

# MRB28

## General Purpose Piezo-resistive Digital Pressure Transmitter

**MeasureX**

### Features

- High Measuring Accuracy
- Digital output (HART or MODBUS protocols)
- Pressure Measurement Range of -1 to 1000bar
- Compact and Rugged Model
- Wide Range of Media Compatibility
- Low Static and Thermal Errors
- Reverse Polarity and Transient Current Protected



### Description

MRB28 series with SS316L diaphragm is a rugged silicon Piezo-resistive technology based pressure transmitter suitable for harsh environments. This compact pressure transmitter offers great flexibility and reliability for a wide range of applications with highly competitive pricing. MRB28 is available in pressure ranges from -1 to 0bar and 0 to 1000bar with an output signal of 4-20mA and with MODBUS/HART digital output. It is suitable for pressure measurement of liquids compatible with stainless steel. While the standard Precision is 0.5% FS, you can optionally get a precision of 0.25% FS and 0.1% FS. The robust construction with its high performance makes it ideal for demanding long term applications.

### Applications

- Research activities
- Production machinery
- Data logging
- Machine tool control
- Air conditioning
- Agricultural equipment
- Open cut mining
- Hydrostatic level control
- Hydraulic pumps
- Compressed air line

### Technical Specifications

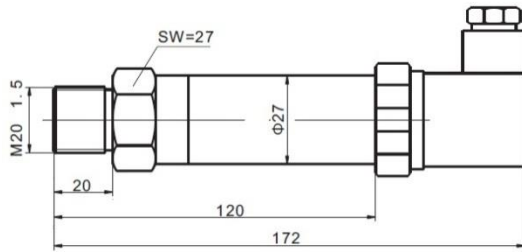
- **Pressure media:** all fluids compatible with Stainless Steel
- **Ranges:** -1 to 0, 0 to 1000bar
- **Pressure references:** Vented Gauge, Absolute, Sealed Gauge
- **Overpressure rating:** 150% FS
- **Supply voltage:** 12 to 36 VDC
- **Analogue output signal:** 4-20mA
- **Digital output signal:** MODBUS protocol (RS485 interface), HART protocol
- **Precision:** 0.5% FS (standard), 0.25% FS, 0.1% FS, combined LRH error
- **Long term stability:** <0.1% FS/year
- **Compensated temp. range:** 0 to 70°C
- **Operating temp. range:** -30 to +80°C
- **Temp. coefficient of zero:** 0.02% FS /°C
- **Temp. coefficient of span:** 0.02% FS /°C
- **Insulation resistance:** 100MΩ @ 50VDC
- **Process connection:** G1/4 or others
- **Electrical connection:** DIN43650 and others
- **Case materials:** SS321
- **Diaphragm materials:** SS316L
- **Protection Level:** IP68 with cable connection
- **Sealing:** Nitrile or fluoro-rubber sealing ring

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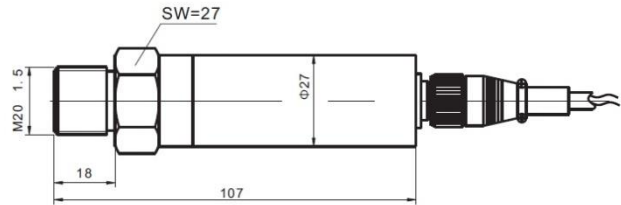
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### Dimensions

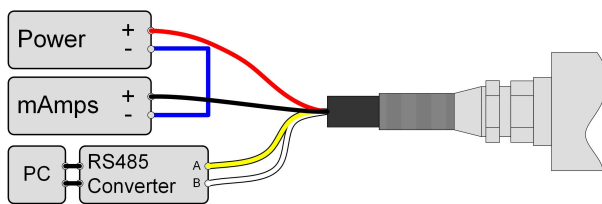


MRB28 with M20x1.5 port and DIN connector



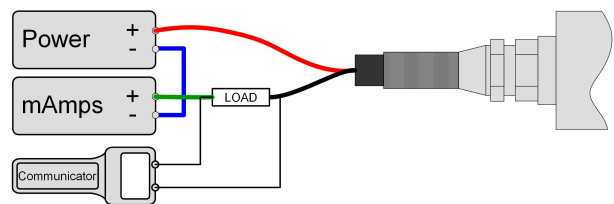
MRB28 with M20x1.5 port and cable connection

### Connection Diagrams



Power+: Red Signal+: Black RS485A: Yellow RS485B: White  
 (Note: If Analogue Output is not required, replace the mA meter with a load)

Electrical connection for MODBUS interface



Power+: Red Signal+: Black

Electrical connection for HART interface

### Ordering Code

<b>MRB28</b>						
<b>Range</b>	[-1/0]; [-1/+1]; [-0.5/+1]; 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					
	<b>Pressure Reference</b>					
	<b>VG</b> (vented gauge)	<b>SG</b> (sealed gauge)	<b>Abs</b> (absolute)			
	<b>Precision ±</b>					
	<b>0.5% FS</b>	<b>0.25% FS</b>	<b>0.1% FS</b>			
	<b>Output Signal</b>					
	<b>MODBUS</b> protocol (RS485 interface)					
	<b>HART</b> protocol					
	<b>Pressure Port</b>					
	<b>G1/4</b> (1/4" BSP male)	<b>M20x1.5</b>				
	<b>NPT1/4</b> (1/4" NPT male)	<b>and others</b>				
	<b>Electrical Connection</b>					
	<b>DIN 43650</b> connector					
	<b>3m</b> Cable					
	<b>3m IP68</b> Cable					
<b>MRB28</b>	<b>20bar</b>	<b>VG</b>	<b>0.5%</b>	<b>MODBUS</b>	<b>G1/4</b>	<b>3m</b>

**Note:** Sensors with range of up to 1bar are available in accuracy of 0.5% FS only.

**Note:** All specifications are subject to change without prior notice

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