		**C01** Calibration 1-9
	F= 7/16" -20 UNF Male			**1**= 10mV/V	**E**= Mini DIN 43650		**C10** Calibration 10-49
	H= 1/8" FNPT			**2**= 0.5-4.5V ratiometric	**F**= Packard Metripack 150 3 pin connector		**C50** Calibration 50-up
	J= 1/4" FNPT			**3**= 1-5V	**G**= 4 pin Molex connector		**C0S** Cleaned for O_2 service
	S= 1/2" FNPT			**4**= 4-20mA	**H**= Flex strip 3"		
				5= 5mV/V	**J**= 15ft. cable		
				6= 1-6V	**K**= 8ft. cable		
					M= Bendix military conn.		
					R= 6 pin Bendix		
					T= 25ft. cable		

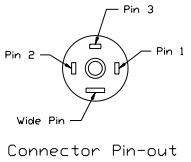
Dimensional Information











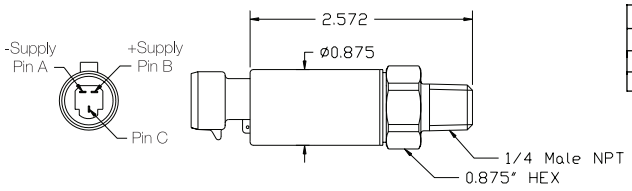


Table 1			
Output	**Pin 3**	**Pin 2**	**Pin 1**
1-5V	+V Supply	-V Supply	Output
4-20mA	+V Supply	-V Supply	N/C

Series 42 Panel Mount

Stainless Steel Media Isolated Pressure Sensor

Features

- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Pressure ranges up to 10,000 psig
- Rugged design survives harsh environments
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications
- Panel up to .3" thick

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.5% BFSL
Stability (1 year)	±0.25% FS, typ.
Proof Pressure	2X Rated Pressure
Burst Pressure	5X or 20,000 psig, whichever is less
Pressure Cycles	> 100 Million

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚ F)
Storage	-40 to 100˚C (-40 to 212˚ F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
TC Zero	<±1.5% of FS (<±3.0 % for 25 psig)
TC Span	<±1.5% of FS
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2000 Hz
EMI/RFI Protection	Yes
Rating	IP-66 with housing and cable seal only. IP-54 w/o housing

Electrical Data			
Output	4-20mA	1-5VDC, 1-6VDC	0.5-4.5 V ratiometric
Excitation	10-28VDC	10-28VDC	5VDC, reg
Output Impedance	>10k Ohms	<100 Ohms, nom.	<100 Ohms, nom.
Current Consumption	20mA, typ.	<10mA	<10mA
Bandwith (-3dB):	DC to 250 Hz	DC to 1kHz	DC to 1kHz
Output Noise:	-	<2mV RMS	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS	<±1% of FS
Span Tolerance	<±2.0% of FS	<±1.5% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.	10k Ohms, min.
Reverse Polarity Protection	Yes	Yes	No

Pressure Ranges*			
Gage psig	Proof psig	Burst psig	Pressure Range Code
0-25*	50	250	00025
0-50	100	250	00050
0-100	200	500	00100
0-200	400	1,000	00200
0-500	1,000	2,500	00500
0-1,000	2,000	5,000	01000
0-2,500	5,000	12,500	02500
0-5,000	10,000	20,000	05000
0-7,500	15,000	20,000	07500
0-10,000	20,000	20,000	10000

Other ranges available, please consult factory. *Output = 5mV/V
Specifications are subject to change without notice.

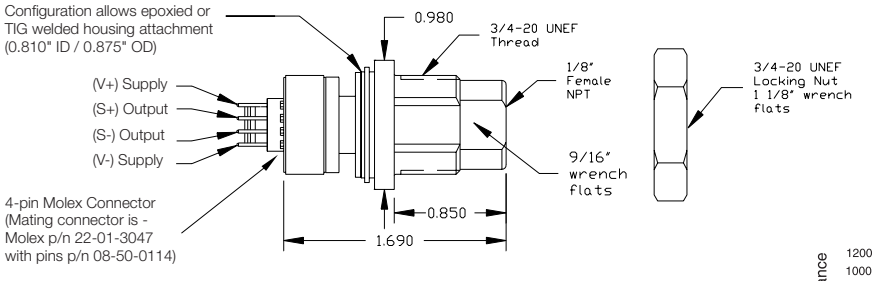
Ordering Information

Construct a product code using the chart below. (Consult factory for other options)

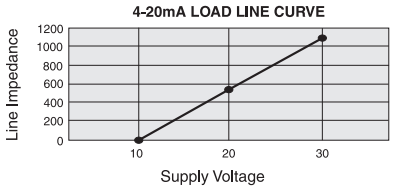
42-H-00500-B-3-B-0-000

Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
42 Panel Mount	**X**= Special **H**= 1/8" FNPT **S**= 1/2" FNPT	**XXXXX=** Special Insert pressure range code from pressure range chart. **Vacuum = V0000** -14.7psig/-1.01bar For vacuum replace first zero with (V) in pressure code. (Ex. V0500 = Vacuum to 500 psig)	**X**= Special **B**= BAR **K**= kg/cm^2 **P**= psig **W**= Inches of H_2O column	**X**= Special **A**= 0-50mV/V **B**= 20mV/V **G**= 1-10V **1**= 10mV/V **3**= 1-5V **4**= 4-20mA **5**= 5mV/V **6**= 1-6V	**X**= Special **A**= 2ft. cable **B**= 4ft. cable **C**= 6ft. cable **D**= 10ft. cable **G**= 4 pin Molex connector **H**= Flex strip 3" **J**= 15ft. cable **K**= 8ft. cable **T**= 25ft. cable	**X**= Special **0**= 17.4 PH **1**= 316 L **2**= Inconel	**XXX**= Special **000**= No options **A10**= ±0.10 accuracy **A25**= ±0.25 accuracy **C01** Calibration 1-9 **C10** Calibration 10-49 **C50** Calibration 50-up **C0S** Cleaned for O_2 service

Dimensional Information



NOTE:
1. Use Greenlee Punch Unit #60086 to prepare the panel hole. Also available from McMaster-Carr as #3449A65.



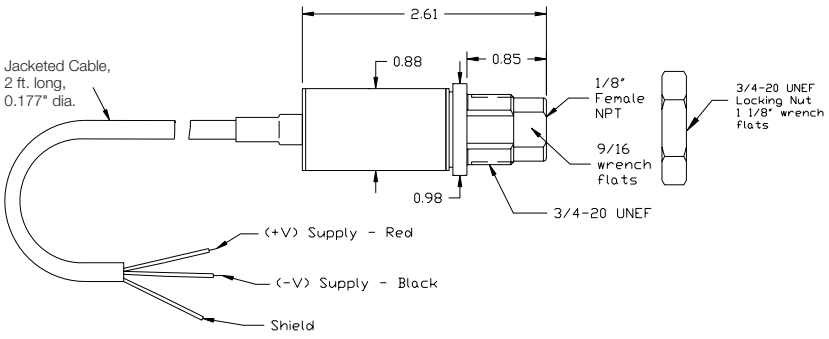


Table 1			
Output	Pin 3	Pin 2	Pin 1
1-5V	+V Supply	-V Supply	Output
4-20mA	+V Supply	-V Supply	N/C

Series 43 Hazardous Locations

Stainless Steel Media Isolated Pressure Sensor

Features

- Class I Div. 2, Groups A, B, C, and D for use in hazardous locations
- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Ranges up to 10,000 psig
- Rugged design survives harsh environments
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.25% BFSL
Stability (1 year)	±0.25% FS, typ.
Proof Pressure	2X Rated Pressure
Burst Pressure	5X or 20,000 psig, whichever is less
Pressure Cycles	> 100 Million

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚ F)
Storage	-40 to 100˚C (-40 to 212˚ F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
TC Zero	<±1.5% of FS (2.0% for 316L)
TC Span	<±1.5% of FS (2.0% for 316L)
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2000 Hz
EMI/RFI Protection	Yes
Rating	IP-66

Electrical Data			
Output	4-20mA	1-5VDC, 1-6VDC	0.5-4.5 V ratiometric
Excitation	10-28VDC	10-28VDC	5VDC, reg
Output Impedance	>10k Ohms	<100 Ohms, nom.	<100 Ohms, nom.
Current Consumption	20mA, typ.	<10mA	<10mA
Bandwith (-3dB):	DC to 250 Hz	DC to 1kHz	DC to 1kHz
Output Noise:	-	<2mV RMS	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS	<±1% of FS
Span Tolerance	<±2% of FS	<±1.5% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.	10k Ohms, min.
Reverse Polarity Protection	Yes	Yes	No

Pressure Ranges*+			
Gage psig	Proof psig	Burst psig	Pressure Range Code
0-25	50	250	00025
0-50	100	250	00050
0-100	200	500	00100
0-200	400	1,000	00200
0-500	1,000	2,500	00500
0-1,000	2,000	5,000	01000
0-2,500	5,000	12,500	02500
0-5,000	10,000	20,000	05000
0-7,500	15,000	20,000	07500
0-10,000	20,000	20,000	10000

* Typical Ranges. All ranges between 0-25 psig and 0-10,000 psig are available. Please consult factory.

+ Vacuum calibration available. Please consult factory.

Specifications are subject to change without notice.

Ordering Information

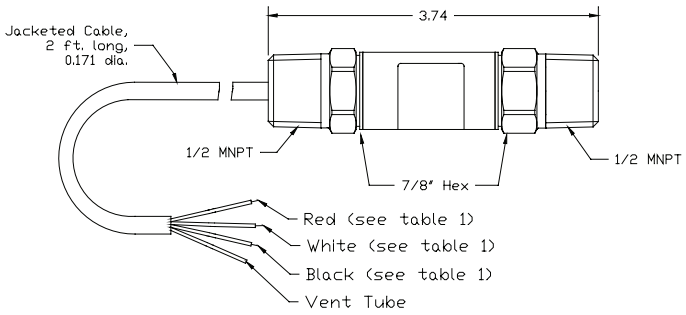
Construct a product code using the chart below. (Consult factory for other options)

43 - A - 00500 - B - 3 - L - 0 - 000

Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
43 Hazardous Locations	**X**= Special	**XXXXX=** Special	**X**= Special	**X**= Special	**X**= Special	**X**= Special	**XXX**= Special
	A= 1/4" MNPT	Insert pressure range code from pressure range chart.	**B**= BAR	**B**= 20mV/V	**F**= 55 meter cable	**0**= 17.4 PH	**000**= No options
	C= 1/4" BSPP Male	**Vacuum = V0000** -14.7psig/-1.01bar	**K**= kg/cm^2	**G**= 1-10V	**J**= 15ft. cable	**1**= 316 L	**001**= Etched name plate
	E= 1/2" MNPT	For vacuum replace first zero with (V) in pressure code. (Ex. V0500 = Vacuum to 500 psig)	**P**= psig	**1**= 10mV/V	**K**= 8ft. cable	**2**= Inconel	**A10**= ±0.10 Accuracy
	J*= 1/4" FNPT		**W**= Inches of H_2O column	**2**= 0.5-4.5V ratiometric	**L**= 2ft. cable w/conduit		**C01** Calibration 1-9
	S*= 1/2" FNPT			**3**= 1-5V	**M**= 4ft. cable w/conduit		**C10** Calibration 10-49
	* 316L not available for FNPT sizes			**4**= 4-20mA 2 wire	**N**= 6ft. cable w/conduit		**C50** Calibration 50-up
				5= 5mV/V	**P**= 10ft. cable w/conduit		**C0S** Cleaned for O_2 service
				6= 1-6V	**T**= 25ft. cable		

Dimensional Information

Table 1			
Output	Red	Black	White
1-5V	+V Supply	-V Supply	Output
4-20mA	+V Supply	-V Supply	N/C



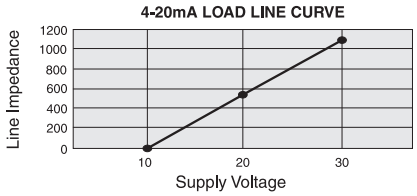
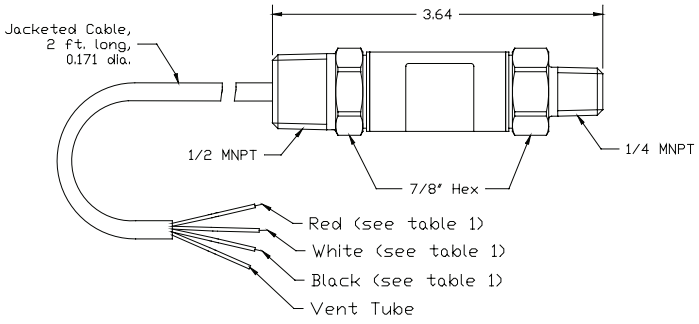


Table 1			
Output	Red	Black	White
1-5V	+V Supply	-V Supply	Output
4-20mA	+V Supply	-V Supply	N/C



Series 44 Intrinsically Safe

Stainless Steel Media Isolated Pressure Sensor

Features

- Class I Div. 1, Groups C&D Intrinsically Safe
- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Ranges up to 10,000 psig
- Rugged design survives harsh environments
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.25% BFSL
Stability (1 year)	±0.25%FS, typ.
Proof Pressure	2X Rated Pressure
Burst Pressure	5X or 20,000 psig, whichever is less
Wetted Material	17.4 PH S.S. (NACE compatible) (for other material consult factory)
Pressure Cycles	> 100 Million

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚ F)
Storage	-40 to 100˚C (-40 to 212˚ F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
TC Zero	<±1.5% of FS (2.0% for 316L)
TC Span	<±1.5% of FS (2.0% for 316L)
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2000 Hz
EMI/RFI Protection	Yes
Rating	IP-66

Electrical Data			
Output	4-20mA	1-5VDC, 1-6VDC	0.5-4.5 V ratiometric
Excitation	10-28VDC	10-28VDC	5VDC, reg
Output Impedance	>10k Ohms	<100 Ohms, nom.	<100 Ohms, nom.
Current Consumption	20mA, typ.	<10mA	<10mA
Bandwith (-3dB):	DC to 250 Hz	DC to 1kHz	DC to 1kHz
Output Noise:	-	<2mV RMS	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS	<±1% of FS
Span Tolerance	<±2% of FS	<±1.5% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.	10k Ohms, min.
Reverse Polarity Protection	Yes	Yes	No

Pressure Ranges*+			
Gage psig	Proof psig	Burst psig	Pressure Range Code
0-25	50	250	00025
0-50	100	250	00050
0-100	200	500	00100
0-200	400	1,000	00200
0-500	1,000	2,500	00500
0-1,000	2,000	5,000	01000
0-2,500	5,000	12,500	02500
0-5,000	10,000	20,000	05000
0-7,500	15,000	20,000	07500
0-10,000	20,000	20,000	10000

* Typical Ranges. All ranges between 0-25 psig and 0-10,000 psig are available. Please consult factory.

+ Vacuum calibration available. Please consult factory.

Specifications are subject to change without notice.

Ordering Information

Construct a product code using the chart below. (Consult factory for other options)

44-A-00500-B-3-B-0-000

Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
44 Intrinsically Safe	**X**= Special	**XXXXX=** Special	**X**= Special	**X**= Special	**X**= Special	**X**= Special	**XXX**= Special
	A= 1/4" MNPT	Insert pressure range code from pressure range chart.	**B**= BAR	**A**= 0-50mV/V	**A**= 2ft. cable	**0**= 17.4 PH	**000**= No options
	B= 1/8" MNPT	**Vacuum = V0000** -14.7psig/-1.01bar	**K**= kg/cm^2	**B**= 20mV/V	**B**= 4ft. cable	**1**= 316 L	**A10**= ±0.10 accuracy
	C= 1/4" BSPP Male	For vacuum replace first zero with (V) in pressure code. (Ex. V0500 = Vacuum to 500 psig)	**P**= psig	**G**= 1-10V	**C**= 6ft. cable	**2**= Inconel	**C01** Calibration 1-9
	E= 1/2" MNPT		**W**= Inches of H_2O column	**1**= 10mV/V	**D**= 10ft. cable		**C10** Calibration 10-49
	F= 7/16"-20 UNF Male			**2**= 0.5-4.5V ratiometric	**E**= Mini DIN 43650		**C50** Calibration 50-up
	H= 1/8" FNPT			**3**= 1-5V	**F**= Packard Metripack		**C0S** Cleaned for O_2 service
	J= 1/4" FNPT			**4**= 4-20mA 2 wire	**J**= 15ft. cable		
	S= 1/2" FNPT			**5**= 5mV/V	**K**= 8ft. cable		
				6= 1-6V	**T**= 25ft. cable		
				7= 1-5V adj.			
				8= 4-20mA adj.			
				9= 1-6V adj.			

Dimensional Information

Class I, Div. 1, Groups C, D
Hazardous Location

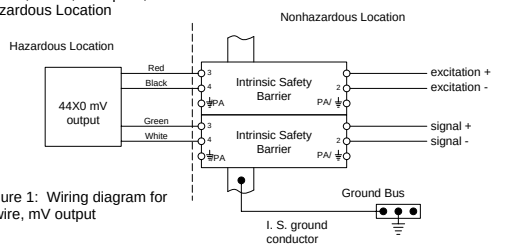


Figure 1: Wiring diagram for 4-wire, mV output

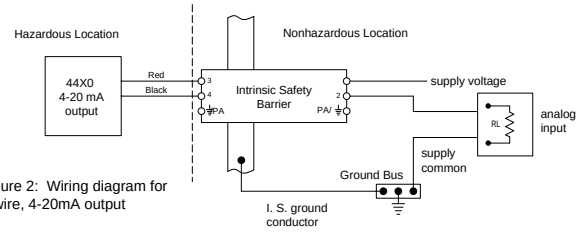


Figure 2: Wiring diagram for 2-wire, 4-20mA output

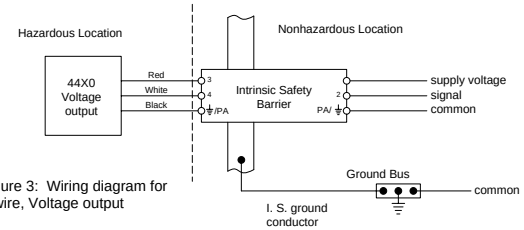
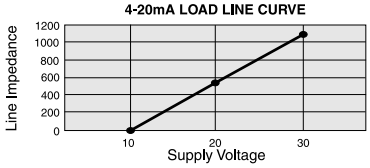


Figure 3: Wiring diagram for 3-wire, Voltage output



The transducers listed below are designed for installation in a Class I, Division 1, Groups C and D, Division 1 hazardous location when connected to Associated Apparatus as described in note 1.

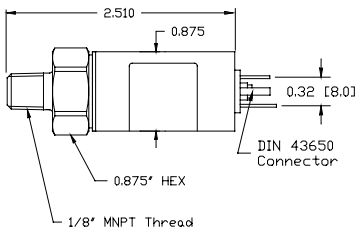
Entity Parameters
Vmax = 28Vdc
Imax = 175mA
C_1 = 0.44uf
L_1 = 0

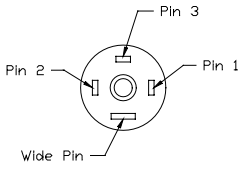
Imax is the total current available from the Associated Apparatus under any condition.

Notes:
1. Associated Apparatus shall provide intrinsically safe connections which meet the following parameters.
   Voc or Vt £ Vmax — $C_a \geq C_1 + C_{leads}$
   Isc or It £ Imax — $L_a \geq L_1 + L_{leads}$
2. Control Room aparatus shall not generate in excess of 250V (Umax).
3. Installation should be in accordance with Article 504 in the National Electrical Code, ANSI/NFPA 70.

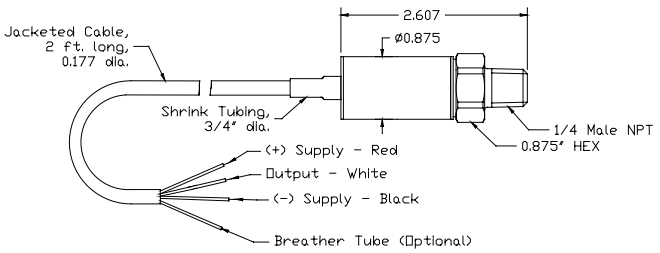
Table 1

Output	Pin 3	Pin 2	Pin 1
1-5V	+V Supply	-V Supply	Output
4-20mA	+V Supply	-V Supply	N/C





Connector Pin-out



Features

- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Ranges up to 100 psig
- Rugged design survives harsh environments
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.5% BFSL (for higher accuracy, please consult factory)
Stability (1 year)	±0.25%FS, typ.
Over Range Pressure	2X Rated Pressure
Burst Pressure	5X or 1250 psig, whichever is less
Pressure Cycles	> 50 Million
Agency Approval	UL 508

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚ F)
Storage	-40 to 100˚C (-40 to 212˚ F)
Thermal Limits	
Compensated Range	0 to 55˚C (-30 to 130˚ F)
Temp. Comp. Zero	<±1.5% of FS (<±2.0% for 316L)
Temp. Comp. Span	<±1.5% of FS (<±2.0% for 316L)
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2000 Hz
Rating	IP-68
EMI/RFI Protection	Yes

Electrical Data		
Output	4-20mA	1-5VDC
Excitation	10-28VDC, typ.	10-28VDC, typ.
Output Impedance	<10k Ohms	<100 Ohms, nom.
Current Consumption	20mA, typ.	<10mA
Bandwidth (-3dB)	DC to 250Hz	DC to 1kHz
Output Noise	-	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS
Span Tolerance	<±2% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.
Reverse Polarity	Yes	Yes

Pressure Ranges*

Gage psig	Proof psig	Burst psig	Pressure Range Code
0-15	30	125	00015
0-25	50	125	00025
0-30	60	150	00030
0-100	200	500	00100

* Typical Ranges. All ranges between 0-15 psig and 0-100 psig are available. Please consult factory.

Ordering Information

Construct a product code using the chart below. (Consult factory for other options)

45-L-00100-B-3-C-1-000

Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
45 Standard	**X**= Special	**XXXXX=** Special	**X**= Special	**X**= Special	**X**= Special	**X**= Special	**XXX**= Special
	L= Cone Front	Insert pressure range code from pressure range chart.	**B**= BAR	**3**= 1-5V	**C**= 6ft. cable	**1**= 316 L	**000**= No options
			K= kg/cm^2	**4**= 4-20mA	**D**= 10ft. cable		
			P= psig		**J**= 20ft. cable		
					K= 25ft. cable		
					L= 35ft. cable		
					M= 50ft. cable		
					N= 100ft. cable		
					P= 150ft. cable		
					Hytrel cable available, consult ASCO		

Dimensional Information

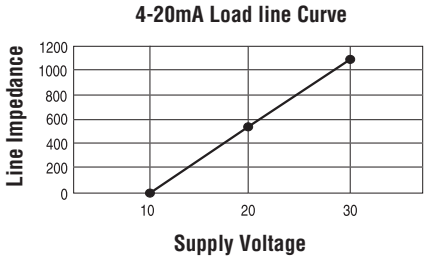
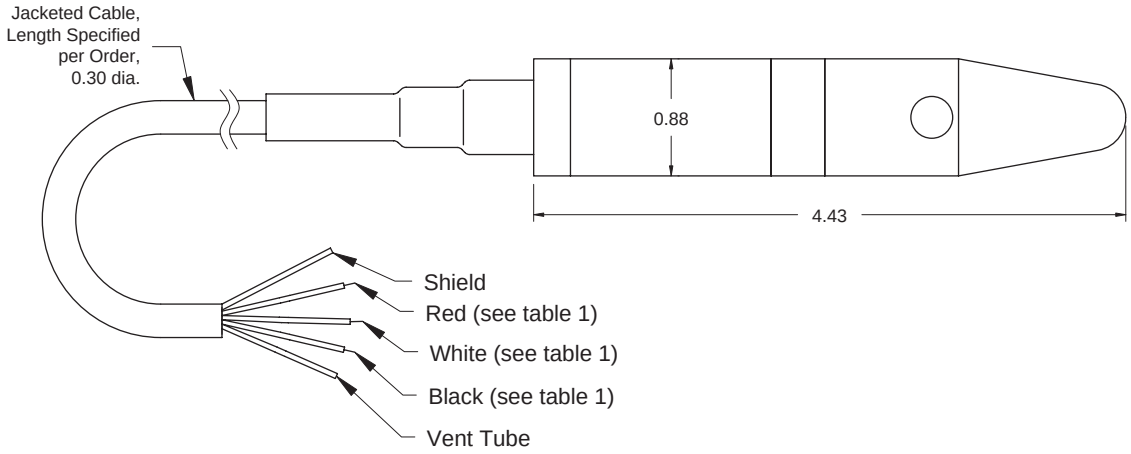


Table 1			
Output	**Red**	**Black**	**White**
1-5V	+V Supply	-V Supply	Output
4-20mA	+V Supply	-V Supply	N/C



Features

- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Ranges up to 10,000 psig
- Rugged design survives harsh environments.
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.25% BFSL
Stability (1 year)	±0.25% FS, typ.
Proof Pressure	2X Rated Pressure
Burst Pressure	5X or 25,000 psig, whichever is less
Pressure Cycles	> 100 Million
Agency Approval	CSA 30 (UL 1203) Class 1, Div. 1 Explosionproof, Groups A,B,C & D

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚F)
Storage	-40 to 100˚C (-40 to 212˚F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
Temp. Comp. Zero	<±1.5% of FS
Temp. Comp. Span	<±1.5% of FS
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2400 Hz
EMI/RFI Protection	Yes
Rating	IP-66

Electrical Data		
Output	4-20mA	1-5V, 1-6V
Excitation	10-28VDC, typ.	10-28VDC
Output Impedance	<10k Ohms	<100 Ohms, nom.
Current Consumption	20mA, typ.	<10mA
Bandwidth (-3dB)	DC to 250Hz	DC to 1kHz
Output Noise	-	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS
Span Tolerance	<±2% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.
Reverse Polarity	Yes	Yes

Pressure Ranges*

Gage psig	Proof psig	Burst psig	Pressure Range Code
0-50	100	250	00050
0-100	200	500	00100
0-200	400	1,000	00200
0-250	500	1,250	00250
0-500	1,000	2,500	00500
0-1,000	2,000	5,000	01000
0-2,000	4,000	10,000	02000
0-2,500	5,000	12,500	02500
0-5,000	10,000	20,000	05000
0-7,500	15,000	20,000	07500
0-10,000	20,000	20,000	10000

* Typical Ranges. All ranges between 0-50 psig and 0-10,000 psig are available. Please consult factory.

Ordering Information

Construct a product code using the chart below. (Consult factory for other options)

46-A-00500-P-3-U-0-000

Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
46 Standard	**X**= Special	**XXXXX=** Special	**X**= Special	**X**= Special	**X**= Special	**X**= Special	**XXX**= Special
	A= 1/4" MNPT	Insert pressure range code from pressure range chart.	**B**= BAR	**3**= 1-5V*	**T**= 2ft. cable, 18AWG wire	**0**= 17.4 PH	**000**= No options
	E= 1/2" MNPT		**K**= kg/cm^2	**4**= 4-20mA**	**U**= 4ft. cable, 18AWG wire	**1**= 316L	
	J= 1/4" FNPT		**P**= psig	**6**= 1-6V		**2**= Inconel 718	
				* 3 wire case connection			
				** 2 wire 100p powered and case conneciton			

Dimensional Information

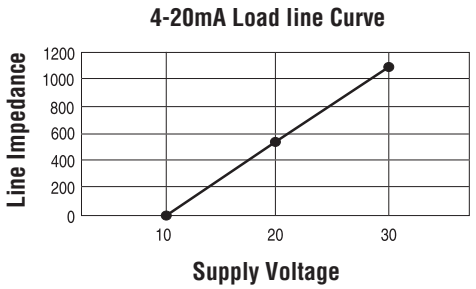
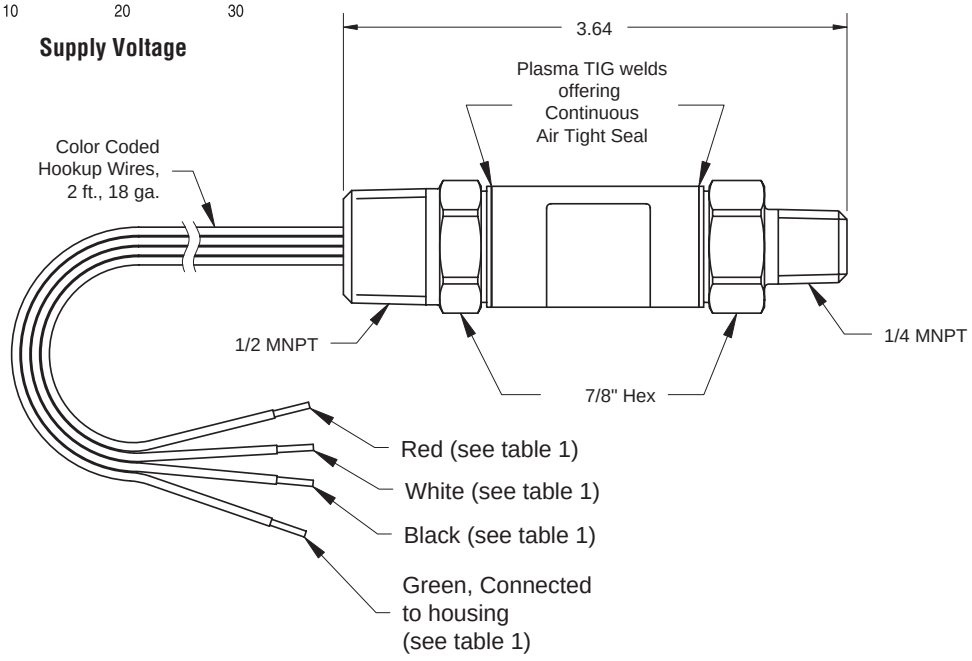


Table 1				
Output	**Red**	**Black**	**White**	**Green**
1-5V	+V Supply	-V Supply	Output	Common
4-20mA	+V Supply	-V Supply	Not Used	Common



Series 47

Stainless Steel High Accuracy Pressure Sensor

Features

- High strength stainless steel construction
- No silicone oil, no internal o-rings, no welds
- Wide operating temperature range
- Ranges up to 10,000 psig
- Low static and thermal errors
- High accuracy
- Rugged design survives harsh environments
- Compatible with wide range of gases and liquids
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Accuracy[1]	<±0.25% BFSL (option of ±0.1%)
Stability (1 year)	±0.25%FS, typ.
*Over Range Protection	2X Rated Pressure
*Burst Pressure	5X or 20,000 psig, whichever is less
Pressure Cycles	> 100 Million

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚F)
Storage	-40 to 125˚C (-40 to 250˚F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
Temp. Comp. Zero	<±1.5% of FS (±2.0% for 316L)
Temp. Comp. Span	<±1.5% of FS (±2.0% for 316L)
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2400 Hz
EMI/RFI Protection	Yes
Rating	IP-66

Electrical Data				
Output	4-20mA	Voltage (3 or 4 wire)	Frequency (1-6kHz)	5VDC
Excitation	10-28VDC	10-28VDC	10-28VDC	0-50mV
Output Impedance	-	<100 Ohms nom.	10K, pull up	1100 Ohms nom.
Current Consumption	20mA max.	<10mA	<15mA	<5mA
Bandwidth (-3dB)	DC to 250Hz	DC to 1kHz	DC to 250Hz	DC to 5kHz min.
Output Noise	NA	<2mV RMS	<2mV RMS	NA
Zero Offset	<±1% of FS	<±1% of FS	<±1% of FS	<±2% of FS
Span Tolerance	<±2% of FS	<±1.5% of FS	<±1.5% of FS	<±2% of FS
Output Load	See load line curve	10k Ohms min.	10k Ohms min.	>1M Ohms
Reverse Polarity Protection	Yes	Yes	Yes	NA

Pressure Ranges*+			
Gage psig	Proof psig	Burst psig	Pressure Range Code
0-15	30	200	00015
0-25	50	250	00025
0-50	100	250	00050
0-100	200	500	00100
0-200	400	1,000	00200
0-500	1,000	2,500	00500
0-1,000	2,000	5,000	01000
0-2,500	5,000	12,500	02500
0-5,000	10,000	20,000	05000
0-7,500	15,000	20,000	07500
0-10,000	20,000	20,000	10000

* Typical Ranges. All ranges between 0-25 psig and 0-10,000 psig are available. Please consult factory.

+ Vacuum calibration available. Please consult factory.

Specifications are subject to change without notice.

Ordering Information

Construct a product code using the chart below. (Consult factory for other options)

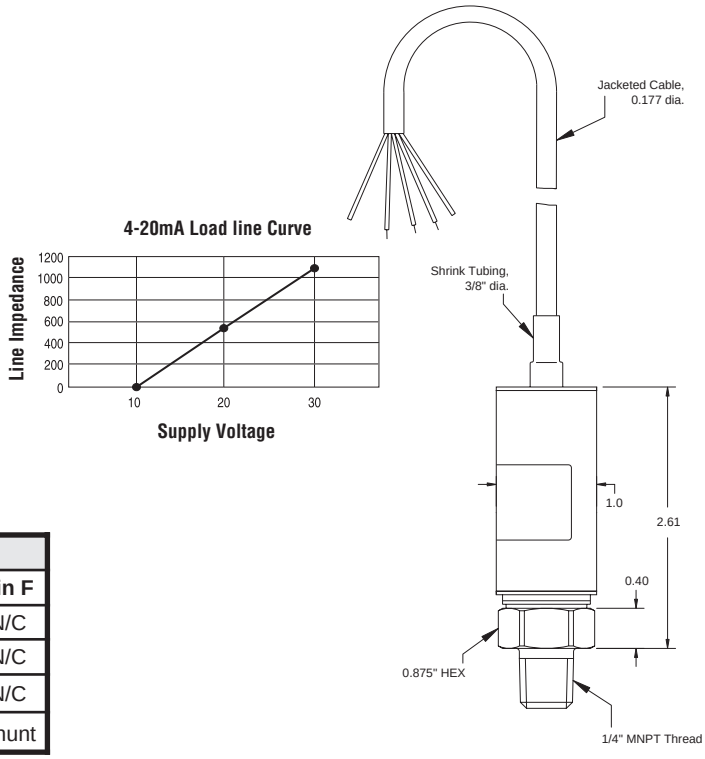
47 - A - 00500 - P - 3 - B - 0 - 000

Series Type	Process Connection	Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Options
47 Standard	**X**= Special	**XXXXX=** Special	**X**= Special	**X**= Special	**X**= Special	**X**= Special	**XXX**= Special
	A= 1/4" MNPT	Insert pressure range code from pressure range chart.	**B**= BAR	**2**= 0-5V (3 wire)	**A**= 2ft. cable	**0**= 17.4 PH	**000**= No options
	B= 1/8" MNPT	**Vacuum = V0000** -14.7psig/-1.01bar	**K**= kg/cm^2	**3**= 1-5V	**B**= 4ft. cable	**1**= 316L	
	F= 7/16" -20 UNF Male	For vacuum replace first zero with (V) in pressure code. (Ex. V0500 = Vacuum to 500 psig)	**P**= psig	**4**= 4-20mA	**C**= 6ft. cable		
				5= 0-10V (3 wire)	**D**= 10ft. cable		
				6= 1-6kHz	**E**= Mini DIN 43650		
				7= 0-5V (4 wire)	**F**= Bendix 6 pin connector		
				8= 0-10V (4 wire)			

Dimensional Information

Electrical Connections - Cable Only				
Cable				
Output Type	**Green**	**Black**	**Red**	**White**
mV, 0-5V, 0-10V	+S (Output)	-V (Supply)	+V (Supply)	-S (Output)
0.5-4.5V, 1-5V,1-6V	S (Output)	-V (Supply)	+V (Supply)	N/C
4-20mA	N/C	-V (Supply)	+V (Supply)	N/C
Mini DIN 43650				
Output Type	**Pin 1**	**Pin 2**	**Pin 3**	**Wide Pin**
mV, 0-5V (4-wire), 0-10V(4-wire)	+S (Output)	-V (Supply)	+V (Supply)	-S (Output)
0-5V (3-wire), 1-5V, 0-10V(3-wire)	S (Output)	-V (Supply)	+V (Supply)	N/C
4-20mA	N/C	-V (Supply)	+V (Supply)	N/C

6-pin Bayonet (Bendix)						
Output Type	**Pin A**	**Pin B**	**Pin C**	**Pin D**	**Pin E**	**Pin F**
mV, 0-5V, 0-10V	+V	+Signal	-Signal	-V	-V	N/C
1-5V, 1-6V, 1-10V	+V	Output	N/C	-V	-V	N/C
4-20 mA	+V	-V	N/C	N/C	N/C	N/C
4-20 mA	+V	-V	N/C	N/C	Shunt	Shunt



Series 50

Stainless Steel, Wet/Wet Differential Pressure Sensor

Features

- Compact and rugged design
- High strength stainless steel construction
- No internal fluid filled cavities
- No Internal o-rings
- Wide operating temperature range
- Low static and thermal errors
- EMI/RFI protection to 100V/m
- Suitable for high shock and vibration applications

Specifications

Performance @ 25˚C (77˚F)	
Line Pressure	0-100 to 1,000 psig (0-7, 0-17, 0-35 and 0-70 bar)
Measurement Range	20% of line pressure, minimum
Proof Pressure	Rated line pressure on either P1 or P2
Burst Pressure	5X or 2000 psi, whichever is less
Accuracy[1]	<±0.3% BFSL
Pressure Cycles	> 10 Million

[1] Accuracy includes: Non-linearity, Hysteresis, and Non-repeatability

Physical Description	
Case	304 stainless steel
Electrical Connection	Refer to Ordering Information
Wetted Material	Refer to Ordering Information
Pressure Port	1/8" NPT

Environmental Data	
Temperature	
Operating	-40 to 85˚C (-40 to 185˚F)
Storage	-40 to 100˚C (-40 to 212˚F)
Thermal Limits	
Compensated Range	0 to 55˚C (30 to 130˚ F)
TC Zero	<±1.5% of FS
TC Span	<±1.5% of FS
Other	
Shock	100G, 11msec, 1/2 sine
Vibration	10G Peak, 20 to 2000 Hz
EMI/RFI Protection	Yes
Rating	IP-66

Electrical Data			
Output	4-20mA	Voltage (1-5V, 1-6V)	0.5-4.5V ratiometric
Excitation	10-30VDC	10-30VDC	5VDC, reg
Output Impedance	-	<100 Ohms, nom.	<100 Ohms, nom.
Current Consumption	25mA	<10mA	<10mA
Bandwith (-3dB):	DC to 250 Hz	DC to 1kHz	DC to 1kHz
Output Noise:	0-800 Ohms @ 10-28VDC	<2mV RMS	<2mV RMS
Zero Offset	<±1% of FS	<±1% of FS	<±1% of FS
Span Tolerance	<±2% of FS	<±1.5% of FS	<±1.5% of FS
Output Load	See load line curve below	10k Ohms, min.	10k Ohms, min.
Reverse Polarity Protection	Yes	Yes	No

Pressure Ranges*				
DP Range (psig), min.	Line Pressure (psig), max.	Burst Pressure (psig)	Measurement Code	Line Code
0-30	100	500	0030	0100
0-60	250	1,250	0060	0200
0-150	500	2,000	0150	0500
0-300	1,000	2,000	0300	1000

* Typical Ranges. All ranges between 0-30 psig and 0-300 psig are available. Please consult factory.

Ordering Information

Construct a product code using the chart below. (Consult factory for other options)

50-H-0500-P-3-B-0-0000

Series Type	Process Connection	Line Pressure Range	Pressure Unit	Outputs	Electrical Interface	Wetted Material	Measurement Range
50 Standard	**X**= Special **H**= 1/8" FNPT	**XXXXX=** Special Insert pressure range code from pressure range chart.	**X**= Special **B**= BAR **K**= kg/cm^2 **P**= psig	**X**= Special **2**= 0.5-4.5V ratiometric **3**= 1-5V **4**= 4-20mA **6**= 1-6V	**X**= Special **A**= 2ft. cable **B**= 4ft. cable	**X**= Special **0**= 17.4 PH **1**= 316L with Parylene-C coating (no options)	Insert 4 digit measurement code from chart on specifications page.

Dimensional Information

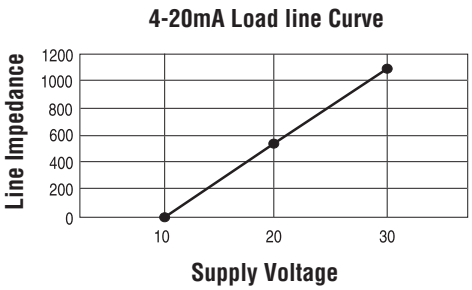
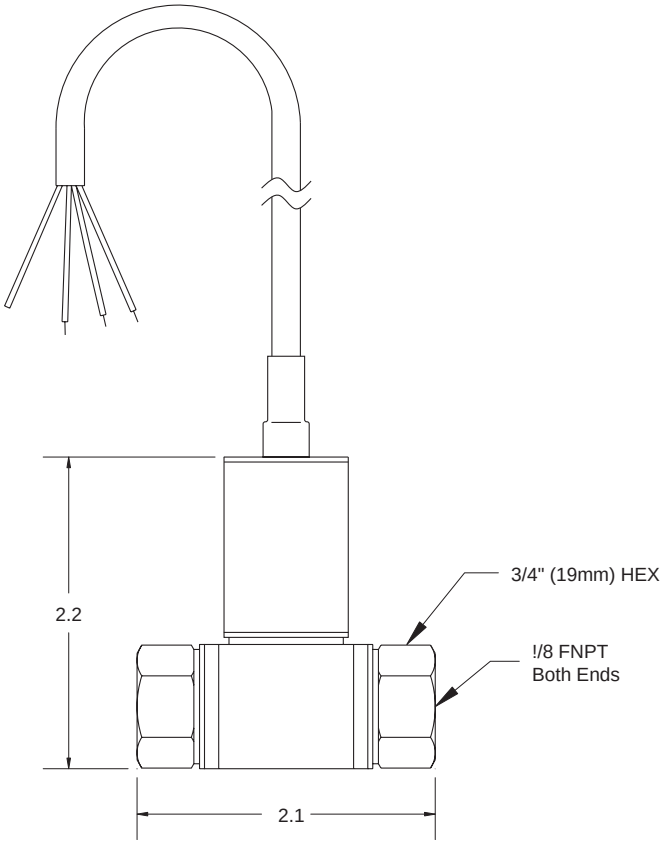


Table 1				
Output	**Red**	**Black**	**White**	**Green**
1-5V	+V Supply	-V Supply	Output	Common
4-20mA	+V Supply	-V Supply	Not Used	Common



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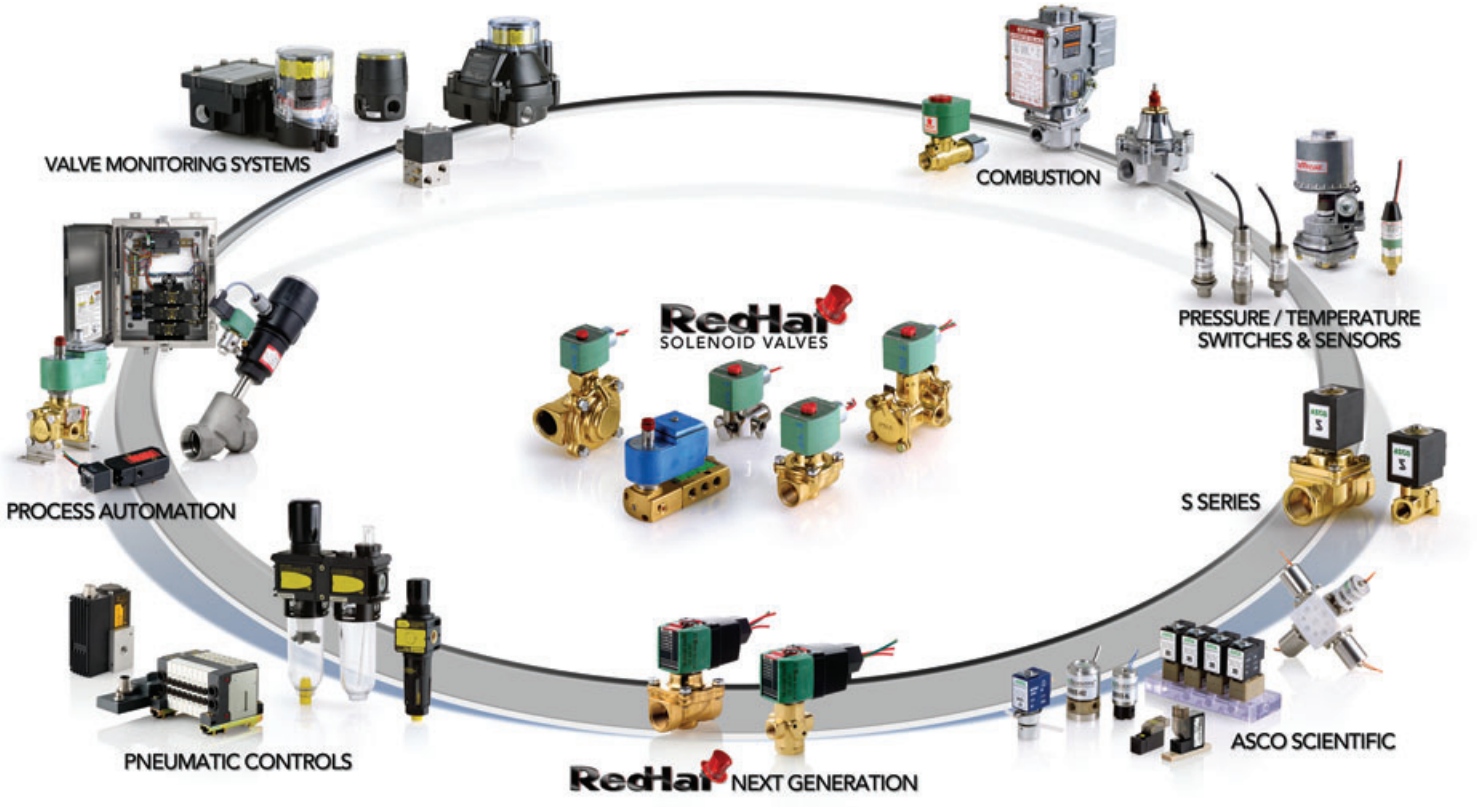

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