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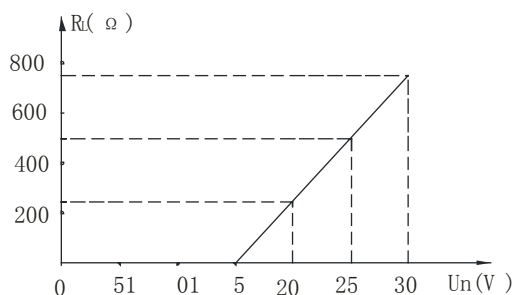
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# Бронированный датчик уровня МРМ416WK. Технические характеристики.

## 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



2-wire

4mA~20mAADC output

15V~30VDC power supply

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

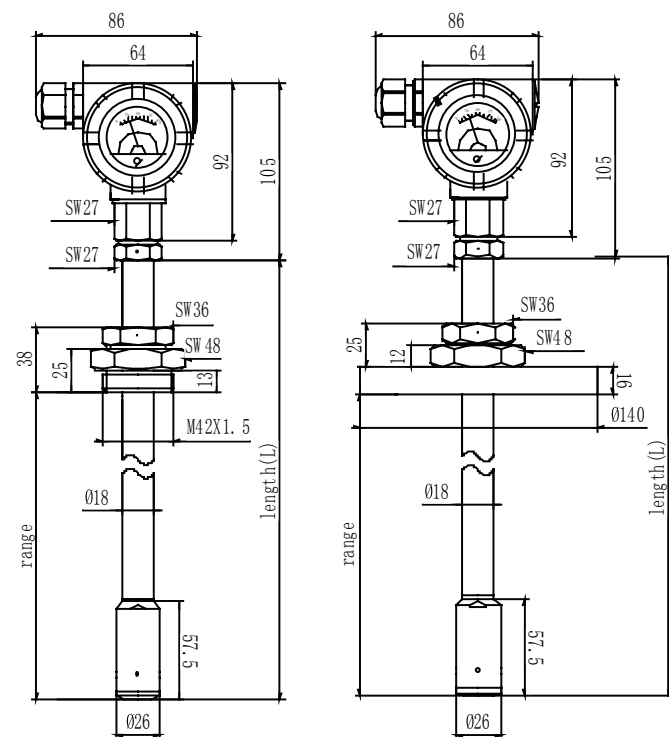


## Specifications

|                                |                                                                   |                     |                                                                   |                          |
|--------------------------------|-------------------------------------------------------------------|---------------------|-------------------------------------------------------------------|--------------------------|
| 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 |                                                                   | Sensitivitydrift,±%FS/°C |
|                                | Range>10mH <sub>2</sub> O                                         | 0.005(typ.)         | 0.01(max.)                                                        | 0.02(max.)               |
|                                | Range ≤10mH <sub>2</sub> O                                        | 0.01(typ.)          | 0.02(max.)                                                        | 0.02(max.)               |
|                                | Range ≤5mH <sub>2</sub> O                                         | 0.015(typ.)         | 0.03(max.)                                                        | 0.02(max.)               |
|                                | Range ≤2mH <sub>2</sub> O                                         | 0.025(typ.)         | 0.05(max.)                                                        | 0.02(max.)               |
| Transmitting                   | 2-wire                                                            |                     | 3-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℃ ~80℃    -10℃ ~60℃                                            |                     |                                                                   |                          |
| Storage temp.                  | -40℃ ~120℃                                                        |                     |                                                                   |                          |
| Protection                     | IP68(sensor part), IP65(wiring part)                              |                     |                                                                   |                          |
| Ex-proof class                 | Exia II CT6                                                       |                     |                                                                   |                          |

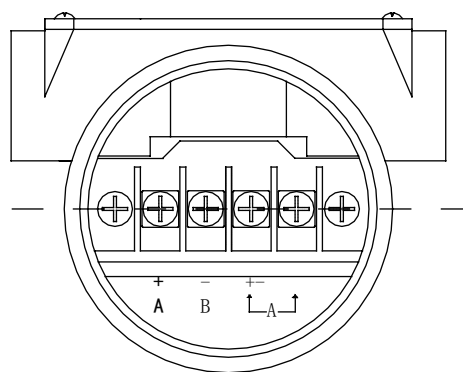
## Outline Construction (Unit: mm)

Outline dimension



## Electrical Connection

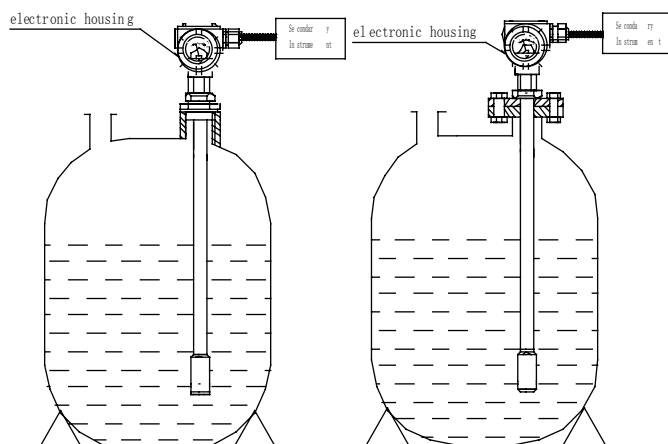
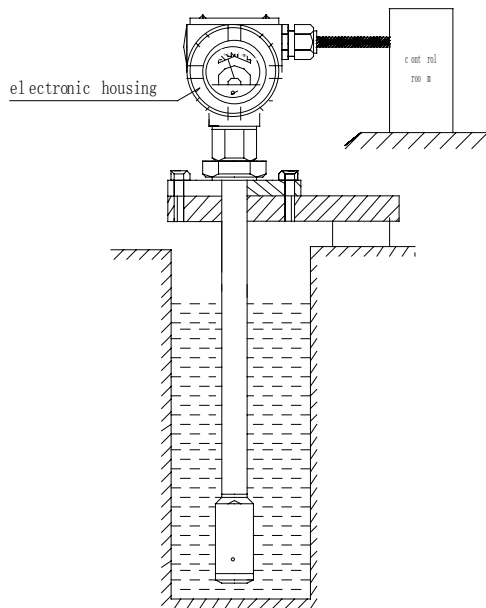
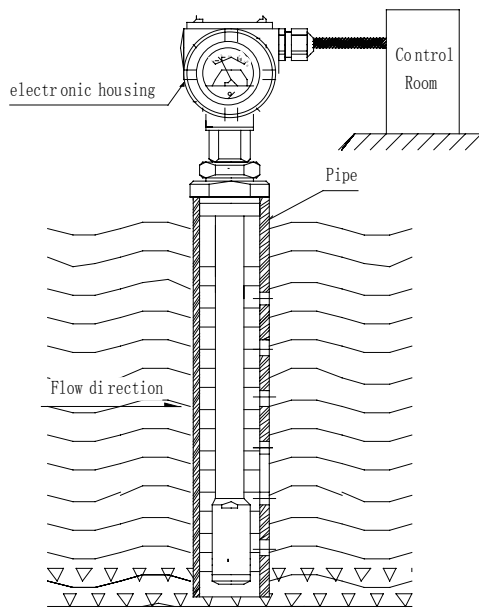
Terminal connection in Electrical Housing



| Current  |            | Voltage  |            |
|----------|------------|----------|------------|
| Terminal | Definition | Terminal | Definition |
| +A       | V+         | +A       | V+         |
| -B       | IO         | -B       | OUT        |
|          |            | A        | GND        |

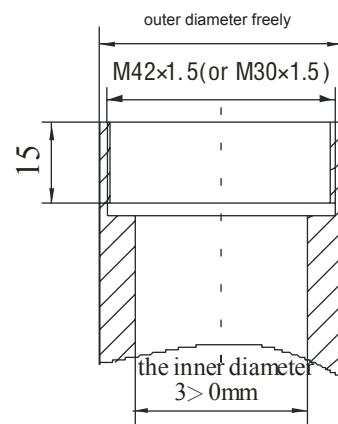
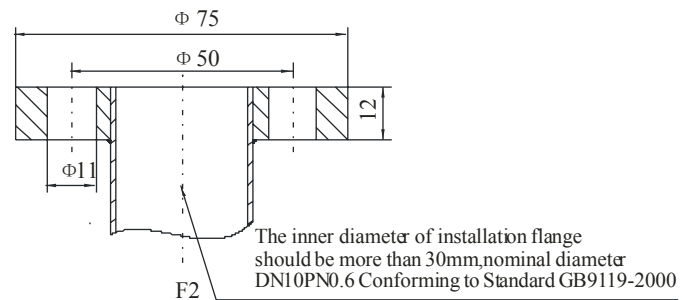
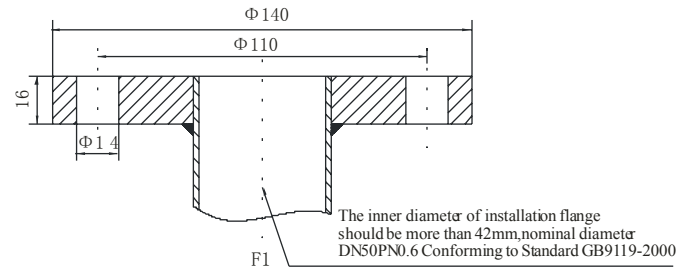
## Application Example

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 M42×1.5            |                 |         |
|                         |                                         |                            |                          | 1F2                     | Stainless steel flange 2 DN10           |                 |         |
|                         |                                         |                            |                          | 1M2                     | Stainless steel male M30×1.5            |                 |         |
|                         |                                         |                            |                          | 2F1                     | Carbon steel plating zinc flange 1 DN50 |                 |         |
| 2M1                     | Carbon steel plating zinc male M42×1.5  |                            |                          |                         |                                         |                 |         |
| 2F2                     | Carbon steel plating zinc flange 2 DN10 |                            |                          |                         |                                         |                 |         |
| 2M2                     | Carbon steel plating zinc male M30×1.5  |                            |                          |                         |                                         |                 |         |
| 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.

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