

MPM486 HART® Intelligent Pressure Transmitter

Features

- 4 ~ 20mA current output together with HART® (2-wire) ;
- digital compensation and linearity correction;
- -10 ~ 70 digital wider temperature compensation;
- Local and long-distance zero, range adjustment;
- Local key operation, easy configuration;
- Protection IP67.



Introduction

MPM486 HART® Pressure Transmitter is high accuracy and stability intelligent measure device with LCD display indicator. The user could adjust or monitor local pressure measure and configure through HART® communication protocol. This make MP486 having easy installation.

The product uses the most advanced digital technique, temperature compensation, linearity correction and reliable ex-proof construction for production. The whole product has high accuracy, wider temperature compensation range and standard signal output to measure flow pressure precisely.

MPM486 transmitter is 2-wire instead of 4~20mADC analog output, can be communicated with Micro Sensor ROSEMOUNT 275 hand-communicator and MS-H375 hand-communicator together. Electromagnetic radiation conforms to IEC801 standard.

Specifications

| Code | 02 | 03 | 07 | 08 | 09 | 10 | 12 | 13 | 14 | 15 | 17 | 18 | 19 | 20 | |
|--------------|----------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------|-----------------|----------------|--------------------|--|
| Unit | kPa | | | | | MPa | | | | | | | | | |
| Pressure | 0-20 ~ 0-70 | 0-30 ~ 0-100 | 0-60 ~ 0-200 | 0-100 ~ 0-350 | 0-200 ~ 0-700 | 0-0.3 ~ 0-1.0 | 0-0.6 ~ 0-2.0 | 0-1.0 ~ 0-3.5 | 0-2.0 ~ 0-7.0 | 0-3.0 ~ 0-10. | 0-4.0 ~ 0-20 | 0-8.0 ~ 0-40 | 0-10 ~ 0-60 | 0-20 ~ 0-100 | |
| Upper limit | 70 | 100 | 200 | 350 | 700 | 1.0 | 2.0 | 3.5 | 7.0 | 10 | 20 | 40 | 60 | 100 | |
| Overpressure | 100 | 150 | 300 | 500 | 1000 | 1.5 | 3.0 | 5.0 | 10 | 15 | 30 | 60 | 90 | 110 | |

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);

The min. available shrunked pressue range is 1/5 of basic pressure range;

<http://www.microsensor.cn>

Add: No.18, Yingda Road Baoji, P.R.China, 721006

Tel: +86 917 3600739/3600832 Fax : 3600755

MICRO SENSOR CO.,LTD.

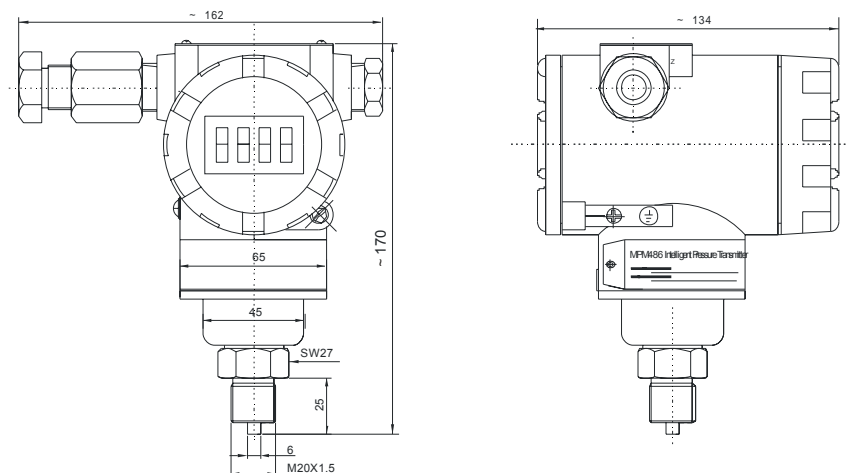
| | Specification | Unit |
|--------------------|---|----------|
| Accuracy | ≤0.1 | %FS |
| Zero Thermal error | ≤0.25 (in the whole operation temp.range) | %FS |
| FS Thermal error | ≤0.25 (in the whole operation temp.range) | %FS |
| Stability | ≤0.25 | %FS/year |
| Compensation temp. | -10 ~ 70 | |
| Operation temp. | -20 ~ 70 | |
| Storage temp. | -40 ~ 85 | |
| Power supply | 12 ~ 36 | VDC |
| Digital output | 4 ~ 20mAADC output+ HART® | |
| Display | LCD indicator, 2 keys to calibrate | |
| Damp | 0 ~ 32 | s |
| Load | (U-12V) /0.02A | Ω |
| Insulation | 100MΩ/50V | |
| Shock | 20g , 20 ~ 5000Hz | |
| Impact | 20g , 11ms | |
| Diaphragm | Stainless steel 316L/tantalum | |
| Pressure port | Stainless steel 1Cr18N9Ti/hastelloy | |
| O-ring | Viton | |
| Weight | ~1.7kg | |

Accuracy: the equal square root of non-linearity, hysteresis and repeatability at basic pressure range;

At the situation of pressure range shrinked, accuracy ≤0.25%.

Outline Construction

(Unit: mm)



<http://www.microsensor.cn>

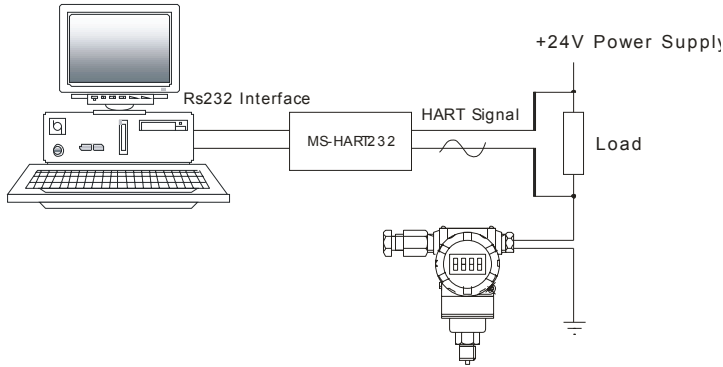
Add: No.18, Yingda Road Baoji, P.R.China, 721006

Tel: +86 917 3600739/3600832 Fax : 3600755

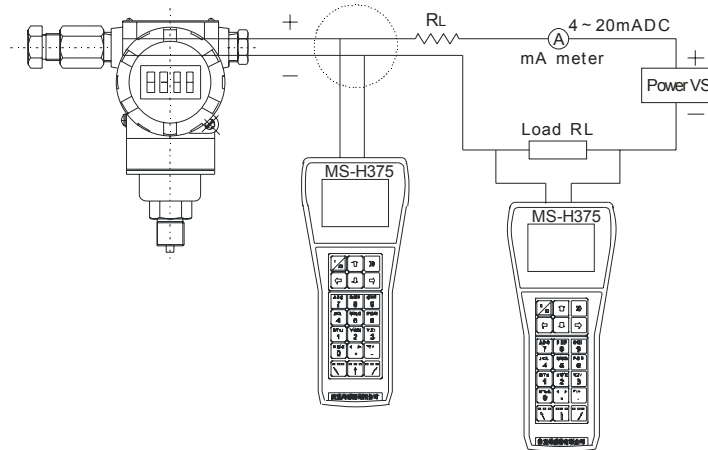
MICRO SENSOR CO.,LTD.

Electric Connection

Transmitter Connecting with Computer



Transmitter Connecting with Hand-Communicator



Assistant Software

Transmitter Software

The user could calibrate and adjust transmitter with HART protocol through MS-HART232 transforming module.



Order Guide

| | | | | | | | |
|--------|--|---------------------------|--|------------------|---------------------|--|--|
| MPM486 | HART® Intelligent Pressure Transmitter | | | | | | |
| | Code | Pressure range kPa or MPa | | | | | |
| | [0 ~ X] kPa or MPa | 02 | 0 ~ 20...70kPa | 13 | 0 ~ 1.0...3.5MPa | | |
| | | 03 | 0 ~ 30...100kPa | 14 | 0 ~ 2.0...7.0MPa | | |
| | | 07 | 0 ~ 60...200kPa | 15 | 0 ~ 3.0...10.0MPa | | |
| | | 08 | 0 ~ 100...350kPa | 17 | 0 ~ 4.0...20.0MPa | | |
| | | 09 | 0 ~ 200...700kPa | 18 | 0 ~ 8.0...40.0MPa | | |
| | | 10 | 0 ~ 0.3...1.0MPa | 19 | 0 ~ 10.0...70.0MPa | | |
| | | 12 | 0 ~ 0.6...2.0MPa | 20 | 0 ~ 20.0...100.0MPa | | |
| | | Code | Output signal | | | | |
| | | E | 4 ~ 20mADC + HART® communication protocol (2-wire) | | | | |
| | | Code | Construction material | | | | |
| | | | Diaphragm | Pressure port | Housing | | |
| | | 22 | SS 316L | SS | Aluminum-alloy | | |
| | | 25 | Tantalum | SS | Aluminum-alloy | | |
| | | 35 | Tantalum | Hastelloy C | Aluminum-alloy | | |
| | | Code | Others | | | | |
| | | C ₁ | M20×1.5 male, face type seal | | | | |
| | | C ₃ | G1/2 male | | | | |
| | | C ₅ | M20×1.5 male, waterline seal | | | | |
| | | P | Flush diaphragm, G1/2 male | | | | |
| | | G | Gauge | | | | |
| | | S | Sealed gauge | | | | |
| | | A | Absolute | | | | |
| MPM486 | [0 ~ 200]kPa | E | 22 | C ₁ G | the whole spec | | |

Order Note

1. Flush diaphragm pressure range: 0 ~ 70kPa...35Mpa;
2. If the user has special requirement, please feel free to contact our company.