

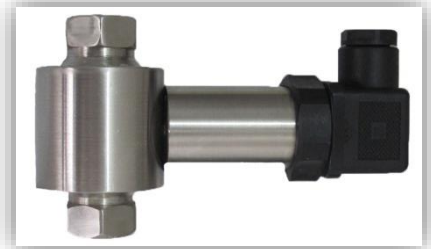
# MRD21

## Differential Piezo-Resistive Pressure Transmitter

**MeasureX**

### Features

- High Measuring Accuracy
- Differential Pressure Measurement Range of 0.1 to 35bar
- Compact and Rugged Model
- Wide Range of Media Compatibility
- Low Static and Thermal Errors



### Description

MRD21 series with SS316L diaphragm is a rugged silicon MEMS technology based differential pressure transmitter suitable for harsh environments. This compact differential pressure transmitter offers great flexibility and reliability for a wide range of applications with highly competitive pricing.

MRD21 is available in pressure ranges from 0.1 to 35bar with an output of mA or V. It is suitable for pressure measurement of gases & liquids compatible with SS316L. While the standard Precision is 0.5% FS, you can optionally get a precision of 0.25% FS and 0.1% FS. It finds applications in hydraulic and pneumatic systems among many others.

The robust construction of MRD21 with its high performance makes it ideal for demanding long term applications.

### Applications

- Hydraulic systems
- Pump controls
- Pneumatic systems
- Manufacturing process controls
- Fire control systems
- Manufacturing automation
- Hydrology research
- Hydro balancing systems

### Technical Specifications

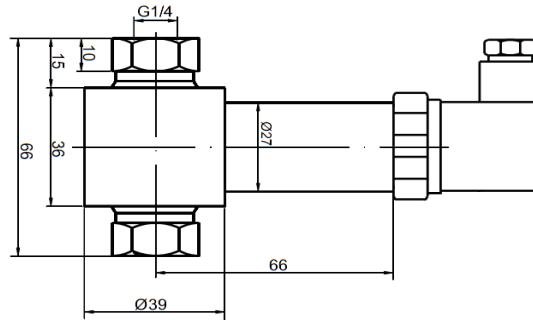
- **Pressure media:** gas or liquid compatible with SS316L
- **Ranges:** 0.1...35bar
- **System Pressure:** 1000% FS (Max. 200bar)
- **Overpressure rating:** 200% FS (for positive pressure side) and 100% FS (for negative pressure side). For the range >10bar, the maximum overload of the negative side is 10bar.
- **Supply voltage:** 12VDC ~ 36VDC
- **Output signals:** 4/20mA, 0/5V, 0/10V, 1/5V, 0/2.5V (with 3~20VDC supply)
- **Precision:** 0.5% FS (standard), 0.25% FS, 0.1% FS (range >1 bar); combined LRH errors
- **System Pressure Effect:** 0.05% FS/bar
- **Protection Level:** IP65 with DIN connection; IP67 and IP68 (option) with cable connection
- **Compensated temp range:** 0~+70°C
- **Operating temp range:** -20~+80°C
- **Long term stability:** <0.2% FS/year
- **Temp. coefficient of zero:** 0.03% FS /°C
- **Temp. coefficient of span:** 0.03% FS /°C
- **Insulation resistance:** 100MΩ @ 50VDC
- **Electrical connection:** DIN43650 and others
- **Process connection:** G1/4 or others
- **Case material:** SS321
- **Diaphragm material:** SS316L
- **Sealing:** n-Butyronitrile or fluoro-rubber sealing ring

# MRD21

## Differential Piezo-Resistive Pressure Transmitter

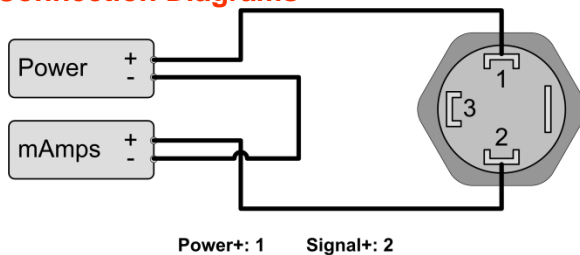
**MeasureX**

### Dimensions



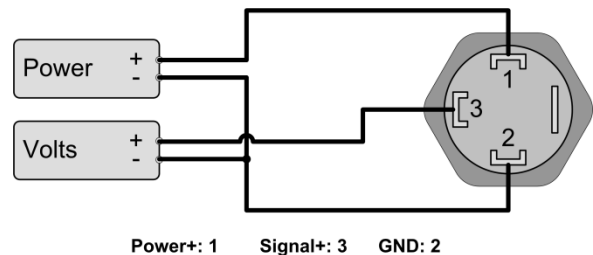
MRD21 with G1/4" fwmale ports and DIN connector

### Connection Diagrams

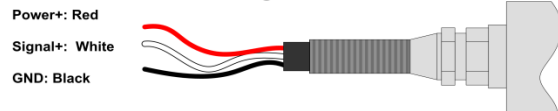


Power+: 1 Signal+: 2

4/20mA, 2-wire loop powered



Power+: 1 Signal+: 3 GND: 2



Voltage, 3-wire

### Ordering Code

<b>MRD21</b>						
<b>Range</b>	0.1, 0.2, 0.5, 1.0, 2.5, 5.0, 10, 20, 35 bar or other ranges in bar or psi					
	<b>Precision ±</b>					
	0.5% FS	0.25% FS	0.1% FS			
	<b>Output Signal</b>					
	4/20mA (2 wire loop-powered)			1/5V volts		
	0/5V volts	0/2.5V	0/10V volts			
	<b>Pressure Port (P1 and P2)</b>					
	G1/4(1/4" BSPP male)		M20(x1.25 male)			
	R1/4(1/4" BSPT male)		NPT1/4(1/4" NPT male)			
	and others					
	<b>Electrical Connection</b>					
	DIN 43650 connector					
	3m Cable	3m IP68 Cable				
	and others					
	<b>Display</b>					
	No display					
	3½ digit LCD <sup>(1)</sup>					
	3½ digit LED <sup>(1)</sup>					
<b>MRD21</b>	<b>10 bar</b>	<b>0.5%</b>	<b>4/20mA</b>	<b>G1/4</b>	<b>DIN</b>	<b>No</b>

### Notes:

(1): Available only with 4/20mA output and DIN 43650 connector  
All specifications are subject to change without prior notice

Ver. 5.3-18/08