



bar **MPM480GH**

FEATURES

- Inner sensor diaphragm is gold plated (MPM280Au), fully welded inner sensor assembly structure, effectively prevent hydrogen penetration
- Support reversed-polarity, overcurrent and overvoltage protection, conforming to EMI protection requirements
- Multiple output signals available
- Intrinsic safety type circuit, or use in hazardous areas
- High accuracy, up to $\leq \pm 0.25\%FS$

APPLICATIONS

- Hydrogen production system
- Hydrogen storage system
- Fuel cell



MICROSENSOR

AUTHORIZED DISTRIBUTOR



MPM480GH is a pressure transmitter designed for gas industrial applications. It contains a piezoresistive sensor (gold plated) of excellent stability and reliability, a standardized output signal circuit and the high-strength stainless steel housing. The inner sensor diaphragm is processed with gold plating, capable for use in hydrogen environment.

Its fully welded inner sensor assembly structure, wide temperature working capacity, and multiple cable materials options, making it an effective pressure measuring solution for the gas industry.

SPECIFICATIONS

Range	0mbar ~ 250mbar...70bar
Overpressure	≤ 1.5 times FS
Pressure Type	gauge, absolute, sealed gauge
Accuracy	see Accuracy Table
Long-term Stability	$\pm 0.2\%FS/year$
Compensated Temperature	-10°C ~ 60°C
Application Temperature	-30°C ~ 85°C (B1 type, B4 type)
	-20°C ~ 70°C (B2 type, cable material: PE, PVC)
	-20°C ~ 80°C (B2 type, cable material: PUR)
Storage Temperature	-30°C ~ 85°C (B1 type, B4 type)
	-20°C ~ 85°C (B2 type)
Vibration	20g, 20Hz ~ 2000Hz
Shock	20g, 11ms
Protection Rating	IP65

ACCURACY

Pressure Type	Range	Accuracy
Gauge (G)	0mbar ~250mbar < X ≤ 350mbar	±1% FS
	350mbar ≤ X ≤ 1bar	±0.5% FS
	1bar < X ≤ 70bar	±0.25% FS ±0.5% FS
Absolute (A)	0mbar ~ 700mbar < X ≤ 1bar	±1% FS
	1bar < X ≤ 10bar	±0.5% FS
	10bar < X ≤ 70bar	±0.25% FS
Sealed Gauge S	35bar < X ≤ 70bar	±0.25% FS
		±0.5% FS

Note: the accuracy is within the range of compensation temperature (- 10°C ~60 °C)

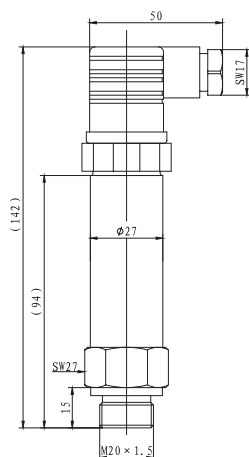
Test Standard: GB/T 17614.1-2015/IEC60770-1:2010;

OUTPUT SIGNALS

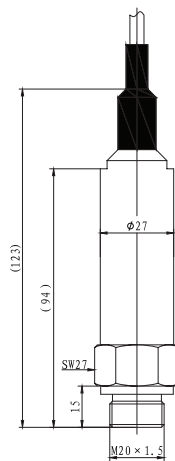
Output Signal	Power Supply	Output Format	Load Resistance	Insulation Resistance
4mA~20mA DC(E)	12V~28V DC	2-wire	≤(U-11)/0.02 (Ω)	100MΩ@500V DC
0V~10V DC(V)	15V~28V DC	3-wire	≥10kΩ	
0V~5V DC(J)				
1V~5V DC(F)				
0.5V~4.5V DC(K2)				
0.5V~4.5V DC(K1)	5V~10V DC			
0.5V~2.5V DC(W)	3.2V~5V DC			

OUTLINE DIMENSIONS (UNIT:mm)

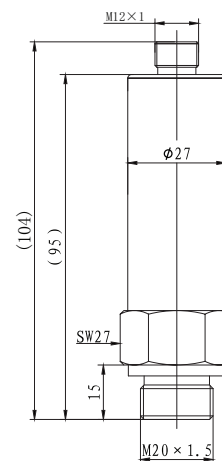
Hirschmann 4-pin Angular Connector (B1)



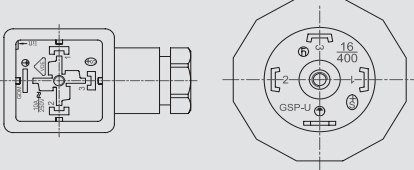
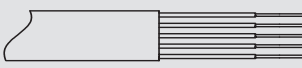
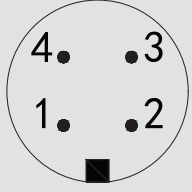
Cable (B2)



M12x1 4-pin Circular Connector (B4)

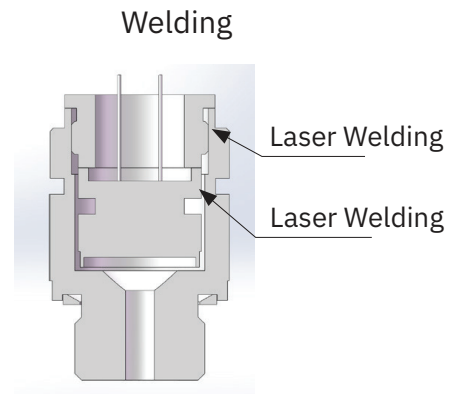


ELECTRICAL CONNECTION

Definition	Hirschmann 4-pin Angular Connector (B1)		Cable (B2)		M12 x 1 4-pin Circular Connector (B4)	
						
	Current 2-wire	Voltage 3-wire	Current 2-wire	Voltage 3-wire	Current 2-wire	Voltage 3-wire
+V	1	1	red	red	1	1
+OUT	2	3	black	black	3	3
GND	null	2	null	white	null	2

SENSOR STRUCTURE

SENSOR SEALING



MATERIALS

Wetted Parts

Isolated Diaphragm: SS 316L(gold plated)

Pressure Port: SS 304/SS 316L

Non-wetted Parts

Housing: SS 304/SS 316L

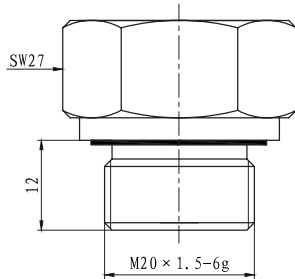
Cable wire: PE/PUR/PVC

Note: the first one of each structural part is default material.

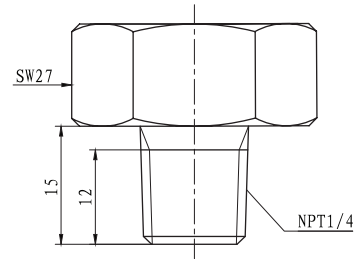
■ PROCESS CONNECTION

Process Connection Dimensions (Unit:mm)

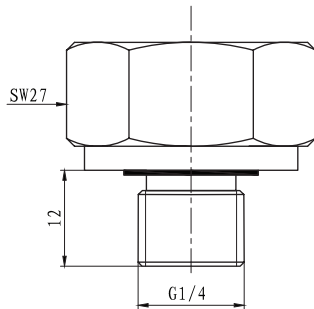
M20×1.5 male, end face seal (C1)



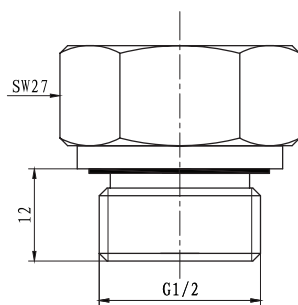
NPT1/4 male (C6)



G1/4 male, end face seal (C2)



G1/2 male, end face seal (C3)



M20×1.5 male, waterline seal (C5)

ORDER GUIDE

MPM480GH		Pressure Transmitter									
Range		Measurement Range: 0mbar ~ 250mbar...70bar									
[0 ~ X]mbarL or barL		X: actual measured range, L means cable length when electrical connection is B2									
		Code	Pressure Type								
		G	gauge								
		A	absolute								
		S	sealed gauge								
		Code	Accuracy ①								
		A1	±0.25%FS								
		A2	±0.5%FS								
		A3	±1%FS								
		Code	Electrical Connection ②								
		B1	4-pin Plug Connector								
		B2	cable Connection								
		B4	M12×1 4-pin Plug Connector								
		Code	Output Signals								
		E	4mA~20mA DC								
		F	1V~5V DC								
		J	0V~5V DC								
		V	0V~10V DC								
		K1	0.5V~4.5V DC(5V~10V DC Power)								
		K2	0.5V~4.5V DC(15V ~ 28V DC Power)								
		W	0.5V~2.5V DC(3.2V~5V DC Power)								
		Code	Sensor Sealing								
		O2	Welding								
		Code	Materials								
			Isolated Diaphragm	Pressure Port	Housing						
		22	SS 316L	SS 304	SS 304						
		24	SS 316L	SS 316L	SS 316L						
		Code	Process Connection								
		C1	M20×1.5 male, end face sealing								
		C2	G1/4 male, end face sealing								
		C3	G1/2 male, end face sealing								
		C6	NPT1/4 male								
		Code	Cable material (B2 usage)								
		Null									
		P1	PE								
		P2	PUR								
		P3	PVC								
		S	sealed gauge								
MPM4480GH	[0~ 16]bar	G	A2	B2	E	O2	22	C2	G	Complete Type Specification	

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■ **ORDERING NOTES**

1. "①", means accuracy, see "Accuracy" on page 2;
2. "②", means electrical connection, when electrical connection is B1 or B4, terminal mating will not be provided by default; please specify it in the order if needed;
3. If metrology verification certificate is needed or there are other requirements, please contact us and specify it in the order.