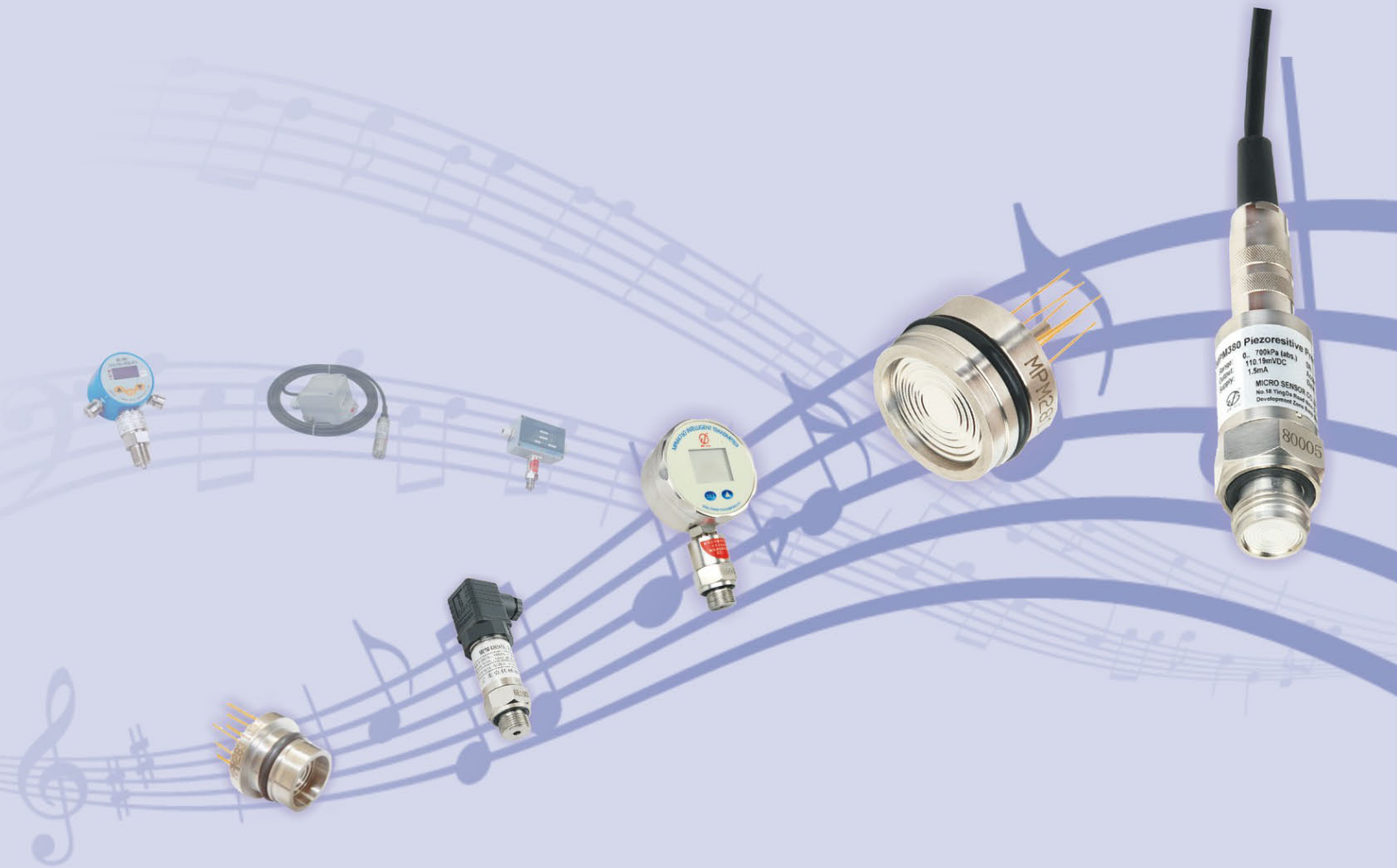




MICRO SENSOR CO.,LTD.



 E1201



MICRO SENSOR CO.,LTD.

As a professional pressure sensor manufacturer, base on our 40 years of continued R&D and manufacturing experience, Micro Sensor specializes in producing high quality OEM pressure sensors and transmitters, including level transmitters and intelligent pressure transmitters, as well as measurement and control instrumentation.

Currently, the annual production capability is 1.2 million sensors and 400,000 transmitters. Our sales market covers more than 60 countries worldwide.

Micro Sensor is approved by ISO9000 Quality Management System and also holds certification from CMC, Ex, RoHS, CCS, UL, MA, etc. Our products are widely used in process control applications in many industrial areas, including power & electricity, hydrology and engineering machinery.

Micro Sensor is continuously looking to grow business partnerships around the world through representation, customization or as an OEM.





Leading Pressure Sensor Manufacturer In China



OEM PRESSURE SENSOR
MPM281 High Stable Pressure Sensor
01


0~0.2...70MPa


MPM280 Pressure Sensor
01


0~0.02...35MPa


MPM280P Flush Diaphragm Pressure Sensor
01


0~0.1...35MPa


MPM280 Assembled/Welded Pressure Sensor
01


0~0.02...35MPa


MPM280 Anti-corrosive Pressure Sensor
01


0~0.1...2MPa


MPM283 Small Size Pressure Sensor
02


0~0.7...100MPa


MPM262 Low Pressure and High Stable OEM Pressure Sensor
02


0~7...100kPa


MPM180/185 Pressure Sensor
02


0~0.02...1MPa


MDM290 Differential Pressure Sensor
03


0~0.035...3.5MPa


MDM291 Differential Pressure Sensor
03


0~0.035...2MPa


PRESSURE MEASUREMENT
MPM380 Pressure Transducer
04


-0.1...0~0.02...100MPa

MPM430 Pressure Transmitter
04

 -2.5...-0.5~0.5...5kPa
 -10...-1~1...10kPa
 0~2...20kPa

Ex

PRESSURE MEASUREMENT

MPM480 Pressure Transmitter



-0.1...0~0.01...100MPa

04



MPM489 Pressure Transmitter



-0.1...0~0.01...100MPa

05



MPM489B Pressure Transmitter



-0.1...0~0.02...100MPa

05

Ex

MPM4730 Intelligent Pressure Transmitter



-0.1...0~0.1...100MPa

05



MPM4760 Digital Display Pressure Transmitter 06



0~0.1...100MPa

MPM482 Display Pressure Transmitter 06



0~0.035...100MPa



MPM483 Pressure Transmitter 06



0~0.035...100MPa

Ex



MPM486 Intelligent Pressure Transmitter 07



0~0.07...100MPa

MPM4530 High Temperature Pressure Transmitter 07



-0.1...0~0.004...1MPa(MSV)
0~0.5...100MPa(ASV)

MPM/MDM484 Transmitting Controller 07



-0.1...0~0.01...100MPa

MPM/MDM484A/ZL Pressure/Differential Pressure Transmitting Controller 08



-0.1...0~0.01...100MPa

MPM460 Intelligent Pressure Transmitting Controller 08



-0.1...0~0.01...100MPa

LEVEL MEASUREMENT
MPM316W Level Transducer
09

 0~1...200mH₂O

MPM416W Level Transmitter
09

 0~1...200mH₂O

MPM416WRK Level Transmitter
09

 0~1...20mH₂O

MPM426W Level Transmitter
09

 0~1...200mH₂O

MPM436W Level Transmitter
10

 0~0.5...2mH₂O

MPM489W Level Transmitter
10

 0~1...200mH₂O

MPM4700 Intelligent Level Transmitter
10

 0~3.5...200mH₂O

MPM460W Intelligent Level Transmitting Controller
08

 0~1...200mH₂O

DIFFERENTIAL PRESSURE MEASUREMENT
MDM390 Differential Pressure Transducer
11


0~0.035...3.5MPa

MDM490 Differential Pressure Transmitter
11


0~0.035...3.5MPa


MDM492 Differential Pressure Transmitter
12


0~1...7kPa

MDM460 Differential Pressure Transmitting Controller
12


0~0.035...3.5MPa

DIFFERENTIAL PRESSURE MEASUREMENT

MDM4951 Differential Pressure Transmitter 13



0 ~ 1.3...6890kPa

MDM3051 Differential Pressure Transmitter 13



0 ~ 0.2...6890MPa

PRESSURE SWITCH

MPM580/A Pressure Switch 14



-0.1...0 ~ 0.01...100MPa

MPM583 Pressure Switch 14



-0.1...0 ~ 0.01...100MPa

MPM582 Pressure Switch 15



-0.1...0 ~ 0.01...10MPa

MPM589 Pressure Switch 15



0 ~ 1...60MPa

FLOW SWITCH

MFM500 Flow Switch 16



1 ~ 150cm/s(water)
3 ~ 300cm/s(oil)

MEASUREMENT CONTROLLER

MSB9418 Measurement Controller 16



MSB9438 Pressure/Level Displayer 17



APPENDIX

PD110/120/130 Surge Protection Device 17



PD140 Lightning-proof Protection Device 18



OEM PRESSURE SENSOR

◎ MPM281 High Stable Pressure Sensor

Pressure Range: 0 ~ 0.2 ... 70MPa

Overpressure: 1.5xFS

Zero Output: $\pm 1\text{mVDC}(\text{Typ.}) \pm 2\text{mVDC}(\text{Max.})$

FS Output: $\geq 70\text{mVDC}$

Nonlinearity: $\pm 0.2\%\text{FS}(\text{Typ.}) \pm 0.25\%\text{FS}(\text{Max.})$

Repeatability: $\pm 0.05\%\text{FS}(\text{Typ.}) \pm 0.075\%\text{FS}(\text{Max.})$

Hysteresis: $\pm 0.05\%\text{FS}(\text{Typ.}) \pm 0.075\%\text{FS}(\text{Max.})$

Long Term Stability: $\pm 0.1\%\text{FS}/\text{year}(\text{Typ.}) \pm 0.2\%\text{FS}/\text{year}(\text{Max.})$

Zero Temperature Error: $\pm 0.75\%\text{FS}(\text{Typ.}) \pm 1.0\%\text{FS}(\text{Max.})$

FS Temperature Error: $\pm 0.75\%\text{FS}(\text{Typ.}) \pm 1.0\%\text{FS}(\text{Max.})$

Compensated Temperature: $-10 \sim 80\text{ }^\circ\text{C}$

Operating Temperature: $-40 \sim 125\text{ }^\circ\text{C}$

Power Supply: $\leq 2.0\text{mADC}$



MPM 281

General Type



Assembled Type



Anti-corrosive Ti Material Type
0 ~ 0.1 ... 2MPa



Welded Type
0 ~ 0.02 ... 35MPa



Flush Diaphragm Type
0 ~ 0.1 ... 35MPa



◎ MPM280 Pressure Sensor

Pressure Range: 0 ~ 0.02 ... 35MPa

Overpressure: 1.5xFS

Zero Output: $\pm 1\text{mVDC}(\text{Typ.}) \pm 2\text{mVDC}(\text{Max.})$

FS Output: $\geq 70\text{mVDC}$

Nonlinearity: $\pm 0.15\%\text{FS}(\text{Typ.}) \pm 0.25\%\text{FS}(\text{Max.})$

Repeatability: $\pm 0.05\%\text{FS}(\text{Typ.}) \pm 0.075\%\text{FS}(\text{Max.})$

Hysteresis: $\pm 0.05\%\text{FS}(\text{Typ.}) \pm 0.075\%\text{FS}(\text{Max.})$

Long Term Stability: $\pm 0.2\%\text{FS}/\text{year}(\text{Typ.}) \pm 0.3\%\text{FS}/\text{year}(\text{Max.})$

Zero Temperature Error: $\pm 0.75\%\text{FS}(\text{Typ.}) \pm 1.0\%\text{FS}(\text{Max.})$

FS Temperature Error: $\pm 0.75\%\text{FS}(\text{Typ.}) \pm 1.0\%\text{FS}(\text{Max.})$

Operating Temperature: $-40 \sim 125\text{ }^\circ\text{C}$

Compensated Temperature: $0 \sim 50\text{ }^\circ\text{C}$

Power Supply: $\leq 2.0\text{mADC}$

◎ MPM283 Small Size Pressure Sensor

Pressure Range: 0 ~ 0.7 ... 100MPa
 Overpressure: 1.5xFS(Max.110MPa)
 Zero Output: $\pm 3\text{mVDC}$ (Max.)
 FS Output: $\geq 70\text{mVDC}$
 Nonlinearity: $\pm 0.2\%\text{FS}$ (Typ.) $\pm 0.25\%\text{FS}$ (Max.)
 Repeatability: $\pm 0.05\%\text{FS}$ (Typ.) $\pm 0.075\%\text{FS}$ (Max.)
 Hysteresis: $\pm 0.05\%\text{FS}$ (Typ.) $\pm 0.075\%\text{FS}$ (Max.)
 Long Term Stability: $\pm 0.1\%\text{FS/year}$ (Typ.) $\pm 0.2\%\text{FS/year}$ (Max.)
 Zero Temperature Error: $\pm 0.75\%\text{FS}$ (Typ.) $\pm 1.0\%\text{FS}$ (Max.)
 FS Temperature Error: $\pm 0.75\%\text{FS}$ (Typ.) $\pm 1.0\%\text{FS}$ (Max.)
 Operating Temperature: $-40 \sim 125\text{ }^\circ\text{C}$
 Compensated Temperature: $-10 \sim 80\text{ }^\circ\text{C}$
 Power Supply: $\leq 2.0\text{mADC}$

MPM283 I



MPM283 II



MPM262



◎ MPM262 Low Pressure and High Stable OEM Pressure Sensor

Pressure Range: 0 ~ 7 ... 100kPa
 Overpressure: 1.5xFS
 Zero Output: $\pm 2\text{mVDC}$ (Max.)
 FS Output: $\geq 50\text{mVDC}$
 Nonlinearity: $\pm 0.2\%\text{FS}$ (Typ.) $\pm 0.25\%\text{FS}$ (Max.)
 Repeatability: $\pm 0.05\%\text{FS}$ (Typ.) $\pm 0.075\%\text{FS}$ (Max.)
 Hysteresis: $\pm 0.05\%\text{FS}$ (Typ.) $\pm 0.075\%\text{FS}$ (Max.)
 Long Term Stability: $\pm 0.1\%\text{FS/year}$ (Typ.) $\pm 0.2\%\text{FS/year}$ (Max.)
 Zero Temperature Error: $\pm 0.5\%\text{FS}$ (Typ.) $\pm 0.75\%\text{FS}$ (Max.)
 FS Temperature Error: $\pm 0.5\%\text{FS}$ (Typ.) $\pm 0.75\%\text{FS}$ (Max.)
 Operating Temperature: $-40 \sim 125\text{ }^\circ\text{C}$
 Compensated Temperature: $0 \sim 70\text{ }^\circ\text{C}$ (7kPa)
 $-10 \sim 80\text{ }^\circ\text{C}$ (0~20...100kPa)
 Power Supply: $\leq 2.0\text{mADC}$

◎ MPM180/MPM185 Pressure Sensor

Pressure Range: 0 ~ 0.02 ... 1MPa
 Overpressure: $1.5 \times \text{FS}$ (Max.)
 Zero Output: $\pm 2\text{mVDC}$
 FS Output: $\geq 50\text{mVDC}$
 Nonlinearity: $\pm 0.15\%\text{FS}$ (Typ.) $\pm 0.25\%\text{FS}$ (Max.)
 Repeatability: $\pm 0.05\%\text{FS}$ (Typ.) $\pm 0.075\%\text{FS}$ (Max.)
 Hysteresis: $\pm 0.05\%\text{FS}$ (Typ.) $\pm 0.075\%\text{FS}$

MPM180/MPM185



Long Term Stability: $\pm 0.2\%FS/year$
 Zero Temperature Error: $\pm 0.75\%FS(Typ.) \pm 1.0\%FS(Max.)$
 FS Temperature Error: $\pm 0.75\%FS(Typ.) \pm 1.0\%FS(Max.)$
 Operating Temperature: $-40 \sim 125\text{ }^{\circ}\text{C}$
 Compensated Temperature: $0 \sim 50\text{ }^{\circ}\text{C}$
 Power Supply: $\leq 2.0\text{mADC}$


MDM290
◎ MDM290 Differential Pressure Sensor

Pressure Range: $0 \sim 0.035 \dots 3.5\text{MPa}$
 Overpressure: $2 \times FS(\text{positive pressure})$
 $1 \times FS(\text{negative pressure, Max. } 1\text{MPa})$
 Zero Output: $\pm 2\text{mVDC}(Max.)$
 FS Output: $\geq 60\text{mVDC}$
 Nonlinearity: $\pm 0.15\%FS(Typ.) \pm 0.25\%FS(Max.)$
 Repeatability: $\pm 0.05\%FS(Typ.) \pm 0.075\%FS(Max.)$
 Hysteresis: $\pm 0.05\%FS(Typ.) \pm 0.075\%FS(Max.)$
 Long Term Stability: $\pm 0.3\%FS/year(Typ.) \pm 0.5\%FS/year(Max.)$
 Zero Temperature Error: $\pm 1.0\%FS(Typ.) \pm 1.2\%FS(Max.)$
 FS Temperature Error: $\pm 1.0\%FS(Typ.) \pm 1.2\%FS(Max.)$
 Operating Temperature: $-40 \sim 125\text{ }^{\circ}\text{C}$
 Compensated Temperature: $0 \sim 50\text{ }^{\circ}\text{C}$
 Power Supply: $\leq 2.0\text{mADC}$

◎ MDM291 Differential Pressure Sensor

Pressure Range: $0 \sim 0.035 \dots 2\text{MPa}$
 Overpressure: $2 \times FS(\text{positive pressure})$
 $1 \times FS(\text{negative pressure, Max. } 1\text{MPa})$
 Zero Output: $\pm 2\text{mVDC}(Max.)$
 FS Output: $\geq 70\text{mVDC}$
 Nonlinearity: $\pm 0.20\%FS(Typ.) \pm 0.25\%FS(Max.)$
 Repeatability: $\pm 0.05\%FS(Typ.) \pm 0.075\%FS(Max.)$
 Hysteresis: $\pm 0.05\%FS(Typ.) \pm 0.075\%FS(Max.)$
 Long Term Stability: $\pm 0.3\%FS/year(Typ.) \pm 0.5\%FS/year(Max.)$
 Zero Temperature Error: $\pm 0.5\%FS(Typ.) \pm 0.75\%FS(Max.)$
 FS Temperature Error: $\pm 0.5\%FS(Typ.) \pm 0.75\%FS(Max.)$
 Operating Temperature: $-40 \sim 125\text{ }^{\circ}\text{C}$
 Compensated Temperature: $-10 \sim 80\text{ }^{\circ}\text{C}$
 Power Supply: $\leq 2.0\text{mADC}$


MDM291

PRESSURE MEASUREMENT

◎ MPM380 Pressure Transducer

Pressure Range: $-0.1 \dots 0 \sim 0.02 \dots 100 \text{MPa}$

Overpressure: $1.5 \times \text{FS} (\text{Max. } 110 \text{MPa})$

Power Supply: 1.5mADC

Output: $\geq 70 \text{mVDC} (0 \sim 20 \text{kPa}, \geq 50 \text{mVDC})$

Accuracy: $\pm 0.1\% \text{FS} (\text{Min.}) \pm 0.25\% \text{FS} (\text{Typ.}) \pm 0.5\% \text{FS} (\text{Max.})$

Compensated Temperature: $0 \sim 50 \text{ }^\circ\text{C}$

Operating Temperature: $-10 \sim 80 \text{ }^\circ\text{C}$

Long Term Stability: $\pm 0.3\% \text{FS/year}$

Protection: IP65



MPM380



MPM430

◎ MPM430 Pressure Transmitter

Pressure Range: $-2.5 \dots -0.5 \sim 0.5 \sim 5 \text{kPa}$

$-10 \dots -1 \sim 1 \dots 10 \text{kPa}$

$0 \sim 2 \dots 20 \text{kPa}$

Upper Limit: 5kPa, 10kPa, 20kPa

Overpressure: 400kPa, 400kPa, 600kPa

Power Supply: 12 ~ 28VDC

Output: 4 ~ 20mADC, 2-wire

Accuracy: $0.5\% \text{FS} (\text{Min.}) \ 1.0\% \text{FS} (\text{Typ.})$

Long Term Stability: $\pm 0.5\% \text{FS/year}$

Environment Temperature: $-30 \sim 70 \text{ }^\circ\text{C}$

Media Temperature: $-30 \sim 80 \text{ }^\circ\text{C}$

Protection: IP65(Code I , Code II)

IP68(Code III)

◎ MPM480 Pressure Transmitter

Pressure Range: $-0.1 \dots 0 \sim 0.01 \dots 100 \text{MPa}$

Flush Diaphragm: $0 \sim 0.07 \dots 35 \text{MPa}$

G1/2 male; M20 × 1.5 male

Overpressure: $1.5 \times \text{FS} (\text{Max. } 110 \text{MPa})$

Power Supply: 15 ~ 28VDC

Output: 4 ~ 20mADC, 0 ~ 10/20mADC, 0/1 ~ 5/10VDC

Accuracy: $0.25\% \text{FS} (\text{Typ.}), 0.5\% \text{FS} (\text{Max.})$



MPM480

Long Term Stability: $\pm 0.2\%FS/year(Typ.) \pm 0.3\%FS/year(Max.)$
 Operating Temperature: $-30 \sim 80\text{ }^{\circ}\text{C}$
 Protection: IP65
 Electric Connection: Plug or cable connection

◎ MPM489 Pressure Transmitter

Pressure Range: $-0.1 \dots 0 \sim 0.01 \dots 100\text{MPa}$
 Overpressure: $1.5 \times FS(Max. 110\text{MPa})$
 Power Supply: $11 \sim 28\text{VDC}$
 Output: $4 \sim 20\text{mADC}(2\text{-wire}); 0/1 \sim 5\text{VDC}(3\text{-wire})$
 Accuracy: $\pm 0.5\%FS$
 Long Term Stability: $\pm 0.3\%FS/year(Max.)$
 Compensated Temperature: $0 \sim 50\text{ }^{\circ}\text{C}$
 Operating Temperature: $-30 \sim 80\text{ }^{\circ}\text{C}$
 Protection: IP65



MPM489



MPM489B

◎ MPM489B Pressure Transmitter

Pressure Range: $-0.1 \dots 0 \sim 0.02 \dots 100\text{MPa}$
 Overpressure: $1.5 \times FS(Max. 110\text{MPa})$
 Power Supply: $12 \sim 28\text{VDC}$
 Output: $4 \sim 20\text{mADC}, 2\text{-wire}$
 Accuracy: $\pm 0.5\%FS$
 Environment Temperature: $-30 \sim 80\text{ }^{\circ}\text{C}$
 Media Temperature: $-40 \sim 80\text{ }^{\circ}\text{C}$
 Protection: IP65

◎ MPM4730 Intelligent Pressure Transmitter

Pressure Range: $-0.1 \dots 0 \sim 0.1 \dots 100\text{MPa}$
 Total Accuracy(including linearity, hysteresis, repeatability and thermal error): $0.075\%FS(Min.)$
 $0.15\%FS(Typ.) 0.25\%FS(Max)$
 Power Supply: $10 \sim 28\text{VDC}(RS485), 12 \sim 30\text{VDC}(HART^{\text{®}})$
 Output: $4\text{-}20\text{mADC}, RS485/HART^{\text{®}}$ (optional)
 Long Term Stability: $\pm 0.2\%FS/year$
 Compensated Temperature: $-10 \sim 80\text{ }^{\circ}\text{C}$
 Operating Temperature: $-40 \sim 80\text{ }^{\circ}\text{C}$
 Electric Connection: DIN43650
 7-pin plug(RS485 type recommended)
 $\Phi 7.2\text{mm}$ shielding cable



MPM4730

Protection: IP65(DIN43650, cable connection),
IP63(7-pin plug)

◎ MPM4760 Digital Display Pressure Transmitter

Pressure Range: 0 ~ 0.1...100MPa

Overpressure: 1.5 × FS(Max. 110MPa)

Total Accuracy(including linearity, hysteresis, repeatability and thermal error): 0.1%FS(Min.)

0.25%FS (Typ.) 0.5%FS(Max)

Long Term Stability: ±0.25%FS/year

Power Supply: 8 ~ 28VDC

Output: 4 ~ 20mA; RS485

Compensated Temperature: -10 ~ 80 °C

Operating Temperature: -30 ~ 80 °C

Protection: IP65

Electric Connection: GDM307 4-pin plug



MPM4760



MPM482

◎ MPM482 Display Pressure Transmitter

Pressure Range: 0 ~ 0.035...100MPa

Overpressure: 1.5 × FS(Max. 110MPa)

Power Supply: 20 ~ 40VDC

Output: 4 ~ 20mADC(2 wire)

Long Term Stability: ±0.3%FS/year

Environment Temperature: -10 ~ 60 °C

Media Temperature: -30 ~ 80 °C

Protection: IP65

◎ MPM483 Pressure Transmitter

Pressure Range: 0 ~ 0.035...100MPa

Overpressure: 1.5 × FS(Max. 110MPa)

Non-linearity: ±0.25%FS(Typ.), ±0.5%FS(Max.)

Power Supply: 15 ~ 28VDC

Output: 4 ~ 20mADC(2 ~ wire), 0 ~ 10/20mADC(3 ~ wire), 0/1 ~ 5/10VDC(3 ~ wire)

Long Term Stability: ±0.3%FS/year

Environment Temperature: -30 ~ 80 °C

Media Temperature: -30 ~ 80 °C

Protection: IP65



MPM483

Environment Temperature: $-10 \sim 60^{\circ}\text{C}$

Media Temperature: $-10 \sim 80^{\circ}\text{C}$

Frequency: $0 \sim 300\text{Hz}$



MPM484A/ZL



MDM484A/ZL

◎ MPM/MDM484A/ZL Pressure /Differential Pressure Transmitting Controller

Pressure Range: $-0.1 \dots 0 \sim 0.01 \dots 100\text{MPa}$ (MPM484A/ZL)

$0 \sim 0.035 \dots 3.5\text{MPa}$ (MDM484A/ZL)

Overpressure: $1.5 \times \text{FS}$ (Max.110MPa)(MPM484A/ZL)

Static Pressure: $\leq 20\text{MPa}$ (MDM484A/ZL)

Power Supply: $220\text{VAC} \pm 15\%$, 220VDC or 24VDC

Output: $4 \sim 20\text{mADC}$, $0 \sim 10/20\text{mADC}$ or $0/1 \sim 5\text{VDC}$; RS485

Accuracy: $\pm 0.1\%\text{FS}$ (Min.) $0.25\%\text{FS}$ (Typ.) $\pm 0.5\%\text{FS}$ (Max.)

Long Term Stability: $\pm 0.5\%\text{FS}/\text{year}$

Environment Temperature: $-10 \sim 60^{\circ}\text{C}$

Media Temperature: $-10 \sim 80^{\circ}\text{C}$

Relay Quantity: $1 \sim 5$

Max. Consumption: $\leq 3.5\text{W}$

Display: Main screen--4 digit 0.8 inch(MPM/MDM484ZL)

0.56 inch(MPM/MDM484A)

Vice screen--4 digit 0.36 inch red LED indicator

Display Range: $-1999 \sim 9999$

◎ MPM460 Intelligent Pressure Transmitting Controller

◎ MPM460W Intelligent Level Transmitting Controller

Pressure Transmitting Controller/level Transmitter

Pressure Range: $-0.1 \dots 0 \sim 0.01 \dots 100\text{MPa}$ (MPM460)

$0 \sim 1 \dots 200\text{mH}_2\text{O}$ (MPM460W)

Overpressure: $1.5 \times \text{FS}$ (Max. 110MPa)

Power Supply: $220\text{VAC} \pm 15\%$ or 220VDC or 24VDC

Output: $4 \sim 20\text{mADC}$, $0 \sim 10/20\text{mADC}$ or $0/1 \sim 5\text{VDC}$; RS485

Accuracy: $\pm 0.25\%\text{FS}$ (Typ.), $\pm 0.5\%\text{FS}$ (Max.)

Long Term Stability: $\pm 0.5\%\text{FS}/\text{year}$

Environment Temperature: $-10 \sim 60^{\circ}\text{C}$

Media Temperature: $-10 \sim 80^{\circ}\text{C}$

Relay Quantity: $1 \sim 5$

Replay Life: > 100000 times

Display: 4 digit 0.56 inch LED digit indicator:display range: $-1999 \sim 9999$

4 digit 0.36 inch LED situation display indicator



MPM460



MPM460W

◎ **MPM436W Level Transmitter**

Pressure Range: 0.5, 1, 2mH₂O
 Overpressure: 10 × FS
 Accuracy: ±0.5%FS(Min.) ±1.0%FS(Max.)
 Power Supply: 12 ~ 30VDC
 Output: 4 ~ 20mADC(2-wire)
 Operating Temperature: -30 ~ 70 °C
 Protection: IP68(sensor part)
 IP65(connection box)



MPM436W



MPM489W

◎ **MPM489W Level Transmitter**

Pressure Range: 0 ~ 1...200mH₂O
 Overpressure: 2 × FS
 Accuracy: ±0.5%FS
 Stability: range > 20mH₂O, ±0.2%FS
 range ≤ 20mH₂O, 20mmH₂O
 Operating Temperature: -10 ~ 80 °C
 Power Supply: 12 ~ 28VDC
 Output: 4 ~ 20mADC(2-wire)

◎ **MPM4700 Intelligent Level Transmitter**

Pressure Range: 3.5, 7, 10, 20, 35, 70, 100, 200mH₂O
 Overpressure: 1.5 × FS
 Total Accuracy (including linearity, hysteresis, repeatability and thermal error): ±0.1%FS (Typ.)
 Long Term Stability: ±0.2%FS/year
 Power Supply: 10 ~ 28VDC (RS485 type)
 12 ~ 30VDC (HART[®] type)
 Output: 4-20mA, RS485 or HART[®] optional
 Operating Temperature: -10 ~ 80 °C
 Protection: IP68



MPM4700

DIFFERENTIAL PRESSURE MEASUREMENT



MDM390

◎ MDM390 Differential Pressure Transducer

Pressure Range: 0 ~ 0.035...3.5MPa

Overpressure: 2 × FS(positive pressure side);

1 × FS(Max. 1MPa, negative pressure side)

Accuracy: ±0.25%(Typ.) ±0.5%FS(Max.)

Power Supply: ≤2.0mADC

Zero output: ≤2mVDC

Output: ≥70mVDC

Static Pressure: ≤20MPa

Long Term Stability: ±0.3%FS/year(Typ.), ±0.5%FS /year(Max.)

Compensated Temperature: 0 ~ 50 °C

Operating Temperature: -30 ~ 100 °C

Electric Connection: DIN43650, cable

◎ MDM490 Differential Pressure Transmitter

Pressure Range: 0 ~ 0.035...3.5MPa

Overpressure: 2 × FS(positive pressure side);

1 × FS(negative pressure side)

Power Supply: 15 ~ 28VDC

Output: 4 ~ 20mADC(2-wire)

0/1 ~ 5VDC(3-wire)

0 ~ 10/20mADC(3-wire)

Accuracy: ±0.25%FS(Typ.) ±0.5%FS(Max.)

Long Term Stability: ±0.5%FS/year(≤200kPa)

±0.2%FS/year(>200kPa)

Compensated Temperature: 0 ~ 50 °C

Operating Temperature: -10 ~ 80 °C

Electric Connection: plug connection/Φ7.2mm 7-pin cable



MDM490

◎ MDM492 Differential Pressure Transmitter

Pressure Range: 0 ~ 1kPa, 0 ~ 2.5kPa, 0 ~ 7kPa
 Overpressure(positive pressure side): 3kPa, 7.5kPa, 21kPa
 Limited Pressure: 5kPa, 12.5kPa, 35kPa
 Static Pressure: 300kPa
 Power Supply: 15 ~ 30VDC
 Output: 4 ~ 20mADC(2-wire)
 Accuracy: $\pm 1\%$ FS
 Long Term Stability: ± 10 Pa/year, ± 25 Pa/year, ± 70 Pa/year
 Compensated Temperature: 0 ~ 70 °C
 Media Temperature: -10 ~ 85 °C
 Media: gas only



MDM492



MDM460

◎ MDM460 Differential Pressure Transmitting Controller

Pressure Range: 0 ~ 0.035...3.5MPa
 Static Pressure: ≤ 20 MPa
 Power Supply: 220VAC $\pm 15\%$ or 220VDC or 24VDC
 Output: 4 ~ 20mADC, 0 ~ 10/20mADC or 0/1 ~ 5VDC; RS485
 Accuracy: $\pm 0.25\%$ FS(Typ.) $\pm 0.5\%$ FS(Max.)
 Long Term Stability: $\pm 0.5\%$ FS/year
 Media Temperature: -10 ~ 80 °C
 Environment Temperature: -10 ~ 60 °C
 Relay Quantity: 1 ~ 5
 Replay Life: > 100000 times
 Frequency: 0 ~ 300Hz
 Pressure Port: G1/4 female
 Display: 0.56 inch LED digit indicator; display range: -1999 ~ 9999
 0.36 inch LED situation display indicator


MDM4951
◎ MDM4951 Differential Pressure Transmitter

Media: liquid, gas and steam;

Overpressure: 115%FS

Power Supply: 12 ~ 45VDC

with LCD indicator: 15 ~ 45VDC

common rating supply: 24VDC

Output: 4 ~ 20mADC

Range and Zero: continuous adjustable outside

Positive and Negative Elevation:

Max. positive elevation is 500%;

Max. negative elevation is 600%(for min. range)

Environment Temperature Range: -25 ~ 70 °C

-15 ~ 70 °C (with indicator)

Startup Time: 2s, no need to warm up

◎ MDM3051 Differential Pressure Transmitter

Pressure Range: 0 ~ 0.2...6890kPa;

Zero and span adjustments independent;

Long distance and local range and zero adjustment;

2-wire, conforming to HART[®] protocol;

With stable memorizer;

Good stability and high accuracy, damp adjustable,

good unilateral overpressure ability;

No movable mechanical parts;

Good exchangeable characteristic;

Long Term Stability: ±0.15% of Max. range in six months;

Electromagnetism Radiation: conform to Standard IEC801


MDM3051

PRESSURE SWITCH

◎ MPM580/580A Pressure Switch

MPM580/580A

Pressure Switch Controlling Range: $-0.1 \dots 0 \sim 0.01 \dots 100 \text{MPa}$

Overpressure: $1.5 \times \text{FS}$ (Max. 110MPa)

MPM580W/580AW

Level Switch Controlling Range: $0 \sim 1 \dots 200 \text{mH}_2\text{O}$

MPM580WK/580AWK

Armored Level Switch Controlling Range: $0 \sim 1 \dots 4 \text{mH}_2\text{O}$

Accuracy: $\pm 1\% \text{FS}$

Long Term Stability: $\pm 0.5\% \text{FS/year}$

Power Supply: $18 \sim 24 \text{VDC}$

Consumption: $\leq 1 \text{W}$

Relay Load: $250 \text{VAC}/3\text{A}$, $30 \text{VDC}/5\text{A}$

Relay Life: > 100000 times

Operating Temperature: $-10 \sim 80 \text{ }^\circ\text{C}$

Protection: IP65



MPM580



MPM580A



MPM583

◎ MPM583 Pressure Switch

Pressure Switch Controlling Range: $-0.1 \dots 0 \sim 0.01 \dots 100 \text{MPa}$

Accuracy: $\pm 0.5\% \text{FS}$

Long Term Stability: $\leq 0.5\% \text{/year}$

Power Supply Effect: $\leq 0.1\% \text{FS}$

Power Supply: $13 \sim 31 \text{VDC}$ (suggested 24VDC)

Consumption: $< 1.2 \text{W}$

Relay Capacitance: $220 \text{VAC}/3\text{A}$ $30 \text{VDC}/3\text{A}$

Relay Life: > 100000 times

Environment Temperature: $-30 \sim 70 \text{ }^\circ\text{C}$

Media Temperature: $-40 \sim 85 \text{ }^\circ\text{C}$

Relay Quantity: $2 \times (\text{NO} + \text{NC})$

Pressure Port: $\text{M}20 \times 1.5 \text{ male}$, $\text{G}1/2 \text{ female}$

Display: 4 digit 0.36" nixietube, 2 LED lights

Wiring: terminals

Display Range: $-1999 \sim 9999$

Protection: IP65

◎ MPM582 Pressure Switch

Pressure Switch Controlling Range: $-0.1 \dots 0 \sim 0.01 \dots 10 \text{MPa}$

Accuracy: $\pm 1\% \text{FS}$

Power Supply: $12 \sim 24 \text{VDC}$

Load Current: $4 \sim 40 \text{mADC}$

Leak Current(cut current): $\leq 4 \text{mADC}$

Inner Voltage Reduced: $\leq 8 \text{VDC}$

Switch Hysteresis: $\pm 1\% \text{FS}$

Repeatability: $\pm 0.5\% \text{FS}$

Temperature Error: $\pm 3\% \text{FS}$

Operating Temperature: $-10 \sim 80 \text{ }^\circ\text{C}$

Protection: IP65



MPM582

◎ MPM589 Pressure Switch

Pressure Switch Controlling Range: $0 \sim 1 \dots 60 \text{MPa}$

Endure Pressure: 70MPa

Pressure Set: by the "Pressure Set" micro-potentiometer

Pressure difference set by the "Pressure Difference Set" micro-potentiometer

Action Display: if reach the presetting pressure point, LED indicator lights

Output Mode: Open connector(isolated by optical-coupler), Max. Voltage 35VDC ;

Max Current 100mADC

Power Supply: $10 \sim 28 \text{VDC}$

Insulated Resistor: $>100 \text{M ohm}@50 \text{V}$

Repeatability: $\pm 0.5\% \text{FS}$

Response Time: $1.5 \text{ms}(\text{no damp}), 20 \text{ms}(\text{damp})$

Setting value changes according to temperature change:

Lower than $1\%/10 \text{ }^\circ\text{C}$ at Max operating pressure

Protection: IP54



MPM589

FLOW SWITCH

◎ MFM500 Flow Switch

Measure Range: 1 ~ 150cm/s(water), 3 ~ 300cm/s(oil)

Working Voltage: 24VDC \pm 20%

Output: Relay, PNP, NPN(three versions optional)

Switch Voltage: \leq 250VAC/30VDC(Relay), 24 \pm 20%VDC(Transistors)

Switch Current: \leq 3A(Relay), \leq 400mADC(Transistors)

Initial Time: Typ. 8s(2 ~ 15s)

Response Time: Typ.2s(1 ~ 15s)

Protection: IP67

Flow Display: 6 LED indicators



MFM500

MEASUREMENT CONTROLLER

◎ MSB9418 Measurement Controller

Transmitter Power Supply: 24VDC/50mA

Sampling Speed: 18 times/s

Nonlinearity: $\leq \pm 0.1\%$

Sensor Power Supply: constant voltage or current(adjustable)

Transmitting Output Accuracy: $\leq \pm 0.5\%$

Long Term Stability: $\pm 0.5\%$ /year

Input: 4 ~ 20mA, 0 ~ 20mA, 0 ~ 10mA, 1 ~ 5V,

0 ~ 5V, 0 ~ 10V(transmitter), 0 ~ 5 ~ 1000mV(sensor)

Transmitter Output: full-isolated, 0/1 ~ 5VDC, 0 ~ 10/20mADC, 4 ~ 20mADC

Display: 13mm (0.5 inch) 6 digit highlight red nixietube

Indicator: upper upper limit, upper limit, lower limit, lower lower limit, kPa, MPa, m

Max. Display: (measure value + basic value)-19999 ~ 999999

Communication Interface: RS485/RS232

Power Supply: (85 ~ 420)VAC/(47 ~ 630)Hz

Consumption: < 8W

Relay Capacitance: 250VAC/7A; 30VDC/7A

Relay Quantity: 4 NO(normal open) + 4NC(normal close) relay

Environment Temperature: -10 ~ 60 °C;



MSB9418



MSB9438

◎ MSB9438 Pressure/Level Displayer

Transmitter Power Supply: 24VDC/300mA

Power Supply: 100 ~ 240VAC, 50/60Hz

 Input Sensitivity: 1 μ A/character or 0.1mV/character

Consumption: 8W

 Zero Stability: $\pm(0.4 \mu A \pm 0.005\%$ zero maladjustment current)/K

Display Range: -1999 ~ 9999(Max.range: -1999 ~ 999999)

 Nonlinearity: $\pm 0.02\%$

Display Height: 13mm(0.5 inch)

Environment Humidity: (0 ~ 90%)RH

 Environment Temperature: -10 ~ 50 $^{\circ}$ C

Display Definition: 1st is status bit, 2nd is signal bit

last 6 bits are measuring values

Long-distance Communication Digital Interface: Max. communication distance is 4000m.

APPENDIX

◎ PD110 Signal Surge Protection Device

 Turnover 8/20 μ s: ≤ 5 kA)

 Limited Voltage 10/700 μ s (V): ≤ 40

Working Voltage: 24V

Transmitting Rate: 200Kbit/s

 Inserting wastage: ≤ 0.5 db

Protected Core Wire: A pair of wire

 Operating Temperature: -25 ~ 70 $^{\circ}$ C


PD110



PD120

◎ PD120 DC Power in Series Surge Protection Device

Rating Working Voltage(DC): 24V

Turnover/m 8/20us: 20kA

Limited Voltage(20kA) (8/20us): $\leq 120V$

Max. Constant Operation Voltage: 60V or 30V

Rating Current n/wire: 20A, 10A, 5A

Consumption(W): 960, 480, 240, 120

Protection Mode: V+ ~ V-

Operating Temperature: $-25 \sim 70^{\circ}C$

◎ PD130 in Series Power Surge Protection Device

Turnover m(8/20us) (kA): m-40, 20

Limited Voltage(20kA) (8/20us): 1000V

Max. Constant Operation Voltage: 385V

Rating Current n/wire(A): N=10, 5, 1

Consumption(kW): 2.2, 1.1, 0.2

Protection Mode: L-PE, N-PE, L-N

Operating Temperature: $-25 \sim 70^{\circ}C$



PD130



PD140

◎ PD140 Lightning-proof Protection Device

Max. flow of RS485 signal interface: $\geq 5kA(8/20us \text{ wave})$

Max. flow of 4 ~ 20mA channel: $\geq 10kA(8/20us \text{ wave})$

4 ~ 20mA channel, 2-wire to the earth 33V

4 ~ 20mA channel, between 2-wire 33V

RS485, 2-wire to the earth $-7V \sim 12V$

RS485, between 2-wire 6.5V

Max. Working Current: 4 ~ 20mA channel, $<40mA$

RS485 channel, $<120mA$

Installation: 3 bolts fixing/fixed by lead rail

Operating Temperature: $-40 \sim 80^{\circ}C$

Protection: IP65

MICRO SENSOR CO.,LTD.

Add : 18 Yingda Road,Baoji,Shaanxi,P.R.of China.

Post : 721006

Tel : +86-917-3600739

Fax : +86-917-3600755

Web : www.microsensor.cn

Mail : sales@microsensor.cn

www.microsensor.cn