

Level Transmitter for Specialized Applications & Complex Environments

MPM426W



Applications

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

Features

- Detachable stainless steel cap prevents diaphragm damage and allows easy cleaning
- Intrinsically safe, explosion-proof mark: Ex ia IICT6 Ga
- CE, RoHS and CCS approved

Introduction

MPM426W Level Transmitter uses a high-performance pressure sensor to measure hydrostatic pressure, which is proportional to the level depth. The pressure is then converted into a standard current or voltage signal through a signal conditioning circuit, establishing a linear relationship between the output signal and level. With high accuracy, compact size, and easy installation, the transmitter can be directly immersed in liquid to measure the level height from the sensor tip to the liquid surface in real time.

Specifications

Range	
Overpressure	Refer to "Measuring Range & Accuracy Table"
Accuracy	
Long-term stability	Range > 10mH ₂ O, ≤ ±0.2% FS/year
	Range ≤ 10mH ₂ O, ≤ 20mmH ₂ O/ year
Operating temperature	-10°C ~ 60°C (intrinsically safe explosion-proof)
	-20°C ~ 70°C (cable material: PE, PVC)
	-20°C ~ 80°C (cable material: PUR)
Storage temperature	-20°C ~ 85°C
Vibration	10g, 55Hz ~ 2000Hz
Shock	100g, 11ms
IP rating	IP68
Weight	≤150g

Measuring Range & Accuracy Table

Gauge Pressure G				
Unit	Measuring Range	Accuracy	Overpressure	Code
mH ₂ O	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	±0.25%FS	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/T 17614.1-2015/IEC60770-1:2010;
 Ambient temperature: 20℃ ± 5℃
 Relative humidity: 45% ~ 75%

Output Signals

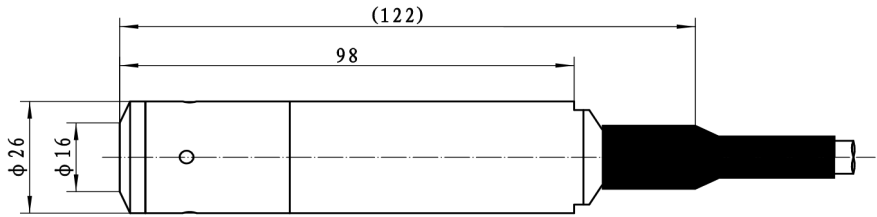
Output Signal	Supply Voltage	Output Type	Load Resistance
4mA~20mA DC(E)	15V~28V DC (Intrinsically safe, powered by safety barrier)	2-wire	≤(U-15)/0.02 (Ω)
0mA~10mA DC(Q)		3-wire	≤250Ω
0mA~20mA DC(U)			
0V~5V DC(J)			> 10 kΩ
1V~5V DC(F)			
0V~10V DC(V)			

Thermal Error

Zero thermal error	$\leq \pm 0.05\% \text{ FS}/^{\circ}\text{C} \ (\leq 10\text{mH}_2\text{O})$
	$\leq \pm 0.02\% \text{ FS}/^{\circ}\text{C} \ (> 10\text{mH}_2\text{O})$
Span thermal error	$\leq \pm 0.05\% \text{ FS}/^{\circ}\text{C} \ (\leq 10\text{mH}_2\text{O})$
	$\leq \pm 0.05\% \text{ FS}/^{\circ}\text{C} \ (> 10\text{mH}_2\text{O})$

Outline Construction

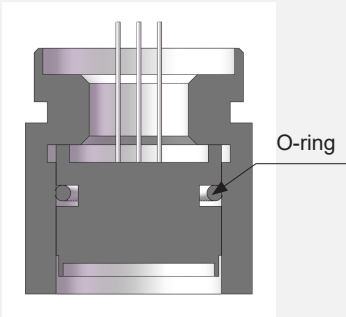
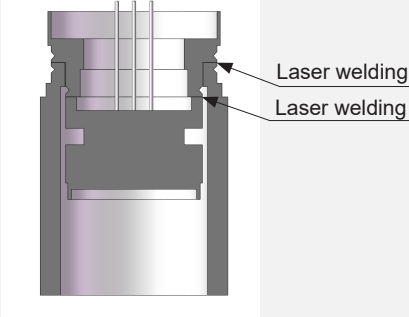
Unit: mm



Electrical Connection

	Current 2-wire	Voltage 3-wire
+V	Red	Red
OUT	Black	White
GND	Null	Black

Sensor Sealing

O-ring (FKM/EPDM)	Welding
	

Construction Materials

Isolated diaphragm: SS 316L/Titanium
Housing: SS 304/ SS 316L/Titanium
Cable: PE/PUR/PVC

Order Guide

MPM426W	Level Transmitter										
	Range	Measuring range 0mH ₂ O ~ 1mH ₂ O...200mH ₂ O									
	HXXX	Range-specific code									
		Code	Output signal								
		E	4mA~20mA DC								
		Q	0mA~10mA DC								
		U	0mA~20mA DC								
		J	0V~5V DC								
		F	1V~5V DC								
		V	0V~10V DC								
			Code	Power supply							
			V13	15V~28V DC							
				Code	Accuracy						
				A1	±0.25%						
				A2	±0.5%FS						
				A3	±1%FS						
					Code	Construction material					
						Isolated diaphragm			Housing		
					22	SS 316L			SS 304		
					24	SS 316L			SS 316L		
					40	Titanium TA1			Titanium TC4		
						Code	Sensor sealing				
						00	FKM (standard)				
						01	EPDM (optional for special media based on compatibility)				
						02	Welding (optional for special media based on compatibility)				
							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		
								L045	45		
MPM426W	H005	E	V13	A2	22	00	P2	L005	The complete spec.		

Order Guide

Code	Cable length (Unit: m)
L050	50
L060	60
L070	70
L080	80
L090	90
L100	100
L110	110
L120	120
L150	150
L200	200

Code	Certification requirement ^①
N	None
i	Intrinsically safe explosion-proof Ex ia IICT4 Ga
T	Ship-use

Code	Accessory
N	No accessories required
Yb3	Yb junction box (3-core terminals)
Yc3	MS200 (3-core terminals)
Yd	PD140
Ye	Ye (Without indicator)
YeM6	Ye (M6)
YeM7	Ye (M7)
MS01	Polymer plug

N	Ye	The complete spec.
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Notes

- When selecting YeM6 or YeM7 indicators, only non-explosion-proof or non-marine products with a 4mA~20mA DC current output are available.
- "①" refers to certification requirements. The details are:
For the intrinsically safe explosion-proof type, current output is available only.
The product can be intrinsically safe explosion-proof and suitable for ship-use simultaneously.
- The recommended IP rating for the junction box is IP65.
- The measured medium shall be compatible with the wetted parts materials, and the medium's density (excluding water) under measurement conditions must be specified.
- In areas prone to thunderstorms, install lightning protection and ensure proper grounding of the product and power supply to minimize lightning damage to the transmitter.
- 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.

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