

HPM501 Compact Pressure Switch



Nanjing Hangjia Electronic Technology Co., Ltd.

Overview

HPM501 intelligent pressure switch is a fully electronic structure. The front end uses a high-precision and high-stability silicon piezoresistive sensor. After being processed by a dedicated signal conditioning circuit, it outputs two PNP switch quantities and has an indicator light to indicate the switch status. The product also supports on-site switch value setting and adjustment of switch mode. The product is compact and integrates pressure measurement, status display, switch output and control. It has high detection accuracy, flexible use, simple operation, safety and reliability. It is widely used in various types of automation machinery and equipment, environmental protection, petrochemical, water treatment and other industries.

Feature

- ◆ Exquisite appearance
- ◆ Supports on-site active pressure switch value setting
- ◆ Switch action signal light indication
- ◆ High-precision pressure point detection
- ◆ All stainless-steel appearance, sturdy and durable

Technical Parameters

Measuring range	-100kPa...0~10kPa...60MPa (Gauge) 0~10kPa...10MPa (Absolute)
Overload	1.5 times of full scale
Measuring medium	various liquid, gas compatible with contact materials
Output	Two-way PNP signal/ $V_s=8\sim 30V_{DC}$
Accuracy	$\pm 0.25\%FS$
Long term stability	$\pm 0.25\%FS/Year$
Transistor switch alarm	PNP load capacity: $\leq 300mA_{DC}$ 24V _{DC} Switch life: >100 thousands of times
Display	2x LED light (Indicates the corresponding switch status)
Compensation Temperature range	0~70°C
Temperature Coefficient of Zero	$\pm 1.0\%FS$ (Reference 25°C, in Compensation Temperature range); (For $\leq 20kPa$ range, $\pm 2.5\%FS$, 0~60°C)

Temperature Coefficient of Full Scale	$\pm 1.0\%FS$ (Reference 25°C,in Compensation Temperature range); (For $\leq 20kPa$ range, $\pm 2.5\%FS$, 0~60°C)
Temperature range	Working temperature: -40~80°C Medium temperature: -40~125°C Storage temperature: -40~80°C
Protection Grade	IP66

Structure Drawings (unit: mm)

Thread mounting

Note:

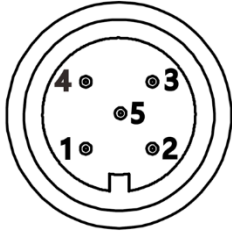
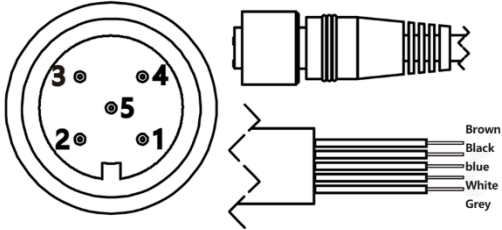
1. The dimensions listed in the figure may change with the update of the process
2. For other shapes and dimensions, please consult the sales engineer

Structural Materials

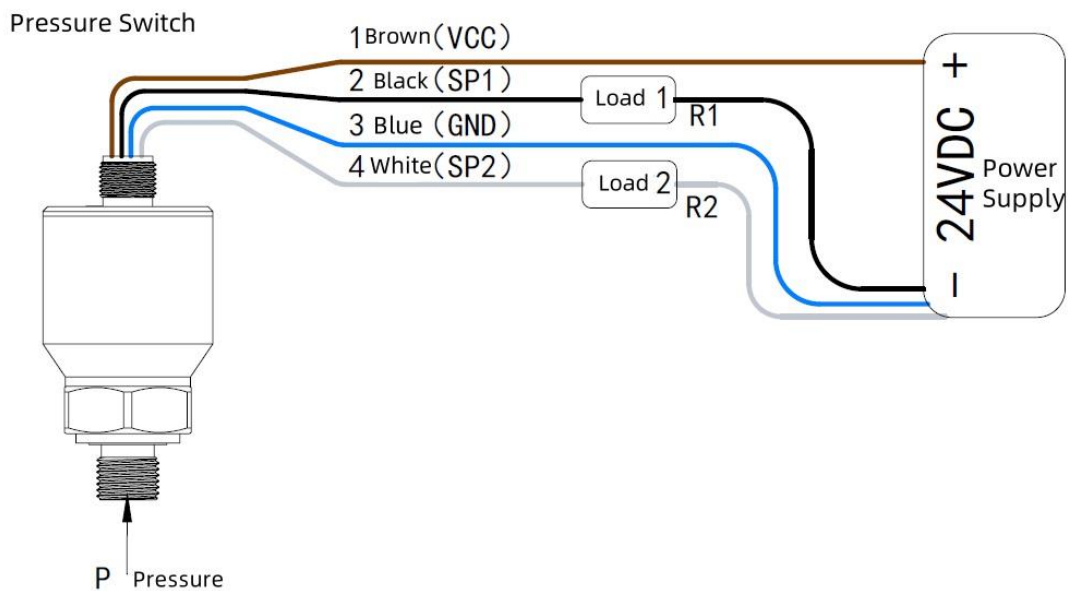
Ordering Code	Part	Note
S4	Pressure interface	Stainless steel 304
S6		Stainless steel 316L
X		Customized
M1	Sensor	Stainless steel 316L
M2		Titanium diaphragm TA1 and titanium shell TC4
M3		Tantalum Diaphragm Ta
M4		Hastelloy C-276

NB	Sealing ring	NBR nitrile sealing ring (applicable temperature range -40~120°C)
FK		FKM fluor rubber sealing ring (applicable temperature range -20~200°C)
ED		EPDM sealing ring (applicable temperature range -55~150°C)


Electrical Interface

M12×1-5P (Code: C6)	M12×1-5P, with cable (Code: C6X)
	
1: VCC	Brown: VCC
2: SP1	Black: SP1
3: GND	Blue: GND
4: SP2	White: SP2
5: --	Grey: --

Electrical Wiring



Panel buttons

	<p>Switch value setting: Apply appropriate pressure, press B1 and hold for 3 seconds. When L1 flashes at 2Hz, press B1 again briefly and release it. The pressure value will be recorded as the switch value.</p>
	<p>Normally open/normally closed setting: Press B1 and hold for 10 seconds. When L1 flashes at 8Hz, release B1. The output property is switched (normally open to normally closed, normally closed to normally open)</p>

Note:

1. The operation method of switch 2 is the same as that of switch 1.
2. If you want to exit or do not want to continue the operation during the operation, just wait for the transmitter to exit automatically and the current operation will be terminated.

Ordering Guide

Code	Type							
HPM501	Pressure Switch							
	Range	Measuring temperature						
	(0 ~ X)bar	Input X directly						
		Code	Output Signal					
		B11	Two way PNP					
			Code	Process connection				
			G14	G1/4				
			G12	G1/2				
			P1	M20×1.5				
			K505	Tri-Clamp 1-1/2" ISO 2852 DN38 DIN 32676 DN32-40				
			Code	Electronic connection				
			C6	M12×1.5P				
			C6X	M12×1.5P with cable				
			Code	Process connection Material				
			S4	304				
			S6	316L				
			Code	Sensor				
			M1	316L				
			M2	TA1 diaphragm and TC4 shell				
			M3	Ta diaphragm				
			M4	C-276 diaphragm				
			Code	Others				
			G	Gauge pressure (Default)				
			A	Absolute pressure				
			NB	NBR O-ring				
			FK	FKM O-ring				
			ED	EPDM O-ring				
			QF	Factory report				
				Other requests				
eg.: HPM501	(0~2)bar	B11	G14	C6	S4	M1	G NB	

Certification Information

Certification organization	CQM
Quality management system	ISO 9001:2015
Certification scope	Research, development and manufacture of pressure transmitter and temperature transmitter
Certificate No.	00223Q21711R1S