MPM4706
Digital Level Transmitter

Features

- Extremely low consumption and available for auto stand-by mode
- Integrated temperature measurement
- Digital compensation and non-linearity correction
- RS485 communication interface
- Suitable for networking
- Stainless steel housing, compact and light
- Customizable

Introduction

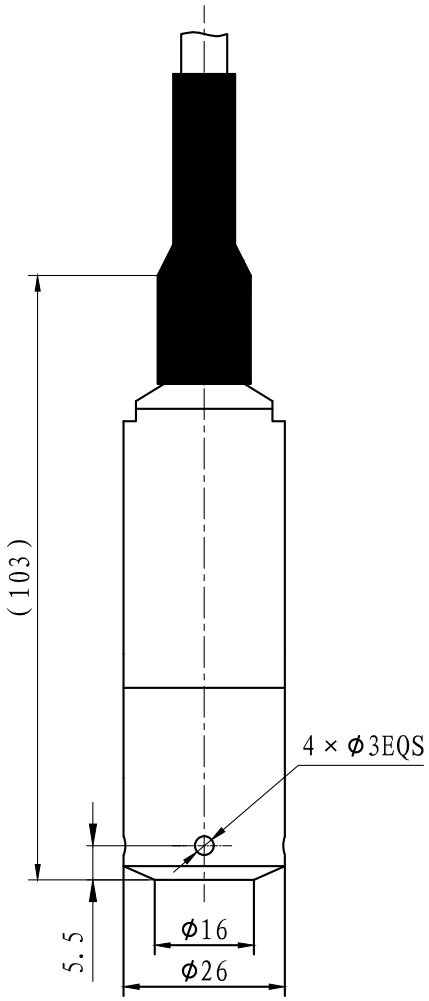
MPM4706 digital level transmitter is a highly precise and stable digital transmitter for the level measurement. This product utilizes the highly reliable piezoresistive OEM pressure sensing element and the high precision digital processing circuit, coupled with a dedicated algorithm, the transmitter is capable of high precision measurement. The product supports the measurement of both level and temperature and communicate via an RS485 interface. The transmitter consumes very low power and automatically enters standby mode when not communicating, and the power consumption at standby mode is as low as 10uA.

Specifications

Measured range	0~3.5...200 mH_2O
Over pressure	1.5 × FS
Total accuracy[a]	±0.25%FS（-10°C～ 70°C）
Temperature accuracy[b]	±0.5°C（-20°C～ 80°C） ±0.75°C（-30°C～ -20°C）
Power supply	3.6V ～ 28V DC
Output signal	RS485 (ModBus RTU or ASCII)
Compensation temperature	-10°C～ 70°C
Operation temperature	-10°C～ 70°C
Storage temperature	-20°C～ 85°C
Long-term stability	±0.25%FS/year
Load	RS485 terminal can cascade up to 99 transmitters
Insulation resistance	100MΩ@500V
Vibration	20g，20Hz ～ 2000Hz
Shock	20g，11ms
Weight	~210g
Protection class	IP68
Wetted material	Diaphragm: Stainless steel 316L
	Housing: Stainless steel 304
	O-ring seal: Viton

[a] Total accuracy: including non-linearity, hysteresis, repeatability, and temperature error.
[b] Temperature accuracy: measured temperature is ambient temperature.

Outline Construction (Unit: mm)

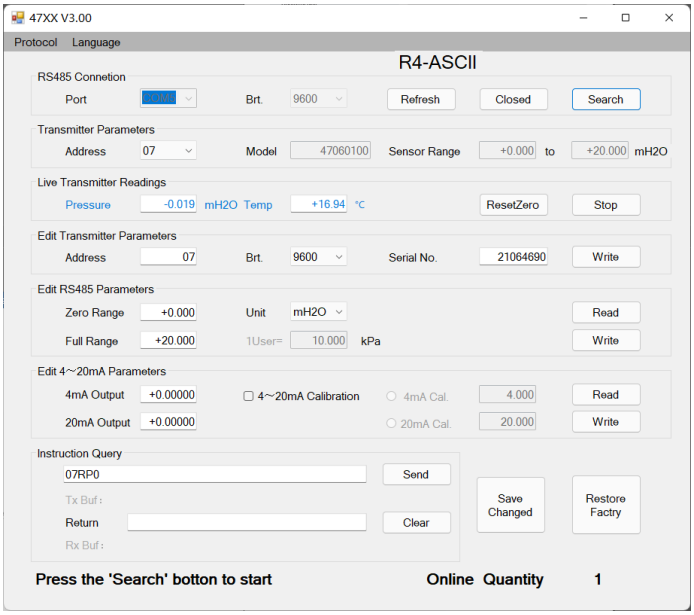


Assistance Software

RS485 Communication Software

MS Setonline 3.00 communication software can be used to read the basic information (including level range and temperature compensation range, version, etc.) of the transmitter with RS485 interface, display the actual level value, set the new zero point, configure the analog output, and set the instrument address with the assistance of a RS485 conversion module.

Note: The "MS Setonline 3.00" software can be downloaded from Micro Sensor website.



Electric Connection

Transmitter connection diagram see the table below.

Electrical definition	Wire Color
+V	Red
-V	Black
RS485A	Yellow(Green)
RS485B	White

Order Guide

MPM4706	Digital Level Transmitter				
	Range	Measure Range 0m~3.5m…200m H2O			
	[0m ～ XmH_2O]L	X=actual range，L= cable length, suggested L-X=（1 ～ 2）m			
		Code	Output Signal		
		R_4	RS485 Communication Interface, ASCII protocol		
		R_8	RS485 Communication Interface, MODBUS RTU protocol		
		Code	Construction Material		
			Diaphragm	Pressure Port	Housing
		22	S.S.316L	S.S.	S.S.
		24	S.S.316L	S.S.316L	S.S.316L
			Code	Others	
			C_1	M20×1.5 male, face seal	
			C_5	M20×1.5 male, waterline seal	
			Y_b	Aluminum connection box without display	
			Y_c	MS200 water-proof connection box	
			Y_d	PD140 lightening-proof protection	
			Y_e	Connection box (no display)	
			F_1	Fixed Flange	
MPM4706	[0m ～ 10mH2O]12	R_4	22	Y_c	Complete part number

Notes

1. The product is supplied with the polyethylene cable if not specified.
2. For special requirements, please contact us and note on the purchase order.