

PM420 Diffused Silicon Pressure Transmitter
MAIN FEATURES

- Pressure Range: -0.1MPa...0kPa~10kPa...100MPa
- Stability: $\pm 0.1\%$ FS/year (typical), $\pm 0.2\%$ FS/year (maximum)
- Accuracy: 0.1% (custom), 0.25% (typical), 0.5% (maximum)
- Anti-jamming design
- Small body, easy installation
- Intrinsically safe explosion


OVERVIEW

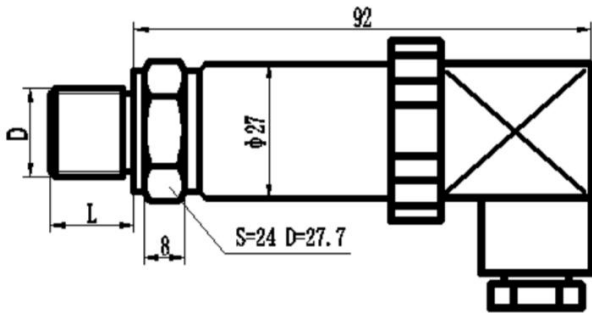
PM420 series anti-corrosion and explosion-proof small-profile pressure transmitter adopts high-precision, high-temperature qualitative force-sensitive chip with stainless steel metal diaphragm. After strict precision temperature compensation, signal amplification, V/I conversion, the pressure parameters are reliably converted into industry standard 4~20mA or 0~10mA signal output, widely used in petroleum, chemical, metallurgy, electric power, textile, environmental protection and other fields.

SPECIFICATION

Items	Parameter
Range	-0.1MPa...0kPa~10kPa...100MPa
Overload capability	Below 10MPa ≤ 2 times full scale 10MPa and above ≤ 1.5 times full scale
Pressure Type	G (gauge pressure), A (absolute pressure), S (sealed gauge pressure)
Accuracy	0.1% (custom), 0.25% (typical), 0.5% (maximum)
Long-term stability	$\pm 0.1\%$ FS/year (typical), $\pm 0.2\%$ FS/year (maximum)
Zero temperature drift	$\pm 0.03\%$ FS/ $^{\circ}$ C (≤ 100 kPa), $\pm 0.02\%$ FS/ $^{\circ}$ C (> 100 kPa)
Sensitivity temperature drift	$\pm 0.03\%$ FS/ $^{\circ}$ C (≤ 100 kPa), $\pm 0.02\%$ FS/ $^{\circ}$ C (> 100 kPa)
Compensation temperature	0 $^{\circ}$ C~50 $^{\circ}$ C(≤ 100 kPa), -10 $^{\circ}$ C~70 $^{\circ}$ C(> 100 kPa)
Medium temperature	-40 $^{\circ}$ C~80 $^{\circ}$ C
Power supply	+12 ~ +36V (Default 24V)
Output Signal	4~20mA, 0~10V, 0~5V, 0.5~4.5V, RS485, I2C
Load Resistance	Current type: $\leq (U-12) / 0.02 (\Omega)$
Response time	$\leq 1(10\sim 90\%)$ ms
Measuring medium	All corrosive gases, liquids compatible with 316L
Diaphragm material	316L stainless steel
Housing material	1Cr18Ni9Ti
Interface	M20 \times 1.5 or customized
Protection level	IP65 (customizable IP68)

TYPICAL DIMENSION

Unit: mm



D (Dimension)	L (Length)	D (Dimension)	L (Length)
M22*1.5	15	M10*1	12
G1/2	15	G1/8	12
M20*1.5	15	1/2NPT	18
M18*1.5	15	1/2PT	18
G3/8	15	3/8PT	15
M16*1.5	15	3/8NPT	15
M14*1.5	15	1/4NPT	14
G1/4	14	1/4PT	14
M12*1	14	1/8NPT	12

MORE RECOMMENDATION

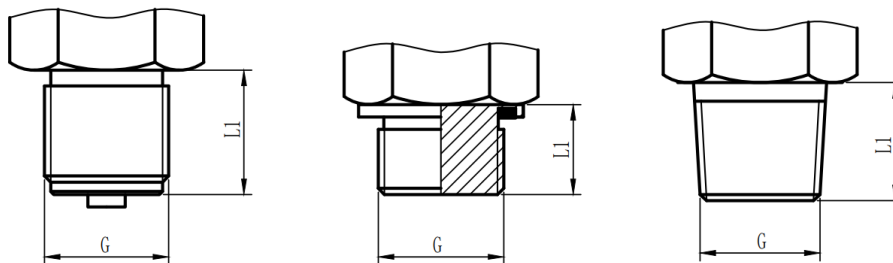
MODEL	FEATURE	OUTLINE CONSTRUCTION
4211	<ol style="list-style-type: none"> Standard Hirschmann connector The full range of threads can be customized Pressure interface materials can be customized Protection grade IP65. 	
4224	<ol style="list-style-type: none"> Waterproof metal joints Flat membrane structure, easy to clean Pressure interface M20 × 1.5, G1/2 optional Protection grade IP66. 	
4226	<ol style="list-style-type: none"> Compact type, outer diameter 22mm Pressure interface material can be customized Protection grade IP66 	
4233	<ol style="list-style-type: none"> Aviation socket Medium temperature range -40~150°C The number of heat sinks, pressure interface materials can be customized Protection grade IP65. 	
4244	<ol style="list-style-type: none"> High reliability liquid level outlet Flat membrane structure, easy to clean Pressure interface M20 × 1.5, G1/2 optional Waterproof rating IP68 	

ELECTRICAL INTERFACE

Code	10	Code	11	Code	12
Wire method	Hirschman socket	Wire method	Direct outgoing line	Wire method	Aviation socket
Protection	IP65	Protection	IP66	Protection	IP66
Code	13	Code	14	Code	15
Wire method	Liquid level outlet	Wire method	PACK socket	Wire method	Small Hirschman socket
Protection	IP68	Protection	IP65	Protection	IP65

PROCESS CONNECTION

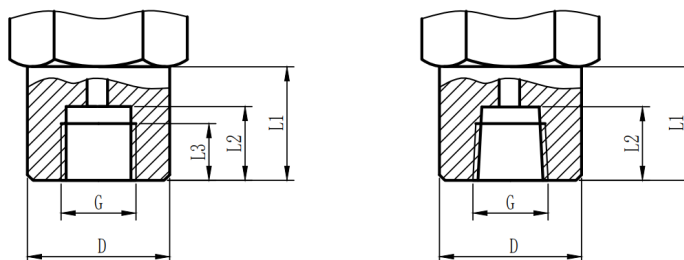
Unit: mm



G	L1
G1/4 B EN 837	13
G1/2 B EN 837	20
M20*1.5	20

G	L1
G1/4 A DIN 3852-E	14
G1/4 A DIN 3852-E	17
M14*1.5	14

G	L1
1/8 NPT ANSI/ASME	10
1/4 NPT ANSI/ASME	13
1/2 NPT ANSI/ASME	19



G	L1	L2	L3	D1
G1/4 B EN 837	20	13	10	25

G	L1	L2	D1
1/4NPT	20	13	25

ELECTRIC CONNECTION

Hirschman socket		PIN1	PIN2	PIN3	PIN4
	4...20mA two-wire	V+	S+	Null	GND
	0...10V/0.5...4.5V	V+	V-	S+	GND
	RS485	V+	V-	RS485A	RS485B

M12 aviation socket		PIN1	PIN2	PIN3	PIN4
	4...20mA two-wire	V+	S+	Null	GND
	0...10V/0.5...4.5V	V+	V-	S+	GND
	RS485	V+	V-	RS485A	RS485B

Direct line		Red	Green	Yellow	Blue
	4...20mA two-wire	V+	S+	Null	GND
	0...10V/0.5...4.5V	V+	V-	S+	GND
	RS485	V+	V-	RS485A	RS485B

PACK wire		A	B	C
	4...20mA two-wire	V+	S+	null
	0...10V/0.5...4.5V	V+	V-	S+

STORAGE & TRANSPORTATION

1. Check whether the instrument is in good condition during transportation, and contact us in time if there is any obvious damage;
2. Packaging and storage Do not remove the packaging before installation;
3. The conditions allowed by the storage place:
 - Storage temperature: -40 ... +70 °C
 - Storage humidity: 45 ... 75 % relative humidity (non-condensing)

[Safety Alert]

Installation and disassembly should be carried out under the guidance of professional technicians and in accordance with operating standards. Otherwise, there is a possibility of personal injury, and in severe cases, it may endanger life safety!

ORDER CODE

Code:	A	-	B	-	C	-	D	-	E	-	F	-	G
Model:	PM4211	-	G	-	0-50bar	-	S	-	L	-	G 1/2	-	MA

Model	Code A
Standard Hirschmann connector	4211
Direct cable connection, flat membrane	4224
Direct cable, small body	4226
Aviation socket, high temperature -40~150°C	4233
Flat membrane, fully sealed with IP68	4244
Pressure type	Code B
Gauge pressure	G
Absolute pressure	A
Sealed gauge pressure	S
Pressure Range(X=specific range)	Code C
-0.1MPa ~100MPa	X MPa
-1Bar ~1000Bar	X Bar
-15psi ~15000psi	X psi
Accuracy	Code D
0.1% (custom)	C
0.25%(typical)	T
0.5%(standard)	S
Interface material	Code E
316L	L
Other customized	C

Process connection	Code F
M22*1.5	M22
G1/2	G1/2
M20*1.5	M20
M18*1.5	M18
G3/8	G3/8
M16*1.5	M16
M14*1.5	M14
G1/4	G1/4
M12*1	M12
M10*1	M10
G1/8	G1/8
1/2NPT	1/2NPT
1/2PT	1/2PT
3/8PT	3/8PT
3/8NPT	3/8NPT
1/4NPT	1/4NPT
1/4PT	1/4PT
1/8NPT	1/8NPT
Output signal	Code G
4~20mA	MA
0~10V	V1
0~5V	V5
RS485	RS
More output customized	C

Remarks:

1. The structure and types of this series are so much. In order to recommend the most suitable product for you, please specify the use environment and measurement media when consulting.
2. The cable materials are available in PVC, PUR, PE, and ZRPVC. The default is PVC material. If you have special requirements, please specify when ordering.
3. Flat membrane product joint material is 316L, joints are always equipped with M20 × 1.5, G1/2 two types joints. Please consult for special requirements.
4. More other size except above mentioned could be customized according to the drawings provided.
5. LOGO print is available once authorized.