

## MPM/MDM484A/ZL Digital Pressure/Differential Pressure Transmitting Controller

### Features

- $\Phi$ 100mm (MPM/MDM484A) ,  $\Phi$ 150mm (MPM/MDM484ZL)  
outline, highlight LED display;
- Optional power supply;
- RS485 communication interface to netting and data  
transmitting; available zero, FS, display value and control relay  
long-distance calibration and setting;
- Keys setting, password control, easy operation;
- 4 digit indicator displays pressure and standard analog output  
signal;
- Max.5 relay, relay value and status free setting, accurate  
control; return difference setting and stable operation;
- Tube vertical installation and control indicator horizontal  
installation (only MPM/MDM484ZL) , easy installation;



### Introduction

MPM/MDM484A/ZL transmitter is full-digital measurement transmitting controller combining pressure/differential pressure measure, display, control and output integrated together with RS485 digital interface. It can be installed to measured point and control screen at local place directly. Users could set zero, FS, pressure by keys, or do netting, digital signal transmitting or parameter setting and calibrating. The transmitter could be used for measure and control of power station, metallurgy and chemi-industry, etc.

### Specifications

#### MPM484A/ZL

Pressure range: gauge -0.1...0~0.01...100MPa

Overpressure: 1.5 times FS or 110MPa (min.value is valid)

#### MDM484A/ZL

Differential pressure range: 0~35kPa...3.5MPa

Static pressure:  $\leq$ 20MPa

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Output signal: analog 4~20mADC, 0~10/20mADC or 0/1~5VDC; digital: RS485

Accuracy:  $\pm$ 0.1%FS; 0.25%FS;  $\pm$ 0.5%FS (including analog's non-lin., rep. and hys.)

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Zero temp. drift:  $\pm 0.03\%FS\%^\circ C$  ( $\leq 100kPa$ )     $\pm 0.02\%FS\%^\circ C$  ( $> 100kPa$ )

FS temp. drift:  $\pm 0.03\%FS\%^\circ C$  ( $\leq 100kPa$ )     $\pm 0.02\%FS\%^\circ C$  ( $> 100kPa$ )

Long-term stability:  $\leq \pm 0.5\%FS/year$

Relay quantity: 1~5

Load: 240V/3A (AC) or 30V/5A (DC)

Relay life:  $> 100000$  times

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Power supply: 220VAC $\pm 15\%$  or 220VDC or 24VDC

Max.consumption:  $\leq 3.5W$

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Display: main screen——4 digit 0.8 inch (MPM/MDM484ZL) or 0.56 inch (MPM/MDM484A)

highlight LED indicator;

Vice-screen ——4 digit 0.36 inch red LED indicator

Display range: -1999~9999

Installation: vertical or horizontal installation (only MPM/MDM484ZL)

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Environment temp.:  $-10^\circ C \sim 60^\circ C$

Frequency: 0~300Hz

Media temp.:  $-10^\circ C \sim 80^\circ C$

Acceleration:  $\leq 3 \times 9.81ms^{-2}$

Storage temp.:  $-40^\circ C \sim 125^\circ C$

Impact:  $\leq 10 \times 9.81ms^{-2}$

Relative humidity:  $\leq 80\%$

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Pressure port: stainless steel 1Cr18Ni9Ti

Diaphragm: stainless steel 316L

Electric housing: aluminum-alloy, stainless steel

Sealing method: Viton or full-welded

Pressure port: MPM484A/ZL general pressure port is M20 $\times$ 1.5 male, waterline seal (other pressure port optional)

MDM484A/ZL general pressure port is G1/4 female (other pressure port optional)

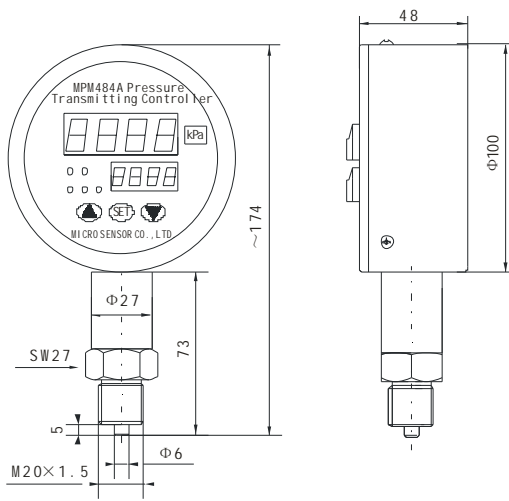
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## Outline Construction

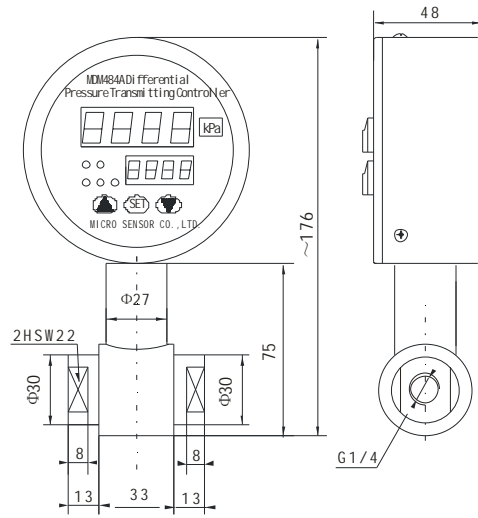
(Unit: mm)

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

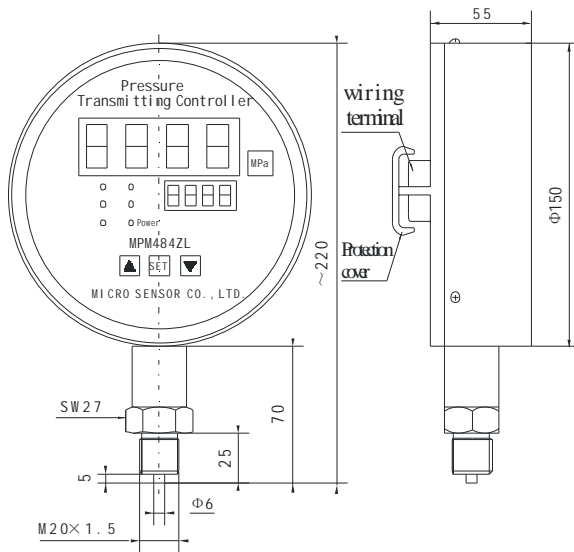
MPM484A



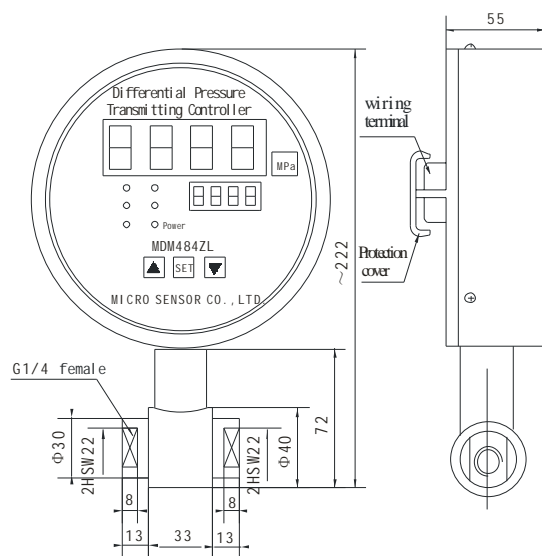
MDM484A



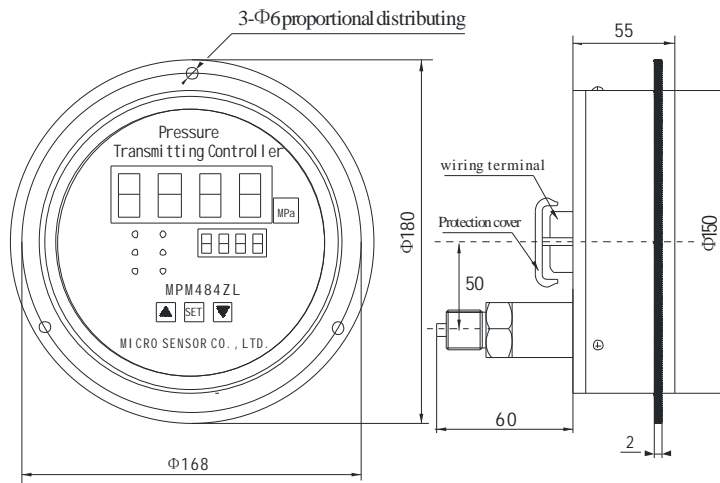
MPM484ZL



MDM484ZL

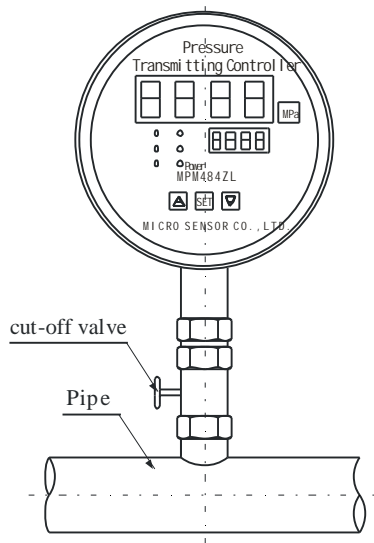


## MPM/MDM484A/ZL Digital Pressure/Differential Pressure Transmitting Controller



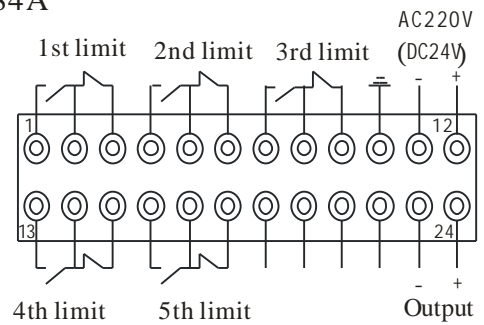
MPM484ZL(Axial installation)

### Application Example

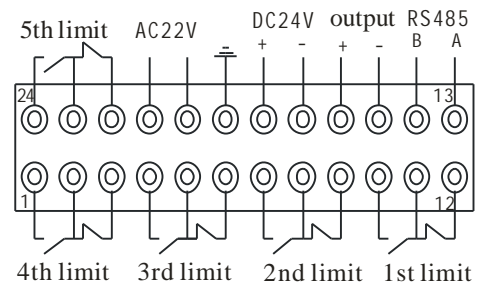


### Electric Connection

#### MPM/MDM484A



#### MPM/MDM484ZL



### Order Guide

MPM484A/ZL	Digital Pressure Transmitting Controller		
MDM484A/ZL	Digital Differential Pressure Transmitting Controller		
	Range	Pressure range: kPa or MPa	
	[0~X] kPa or	Pressure	-0.1...0~0.01...100MPa

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

MPa	Differential pressure	Pressure	Overpressure kPa		Pressure	Overpressure kPa	
			+	-		+	-
		0~35kPa	70	35	0~700kPa	1400	700
		0~70kPa	150	70	0~1000kPa	2000	1000
		0~100kPa	200	100	0~2000kPa	4000	1000
		0~200kPa	400	200	0~3500kPa	7000	1000
		0~350kPa	700	350			
		Code	Output signal				
		E	4~20mADC				
		F	1~5VDC				
		J	0~5VDC				
		Q	0~10mADC				
		U	0~20mADC				
		R <sub>4</sub>	RS485 interface				
		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 <sub>1</sub>	M20×1.5 male, face type seal			MPM484A/ZL	
		C <sub>3</sub>	G1/2 male				
		C <sub>4</sub>	G1/4 female			MDM484A/ZL	
		C <sub>5</sub>	M20×1.5 male, watline seal			MPM484A/ZL	
		P	Flush diaphragm, G1/2 male				
		G	Gauge				
		A	Absolute				
		S	Sealed gauge			MPM/MDM484 ZL	
		X	Horizontal installation (default is vertical installation)				
		J <sub>n</sub>	Reply quantity, n=1~5				
		V <sub>1</sub>	Power supply 24VDC				
		V <sub>2</sub>	Power supply 220VAC				
MPM484ZL	[0~200]kPa	F	22	C <sub>3</sub> AJ <sub>2</sub> V <sub>1</sub>		the whole spec	

**Order Note**

- Please note power supply, accuracy, relay quantity in the order; the default is 24VDC, accuracy 0.5% and no relay provided;

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Pressure Transmitting Controller

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2. We suggest to do suitable protection to prevent lightning, thunder, and rain.
3. If the user order product with RS485, we provide relative communication software and instruction, please note it in the order;
4. Flush diaphragm product's measuring range is 0~70kPa...35Mpa;
5. For MDM484A/ZL, please pay attention that positive and negative cavity's overpressure should be suitable for max. pressure range; we suggest to install tri-valve between measured point and transmitter, make the measured media added on positive and negative cavities slowly;
6. If the user has special requirement, please feel free to contact our company.