

MDM4881

Differential Pressure Transmitter Controller



Features

- Real-time pressure display in unit: Bar or MPa
- 14-segment LED display
- Button programming, easy operation
- Max. 5 relays control independently, time-delay function
- Switchable analog output
- Record the Max. pressure during operation(button for clearing up)
- Support back, rail, cover and joint mounting
- Hardware wrong operation protection
- Intrinsically safe products conform to GB3836.1 and GB3836.4 standards, and have explosion-proof certification, Exia mark is Ex ib IIA T6 Gb.
- Modbus communication

Introduction

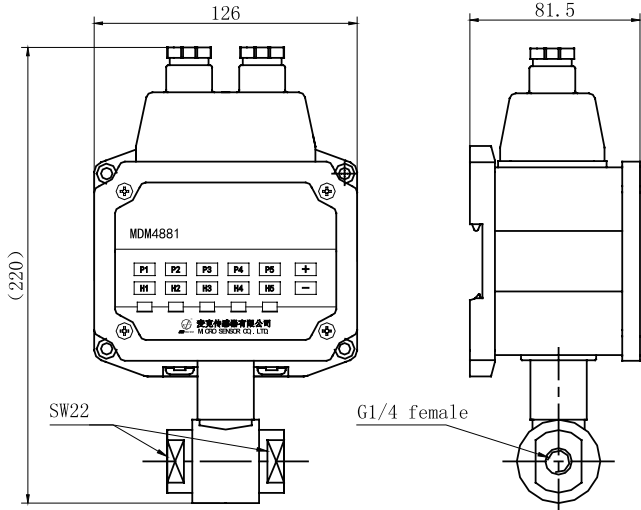
MDM4881 Differential Pressure Transmitting Controller is a digital meter integrating pressure measurement, display, transmitting and control. It adopts the internationally advanced ARM processing chip. By compensation and adjustment of the sensor, MDM4881 can achieve precise measurement, quick response & control of multiple relays. The controller supports peak value record and action delay, providing 4 digit LED display, easy for reading. Multiple buttons makes the operation easier and more convenient. Either current or voltage output signal is optional. It supports back mounting, rail mounting, cover mounting and joint mounting. Whole product protection is IP65.

MDM4881 supports 5-relay + 1 -analog output. It can be applied for long distance pressure measurement and control in the equipment automatic pressure detection, action control and water level alarm etc. It is also a preferred choice for working fields where request high frequency / high accuracy switchover or mechanical pressure relays is incompetent.

Specification

Input	Power Supply	Non Intrinsically Safe: (220±44)V AC / 22V~32V DC Intrinsically Safe: 22V~28V DC (Supplied by Safety Barrier)
	Range	0kPa~35kPa... 3.5MPa
	Overpressure	1.5 FS
	Static Pressure	20MPa
Output	Accuracy	≤±0.25%FS; ≤±0.5%FS
	Repeatability	≤±0.2%FS
	Display	4 digit 0.56 inch 14-segment LED display
	Temperature Drift	≤±0.03%FS/°C (zero/span)
	Display Refresh	200ms
Analog Output	Current Version	4mA~20mA DC, Load resistance ≤560Ω
	Voltage Version	0V~10V DC, Load resistance ≥10kΩ
Switch Output	Output Mode	5 relays, normally open or closed contact
	Voltage Supply	≤277V AC; ≤30V DC
	Current Supply	≤3A
	Response	<1ms
	Switch Point Setting	1.5%FS~99%FS
	Return Difference Setting	1%FS~10%FS
	Relay Life	≥10,000,000 times/load (min.); ≥100,000/times/load (max.)
	Switch Delay	0s~99s
	Voltage Supply	≤277V AC; ≤30V DC
	Response	< 1ms
	Return Difference Setting	1%FS~10%FS
Environmental Conditions	Operation Temp.(controller)	-25°C ~65°C / -13 °F ~149 °F
	Relative Humidity	0%~85%
	Storage Temp.(controller)	40°C ~70°C / -40 °F ~158 °F
	Media Temp.	-20°C ~80°C / -50 °F ~176 °F
	Electromagnetic compatibility	GB/T 17626.2/3/4-2006
	Shock	≤5g/10Hz...500Hz(IEC 60068-2- 6-2007)
	Impact	≤10g/11ms(IEC 60068-2-27-2008)
	Protection	IP65

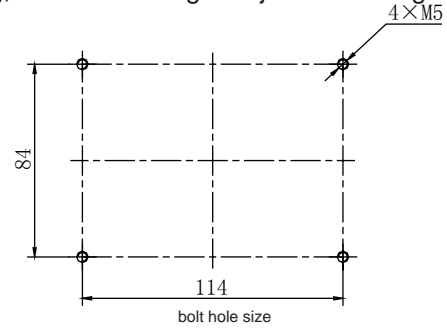
Outline Construction (Unit: mm)



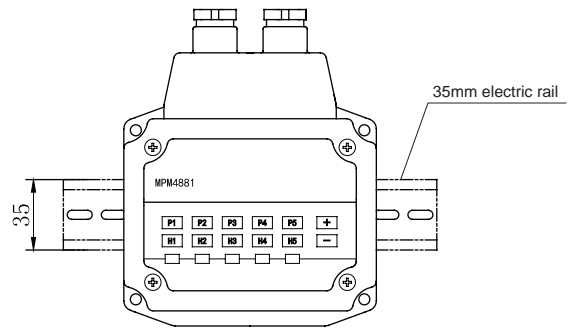
MDM4881 Outline Construction and Dimension

Installation

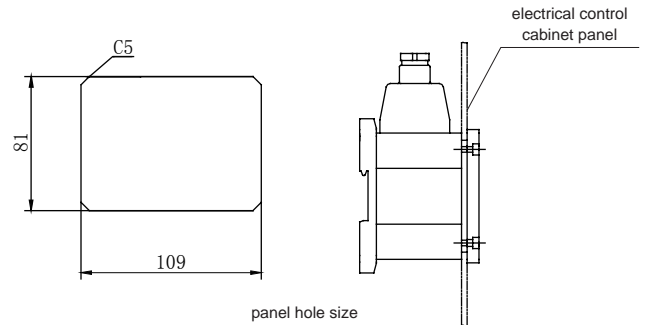
MDM4881 can be installed by: back mounting, rail mounting, cover mounting and joint mounting.



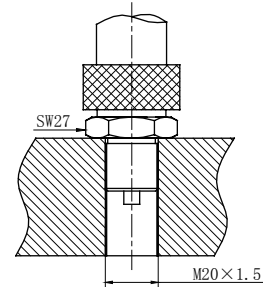
Back Mounting



35mm Electric Rail Mounting

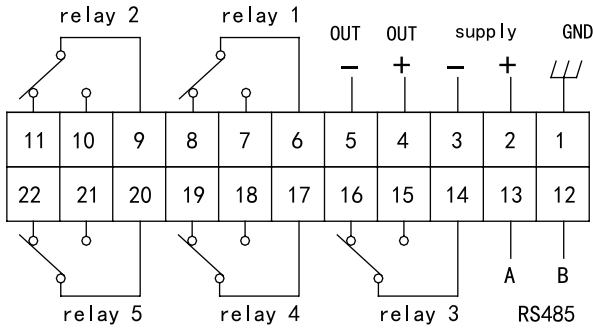


Cover Mounting



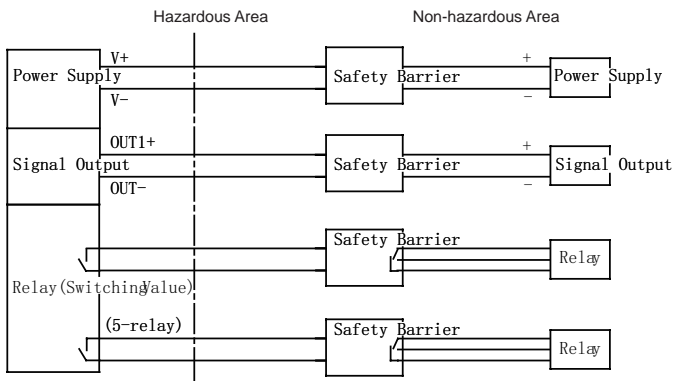
Joint mounting

Terminal Diagram



External Terminal Diagram

Electrical connection



DP transmitting controller:

ExibIIAT6 Gb

Safety Barrier Output Explosion Proof Parameters:

[Exib Gb]IIA

Supply terminal, Signal terminal:

Ui: 28V DC li: 93mADC Uo: 28V DC lo: 93mA DC

Li: 4.0mH Ci: 0.6uF Pi: 0.65W Po: 0.65W

Relay Output Terminal:

Ui: 10.5V DC li: 14mA DC Uo: 10.5V DC lo: 14mA DC

Li: 0mH Ci: 0 uF Pi: 37mW Po: 37mW

Order Guide

MDM4881		Differential Pressure Transmitting Controller			
		Range	0kPa~35kPa... 3.5MPa		
		[0~X]kPa or MPa	X: Actual Range		
		Code	Power Supply		
		AC	220V AC (Non Intrinsically Safe Only)		
		DC	22V~32V DC (Non Intrinsically Safe) 22V~28V DC (Intrinsically Safe , supplied by Safety Barrier)		
		Code	Output		
		KA	5-relay +analog (4mA~20mA)		
		KV	5-relay +analog (0V~10V)		
		KAV	5-relay +analog (4mA~20mA / 0V~10V double use)		
		Code	Process connection		
		C ₄	G1/4 female		
		i	Intrinsically Safe ExibIIAT6 Gb		
MDM4881	[0~2]MPa	DC	KA	C ₄	the whole spec.

Notes

1. Process connection thread can be customized for users. Please specify it in the contract.
2. If the user has special requirement, please feel free to contact us.