MPM4736
Digital Pressure 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

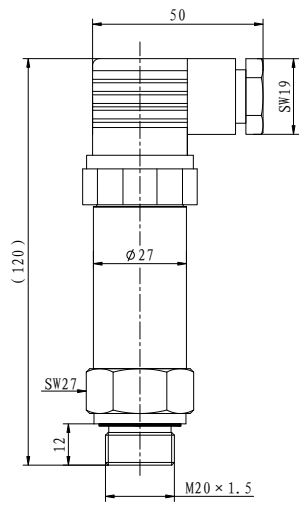
MPM4736 digital pressure transmitter is a highly precise and stable digital transmitter for the pressure measurement. This product utilizes the highly reliable piezoresistive OEM pressure sensing element and the high precision digital processing circuit, coupled with a dedicated algorithm, the transmitter is capable of high precision measurement. The product supports the measurement of both pressure 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.

Specification

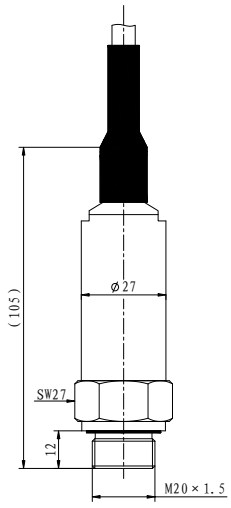
Measured range	-1bar…0bar ～ 0.1bar…100bar
Overpressure	≤1.5 times FS or 1100bar (min. value is valid)
Total accuracy[a]	±0.25%FS（-10°C ~70°C）
Temperature accuracy[b]	±0.5°C（-20°C～ 80°C） ±0.75°C（-30°C～ -20°C）
Long-term stability	±0.25%FS/year
Compensation temperature	-10°C～ 70°C
Operation temperature	-30°C～ 80°C（4-pin angular connector model and 7-pin aviation plug model） -10°C～ 70°C（cable outlet model）
Storage temperature	-40°C～ 85°C（4-pin angular connector model and 7-pin aviation plug model） -20°C～ 85°C（cable outlet model）
Power supply	3.6V ～ 28V DC
Output signal	RS485 (ModBus RTU or ASCII)
Load	RS485 terminal can cascade up to 99 transmitters
Electrical connection	4-pin Angular Connector（DIN43650）
	7-pin Aviation Plug
	Φ7.4mm shielded cable outlet
Insulation resistance	100MΩ@500V DC
Vibration	20g，20Hz ～ 2000Hz
Shock	20g，11ms
Weight	~210g
Protection class	IP65（(Angular connector model） IP68（Cable outlet model） IP63（7-pin Aviation plug type）
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.

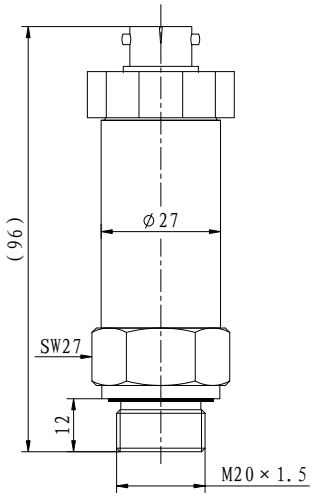
Outline Construction (Unit: mm)



B1 4-pin Angular Connector Model

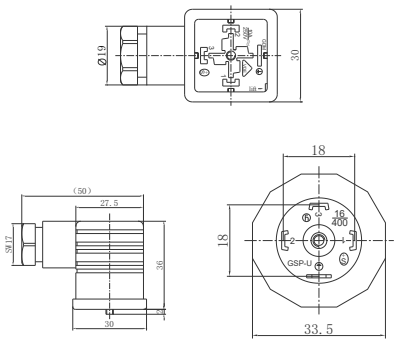


B2 Cable outlet model



B3 7-pin Aviation plug model

B1 4-pin Electrical Connector Dimension



Electrical Connection

Transmitter connection diagram see the table below.

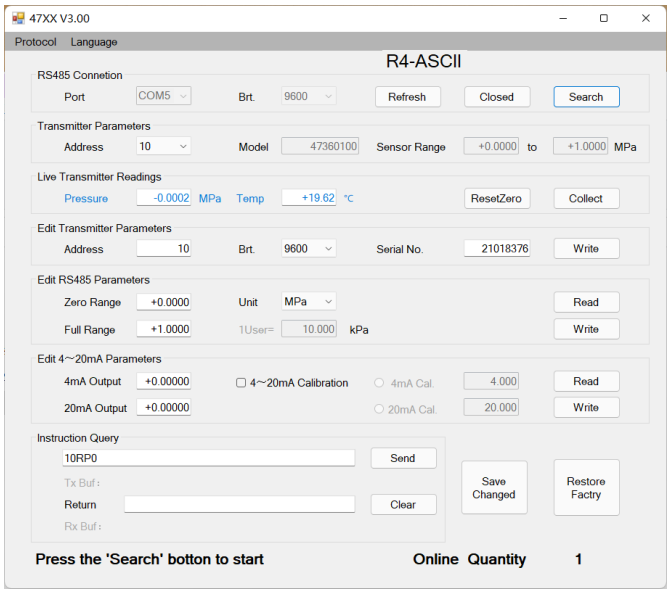
Connection	B1 Type Pin Code	B2 Type Wire Color	B3 Type Pin Code
+V	1	Red	1
-V	2	Black	2
RS485A	3	Yellow(Green)	4
RS485B	⏚	White	5

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.



Order Guide

MPM4736	Digital Pressure Transmitter
Range	-1bar…0bar ～ 0.1bar…1000bar
[0 ~ X]bar	X=actual measured range

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
B_1	Angular 4-pin connector
B_2	Cable outlet, 1.5meter length by default
B_3	Aviation 7-pin plug
PC_1	Flush diaphragm, M20*1.5 Male
PC_3	Flush diaphragm, G1/2 Male
C_1	M20*1.5 Male, face seal
C_2	G1/4 Male
C_3	G1/2 Male
C_5	M20*1.5 Male, waterline seal
G	Gauge
S	Sealed Gauge
A	Absolute

MPM4736	[0 ～ 1]bar	R_4	22	B_3C_1G	Complete part number

Notes

1. The available measured range for the flush diaphragm transmitter is 0bar ~ 0.7bar...350bar.
2. For special requirements, please contact us and note on the purchase order.