Temperature and Level Dual-Output Submersible Level Transmitter

MPM4811

Applications

- Petroleum
- Chemical
- Power plant
- Urban water supply and drainage
- Hydrological exploration
- Temperature measurement and control

Features

- Dual output standard signals for level and temperature measurement
- Reversed-polarity protection
- Suitable for level and temperature measurements
- Quality assurance of automated production, ensuring stability and reliability

Introduction

MPM4811 Level Transmitter is a fully sealed, submersible diffused silicon instrument for level and temperature measurement. It integrates a piezoresistive OEM pressure sensor, a PT1000 temperature sensor, and high-precision circuitry, all enclosed in a stainless steel housing. Advanced manufacturing techniques and automated production ensure consistent product quality, while its robust adaptability allows for reliable operation in demanding environments.

Specifications

Range	0mH_2O ~ 1mH_2O…200mH_2O
	-20°C …0°C ~ 10°C …70°C
overload	≤2 times FS
Pressure type	Gauge G
Accuracy	Refer to Measuring Range & Accuracy
Temperature accuracy	±2°C
Zero thermal error	≤±0.02% FS/°C
Span thermal error	≤±0.05% FS/°C
Long-term stability	≤ ±0.2% FS/year
Power supply	12V~30V DC
Operating temperature	-20°C ~ 80°C (PUR)
-20°C~ 70°C (PE, PVC)	-20°C ~ 85°C
Storage temperature	-20°C ~ 85°C
Vibration	10g, 55Hz ~ 2000Hz
Shock	100g, 11ms
IP rating	IP68
Weight	≤ 240g

Measuring Range & Accuracy

Gauge Pressure G				
Unit	Measuring Range	Accuracy	Overpressure	Code
mH_2O	0 ~ 1	±1%FS	4	H001
	0 ~ 2	±0.5%FS	4	H002
	0 ~ 2.5		4	H2D5
	0 ~ 3		7	H003
	0 ~ 3.5		14	H3D5
	0 ~ 4		14	H004
	0 ~ 5		20	H005
	0 ~ 6		20	H006
	0 ~ 7		20	H007
	0 ~ 8		20	H008
	0 ~ 9		20	H009
	0 ~ 10		20	H010
	0 ~ 15		40	H015
	0 ~ 20		40	H020
	0 ~ 25		70	H025
	0 ~ 30		70	H030
	0 ~ 35		70	H035
	0 ~ 40		140	H040
	0 ~ 45		140	H045
	0 ~ 50		140	H050
	0 ~ 60		140	H060
	0 ~ 70		140	H070
	0 ~ 80		200	H080
	0 ~ 90		200	H090
	0 ~ 100		200	H100
	0 ~ 110		400	H110
	0 ~ 120		400	H120
	0 ~ 150		400	H150
	0 ~ 200		400	H200

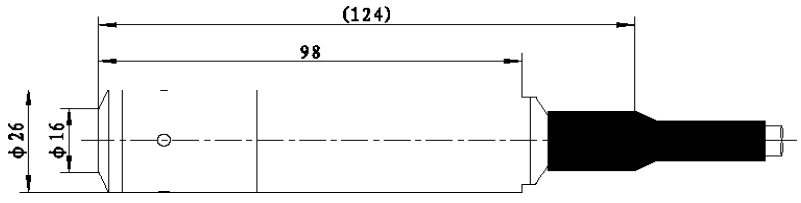
Test standard: GB/ T17614.1 -2015 -2015/IEC60770-1:2010

Ambient temperature: 20℃ ± 5℃

Relative humidity: 45%~75%

Outline Construction

Unit: mm



Electrical Connection

Color	2-wire
Red	+V
Black	+OUT
Blue	Temperature output

Construction Materials

Isolated diaphragm: SS 316L/Titanium

Housing: SS 304/ SS 316L/Titanium

Cable: PE/PUR/PVC

Order Guide

MPM4811	Level Transmitter
Range	Measuring range: 0mH_2O ～ 1mH_2O…200mH_2O
	Measuring range: -20°C …0°C ~ 10°C …70°C
HXXX	Range-specific code
[X ～ X°C]	Operating temperature range

Code	Output signal
E	4mA~20mA DC

Code	Power supply
V10	12V~30V DC

Code	Accuracy
A2	±0.5%FS
A3	±1%FS

Code	Sensor sealing
00	FKM (standard)
01	EPDM (optional for special media based on compatibility)

Code	Construction material		
	Isolated diaphragm	Pressure port	Housing
22	SS 316L	SS 304	SS 304
24	SS 316L	SS 316L	SS 316L
40	Titanium Ta1	Titanium TC4	Titanium TC4

Code	Cable material
P1	PE (standard)
P2	PUR (optional for special media based on compatibility)
P3	PVC (optional for special media based on compatibility)

Code	Cable length (unit: m)
L001	1
L002	2
L003	3
L004	4
L005	5
L006	6
L007	7
L008	8
L009	9
L010	10
L012	12
L015	15
L017	17
L020	20
L025	25
L030	30
L035	35
L040	40

MPM4811	H005[0 ～ 60°C]	E	V10	A2	00	22	P1	L015	The complete spec.

Order Guide

L045	45
L050	50
L060	60
L070	70
L080	80
L090	90
L100	100
L110	110
L120	120
L150	150
L200	200

Code	Accessory
N	None
Yb3	Yb junction box (3-core terminals)
Yc3	MS200 (3-core terminals)
Yd	PD140
YeM6	Ye (M6)
YeM7	Ye (M7)
Ye	Ye (without indicator)
MS01	Polymer plug
LJ8	Locking cable connector (flange optional)

N	The complete spec.

Notes

1. The recommended IP rating for the junction box is IP65.
2. The measured medium shall be compatible with the wetted parts materials, and the medium's density (excluding water) under measurement conditions must be specified.
3. In areas prone to thunderstorms, it is advisable to install lightning protection devices and ensure proper grounding of the product and power supply to minimize the risk of lightning damage to the transmitter.
4. When selecting the YeM6 or YeM7, only 4mA~20mA DC output is available, and requiring a power supply of ≥15VDC.
5. The ambient temperature of transmitter should be -20°C~ 70°C with YeM6 option, while -10°C~ 60°C with YeM7 option. Indicator settings refer to its order guide, which can be obtained from the MICROSENSOR website.
6. If a metrology verification certificate is required, or there are any other special requirements, please consult with the MICROSENSOR and specify them in the order.