

# MPM4810 Level Transmitter for High-Temperature Up To 125°C

## Introduction

MPM4810 is high temperature level transmitter with high accuracy. It uses qualified high temperature pressure sensor as the pressure sensing element and thermal sensor for temperature measurement. It adopts high temperature special signal processing circuit for digital temperature compensation and non-linearity correction. The digital circuit processes the sensor signal into standard output signal by linear relationship between liquid level/temperature and output signal. With full welded stainless steel construction, MPM4810 is able to measure level and temperature measurement of liquids up to 125 °C which compatible with SS material in a long time. It is mainly used for level and temperature measurement in hot spring and under-ground hot water.



## Features

- Full welded stainless steel construction for submersible part; submersible measurement;
- Sensor and amplifier circuit are full welded in stainless steel housing; Protection IP68;
- The submersible transmitter is able to measure level and temperature of liquids up to 125°C which is compatible with SS material in a long time, and output 2 standard analog signals at the same time;
- Digital temperature compensation and non-linearity correction techniques;
- Water-proof connection box is suggested for electric connection, it can be installed in a place easy for wiring;
- Cap on the transmitter probe is removable; prevent diaphragm from damaging, easy for regular cleaning.

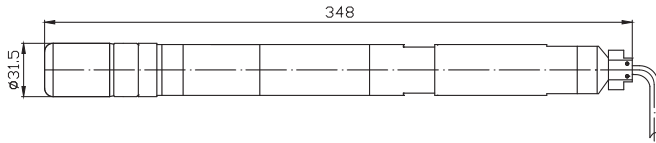
## Specifications

Range	Level: 0m~5m...200m H <sub>2</sub> O Temperature: 0°C ~125°C
Overpressure	1.5 times FS
Pressure Type	Absolute
Accuracy	Level:±0.5%FS (including non-linearity, repeatability and hysteresis); Temperature:±2°C
Power Supply	10V~30V DC
Output Signal	4mA~20mA DC
Operation Temp.	0°C ~125°C
Temp. Compensation	0°C ~125°C
Storage Temp.	-40°C ~130°C
Zero Thermal Drift	±0.02%FS/°C
FS thermal Drift	±0.02%FS/°C
Protection	IP68
Load	≤(U-10)/0.02(Ω)
Long Term Stability	±0.35%FS/Year

### Construction Material

- Cap: Stainless Steel 304
- Housing: Stainless Steel 304
- Cable: Teflon high-temperature cables

### Outline Construction (Unit: mm)



### Electrical Connection

Wire Color	Electrical Definition
Black	V+
Red	Level Output: 4mA~20mA DC
Blue	Temp. Output: 4mA~20mA DC

### Order Guide

MPM4810		High-Temperature Level Transmitter				
Range		Measuring Range: Level: 0m~5m...200m H <sub>2</sub> O Temp.: 0°C ~125°C				
[0m~XmH <sub>2</sub> O]L		X: Actual measuring range L: cable length, suggested L-X=(1~2)m				
Code		Output Signal				
E		4mA~20mA DC				
Code		Construction Material				
		Diaphragm	Pressure Port	Housing		
22		Titanium alloy	SS	SS		
Code		Others				
M <sub>1</sub>		0~100% hand pointer indicator				
Y <sub>b</sub>		Aluminum connection box without display				
Y <sub>c</sub>		MS200 water-proof connection box(suggested)				
Y <sub>d</sub>		PD140 lightning-proof protection device				
A		Absolute				
MPM4810	[0m~5m H <sub>2</sub> O]7	E	22	Y <sub>c</sub> A	the whole spec.	

### Notes

1. Please be sure the measured media shall be compatible with contacting material; please pay attention to media density in the measurement;
2. If the product is installed in "lightning and thunder" area, please note "lightning-proof" in the order. We suggest to choose Lightning-proof Protection Device to protect transmitter. Please be sure good grounding as well to prevent transmitter from damaging;
3. If the user has special requirement, please feel free to contact our company.