

Economical Pressure Transmitter for General Industries

MPM4841



Applications

- Mechanical manufacturing
- Petroleum and petrochemical industry
- Measurement and control technology
- Hydraulic pressure and pneumatic field
- Energy and water treatment

Features

- Multiple output signals available, meet different customers' needs
- Fast supply: modular design, professional supply platform
- Economic type
- CE, RoHS approved

Introduction

MPM4841 Pressure Transmitter uses a high-stability and high-reliability piezoresistive pressure sensing element and with a special conditioning circuit, it could output a standard current or voltage signal. It is compact in design, stable and reliable in overall performance, very suitable for general industries and has a very high cost performance. We can also provide products that meet the application requirements of our customers in a short time.

Specifications

Range	A Type: 0bar ~ 0.35bar...200bar
	B Type: 0bar ~ 250bar...600bar
Overpressure	≤2 times FS
Pressure Type	gauge, absolute, sealed gauge
Accuracy	see Accuracy on page 2
Long-term Stability	±0.3%FS/year
Operation Temperature	-30°C ~ 80°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	-40°C ~ 120°C
	-20°C ~ 85°C (B2 type)
Vibration	10g, 20Hz ~ 2000Hz
Shock	100g, 11ms
Housing Protection	IP65
Weight (A Type)	≤200g
Weight (B Type)	≤250g

Accuracy

Pressure Type	Range	Accuracy
Gauge (G)	0bar ~ 0.35bar ≤ X ≤ 1bar	±0.5%FS
	1bar < X ≤ 35bar	±0.25%FS
		±0.5%FS
	-1bar < X ≤ 2bar	±1%FS
-1bar < X < 2bar ~ 30bar	±0.5%FS	
Absolute (A)	0bar ~ 0.7bar < X ≤ 1bar	±1%FS
	1bar < X ≤ 10bar	±0.5%FS
	10bar < X ≤ 600bar	±0.25%FS
±0.5%FS		
Sealed gauge (S)	35bar < X ≤ 600bar	±0.25%FS
		±0.5%FS

Test standard: GB/T 17614.1-2015/IEC60770-1:2010

Environment temperature: 20°C ±5°C

Relative humidity: 45% ~ 75%

Output Signals

Output Signal	Power Supply	Output Format	Load Resistance
4mA~20mA DC(E)	8V~30V DC	2-wire	≤(U-8)/0.02 (Ω)
0V~10V DC(V)	12V~30V DC	3-wire	≥10kΩ
0V~5V DC(J)			
1V~5V DC(F)			
0.5V~4.5V DC(K)			

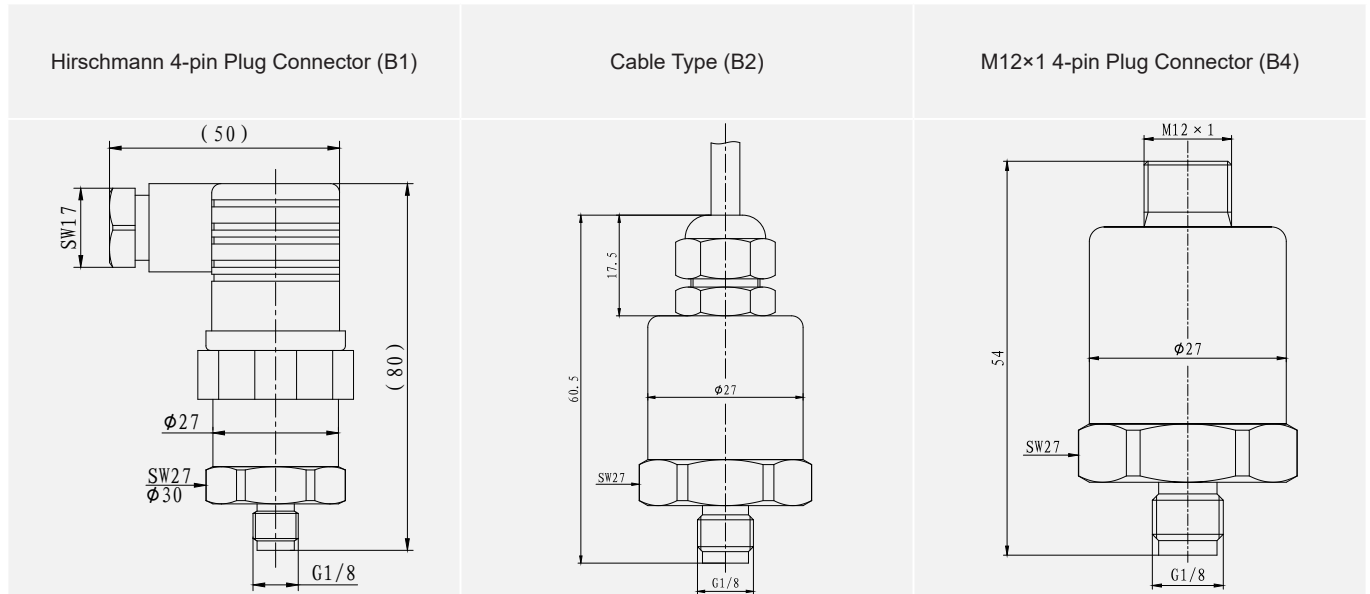
Electrical Connection

Definition	Hirschmann 4-pin Plug Connector (B1)		Cable (B2)		M12×1 4-pin Plug 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	white	3	3
GND	null	2	null	black	null	2

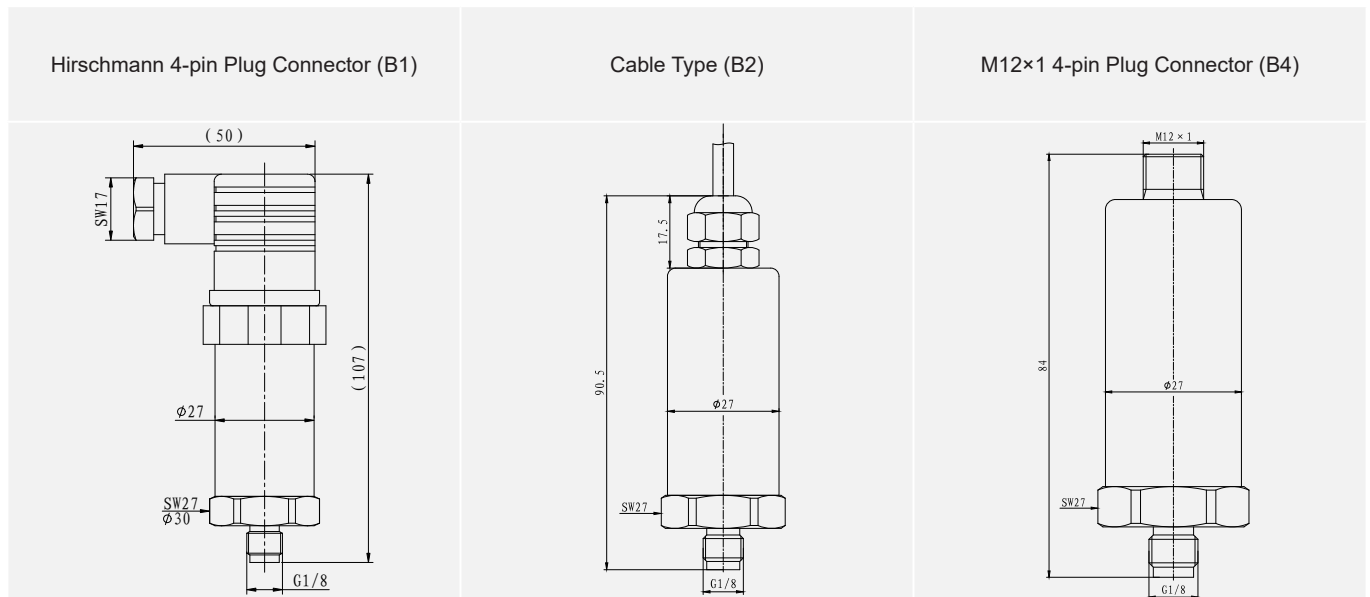
Outline Dimensions

unit: mm

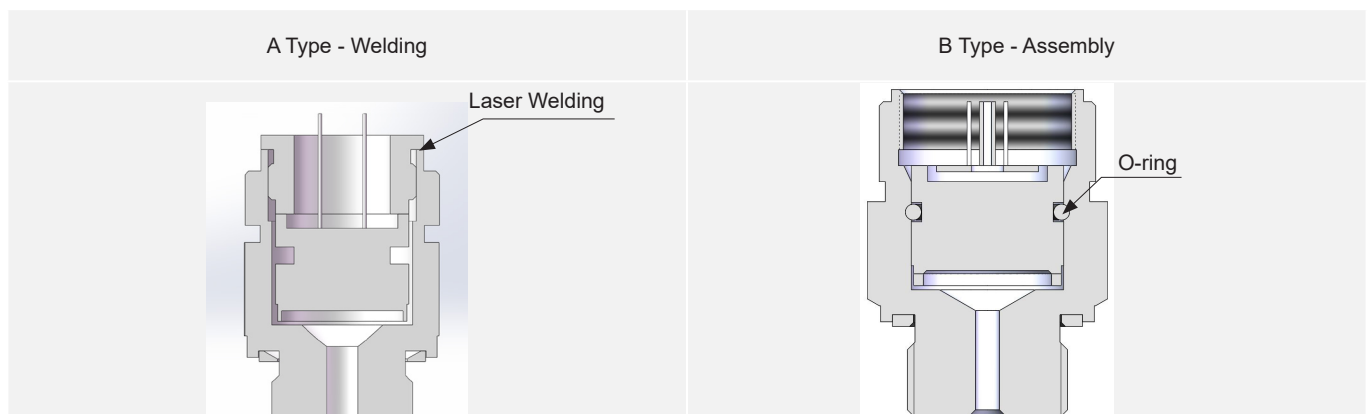
MPM4841A



MPM4841B



Sensor Sealing



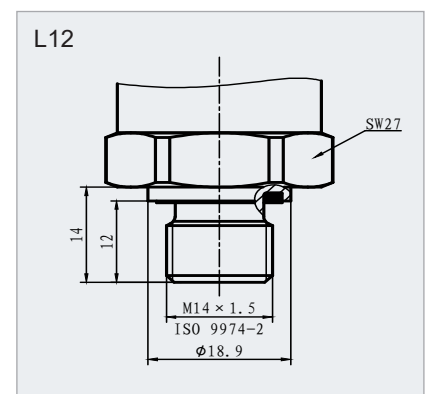
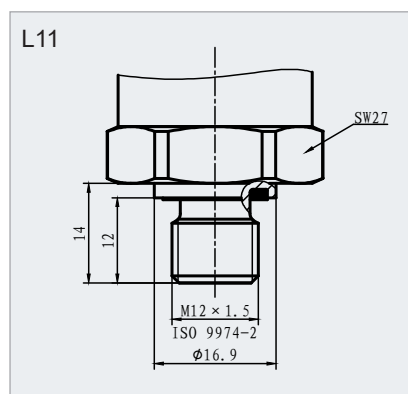
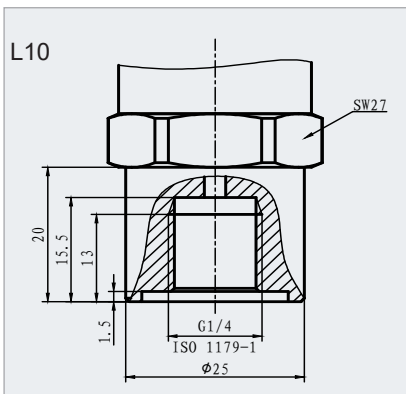
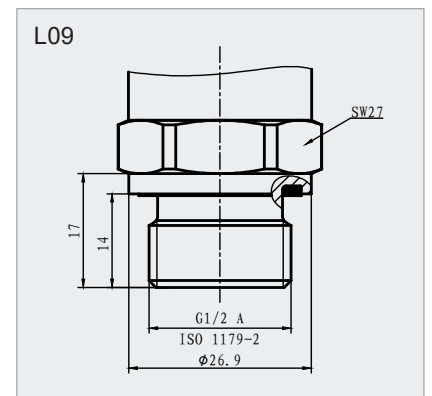
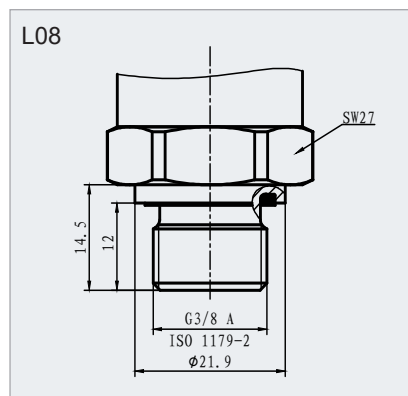
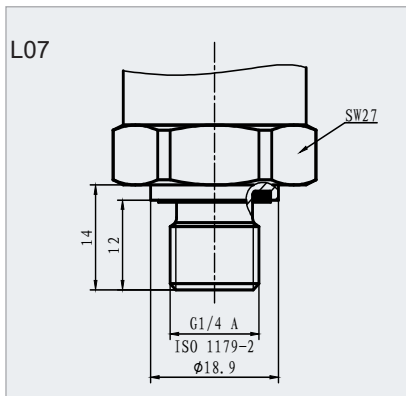
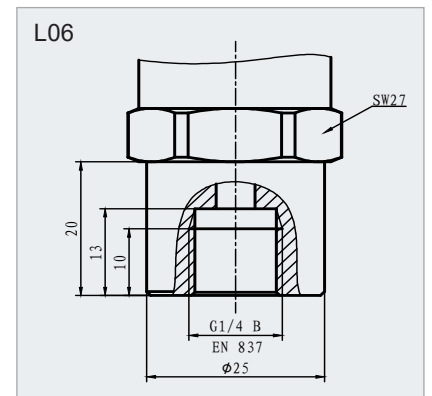
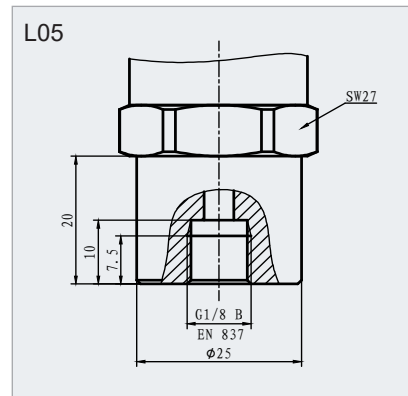
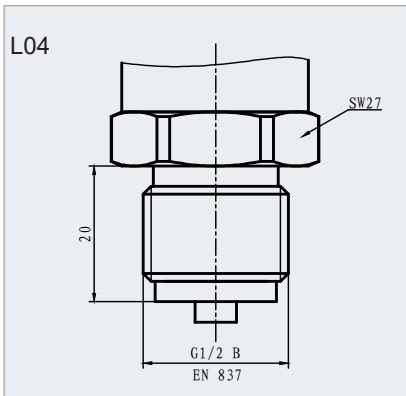
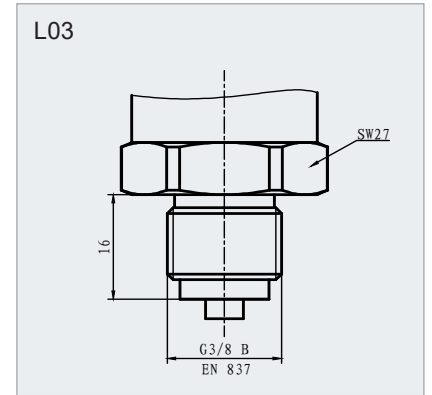
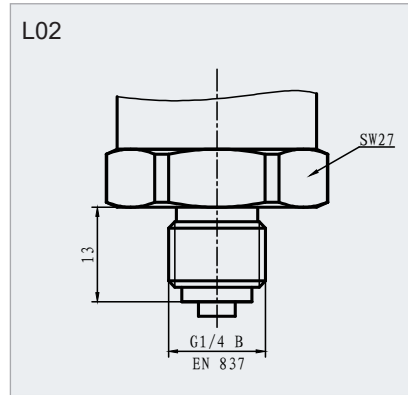
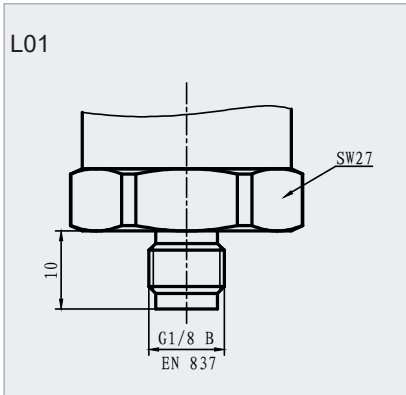
Process Connection

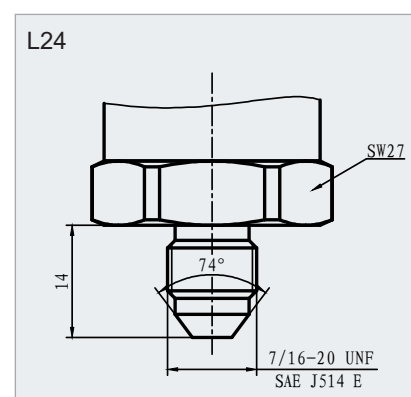
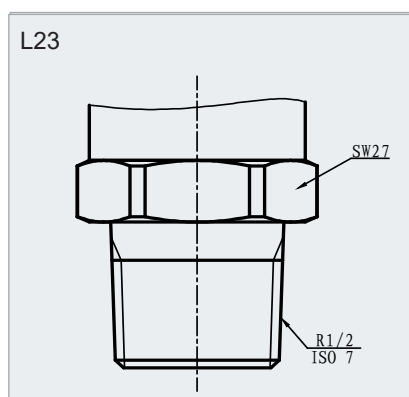
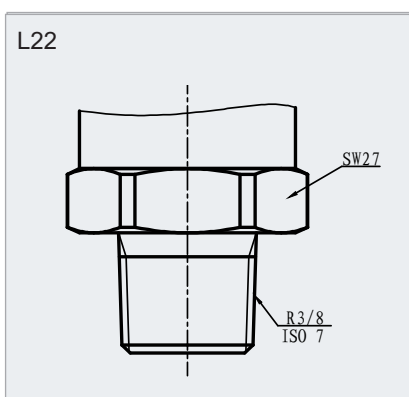
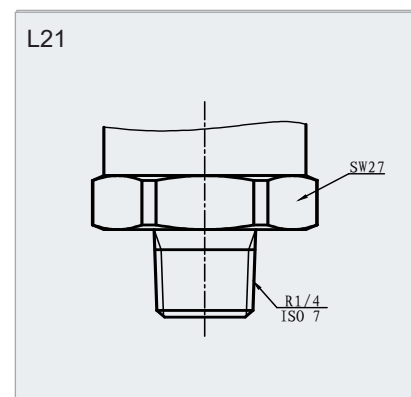
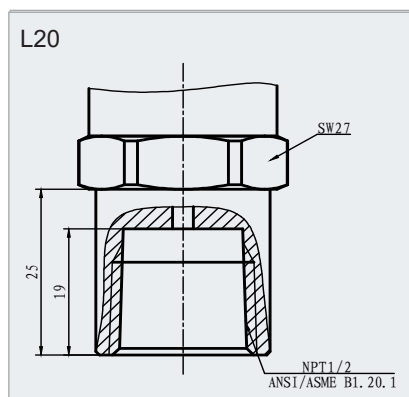
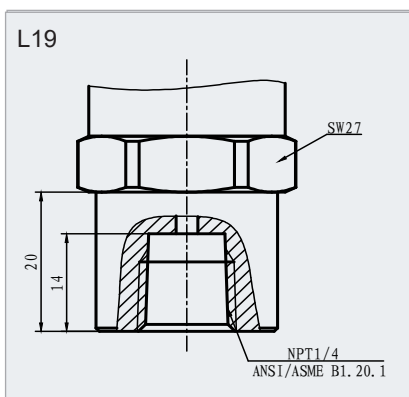
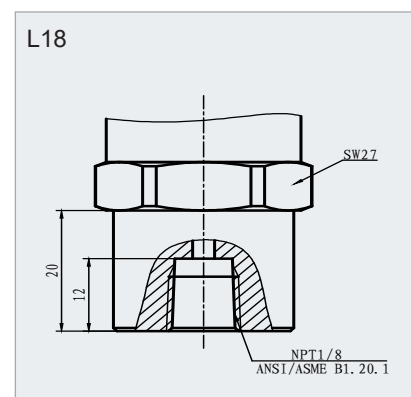
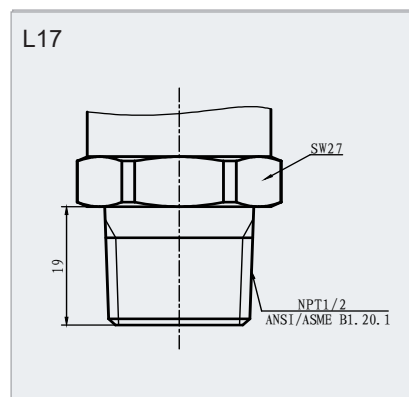
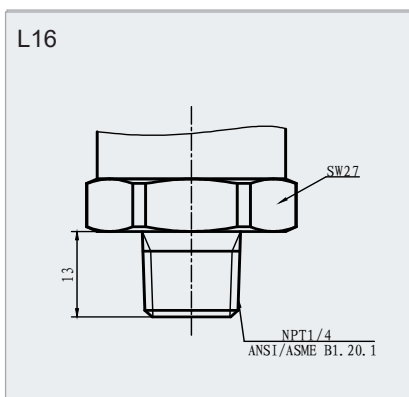
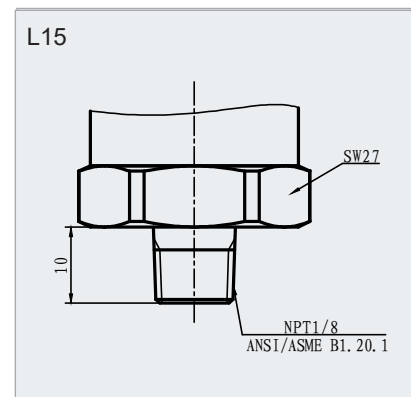
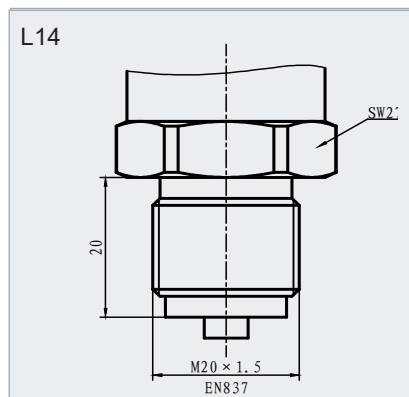
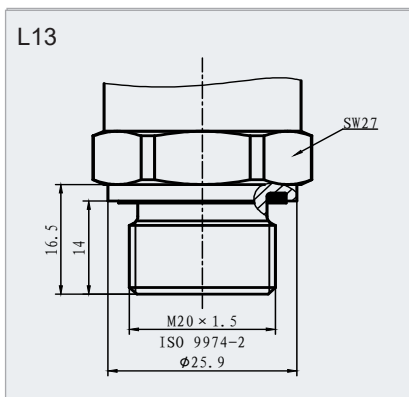
Process Connection Ordering Guide

Code	Pressure Port	Standard
L01	G1/8 B male(≤ 400 bar)	EN 837
L02	G1/4 B male	EN 837
L03	G3/8 B male	EN 837
L04	G1/2 B male	EN 837
L05	G1/8 female(≤ 400 bar)	EN 837
L06	G1/4 female	EN 837
L07	G1/4 A male	ISO 1179-2
L08	G3/8 A male	ISO 1179-2
L09	G1/2 A male	ISO 1179-2
L10	G1/4 female	ISO 1179-1
L11	M12X1.5male	ISO 9974-2
L12	M14X1.5 male	ISO 9974-2
L13	M20X1.5 male	ISO 9974-2
L14	M20X1.5 male	EN 837
L15	NPT1/8 male (≤ 400 bar)	ANSI/ASME B1.20.1
L16	NPT1/4 male	ANSI/ASME B1.20.1
L17	NPT1/2 male	ANSI/ASME B1.20.1
L18	NPT1/8 female (≤ 400 bar)	ANSI/ASME B1.20.1
L19	NPT1/4 female	ANSI/ASME B1.20.1
L20	NPT1/2 female	ANSI/ASME B1.20.1
L21	R1/4 male	ISO 7
L22	R3/8 male	ISO 7
L23	R1/2 male	ISO 7
L24	7/16-20UNF male	SAE J514 E

Process Connection dimension

unit: mm





Ordering Guide

MPM4841																
Pressure Type																
	Gauge		G													
	Absolute		A													
	Sealed gauge		S													
Unit																
	bar			U	1											
	mbar			U	2											
	kPa			U	3											
	MPa			U	4											
	psi			U	5											
	Other			X	X											
Range																
Positive Pressure																
Negative Pressure																
A	0bar~0.35bar					P	3	5	-1bar~0bar			F	1	0	0	0
	0bar~0.6bar					P	6	0	-1bar~1bar			F	1	1	P	0
	0bar~1bar					1	P	0	-1bar~1.6bar			F	1	1	P	6
	0bar~1.6bar					1	P	6	-1bar~2.5bar			F	1	2	P	5
	0bar~2.5bar					2	P	5	-1bar~3bar			F	1	3	P	0
	0bar~3bar					3	P	0	-1bar~4bar			F	1	4	P	0
	0bar~4bar					4	P	0	-1bar~5bar			F	1	5	P	0
	0bar~6bar					6	P	0	-1bar~6bar			F	1	6	P	0
	0bar~10bar					1	0	0	-1bar~10bar			F	1	1	0	0
	0bar~16bar					1	6	0	-1bar~16bar			F	1	1	6	0
	0bar~25bar					2	5	0	-1bar~25bar			F	1	2	5	0
	0bar~30bar					3	0	0	-1bar~30bar			F	1	3	0	0
	0bar~40bar					4	0	0								
	0bar~60bar					6	0	0								
	0bar~100bar					1	0	1								
	0bar~160bar					1	6	1								
	0bar~200bar					2	0	1								
B	0bar~250bar					2	5	1								
	0bar~400bar					4	0	1								
	0bar~500bar					5	0	1								
	0bar~600bar					6	0	1								
	Others					X	X	X								
Eg: 601, first two numbers are coefficients, the third number is exponent of 10, unit is chosen by the customer, default unit is bar																
1P6, P means dot, unit is chosen by the customer, default unit is bar																
Output Signal																
	4mA~20mA DC / 2-wire								E							
	0V~10V DC / 3-wire								V							
	0V~5V DC / 3-wire								J							
	1V~5V DC / 3-wire								F							
	0.5V~4.5V DC / 3-wire								K							
Accuracy ^①																
	±0.25%												0			
	±0.5%												1			
	±1%												2			
	Other												X			
Electrical Connection ^②																
	Hirschmann DIN 175301-803 A											B	1			
	Cable											B	2			

	M12×1 4-pin Plug Connector									B	4								
	Other									X	X								
Process Connection																			
	Pressure Port Sealing	Thread	Standard																
	G1/8 B	waterline male	EN 837									L	0	1					
	G1/4 B	waterline male	EN 837									L	0	2					
	G3/8 B	waterline male	EN 837									L	0	3					
	G1/2 B	waterline male	EN 837									L	0	4					
	G1/8	waterline female	EN 837									L	0	5					
	G1/4	waterline female	EN 837									L	0	6					
	G1/4 A	end face male	ISO 1179-2									L	0	7					
	G3/8 A	end face male	ISO 1179-2									L	0	8					
	G1/2 A	end face male	ISO 1179-2									L	0	9					
	G1/4	end face female	ISO 1179-1									L	1	0					
	M12X1.5	end face male	ISO 9974-2									L	1	1					
	M14X1.5	end face male	ISO 9974-2									L	1	2					
	M20X1.5	end face male	ISO 9974-2									L	1	3					
	M20X1.5	waterline male	EN 837									L	1	4					
	NPT1/8	thread male	ANSI/ASME B1.20.1									L	1	5					
	NPT1/4	thread male	ANSI/ASME B1.20.1									L	1	6					
	NPT1/2	thread male	ANSI/ASME B1.20.1									L	1	7					
	NPT1/8	thread female	ANSI/ASME B1.20.1									L	1	8					
	NPT1/4	thread female	ANSI/ASME B1.20.1									L	1	9					
	NPT1/2	thread female	ANSI/ASME B1.20.1									L	2	0					
	R1/4	thread male	ISO 7									L	2	1					
	R3/8	thread male	ISO 7									L	2	2					
	R1/2	thread male	ISO 7									L	2	3					
	7/16-20UNF 74°	taper male	SAE J514 E									L	2	4					
	Other											X	X	X					
Material: Diaphragm Pressure Port Housing																			
	SS 316L SS 316L SS 316L																		2 4
	Other																		X X

Ordering Notes

1. " ① ", see "Accuracy" on Page 2 for details.
2. " ② ", for B1 electrical connection, please specify us if cable is needed, for B4 electrical connection, no mating connector is provided by default; needs to be purchased separately.
3. The cable length is 1.5m by default, cable material is available for 3 types: PE cable is provided as default; if other material is needed, please specify in the order.
4. If metrology verification certificate is needed or there are other requirements, please contact us and specify it in the order.