MRQ22

Pressure Temperature Transmitter

MeasureX

Features

- High Temperature Media (-40°C up to 125°C)
- Pressure Measurement range of -1 to 1000bar
- Separate Output for Pressure and Temperature
- Compact and Rugged Model
- Wide Range of Media Compatibility
- Low Static and Thermal Errors
- Reverse polarity and transient current protected

Description

MRQ22 series with SS316L diaphragm is a rugged piezoresisitive technology based integrated pressure-temperature transmitter suitable for high temperature media. This compact pressure transmitter offers great flexibility and reliability for a wide range of applications with highly competitive pricing.

MRQ22 is available in pressure ranges from -1 to 1000bar with an output of mA or V and temperature range of -40°C up to 125°C. It is suitable for concurrent pressure and temperature measurement of gases & liquids compatible with stainless steel. While the standard precision is 1% FS, you can optionally get a precision of 0.5% FS or 0.25% FS. The robust construction of MRQ22 with its high performance makes it ideal for demanding long term applications.

Applications

- Petro-chemical industries
- Chemical industries
- Food industries
- Aerospace industries
- Research applications
- Power plants

Technical Specifications

- **Pressure media:** all fluids compatible with Stainless Steel
- **Pressure ranges:** -1 to 1000bar
- **Temperature range:** -40°C to 125°C
- **Pressure references:** Gauge, Sealed Gauge, Absolute
- **Overpressure rating:** 150% FS
- **Temperature limit:** 120% FS
- **Supply voltage:** 15 to 30 VDC
- **Precision:** 1% FS (standard), 0.5% FS, 0.25% FS, combined LRH error
- **Long term stability:** <0.15% FS/year
- **Protection Level:** IP65 with DIN connection; IP67 and IP68 (option) with cable connection
- **Response time:** < 1ms
- **Compensated temp. range:** 0 to 70°C
- **Operating temp. range:** -40 to +125°C
- **Temp. coefficient of zero:** 0.025% FS /°C
- **Temp. coefficient of span:** 0.025% FS /°C
- **Circuit temperature shift:** < ±0.015% FS / °C
- **Insulation resistance:** 100MΩ @ 50VDC
- **Load resistance:** ≥500Ω @ 24V supply
- **Process connection:** G1/2 or others
- **Electrical connection:** DIN, cable connector or others
- **Pressure output signal:** 4/20mA, 1/5V, 0/5V
- **Temperature output signal:** 4/20mA, 1/5V, 0/5V
- **Case materials:** SS321
- **Diaphragm materials:** SS316L
- **Sealing:** High temperature sealing O-ring (or welded sealing)

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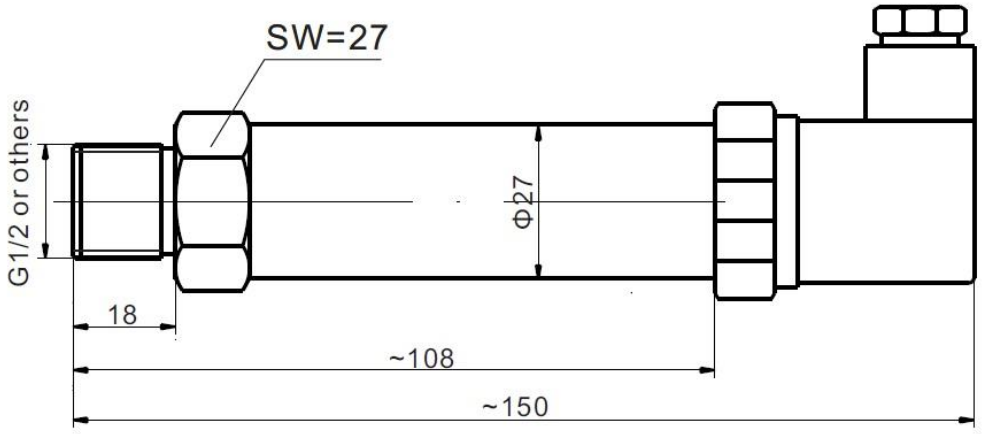
Dimensions



MRQ22 with G1/2 port and DIN connector

Connection Diagrams

DIN connection:

- **Power +:** Pin No. 1
- **Ground:** Pin ⏚
- **Pressure Signal +:** Pin No. 2
- **Temperature Signal +:** Pin No. 3

Cable connection

- **Power +:** Red
- **Ground:** Black
- **Pressure Signal +:** Blue
- **Temperature Signal +:** White

Ordering Code

MRQ22						
	Range	**-1/0, 10,25, 50, 100, 200, 400, 800, 1000 bar or other ranges in bar or psi**				
		Pressure Reference				
		VG (vented gauge)	**SG** (sealed gauge)	**Abs** (absolute)		
			Precision ±			
			1% FS	**0.5%** FS	**0.25%** FS	
				Output Signal		
				4/20mA (2 wire loop-powered)	**0/5V** volts	**1/5V** volts
					Pressure Port	
					M20×1.5	**G1/2**(½" BSPP male)
					R1/4(¼" BSPT male)	**NPT1/4**(¼" NPT male)
					and **others**	
						Electrical Connection
						DIN 43650 connector
						3m Cable and **others**
MRQ22	**200bar**	**SG**	**0.5%**	**4/20mA**	**G1/4**	**DIN**

Note:

All specifications are subject to change without prior notice

Ver. 5.3-17/05

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