

Cost-effective Pressure Transmitter for General Industry

MPM4841



Applications

- Machinery manufacturing
- Petrochemical
- Measurement & control technology
- Hydraulic & pneumatic system
- Energy & Water treatment

Features

- Various output signals to meet customer needs
- Modular design, specialized supply
- Cost-effective
- CE, RoHS approved

Introduction

MPM4841 Pressure Transmitter features a high-stability piezoresistive pressure sensor and a dedicated conditioning circuit, providing standard current or voltage signal outputs. Its compact design ensures stable performance, making it highly suitable for various industrial applications with excellent cost-effectiveness. Customized solutions can be quickly provided based on specific customer requirements.

Specifications

Range	A : 0bar~0.35bar...200bar
	B: 0bar~250bar...600bar
Overpressure	≤ 2 times FS
Pressure type	Gauge G, Absolute A, Sealed Gauge S, Positive/ Negative N
Accuracy	Refer to "Measuring Range & Accuracy Table"
Long-term stability	±0.3%FS/year
Operating temperature	-30°C ~ 80°C (B1, B4)
	-20°C~ 70°C (B2, cable material: PE, PVC)
	-20°C~ 80°C(B2, cable material: PUR)
Storage temperature	-40°C ~120°C
	-20°C ~ 85°C (B2)
Vibration	10g, 20Hz ~ 2000Hz
Shock	100g, 11ms
IP rating	IP65
Weight (A)	≤ 200g
Weight (B)	≤ 250g

Measuring Range & Accuracy Table

Gauge Pressure G											
Unit	Type	Range	Accuracy	Overpressure	Code	Unit	Type	Range	Accuracy	Overpressure	Code
kPa	A	0 - 25	±0.5%FS	50	K025	mbar	A	0 - 250	±0.5%FS	500	m250
		0 - 40		100	K040			0 - 400		1000	m400
		0 - 50		100	K050			0 - 500		1000	m500
		0 - 60		100	K060			0 - 600		1200	m600
		0 - 70		100	K070			0 - 700		1400	m700
		0 - 80		200	K080			0 - 800		1600	m800
		0 - 90		200	K090			0 - 900		1800	m900
		0 - 100		200	K100						
		0 - 160		300	K160						
		0 - 200		400	K200						
		0 - 250		500	K250						
		0 - 300		600	K300						
		0 - 400		1000	K400						
		0 - 500		1000	K500						
		0 - 600		1000	K600						
		0 - 700		1400	K700						
		0 - 800		1600	K800						
		0 - 900		1800	K900						
MPa	A	0 - 1	±0.5%FS	2	M1D0	bar	A	0 - 1	±0.5%FS	2	B001
		0 - 1.6		3	M1D6			0 - 1.6		3	B1D6
		0 - 2		4	M2D0			0 - 2		4	B002
		0 - 2.5		5	M2D5			0 - 2.5		5	B2D5
		0 - 3		6	M3D0			0 - 3		6	B003
		0 - 3.5		6	M3D5			0 - 4		10	B004
								0 - 5		10	B005
			0 - 6	10	B006						
			0 - 7	14	B007						
			0 - 8	16	B008						
			0 - 9	18	B009						
			0 - 10	20	B010						
			0 - 16	30	B016						
			0 - 20	40	B020						
			0 - 25	50	B025						
			0 - 30	60	B030						
			0 - 35	60	B035						
psi	A	0 - 5	±0.5%FS	10	P005						
		0 - 10		15	P010						
		0 - 15		20	P015						
		0 - 30		45	P030						
		0 - 60		150	P060						
		0 - 100		150	P100						
		0 - 160		300	P160						
		0 - 200		300	P200						
		0 - 300		450	P300						
		0 - 500		750	P500						

Sealed Gauge Pressure S

Unit	Type	Range	Accuracy	Overpressure	Code	Unit	Type	Range	Accuracy	Overpressure	Code
MPa	A	0 - 4	±0.5%FS	10	M4D0	bar	A	0 - 40	±0.5%FS	100	B040
		0 - 5		10	M5D0			0 - 50		100	B050
		0 - 6		10	M6D0			0 - 60		100	B060
		0 - 7		10	M7D0			0 - 70		100	B070
		0 - 8		15	M8D0			0 - 80		150	B080
		0 - 9		15	M9D0			0 - 90		150	B090
		0 - 10		15	M010			0 - 100		150	B100
	B	0 - 16		30	M016		B	0 - 160		300	B160
		0 - 20		30	M020			0 - 200		300	B200
		0 - 25		37.5	M025			0 - 250		450	B250
		0 - 30		45	M030			0 - 300		525	B300
		0 - 35		52.5	M035			0 - 350		375	B350
		0 - 40		60	M040			0 - 400		600	B400
		0 - 50		75	M050			0 - 500		750	B500
		0 - 60		90	M060			0 - 600		900	B600

psi	A	0 - 600	±0.5%FS	1500	P600
		0 - 700		1500	P700
		0 - 800		1500	P800
		0 - 900		1500	P900
		0 - 1000		1500	P01K
		0 - 2000		3000	P02K
		0 - 3000		4500	P03K
	B	0 - 4000		6000	P04K
		0 - 5000		7500	P05K
		0 - 6000		9000	P06K
		0 - 7000		10500	P07K
		0 - 8000		12000	P08K
		0 - 9000		13500	P09K

Absolute Pressure A											
Unit	Type	Range	Accuracy	Overpressure	Code	Unit	Type	Range	Accuracy	Overpressure	Code
kPa	A	0 - 70	±1%FS	100	K070	bar	A	0 - 1	±1%FS	2	B001
		0 - 80		200	K080			0 - 1.6		3	B1D6
		0 - 90		200	K090			0 - 2		4	B002
		0 - 100		200	K100			0 - 2.5		5	B2D5
		0 - 160	±0.5%FS	300	K160			0 - 3		6	B003
		0 - 200		400	K200			0 - 4		10	B004
		0 - 250		500	K250			0 - 5		10	B005
		0 - 300		600	K300			0 - 6		10	B006
		0 - 400		1000	K400			0 - 7		14	B007
		0 - 500		1000	K500			0 - 8		16	B008
		0 - 600		1000	K600			0 - 9		18	B009
		0 - 700		1400	K700			0 - 10		20	B010
		0 - 800		1600	K800			0 - 16	±0.5%FS	30	B016
		0 - 900		1800	K900			0 - 20		40	B020
								0 - 25		50	B025
								0 - 30		60	B030
MPa	A	0 - 1	±0.5%FS	2	M1D0			0 - 35		60	B035
		0-1.6		3	M1D6			0 - 40		100	B040
		0 - 2		4	M2D0			0 - 50		100	B050
		0 - 2.5		5	M2D5			0 - 60		100	B060
		0 - 3		6	M3D0			0 - 70		140	B070
		0 - 3.5		6	M3D5			0 - 80		160	B080
		0 - 4		6	M4D0			0 - 90		180	B090
		0 - 5		10	M5D0			0 - 100		200	B100
		0 - 6		10	M6D0			0 - 160		300	B160
		0 - 7		14	M7D0			0 - 200		300	B200
		0 - 8		16	M8D0		B	0 - 250		375	B250
		0 - 9		18	M9D0			0 - 300		350	B300
		0 - 10		20	M010			0 - 350		525	B350
		0 - 16		30	M016			0 - 400		600	B400
		0 - 20		30	M020			0 - 500		750	B500
		0 - 25		37.5	M025			0 - 600		900	B600
	B	0 - 30		45	M030						
		0 - 35		52.5	M035						
		0 - 40		60	M040						
		0 - 50		75	M050						
		0 - 60		90	M060						
mbar	A	0 - 700	±1%FS	1400	m700	psi	A	0 - 10	±1%FS	15	P010
		0 - 800		1600	m800			0 - 15		20	P015
		0 - 900		1800	m900			0 - 30		45	P030
								0 - 60		150	P060
								0 - 100		150	P100
								0 - 160		300	P160
								0 - 200		300	P200
								0 - 300		450	P300
								0 - 400		750	P400
								0 - 500		750	P500
								0 - 600		1500	P600
								0 - 700		1500	P700
								0 - 800	±0.5%FS	1500	P800
								0 - 900		1500	P900
								0 - 1000		1500	P01K
								0 - 2000		3000	P02K
								0 - 3000		4500	P03K
	B							0 - 4000		6000	P04K
								0 - 5000		7500	P05K
								0 - 6000		9000	P06K
								0 - 7000		10500	P07K
								0 - 8000		12000	P08K
								0 - 9000		13500	P09K

Positive / Negative Pressure N

Unit	Type	Range	Accuracy	Overpressure	Code	Unit	Type	Range	Accuracy	Overpressure	Code
kPa	A	-25 - 0	±1%FS	50	V025	bar	A	-0.25 - 0	±1%FS	0.5	VD25
		-40 - 0		100	V040			-0.4 - 0		1	V0D4
		-60 - 0		100	V060			-0.6 - 0		1	V0D6
		-100 - 0		150	V100			-1 - 0		1.5	V1D0
		-3 - +3		10	C033			-0.03 - +0.03		0.1	C0D3
		-5 - +20		30	C520			-0.05 - +0.2		0.3	C052
		-5 - +25		30	C525			-0.05 - +0.25		0.3	C5D5
		-15 - +15		30	C015			-0.15 - +0.15		0.3	CD15
		-20 - +20		30	C020			-0.2 - +0.2		0.3	C0D2
		-25 - +25		50	C025			-0.25 - +0.25		0.5	CD25
		-30 - +30		50	C030			-0.3 - +0.3		0.5	C003
		-50 - +50		100	C050			-0.5 - +0.5		1	C005
		-100 - +60		150	C16B			-1 - +0.6		1.5	C0D6
		-100 - +100		300	C11B			-1 - +1		2	C101
		-100 - +150		300	C1B5			-1 - +1.5		3	C1D5
		-100 - +300	±0.5%FS	500	C13B			-1 - +3	±0.5%FS	5	C103
		-100 - +500		1000	C15B			-1 - +5		10	C105
		-100 - +900		2000	C19B			-1 - +9		20	C109
		-100 - +1000		2500	C11K			-1 - +10		25	C110
		-100 - +1500		3000	C1K5			-1 - +15		30	C115
		-100 - +1600		3000	C1K6			-1 - +16		30	C116
		-100 - +2000		3000	C12K			-1 - +20		30	C120
		-100 - +2400		5000	C24K			-1 - +24		50	C124
		-100 - +2500		5000	C25K			-1 - +25		50	C125
		-100 - +3000		6000	C30K			-1 - +30		60	C130

psi	A	-15 - 0	±1%FS	20	PF00
		-15 - +10		20	PF10
		-15 - +15		45	PF15
		-15 - +30		150	PF30
		-15 - +50	±0.5%FS	150	PF50
		-15 - +80		300	PF80
		-15 - +100		300	PF1B
		-15 - +150		450	P1B5

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

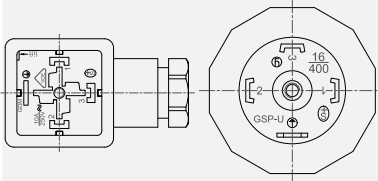
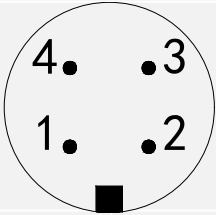
Ambient temperature: 20°C ±5°C

Relative humidity: 45% ~ 75%

Output Signals

Output signal	Supply voltage	Output type	Load resistance
4mA~20mA DC(E)	8V~30V DC	2-wire	$\leq (U-8)/0.02 \ (\Omega)$
0V~10V DC(V)	12V~30V DC	3-wire	$\geq 10k\Omega$
0V~5V DC(J)			
1V~5V DC(F)			
0.5V~4.5V DC(K)			

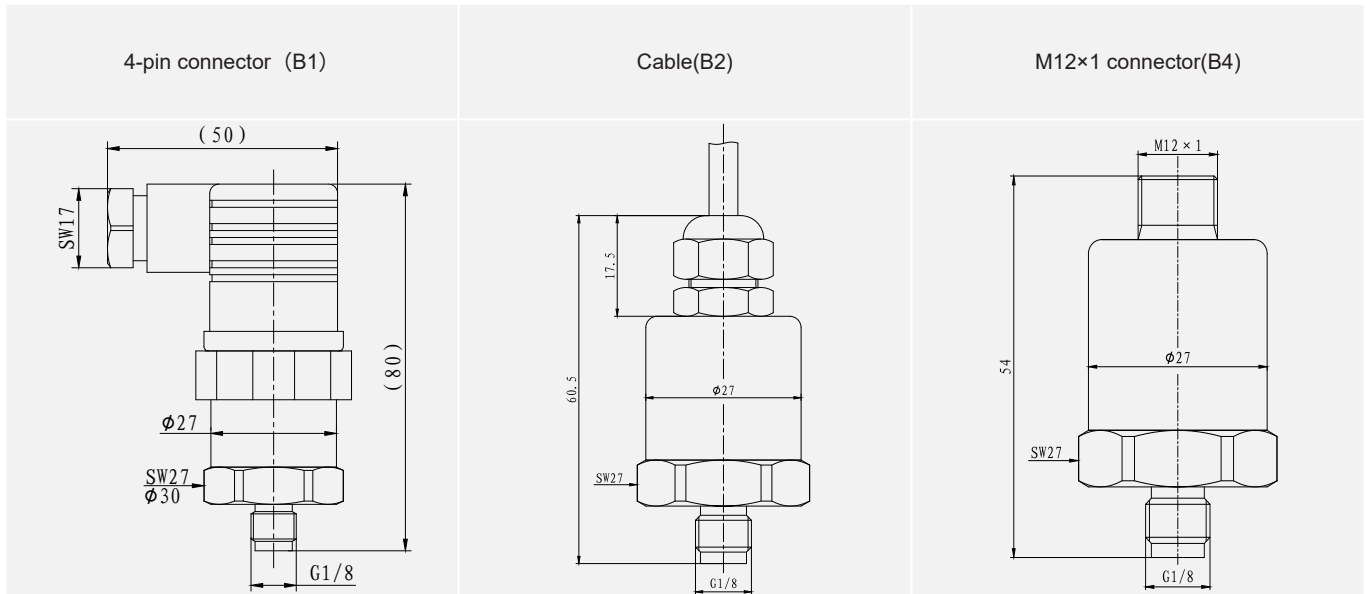
Electrical Connection

Functional definition	4-pin connector (B1)		Cable(B2)		M12×1 4-pin 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

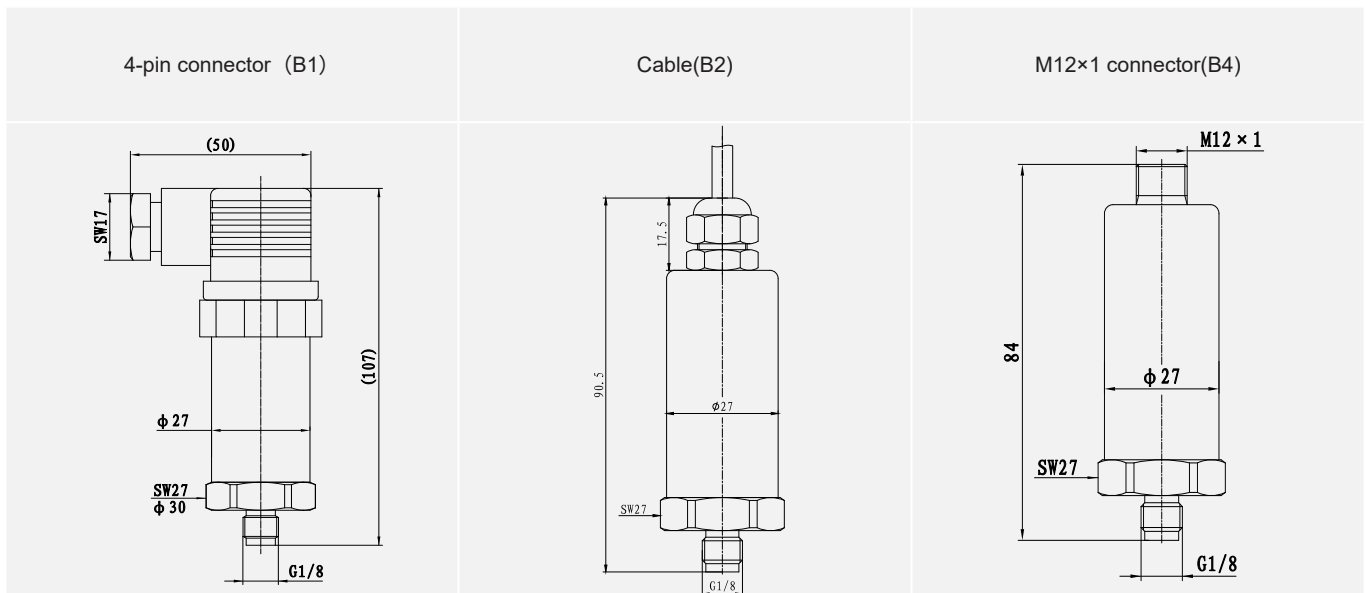
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Unit: mm

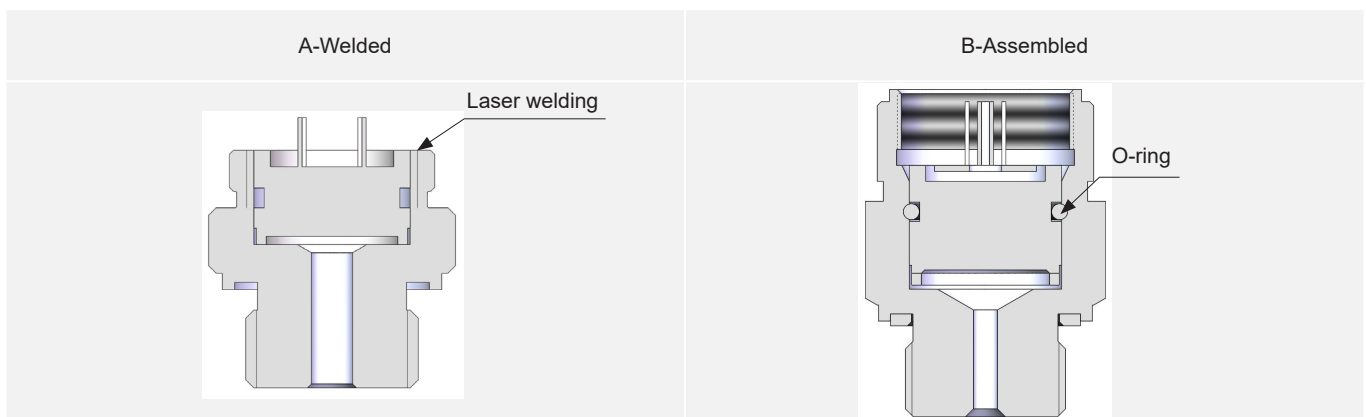
MPM4841A



MPM4841B



Sensor Sealing



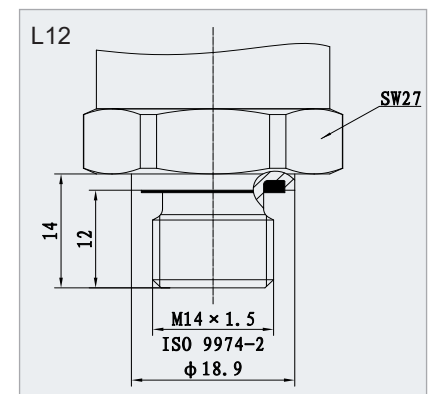
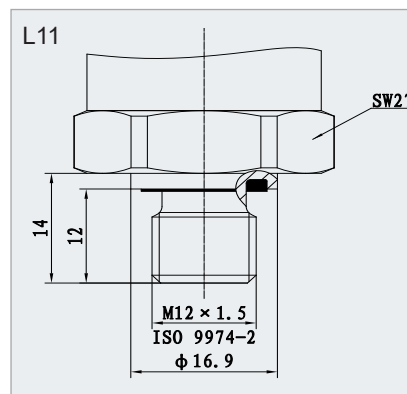
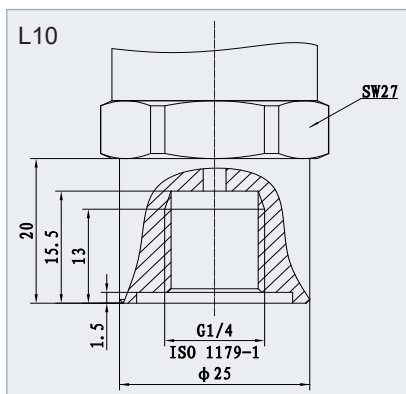
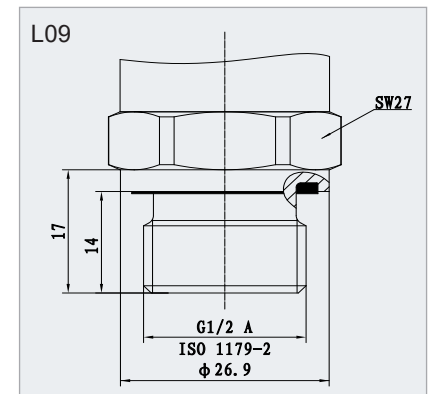
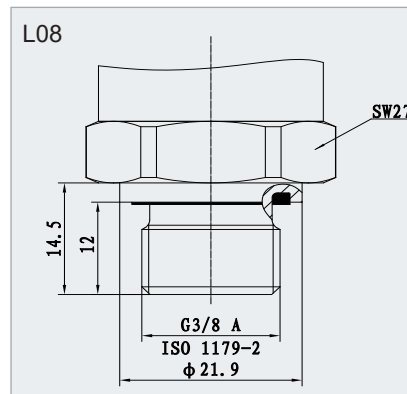
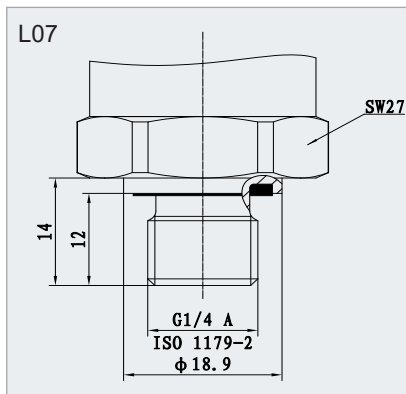
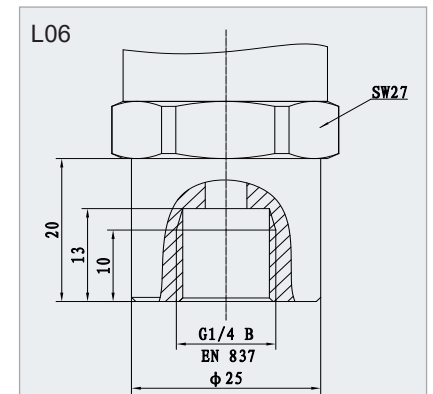
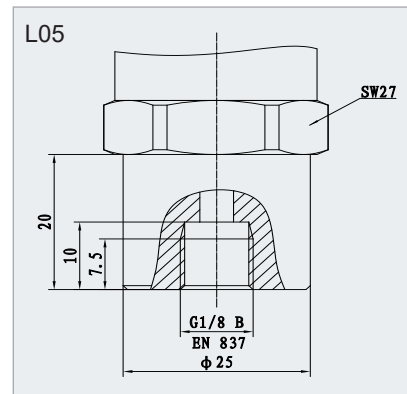
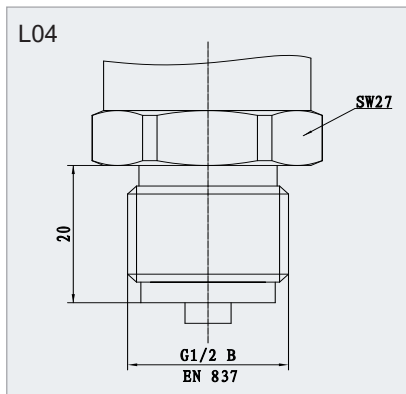
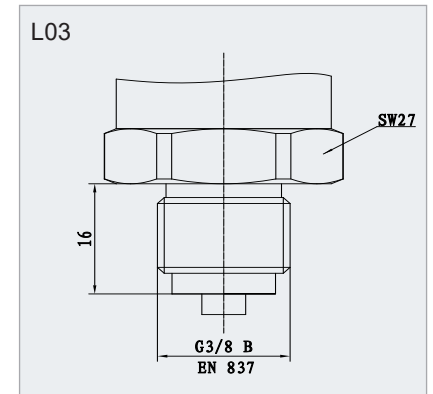
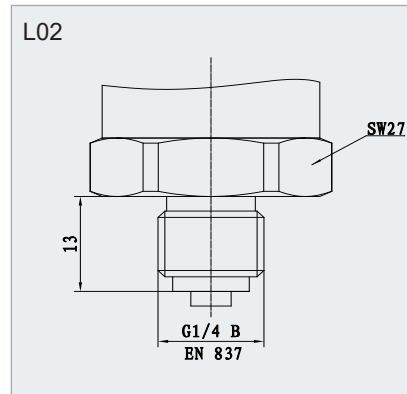
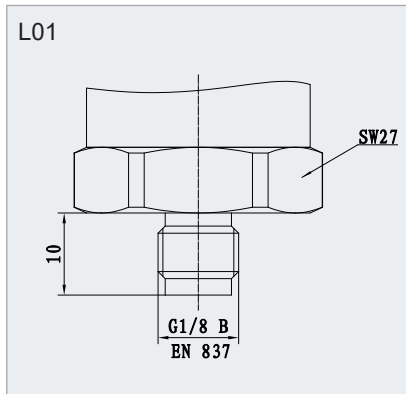
Process Connection

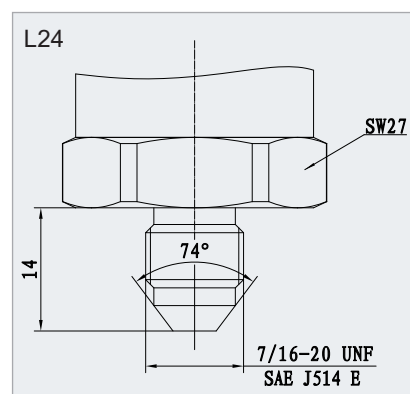
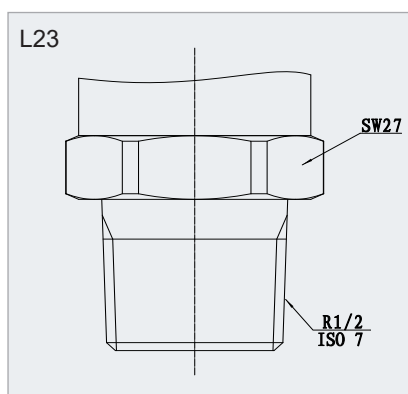
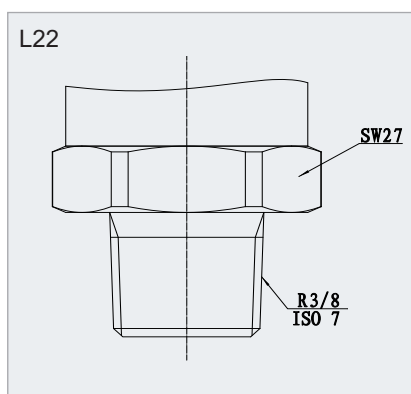
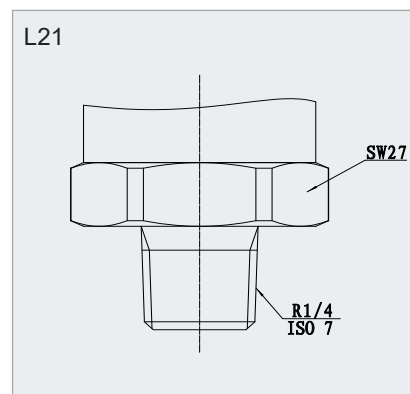
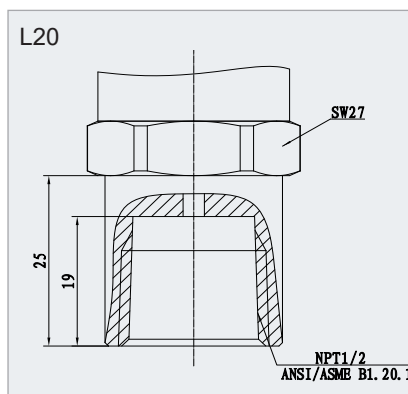
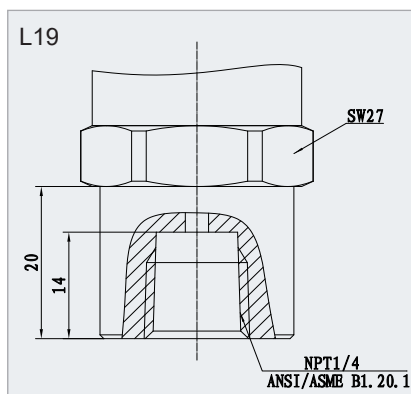
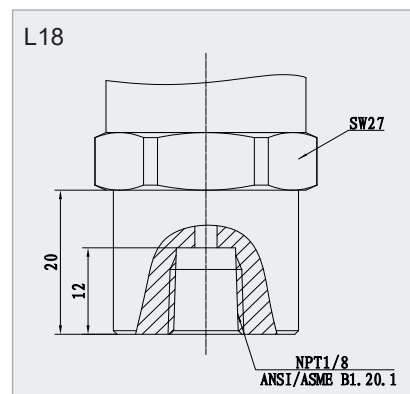
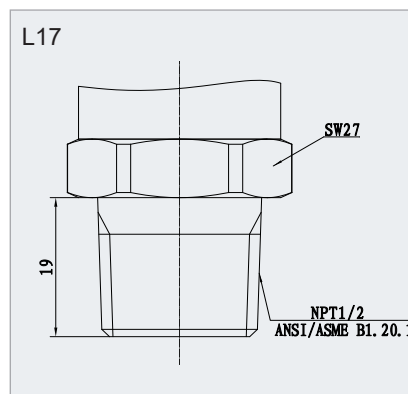
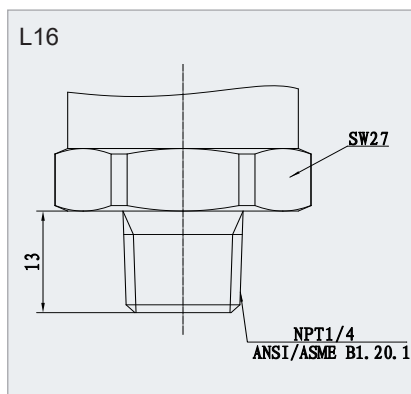
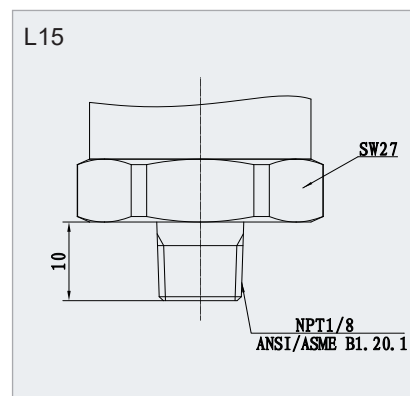
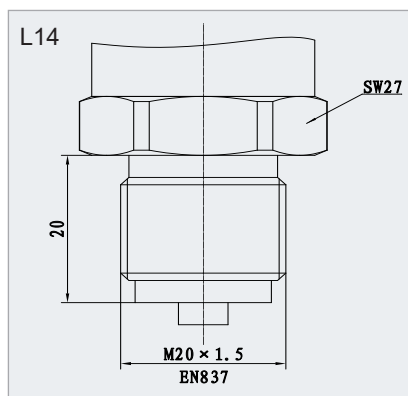
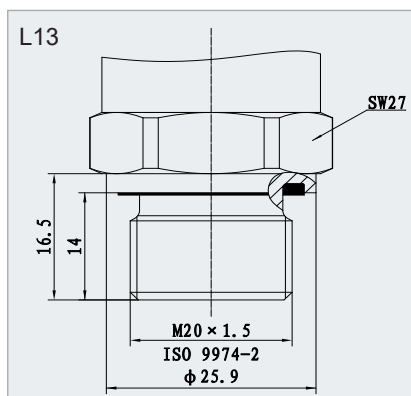
Options

Code	Pressure port	Standard
L01	G1/8 B Male(≤400bar)	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(≤400bar)	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	M12X1.5 Male	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(≤400bar)	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(≤400bar)	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

Dimensions

Unit: mm





Order Guide

MPM4841 Pressure Transmitter

Code	Pressure type		
G	Gauge/Sealed Gauge Pressure		
S			
A	Absolute pressure		
N	Negative pressure		
Range	Measuring range-100kPa...0kPa ~ 10kPa...60MPa		
XXXX	Range-specific code		
Code	Output signal		
E	4mA ~ 20mA DC		
F	1V ~ 5V DC		
J	0V ~ 5V DC		
V	0V ~ 10V DC		
K	0.5V ~ 4.5V DC		
Code	Accuracy ^①		
A2	±0.5%FS		
A3	±1%FS		
Code	Construction Material		
	Isolated diaphragm	Pressure port	Housing
24	SS 316L	SS 316L	SS 316L
Code	Sensor sealing		
00	FKM (Standard)		
01	EPDM (optional for special media based on compatibility)		
02	Welding		
Code	Process connection		
L01	G1/8B- waterline - Male-EN837		
L02	G1/4B- waterline - Male-EN837		
L03	G3/8B- waterline - Male-EN837		
L04	G1/2B- waterline - Male-EN837		
L05	G1/8- waterline - Female-EN837		
L06	G1/4- waterline - Female-EN837		
L07	G1/4A- face - Male-ISO 1179-2		
L08	G3/8A- face - Male-ISO 1179-2		
L09	G1/2A- face - Male-ISO 1179-2		
L10	G1/4- face - Female-ISO 1179-1		
L11	M12×1.5- face - Female-ISO 9974-2		
L12	M14×1.5- face - Female-ISO 9974-2		
L13	M20×1.5- face - Female-ISO 9974-2		
L14	M20×1.5- face - Female-EN 837		
L15	NPT1/8- Male-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-ANSI/ASME B1.20.1		
L19	NPT1/4- Female-ANSI/ASME B1.20.1		
L20	NPT1/2- Female-ANSI/ASME B1.20.1		

MPM4841

G

M1D6

E

A2

24

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The complete spec.

	Code	Process connector		
	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		
	Code	Process connection sealing		
	N	None (L05、 L06、 L10、 L15、 L16、 L17、 L18、 L19、 L20、 L21、 L22、 L23、 L24)		
	1	NBR		
	2	FKM(Standard)		
	4	Copper (L01、 L02、 L03、 L04、 L14)		
	Code	Electrical connection		
	B1	4-pin connector		
	B11	4-pin connector with 1.5 m PVC cable		
	B2	Cable		
	B4	M12×1 4-pin connector		
	Code	Cable Length (Unit: m)		
	N	None (non-cable connection option)		
	L001	1		
	L1D5	1.5		
	L002	2		
	L003	3		
	L004	4		
	L005	5		
	L006	6		
	L007	7		
	L008	8		
	L009	9		
	L010	10		
L07	2	B2	L001	The complete spec.

Notes

- 1、 "① " refers to accuracy, see "Measuring Range & Accuracy Table" for details.
- 2、 The cable material is PUR.
- 3、 If a metrology verification certificate is required, or there are any other special requirements, please consult with the MICROSENSOR and specify them in the order.

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