



MPM489 Pressure Transmitter

Features

- Reliable performance, easy application
- Short circuit protection and reverse polarity protection
- Measurement options: gauge, absolute and sealed gauge
- Intrinsically safe version, conforming to Standard Exia II CT6Ga of GB3836.4
- Exd product conforms to Standard GB3836.2, Exd certificate is approved.
- Marine approval product conforming to CCS Rules of Classification of Sea-going Steel Ships (2006)
- CE, RoHS and ATEX approved



Introduction

MPM489 product is a pressure transmitter with adjustable zero and span. It uses high quality and reliable pressure sensor components and circuit board to produce the transmitter, performance is accurate and reliable. MPM489 pressure transmitter can be used for measurement and control in petroleum, chemi-industry, power generation, hydrology and general industrial pressure measurement, etc.

Specification

Pressure range: -100kPa...0kPa~10kPa...100MPa

Overpressure: ≤ 1.5 times FS or 110MPa (min. value is valid)

Pressure type: gauge/ absolute / sealed gauge

Process connection: M20×1.5 male, 1/4" BSP etc (or to your requirements)

Accuracy: $\leq \pm 0.5\%$ FS

Long term stability: $\leq \pm 0.3\%$ FS/year

Zero thermal drift: $\leq \pm 0.05\%$ FS/°C (≤ 100 kPa); $\leq \pm 0.03\%$ FS/°C (> 100 kPa)

Span thermal drift: $\leq \pm 0.05\%$ FS/°C (≤ 100 kPa); $\leq \pm 0.03\%$ FS/°C (< 100 kPa)

Compensation temp. : 0°C~50°C

Application temp. : -30°C~80°C -10°C~60°C (Exia) -20°C~60°C (Exd) -10°C~70°C (Cable)

Storage temp. : -40°C~120°C -20°C~85°C (Cable)

Power supply: 11V~28VDC 11V~28VDC 3.3V/5V DC

Output signal: 4mA~20mA DC(2-wire) 0/1~5/10V DC(3-wire) 0.5V~2.5V/4.5V DC(3-wire)

Load: $\leq (U-11)/0.02\Omega$ (2-wire) $\geq 10k$ (3-wire) $\geq 10k$ (3-wire))

Housing protection: IP65

Electrical connection: DIN43650 plug or cable (1.5m)



Construction and Outline Dimensions

Construction material:

Housing: stainless steel 1Cr18Ni9Ti (SS 304) See options

Sensor housing: stainless steel 1Cr18Ni9Ti (SS 304) See options

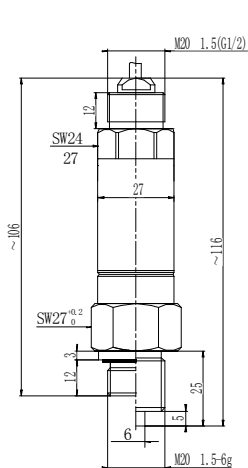
Diaphragm: stainless steel 316L (See options)

Sealed-ring: Viton

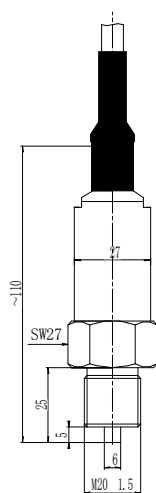
Plug housing: plastic

Cable: $\Phi 7.5\text{mm}$ Polyethylene Cable

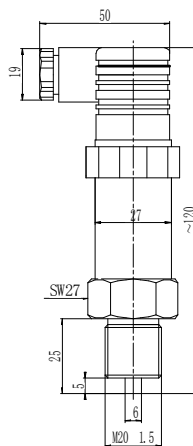
Outline dimension: (Unit: mm)



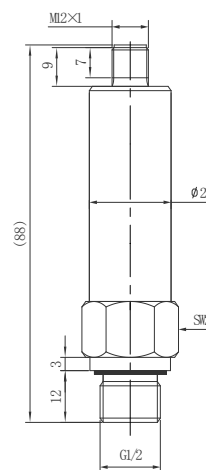
Exd



Cable



4-pin Plug



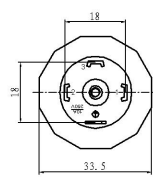
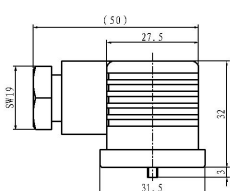
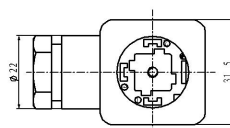
M12x1 Plug

Electric Connection

Transmitter connects with the outer circuit through DIN43650 plug. Terminal definition as below:

Pin	2-wire	3-wire
1	+V	+V
2	Signal: +OUT	GND
3	Null	Signal: +OUT

Plug Connection Wiring:



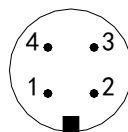
Cable Connection Wiring:

Wire color	2-wire	3-wire
Black	+V	+V
Red	0V	+OUT
White	Null	GND



M12x1 Plug Connection Wiring:

Pin	2-wire	3-wire
1	+V	+V
2	Null	GND
3	Signal: +OUT	Signal: +OUT



Order Guide

MPM489	Pressure Transmitter		
	Range	Pressure range: -100kPa...0kPa~10kPa...100MPa (Specify BAR, PSI, kPa etc)	
	[0~X]kPa or MPa	X: the actual measured pressure	
		Code	Power
		V ₁	24V DC
		V ₆	5V DC
		V ₇	3.3V DC
		Code	Output signal
		E	4mA~20mA DC
		F	1V~5V DC
		J	0V~5V DC
		V	0V~10V DC
		W	0.5V~2.5V DC
		K	0.5V~4.5V DC
		Code	Construction material
			Diaphragm Pressure port Housing
		22	SS 316L SS SS
		24	SS 316L SS 316L SS 316L
		25	Tantalum SS SS
		35	Tantalum Hastelloy SS
		Code	Others
		B ₁	4-pin Plug connection
		B ₂	Cable connection
		B ₄	M12×1 Plug connection
		PC ₁	Flush diaphragm, M20×1.5 male
		PC ₂	Flush diaphragm, R1/2 male
		PC ₃	Flush diaphragm, G1/2 male
		PD ₁	DN25 clamp connection(Large diaphragm)
		P ₃	DN25 clamp connection(Welding type)
		M ₆	4digits LED digital indicator(only for 4~20mA)
		M ₇	4digits LCD digital indicator(only for 4~20mA)
		i	Intrinsic safe version: Exia II CT6Ga
		T	Marine-use
		y	ATEX EEx ia
		d	ATEX Exd II CT6 Gb
		C ₁	M20×1.5 male, face type seal
		C ₂	G1/4 male
		C ₃	G1/2 male (used for flush diaphragm type))



						C ₅	M20×1.5 male, waterline seal
						G	Gauge
						S	Sealed gauge
						A	Absolute
MPM489	[0~100kPa]	V ₅	E	22	B ₁ C ₅ G	the whole spec	

Notes

1. Please ensure that the media is compatible with the contacted parts
2. Flush diaphragm transmitter's pressure range: 0kPa~100kPa...35MPa; PD₁ transmitter's pressure range: 0kPa~100kPa...3.5MPa; P₃ transmitter's pressure range: -100kPa...0kPa~20kPa...2MPa;
3. If any special requirements, function or specifications are required, please contact us
4. Please note that the intrinsically safe version and marine product can not include the digital indicator M6 or M7. Note: transmitter with M6 or M7, the power supply of the transmitter shall be no less than 20V DC;
5. 24V DC power supply (V₁), see "Specification" for detail about Power supply range;
6. When ordering 3.3V/5VDC power supply, please pay attention that the cable length should be less than 10m; When the ordered output is 0 to 10V DC, the power supply is 15V to 28V DC;
7. Note: 3.3V DC power supply (V₇) output, you can only select W(0.5V~2.5V DC); 5V DC power supply (V₆), for this output you can only select W(0.5V~2.5V DC) or K(0.5V~4.5V DC), We generally recommend K.