

MRF21

Flush Diaphragm Piezo-Resistive Pressure Transmitter

MeasureX

Features

- Flush Diaphragm Model
- Sanitary Fitting Available
- High Measuring Accuracy
- Pressure Measurement Range of -1 to 350bar
- Wide Range of Media Compatibility
- Low Static and Thermal Errors
- Reverse polarity and transient current protected



Description

MRF21 series with SS316L flush membrane is a Piezo-resistive silicon technology based pressure transmitter. This compact pressure transmitter offers great flexibility and reliability for a wide range of applications in many industries such as food, beverage and pharmaceutical with competitive price.

MRF21 is available in pressure ranges from -1 to 350bar 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.

The robust construction of MRF21 with its high performance makes it ideal for demanding long term applications.

Applications

- Food industry
- Beverage machineries
- Data logging
- Pharmaceutical applications
- Agricultural equipment
- Industrial process control
- Compressed air line

Technical Specifications

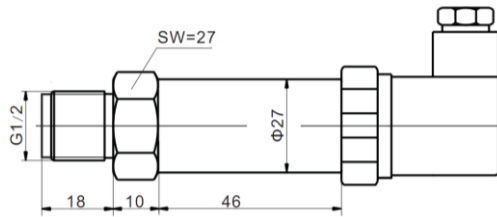
- Pressure media:** all fluids compatible with SS316L
- Ranges:** -1 to 350bar
- Pressure references:** Gauge, Sealed Gauge, Absolute
- Overpressure rating:** 150% FS
- Supply voltage:** 12 to 36 VDC
- Output signals:** 4/20mA, 0/5V, 0/10V, 1/5V
- Precision:** 0.5% FS (standard), 0.25% FS, combined LRH error
- Long term stability:** <0.2% FS/year
- Protection Level:** IP65 with DIN connection; IP67 and IP68 (option) with cable connection
- Compensated temp. range:** 0 to 70°C
- Operating temp. range:** - 30 to +85°C
- Temp. coefficient of zero:** 0.03% FS /°C
- Temp. coefficient of span:** 0.03% FS /°C
- Insulation resistance:** 100MΩ @ 50VDC
- Process connection:** G1/2 and others
- Electrical connection:** DIN43650 and others
- Case materials:** SS316L or Aluminium alloy
- Diaphragm materials:** SS316L

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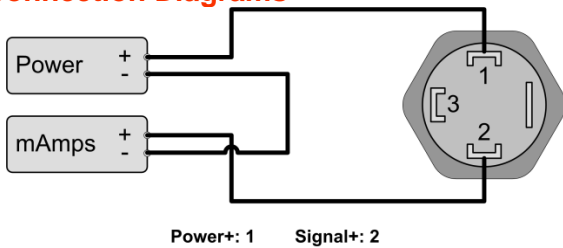
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Dimensions



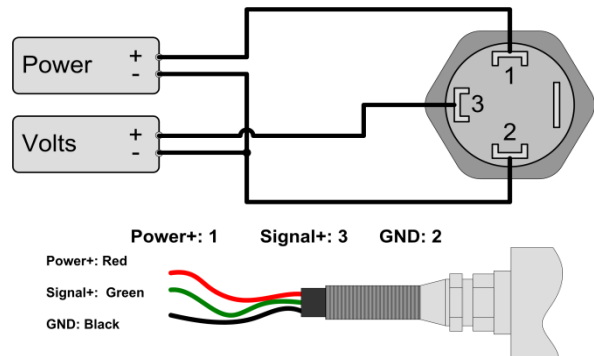
MRF21 with G1/2" port and DIN connector

Connection Diagrams



Power+: 1 Signal+: 2

4/20mA, 2 wire loop powered



Power+: 1 Signal+: 3 GND: 2

Voltage, 3-wire

Ordering Code

| | | | | | | | |
|------------------------------|---|------------------------------|---------------------------|------------|------|-----|--|
| MRF21 | | | | | | | |
| Range | [-1/0]; [-1/+1]; [-0.5/+1]; 1, 2, 5, 10, 20, 50, 100, 200, 350bar or other ranges in bar or psi | | | | | | |
| Pressure Reference | | | | | | | |
| | VG (vented gauge) | SG (sealed gauge) | Abs (absolute) | | | | |
| Precision ± | | | | | | | |
| | 0.5% FS | | | 0.25% FS | | | |
| Output Signal | | | | | | | |
| | 4/20mA (2 wire loop-powered) | | | 0/5V volts | | | |
| | 0/10V volts | | | 1/5V volts | | | |
| Pressure Port | | | | | | | |
| | G1/2(1/2" BSPP male) | | NPT1/2(1/2" NPT male) | | | | |
| | R1/2(1/2" BSPT male) | | and others ⁽¹⁾ | | | | |
| Electrical Connection | | | | | | | |
| | DIN 43650 connector | | | | | | |
| | 3m Cable | 3m IP68 Cable ⁽²⁾ | | | | | |
| | and others | | | | | | |
| Display | | | | | | | |
| | No display | | | | | | |
| | 3 1/2 digit LCD ⁽³⁾ | | | | | | |
| | 3 1/2 digit LED ⁽³⁾ | | | | | | |
| MRF21 | 20bar | SG | 0.5% | 4/20mA | G1/2 | DIN | |

Notes:

- (1): Pressure port of 1/4" is not available for this sensor.
 - (2): IP68 cable is available for sealed gauge reference.
 - (3): Available only with 4/20mA output and DIN 43650 connector
- All specifications are subject to change without prior notice

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