



LR056 Pressure Transducer Display

# LR056 Transducer Display

Accurate, Miniature Displays for  
Point-of-Use Pressure Monitoring

Local display of process pressure improves safety and quality control of gas delivery systems. The LR056 allows a sensor to digitally display its pressure and send its signal to a final destination. The sensor, such as the Brooks® SolidSense II® pressure transducer, connects to the back of the LR056 with a 4-pin Bendix® connector. The LR056 connects to the loop through a pigtail cable and offers a real-time reading. The LR056 has two user-programmable setpoints that define a window; if the window is entered or left, an output signal is generated.

## Product Features

- Local indication of process pressure measurement
- 4-digit LED display in durable metal enclosure
- Available to display pressure measurement in psia, psig, bar, kg/cm<sup>2</sup>, or Mpa
- Setpoint indication and contact switching available
- Password protected
- CE (EN 61326) compliant
- Programmable via up and down switches
- Point-of-use monitoring
- Extremely accurate reading with outstanding noise immunity
- Low-power electronics
- Ease of use and installation

## Applications

Gas delivery systems and tools including:

- Gas cabinets
- Gas panels
- Bulk gas

[View LR056  
Product Page](#)

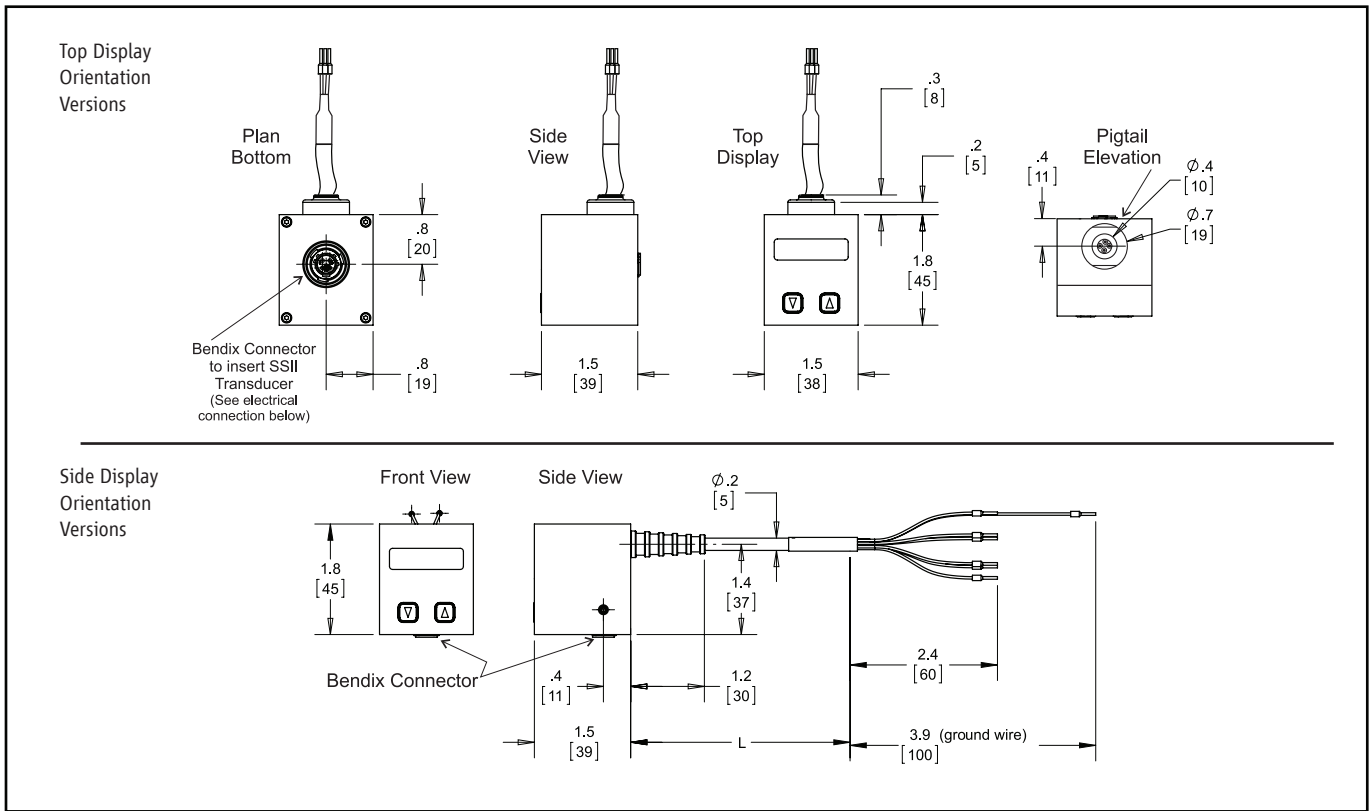
**BROOKS**<sup>®</sup>  
INSTRUMENT

*Beyond Measure*

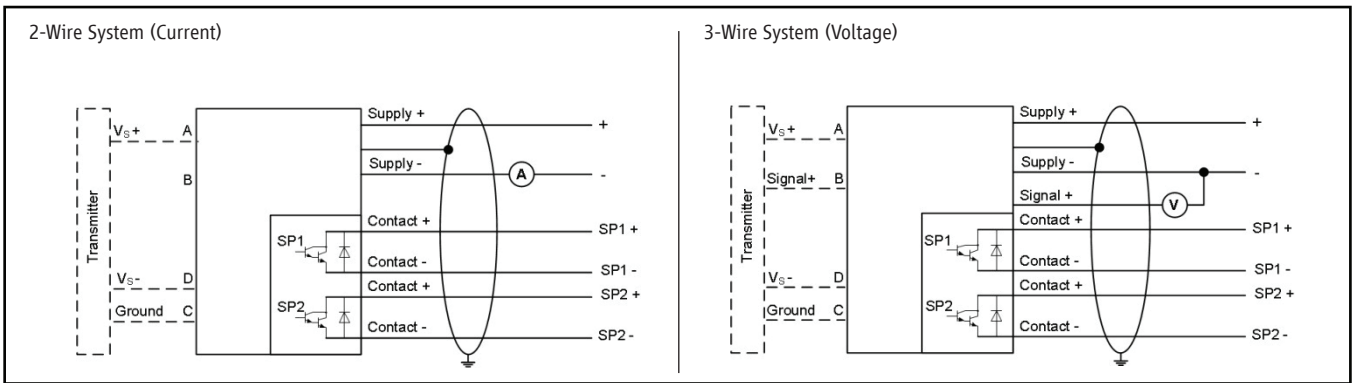
<b>Analog Signal</b>		LR056
2-Wire System		4 - 20 mA
3-Wire System		0.05 - 5.05 V
<b>Supply</b>		
2-Wire System	Supplied by current loop; voltage drop $\leq 6$ V; $V_S = (V_{T\min} \dots V_{T\max}) + 6V_{DC}$ with $V_T =$ supply of the used transmitter	
3-Wire System	Display is supplied parallel with transmitter $V_{S\min} = 12 V_{DC} \dots V_{T\min}$ ; $V_{S\max} = V_{T\max} \dots 30 V_{DC}$ with $V_T =$ supply of the used transmitter	
<b>Contact</b>		
Number, Type	Two independent optocoupler outputs	
Max. Switching Type	$I_{\max} = 50$ mA ( $R_{\min} = 450 \Omega @ 24 V_{DC}$ ) resistive load	
Max. Switching Performance	$P_{\max} = 200$ mW	
Repeatability	$\leq \pm 0.1\%$ FSO	
Switching Frequency	Max. 5 Hz	
Switching Cycles	$> 100 \times 10^6$	
Delay Time	0 - 100 sec	
<b>Electrical Protection</b>		
Short-circuit Protection	Permanent	
Reverse Polarity Protection	No damage, but also no function	
Electromagnetic Compatibility	Emission and immunity according to EN 61326	
<b>Mechanical Stability</b>		
Vibration	10 g RMS (20 - 2000 Hz)	
Shock	100 g/11 msec	
<b>Materials</b>		
Display Housing	Aluminum, black anodized	
<b>Display</b>		
Type	4-digit, red LED display, digit height 7 mm, digit width 4.85 mm (angle $10^\circ$ )	
Range	-1999 to +9999 (Automatic indication of minus for negative values)	
Accuracy	0.1% $\pm$ 1 digit	
Temperature and Coefficient	0.01% FS/ $^\circ$ C	
Digital Damping	0.4 - 30 sec (programmable)	
Measured Value Update	0.2 - 10 sec (programmable)	
<b>Miscellaneous</b>		
Permissible Temperature	Electronics: Environment: -25 - 85 $^\circ$ C (-13 - 185 $^\circ$ F); Storage: -40 - 85 $^\circ$ C (-40 - 185 $^\circ$ F)	
Cable Length	Standard: 2 m	

**Compliance:**

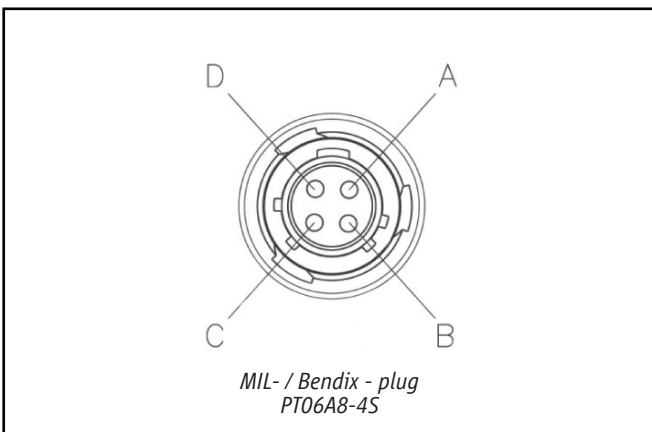
CE: Compliant to EMC Directive EN61326  
 RoHS: Compliant to RoHS Regulations



## Wiring Diagrams



## Electrical Connections



## Pin Configurations

### Sensor-Sided Input: MIL-/Bendix Connection (4-Pin)

Supply +	A
Supply -	D
Signal + (for 3-wire)	B
Ground	C

### Cable-Sided Output: 6-Wire Cable (2-wire system), 7-wire cable (3-wire system), top mounted (cable colors DIN 47100)

Supply +	Red
Supply -	Black
Signal + (for 3-wire)	Green
SP 1 +	Blue
SP 2 +	Yellow
SP 1 -	White
SP 2 -	Brown
Ground	Yellow/Green (shield)

# Service and Support

Brooks is committed to assuring all of our customers receive the ideal flow solution for their application, along with outstanding service and support to back it up. We operate first class repair facilities located around the world to provide rapid response and support. Each location utilizes primary standard calibration equipment to ensure accuracy and reliability for repairs and recalibration and is certified by our local Weights and Measures Authorities and traceable to the relevant International Standards.

Visit [www.BrooksInstrument.com](http://www.BrooksInstrument.com) to locate the service location nearest to you.

### START-UP SERVICE AND IN-SITU CALIBRATION

Brooks Instrument can provide start-up service prior to operation when required. For some process applications, where ISO-9001 Quality Certification is important, it is mandatory to verify and/or (re)calibrate the products periodically. In many cases this service can be provided under in-situ conditions, and the results will be traceable to the relevant international quality standards.

### CUSTOMER SEMINARS AND TRAINING

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*Please contact your nearest sales representative for more details.*

Due to Brooks Instrument’s commitment to continuous improvement of our products, all specifications are subject to change without notice.

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