



### **Description:**

MPM4700 level transmitter is the full stainless steel construction and full-sealed submersible intelligent level transmitter with high accuracy. It uses highly reliable and stable pressure sensor, intelligent processing circuit, precise digital temperature compensation and linearity correction technics for production. The waterproof cable connects with housing sealed, with vented tube putting in, the transmitter could be used in the water or liquid in a long time. Integrated construction and standard output signal could provide easy operation and good automatic control. With 2-wire working, compact size, lightweight and easy installation and operation, it is widely used for industry field instead of normal 2-wire 4~20mADC analog output transmitter.

### **Features:**

- 4~20mADC 2-wire current output;
- Digital temperature compensation and linearity correction;
- RS485 communication interface(Custom or MODBUS protocol) or HART communication protocol (optional) ; Netting application;
- Full stainless steel construction, compact size, light weight;
- Special requirement available;



**INTELLIGENT LEVEL  
TRANSMITTER TYPE  
MPM4700**

**Specification:**

Basic Range [mH <sub>2</sub> O]	3,5	7	10	20	35	70	100	200
Overpressure [mH <sub>2</sub> O]	5	10	15	30	50	100	150	300

Subject to change without notice

For the other pressure range between min. range and max. range, but not indicated on the above table, we enlarge the above basic pressure range to produce (overpressure unavailable);

Total Precision*, ***, Stability	± 0,075 %FS (min)	± 0,1 %FS (Typ)	± 0,25 %FS (max)
Compensated Temp. Working Temp. Storage Temp.	± 0,2 %FS/y -10 ÷ 70 °C -10 ÷ 80 °C -40 ÷ 100 °C		
Supply	10 ÷ 28 VDC (RS485), 12 ÷ 30 VDC (HART) 10 ÷ 12 VDC 4 ÷ 20 mA DC		
Output	RS485 communication interface (Custom protocol) or HART communication protocol		
Load	4 ÷ 20 mA DC output, (U-12V) / 0,002° [Ω] RS485 communication interface (Custom or MODBUS protocol) or HART communication protocol		
Insulation	100MΩ/50V		
Shock	20g, 20 ÷ 5000 Hz		
Impact	20g, 11ms		
Protection	IP68 (transmitter); IP65 (junction box)		
Media Compatibility	Diaphragm: 316L stainless steel		
	Housing: 1Cr18Ni9Ti stainless steel		
	O-Ring: Viton		
Weight	160g		

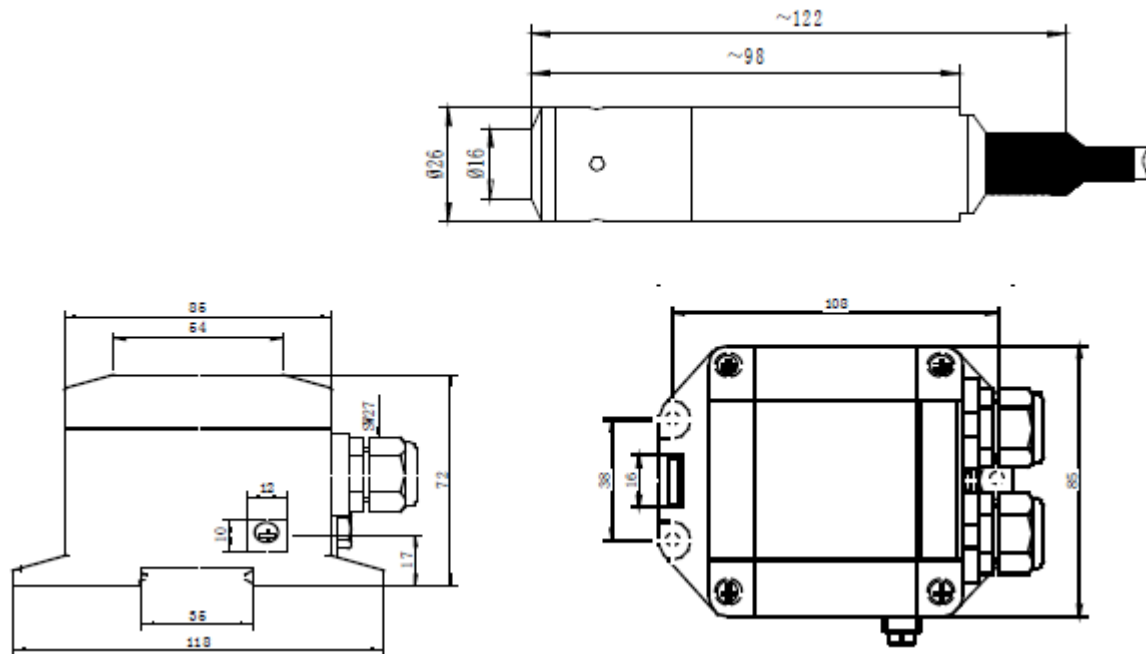
Subject to change without notice

\*Total accuracy: including non-linearity, hysteresis, repeatability and thermal error;

\*\*For special temperature requirement, please contact with our company;

\*\*\*For pressure range 3.5mH<sub>2</sub>O ad 7mH<sub>2</sub>O, after shrinking, the total accuracy is 60.5%FS.

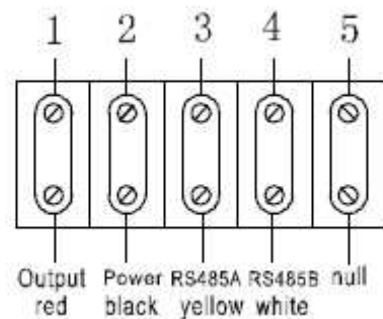
**Dimensions:** (in mm; 1mm = 0.03937 inches)



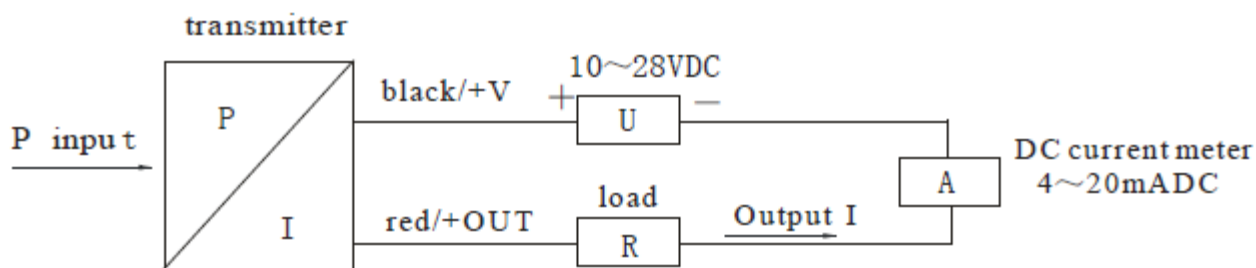
**Wiring:**

Transmitter connecting the outside by cable or connection box;

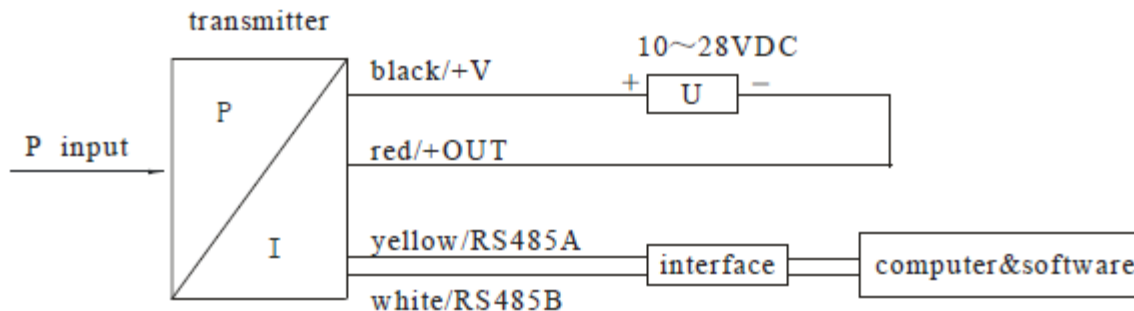
Cable Colour	Terminal	Connection
Black	2	+V
Red	1	OUT/GND
Yellow	3	RS485A
White	4	RS485B



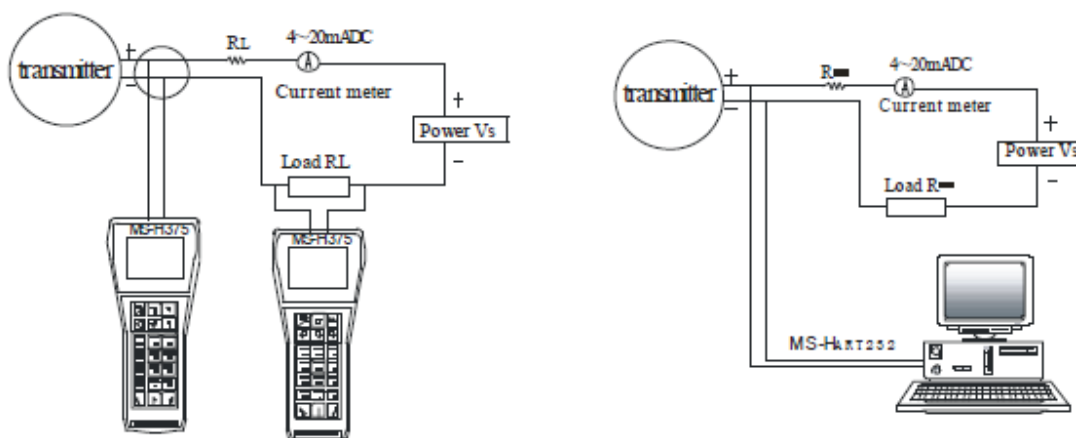
a). Electric connection for transmitter with 2-wire 4~20mADC output:



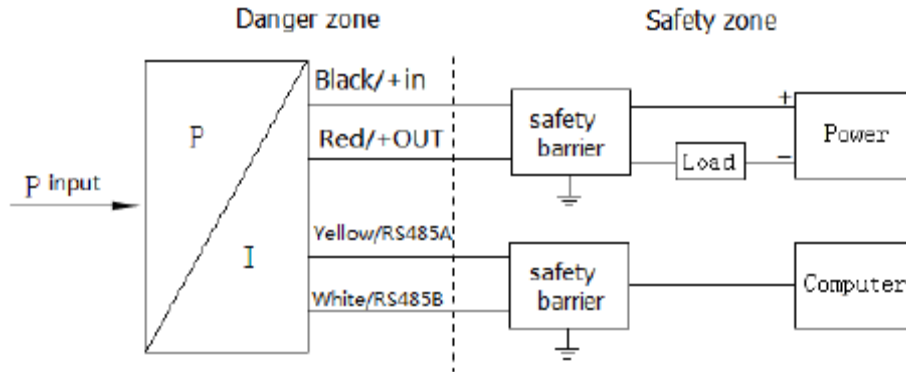
b). Electric connection for transmitter with RS485 interface



c). Wiring for HART transmitter connecting with hand-communicator;



d). This Ann explosion-proof type electrical connection methods are shown below



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Transmitter Ex-proof parameter:

U<sub>i</sub> : 12.4VDC I<sub>i</sub> : 140mADC

L<sub>i</sub> : 0mH C<sub>i</sub> : 7.4µF P<sub>i</sub> : 0.43W

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Safe barrier's ex-proof parameter:

U<sub>o</sub> : 12.4VDC I<sub>o</sub> : 140mADC P<sub>o</sub> : 0.43W

## Assistant Software

a). Transmitter Software (RS485 Interface type)

MS Setonline Software

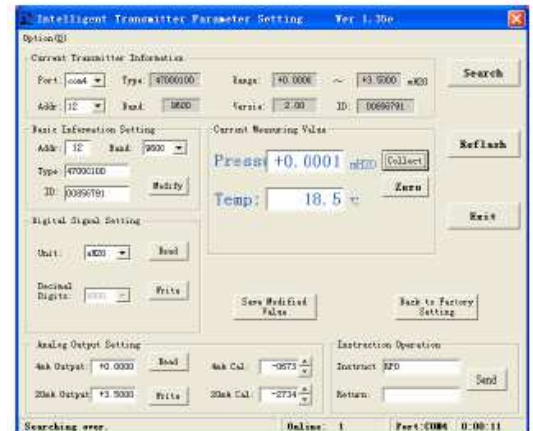
Through RS232/485 conversation module, the user could read inner basic information for RS485 interface transmitter (including level range, compensated temp. range, version code, etc.) and display actual level, set new zero, analog output and device address.

Transmitter Software (RS485 communication interface, MODBUS communication protocol)

MODBUS Software

Through MODBUS conversion module, the user could calibrate and adjust RS485 communication interface, MODBUS communication protocol transmitter.

Note: Software "MS Setonline" could be downloaded from the website [www.microsensor.cn](http://www.microsensor.cn)





# INTELLIGENT LEVEL TRANSMITTER TYPE MPM4700

## b). Transmitter Software (HART protocol)

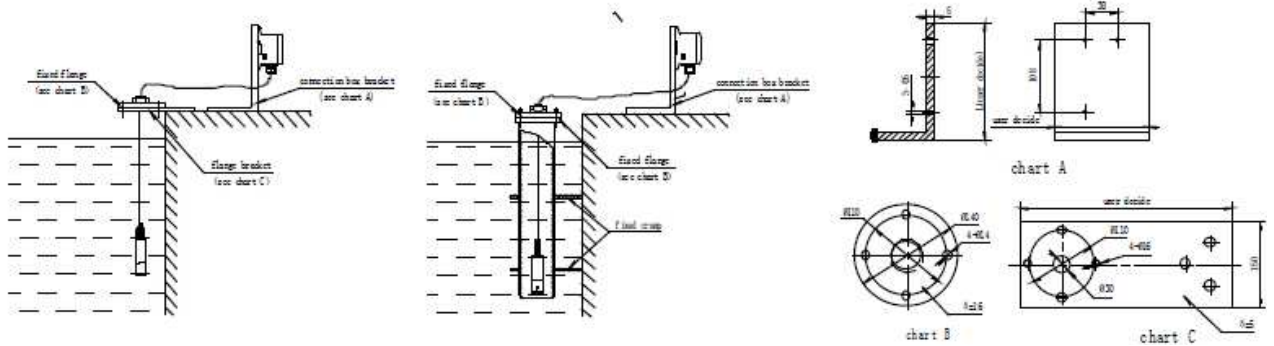
MS-C100ASoftwareThrough MS-HART□357 conversion module, the user could calibrate and adjust HART transmitter.



### Note:

Software “MODBUS” could be downloaded from the website [www.microsensor.cn](http://www.microsensor.cn)

## Application example:





**INTELLIGENT LEVEL  
TRANSMITTER TYPE  
MPM4700**

**Order guide:**

MPM4150	Pressure Transmitter	
	Range	0~10bar, 0~16bar, 0~35bar
	[0~X]bar	X= Actual measurement range
	Code	Output Signal
	E	4mA~20mA DC
		Code    Others
		A    Park Plug Connection
		B    Cable Connection
		D    Aviation Plug Connection
		E    Solenoid Valve Connector
		Code    Pressure Port
		C <sub>2</sub> G 1/4 male
		C <sub>6</sub> NPT 1/4 male
		C <sub>15</sub> R 1/4 male

**Order Note**

- Please note that the media should be compatible with the contacting material of transmitter;
- The default wire length of Type B products is 1 meter.
- Please note it in the order if you need customized pressure port;
- If the user has special requirements for transmitter specification or function, please feel free to contact us.