

## HPM1500 Sputtered Thin Film Pressure Transmitter



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## Overview

HPM1500 sputtered diaphragm pressure transmitter is packaged with a metal-based pressure-sensitive chip. The pressure-sensitive element is directly fabricated onto a 17-4PH stainless steel diaphragm using a sputtering process, eliminating adhesives, moving parts, sealed cavities, and oil-filled chambers. Therefore, it is characterized by its suitability for harsh environments and long-term stable operation.

This product is designed for applications in engineering machinery hydraulic systems characterized by hydraulic hammer, cavitation, high pressure shocks, significant vibration interference, and harsh environments, fully meeting the requirements of these conditions. The product is impact-resistant, high-temperature resistant, exhibits excellent long-term stability, and high reliability.

## Features

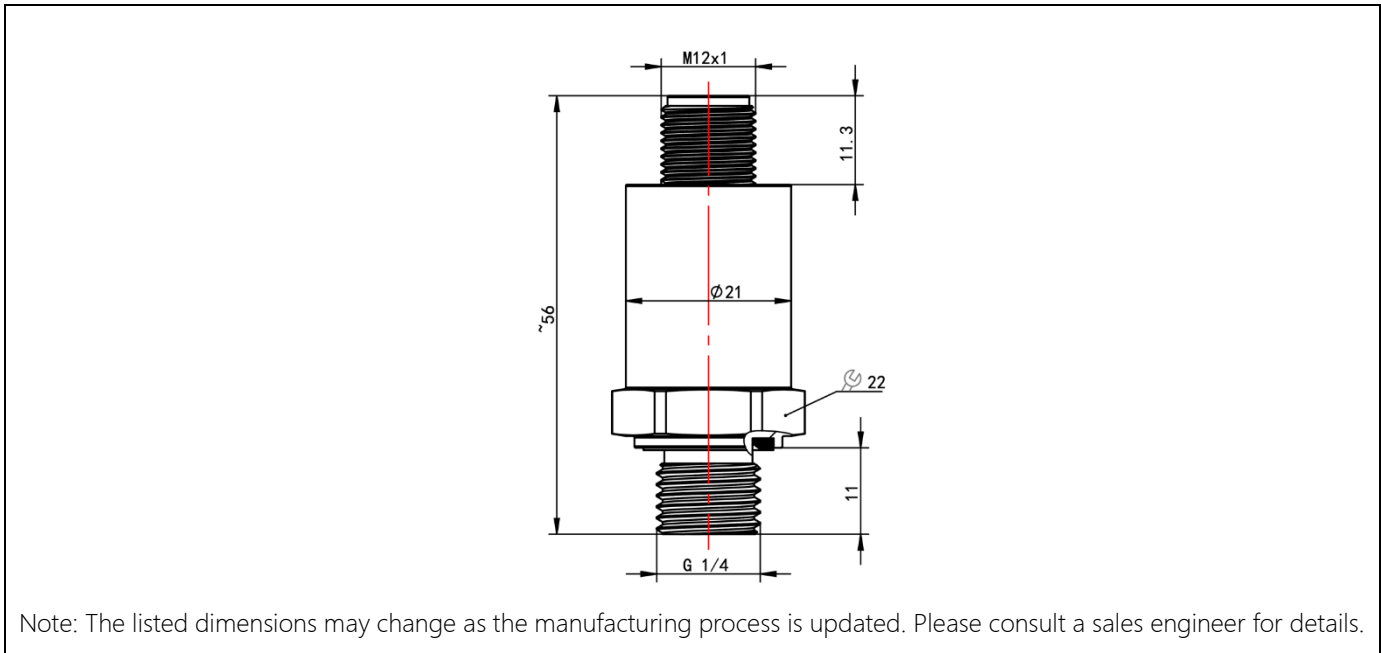
- ◆ Compact design made entirely of welded stainless steel
- ◆ Pulse damper design, preventing liquid hammer and cavitation
- ◆ Advanced anti-interference and surge protection
- ◆ Overall accuracy up to 0.25% (within the compensated temperature range)
- ◆ Low hysteresis and good stability

## Technical Parameters

<b>Measuring range (MPa)</b>	1~2.5	4~10	16~40	60	70~200	250
<b>Overload pressure</b>	4 times	3 times			1.5 times	≤300MPa
<b>Breaking pressure</b>	40 times	20 times	10times	≤400MPa		
Note: Higher overload pressure and breaking pressure can be customized.						
<b>Measuring Medium</b>	Liquid or gas compatible with 17-4PH					
<b>Output Signal</b>	4~20mA / Vs=9~32VDC					
	0~5V, 1~5V.etc. / Vs=9~32 VDC					
	0~10V, 1~10V.etc. / Vs=13~32 VDC					
<b>Accuracy</b>	±0.15%FS					
<b>Long-term Stability</b>	±0.15%FS/year					
<b>Response time</b>	≤1ms (voltage output); ≤2ms (current output) W/O pulse snubber					
<b>Temperature compensation range</b>	0~70°C					
<b>Overall accuracy</b>	≤0.25%FS (within the temperature compensation range)					
<b>Medium Temperature</b>	-40~105°C					
<b>Ambient Temperature</b>	-40~105°C					
<b>Storage Temperature</b>	-40~80°C					
<b>Protection Grade</b>	IP66 (Parker connector) IP67 (M12×1)					

<b>Short circuit protection</b>	Support
<b>Reverse polarity protection</b>	No damage, circuit does not work
<b>Vibration</b>	20g(20~5000Hz)
<b>Shock resistance</b>	50g(11ms)
<b>Insulation resistance</b>	>200MΩ @500VDC
<b>Insulation strength</b>	<2mA @ 500VAC 1min
<b>Electromagnetic field radiation</b>	GB/T 17626.3-2016
<b>Electrostatic discharge</b>	GB/T 17626.2-2018

### Structure Drawings(unit:mm)



### Electrical Connection

M12x1	Parker

2 wires 4~20mA output		
	Power supply+ (+V)	Power supply- (0V/+OUT)
M12x1	1	2
Parker	2	1

3 wires voltage output			
	Power supply+ (+V)	COMMON (GND)	Output (+OUT)
M12×1	1	3	2
Parker	2	1	3

## Ordering Guide

Model	Type										
HPM1500	Pressure Transmitter	Measuring Range									
		(0 ~ X)MPa	Fill out X directly								
		Code	Output Signal								
		B1	(4 ~ 20)mA								
		B3	(0 ~ 10)V								
		B4	(0 ~ 5)V								
		B5	(1 ~ 5)V								
		B6	(0.5 ~ 4.5)V								
		Code	Thread Spec								
		P1	M20×1.5 male								
		P3	G1/4 male								
		Code	Electrical Connection								
		C4	Parker								
		C5	M12×1								
		C5X	M12×1 with cable								
		Code	Snubber								
		N	Without								
		Y	With								
		Code	Sensor type								
		MJ	Sputtered film								
Code	Process connection material										
PH	17-4PH										
X	Customized										
Code	Others										
G	Gauge(by default)										
C	Composite pressure										
QF	With factory report										
R1	CE certificate										
	Others requests										
HPM1500	[0 ~ 100]MPa	B1	P3	C5	Y	MJ	PH	G			

## Certification Information

Factory certification	
Certification organization	CQM
Quality management system	ISO 9001:2015
Certification scope	Research, development and manufacture of pressure transmitter and temperature transmitter
Certificate No.	00223Q21711R1S
CE	
Certification organization	ECM
Certification range	Pressure Transmitter
Electromagnetic Compatibility	2014/30/EU
Registration Number	6G241223.NHEWC83