

MRI21

High Frequency Pressure Transducer

MeasureX

Features

- Frequency Response up to 1MHz
- High Measuring Accuracy
- Pressure Measurement Range of 0.1 to 1000bar
- Low Static and Thermal Errors
- Compact and Rugged Model
- Wide Range of Media Compatibility



Description

MRI21 series with embedded amplifying circuit is a rugged MEMS technology based pressure transducer suitable for dynamic measurement condition. This compact pressure transmitter offers great flexibility and reliability for a wide range of applications with highly competitive pricing.

MRI21 is available in pressure ranges from 0.1 to 1000bar with voltage output. It is suitable for pressure measurement of gases & liquids compatible with stainless steel. While the standard Precision is 0.5% FS, you can optionally get a precision of 0.25% FS.

The robust construction of MRI21 with its high performance makes it ideal for demanding long term applications.

Applications

- Production machinery
- Oil and gas industry
- Machine tool control
- Air conditioning
- Compressed air line
- Aerospace and military industries
- Open cut mining
- Construction engineering
- Data logging
- Hydraulic equipment

Technical Specifications

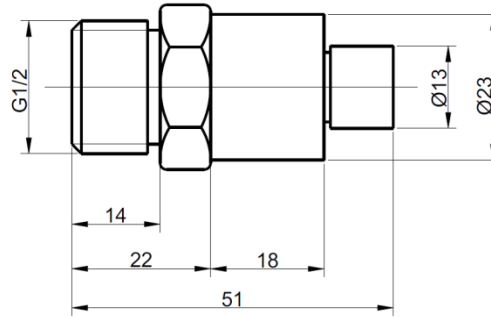
- **Pressure media:** all fluids compatible with stainless steel SS321
- **Ranges:** 0.1 to 1000bar
- **Pressure references:** Gauge, Sealed Gauge
- **Overpressure rating:** 200% FS
- **Excitation:** 9VDC or 1.5mA
- **Output signals:** 80±20mV
- **Precision:** 0.5% FS (standard), 0.25% FS, combined LRH error
- **Long term stability:** <0.2% FS/year
- **Dynamic frequency response:** 1MHz max.
- **Zero offset:** ≤ ±2mV
- **Compensated temp. range:** 0 to 70°C
- **Operating temp. range:** - 10 to +80°C
- **Temp. coefficient of zero:** 0.03% FS /°C
- **Temp. coefficient of span:** 0.03% FS /°C
- **Insulation resistance:** 100MΩ @ 50VDC
- **Input / output resistance:** 1-6kΩ
- **Process connection:** M20x1.5 or others
- **Electrical connection:** Self-locking connector or others
- **Case materials:** SS321
- **Diaphragm materials:** Silicon
- **Sealing:** Epoxy adhesive sealing

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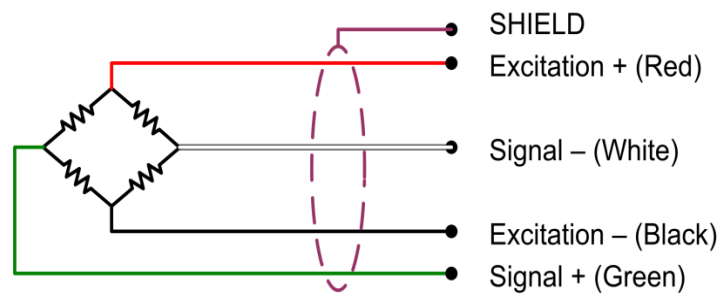
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Dimensions



MRI21 with G1/2 port

Connection Diagrams



Ordering Code

MRI21						
Range	0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 400, 600, 800, 1000 bar or other ranges in bar or psi					
Pressure Reference						
	VG (vented gauge)			SG (sealed gauge)		
Precision ±⁽¹⁾						
	0.5% FS			0.25% FS		
Excitation						
	Voltage Excitation			Current Excitation		
Pressure Port						
	M20x1.5		G1/2(1/2" BSP male)			
	1/2"NPT		and others			
Electrical Connection						
	DIN 43650 connector					
	3m Cable		3m IP68 Cable ⁽²⁾			
	and others					
MRI21	200bar	SG	0.5%	Voltage	G1/2	DIN

Notes:

(1): Sensors with range of higher than 200bar are available in only accuracy of 0.5% FS.

(2): IP68 cable is available for sealed gauge reference.

All specifications are subject to change without prior notice

Ver. 5.33-17/04