

# Level Transmitter for Specialized Areas Complex Environments

## MPM426W



### Applications

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

### Features

- The top stainless steel cap is removable, preventing accidental damage to the diaphragm, facilitating regular cleaning
- Intrinsic safety type, Ex ia IIC T6 Ga
- CE, RoHS and CCS approved

### Introduction

MPM426W level transmitter uses a good performance pressure sensor as a measuring element, through the pressure sensor, the liquid static pressure proportional to the liquid depth is accurately measured, and through the special signal conditioning circuit into a standard (current or voltage) signal output, to establish a linear correspondence between the output signal and the depth of the liquid, to achieve accurate measurement of the depth of the liquid. The product has high precision, small size, easy to use, directly into the liquid, you can measure the end of the transmitter to the liquid level of the liquid level height.

### Specifications

|                         |  |
|-------------------------|--|
| Range                   | 0mH <sub>2</sub> O ~ 1mH <sub>2</sub> O...200mH <sub>2</sub> O |
| Overpressure            | ≤2 times FS  |
| Accuracy                | see Accuracy on page 2   |
| Long-term Stability     | Range> 10mH <sub>2</sub> O, ≤ ±0.2% FS/ year                   |
|                         | Range≤ 10mH <sub>2</sub> O, ≤ 20mmH <sub>2</sub> O/ year       |
| Application Temperature | -10°C ~ 60°C (intrinsic safety type)                           |
|                         | -20°C ~ 70°C (B2 type, cable material: PE, PVC)                |
|                         | -20°C ~ 80°C (B2 type, cable material: PUR)                    |
| Storage Temperature     | -20°C ~ 85°C   |
| Vibration               | 10g, 55Hz ~ 2000Hz   |
| Shock                   | 100g, 11ms   |
| Protection Rating       | IP68   |
| Weight                  | ≤150g  |

## Accuracy

| Pressure Type | Range   | Accuracy  |
|---------------|---|---|
| Gauge (G)     | $0 \text{ mH}_2\text{O} \sim 1 \text{ mH}_2\text{O} \leq X < 2 \text{ mH}_2\text{O}$  | $\pm 1\% \text{FS}$                             |
|               | $2 \text{ mH}_2\text{O} \leq X \leq 10 \text{ mH}_2\text{O}$                          | $\pm 0.5\% \text{FS}$                           |
|               | $10 \text{ mH}_2\text{O} < X \leq 200 \text{ mH}_2\text{O}$                           | $\pm 0.25\% \text{FS}$<br>$\pm 0.5\% \text{FS}$ |
| Absolute (A)  | $0 \text{ mH}_2\text{O} \sim 7 \text{ mH}_2\text{O} < X \leq 10 \text{ mH}_2\text{O}$ | $\pm 1\% \text{FS}$                             |
|               | $10 \text{ mH}_2\text{O} < X \leq 200 \text{ mH}_2\text{O}$                           | $\pm 0.5\% \text{FS}$                           |

Test standard: GB/T 17614.1-2015/IEC60770-1:2010;

Environment temperature:  $20^\circ\text{C} \pm 5^\circ\text{C}$  ;

Relative humidity: 45% ~ 75%

## Thermal Drift

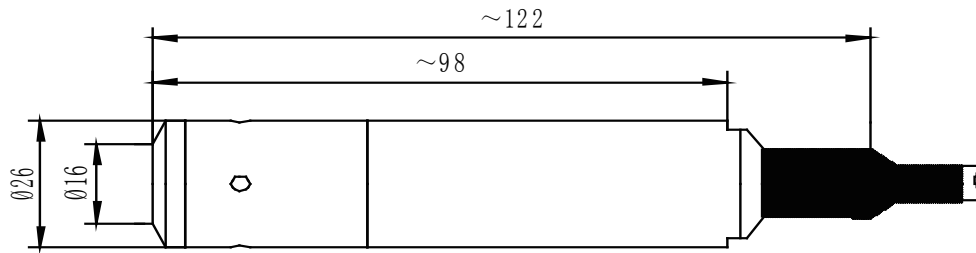
|                    |  |
|--------------------|--|
| Zero Thermal Drift | $\leq \pm 0.05\% \text{ FS}/^\circ\text{C} (\leq 10 \text{ mH}_2\text{O})$ |
|                    | $\leq \pm 0.02\% \text{ FS}/^\circ\text{C} (>10 \text{ mH}_2\text{O})$     |
| Span Thermal Drift | $\leq \pm 0.05\% \text{ FS}/^\circ\text{C}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

## Output Signals

| Output Signal   | Power Supply  | Output Format | Load Resistance             |
|-----------------|---|---------------|-----------------------------|
| 4mA~20mA DC (E) | 15V~28V DC<br><br>(The intrinsic safe product is powered by a safety barrier) | 2-wire        | $\leq (U-15)/0.02 (\Omega)$ |
| 0mA~10mA DC (Q) |   | 3-wire        | $\leq 250\Omega$            |
| 0mA~20mA DC (U) |   |               |                             |
| 0V~5V DC (J)    |   |               | $>10 \text{ k}\Omega$       |
| 1V~5V DC (F)    |   |               |                             |
| 0V~10V DC (V)   |   |               |                             |

## Outline Dimensions

unit: mm



## Electrical Connection

| Color | 2-wire  | 3-wire |
|-------|---------|--------|
| Red   | +V      | +V     |
| White | null    | +OUT   |
| Black | 0V/+OUT | GND    |

## Sensor Sealing



## Materials

Isolated Diaphragm: SS 316L/Tantalum

Housing: SS 304/SS 316L

Cable wire: PE/PUR/PVC



## Ordering Notes

1. "①", digital display is available for Ye junction box , but can only used along with non-explosion-proof or non-marine products support 4mA~20mA signal.
2. "②" refers to certification requirements. For the intrinsically safety type, current output is available only. The product can be intrinsically safe and suitable for ship-use simultaneously.
3. When ordering the transmitter with M6 or M7 indicator, power supply should  $\geq 20V$  DC.
4. Environmental temperature should be  $-20^{\circ}C \sim 70^{\circ}C$  when ordering the transmitter with M6 indicator, environmental temperature should be  $-10^{\circ}C \sim 60^{\circ}C$  when ordering the transmitter with M7 indicator, indicator setting can refer to our indicator lectotype, which can be found on our company's website.
5. Cable material is available for 3 types: PE cable is provided by default; if other material is needed, please specify in the order.
6. The protection rating of junction boxes are IP65.
7. The measured media should be compatible with the wetted material and the measured media density needs to be specified (except water) on contract.
8. If the product is installed in a thunderstorm area, a lightning protection device is required and be sure that the product and the power are reliably earthed, which can efficiently prevent the level sensor from lightning damage.
9. If metrology verification certificate is needed or there are other requirements, please contact us and specify it in the order.