

MRD23

OEM Differential Pressure Sensor

MeasureX

Features

- High Measuring Accuracy
- Differential Pressure Measurement Range of 0.35 to 35bar
- Compact and Rugged Model
- Wide Range of Media Compatibility
- Low Static and Thermal Errors



Description

MRD23 series with SS316L diaphragm is a rugged Piezo-resistive silicon technology based differential pressure sensor suitable for OEM applications and harsh environments. This compact differential pressure sensor offers great flexibility and reliability for a wide range of applications with highly competitive pricing.

MRD23 is available in pressure ranges from 0.35 to 35bar with an output of mV/V. It is suitable for pressure measurement of gases and liquids compatible with SS316L. While the standard precision is 0.5% FS, you can optionally get a precision of 0.25% FS. It finds applications in hydraulic and pneumatic systems among many others.

The robust construction of MRD23 with its high performance makes it ideal for demanding long term applications.

Applications

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

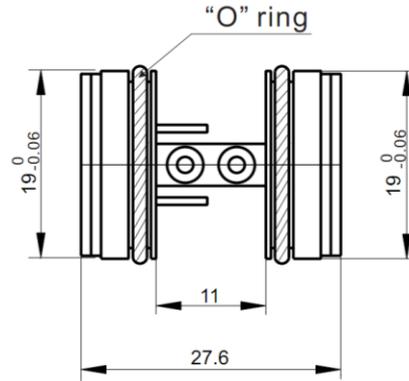
Technical Specifications

- **Pressure media:** gas or liquid compatible with SS316L
- **Ranges:** 0.35...35bar
- **System Pressure:** Max. 1000% FS or 100bar
- **Overpressure rating:** 250% FS (for positive pressure side) and 100% FS (for negative pressure side).
- **Excitation:** 1.5mA
- **Output signals:** >70mV
- **Precision:** 0.5% FS (standard), 0.25% FS; combined LRH errors
- **Zero offset:** $\leq \pm 3\text{mV}$
- **System Pressure Effect:** 0.05 mV/bar
- **Life time cycle:** 10^8 Cycles
- **Compensated temp range:** 0~+70°C
- **Operating temp range:** -20~+80°C
- **Long term stability:** <0.2% FS/year
- **Temp. coefficient of zero:** 0.02% FS /°C
- **Temp. coefficient of span:** 0.03% FS /°C
- **Input / output resistance:** 2-6 kΩ
- **Insulation resistance:** 100MΩ @ 50VDC
- **Electrical connection:** 4-wire cable
- **Filled oil:** silicon oil
- **Case material:** SS316L
- **Diaphragm material:** SS316L
- **Sealing:** fluorine rubber sealing ring

MRD23

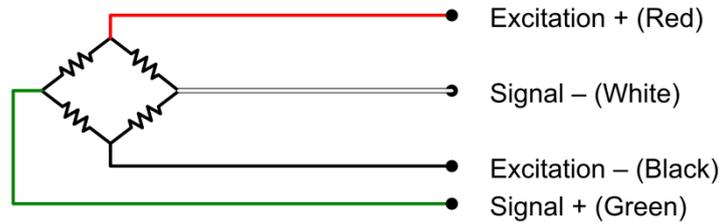
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Dimensions



MRD23 dimensional drawing

Connection Diagrams



Ordering Code

MRD23			
	Range	0.35, 1.0, 2.5, 4.0, 6.0, 10, 16, 25, 35 bar or other ranges in bar or psi	
		Precision ±	
		0.5% FS	0.25% FS
			Output Signal
			70 mV/V
MRD23	10 bar	0.5%	mV/V

Note: All specifications are subject to change without prior notice