



**bar** **MPM416WK**  
Submersible Level Transmitter

**MICROSENSOR**  
AUTHORIZED DISTRIBUTOR

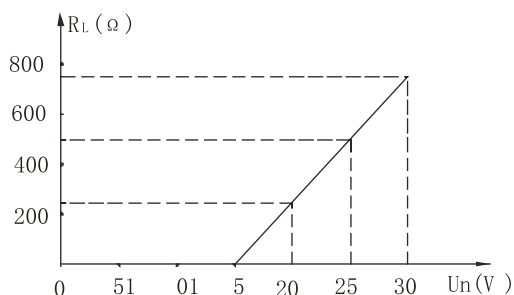
MPM416WK Submersible Level Transmitters use high performance piezoresistive pressure sensor as sensing elements. It measures liquid static pressure accurately which is positive proportional to liquid depth, transmitting pressure signal into standard current/voltage output signal by amplifier circuit board. The product has high accuracy, compact size and easy operation characteristics, and it can be submersible into the liquid to measure level from transmitter bottom to liquid surface. It is widely used for the liquid measure and control of both petroleum, chemi-industry, power station, city water supply and drainage and hydrology.



**FEATURES**

- Separate construction; full sealed stainless steel construction for submersible/inserted sensor; aluminum-alloy electric connection box; easy for installation, wiring and calibration;
- MPM416WK has stainless steel tube protection, flange installation, local display and calibration.
- Explosion-proof version product conforms to Exia II CT6 of Standard GB3836.4; Explosion-proof Certificate is issued
- Ship-use product conforms to CCS Rules of Classification of Sea-going Steel Ships(2006); Ship-use Product Certificate is issued;
- CE Certificate

**LOAD CHARACTERISTIC**



**2-wire**

4mA ~20mA DC output

15V ~30V DC power supply

$$R_L \leq \frac{U_n - 15V}{20mA} \times 10^3 (\Omega)$$

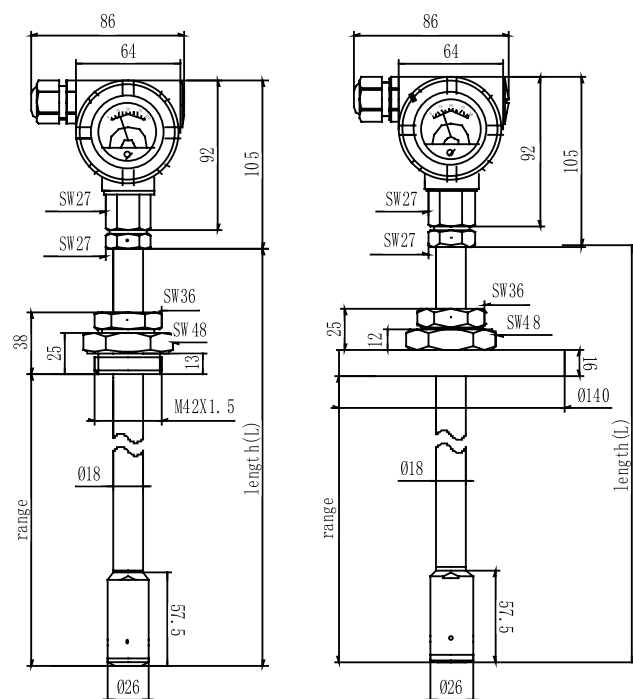


**SPECIFICATIONS**

Pressure range	1, 2, 3, 4mH <sub>2</sub> O		
Overpressure	1.5times FS		
Accuracy	±0.25%FS(typ.)	±0.5%FS (max.)	
Stability error	±0.1%FS(typ.)	±0.2%FS (max.)	pressure range >10mH <sub>2</sub> O
	±10mmH <sub>2</sub> O(typ.)	±20mmH <sub>2</sub> O (max.)	pressure range ≤10mH <sub>2</sub> O
Temp. drift	Zero drift, ± %FS/°C		
	Range>10mH <sub>2</sub> O	0.005(typ.)	0.01(max.)
	Range ≤10mH <sub>2</sub> O	0.01(typ.)	0.02(max.)
	Range ≤5mH <sub>2</sub> O	0.015(typ.)	0.03(max.)
	Range ≤2mH <sub>2</sub> O	0.025(typ.)	0.05(max.)
Transmitting	2-wire		3-wire
Power supply	15~28VDC(Intrinsic safe version is supplied through safe barrier)		
Output signal	4~20mADC	0~10/20mADC	0/1~5/10VDC
Load(Ω)	< (U-15)/0.02A	< (U-15)/0.02A	>5k
Material contacting with media	Housing: stainless steel 1Cr18Ni9Ti		O-ring: Viton
	Diaphragm: stainless steel 316L		Rubber casing: NBR
	Cable: Φ7.2mm PVC/Polyurethane cable with vented tube		
Operation temp.	-30°C ~80°C	-10 °C ~60°C	
Storage temp.	-40°C ~120 °C		
Protection	IP68(sensor part), IP65(wiring part)		
Ex-proof class	Exia II CT6		

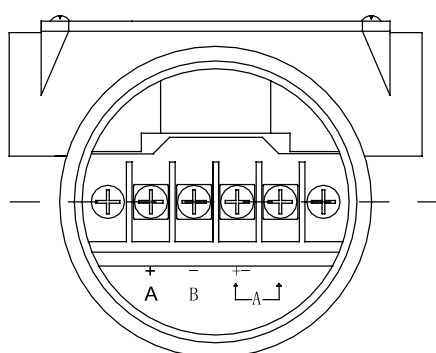
**OUTLINE CONSTRUCTION (Unit: mm)**

Outline dimension



**ELECTRICAL CONNECTION**

Terminal connection in Electrical Housing

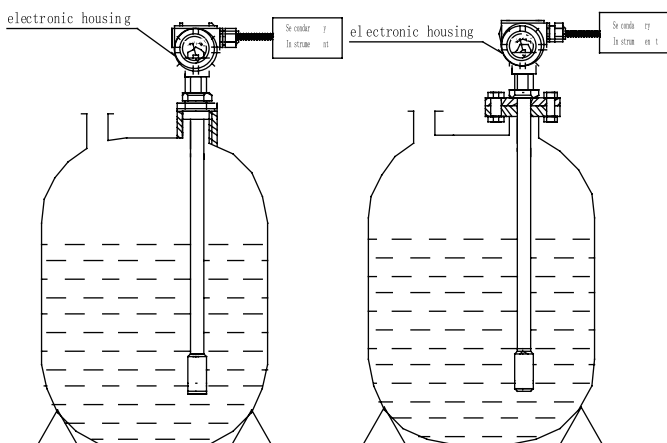
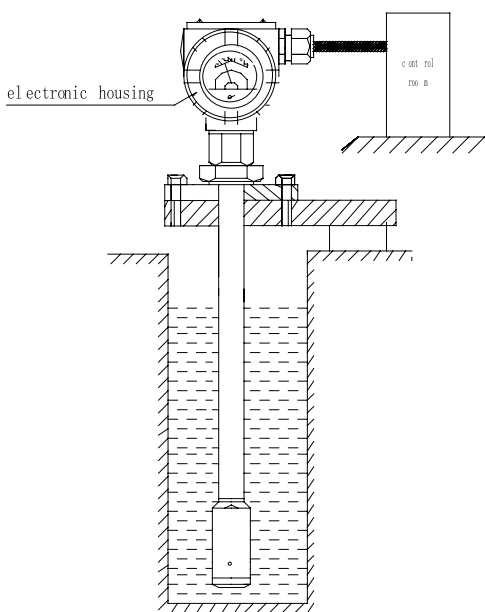
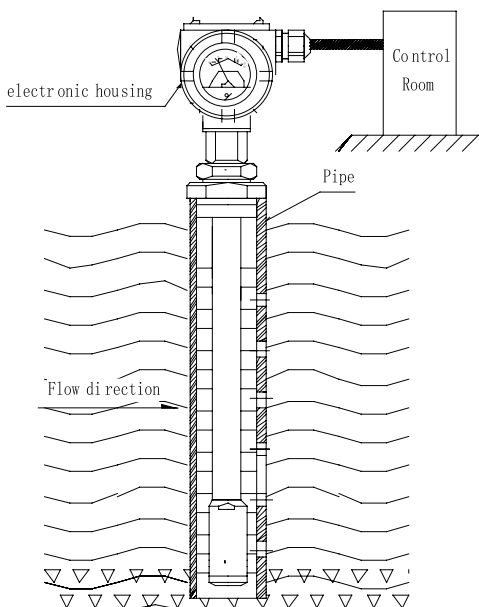


Current		Voltage	
Terminal	Definition	Terminal	Definition
+ / A	V+	+ / A	V+
- / B	I0	- / B	OUT
		A	GND



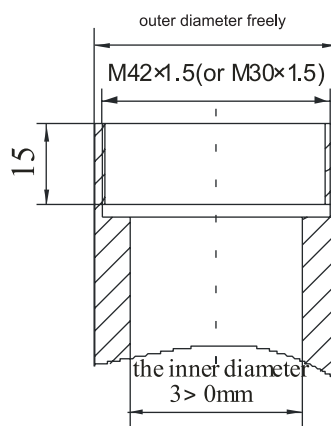
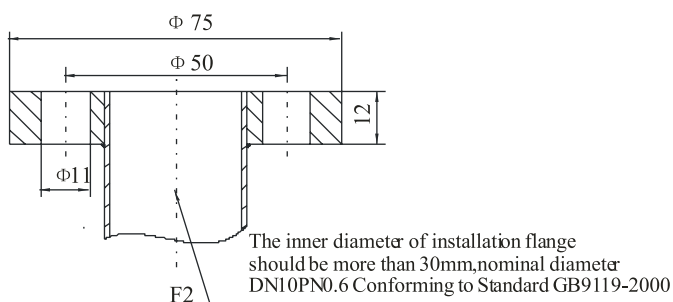
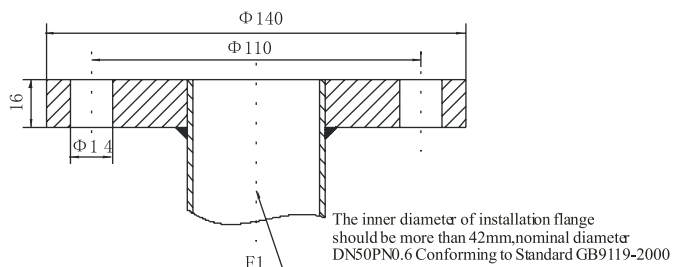
APPLICATION EXAMPLE

Install in static water



INSTALLATION AT LOCAL PLACE (Unit: mm)

The user needs to prepare flange and thread at local installation place





ORDER GUIDE

MPM416WK		Armoured Level Transmitter			
	Range(mH <sub>2</sub> O)	[0~X mH <sub>2</sub> O]L	L: armoured tube length		
		Code	Output signal		
		E	4~20mADC		
		F	1~5VDC		
		J	0~5VDC		
		Q	0~10mADC		
		U	0~20mADC		
		V	0~10VDC		
		Code	Construction material		
			Diaphragm	Pressure port	Housing
		22	SS 316L	SS	SS
		25	Tantalum	SS	SS
		Code	Others		
			M <sub>1</sub>	0~100% hand pointer indicator	
			i	Intrinsic safe version Exia II CT6	
	1F1		Stainless steel flange 1 DN50		
	1M1		Stainless steel male M42x1.5		
	1F2		Stainless steel flange 2 DN10		
	1M2		Stainless steel male M30x1.5		
	2F1		Carbon steel plating zinc flange 1 DN50		
	2M1		Carbon steel plating zinc male M42x1.5		
	2F2		Carbon steel plating zinc flange 2 DN10		
	2M2	Carbon steel plating zinc male M30x1.5			
MPM416WK	[0~3mH <sub>2</sub> O]5	E	22	iC <sub>1</sub>	the whole spec

NOTES

1. Please pay attention if the media is compatible with contacting material, especially pay attention to media density at measuring situation (except water);
2. We provide the user with PVC or polyurethane cable; polyurethane cable is more flexible and wearable. If the user has no special requirements, the default would be PVC cable;
3. If the product is installed in lightning and thunder area, please note "lightning Protection" in the order; we suggest to use lightning protection device to make sure power is grounding safely;
4. When MPM416WK transmitter's armoured tube more than 2m, we would provide the user with divided steel tube to help delivery. Please install tubes in local place;
5. If the user has special requirement, please feel free to contact with our company.