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# Контроллер передачи температуры МТМ4881. Технические характеристики.



## Features

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

## Introduction

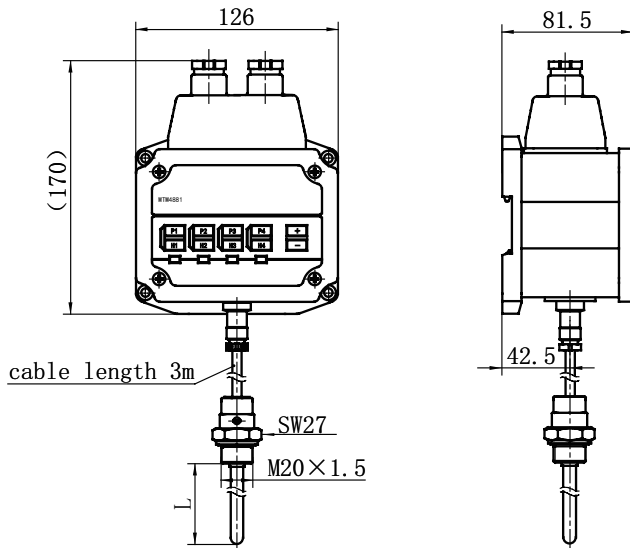
MTM4881 Temperature Transmitting Controller is an intelligent meter integrating temperature measurement, display, transmitting and control. It adopts the internationally advanced ARM processing chip. By compensation and adjustment of the sensor, the product can achieve precise measurement and provide quick response and control of multiple relay. The meter supports peak record and action delay, providing 4 digit LED indicator, easy for reading. And the design of 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. Whole product protection is IP65.

MTM4881 Temperature Transmitting Controller provides 4-relay output + 1 analog output, which is applied in liquid medium's temperature measurement, especially suitable for detection of oil temperature of hydraulic and lubrication transmission system.

## Specification

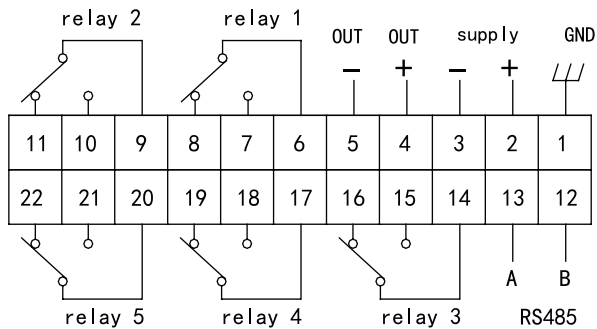
|                          |                               |                                                             |
|--------------------------|-------------------------------|-------------------------------------------------------------|
| Input                    | Power Supply                  | Non Intrinsically Safe: (220±44)V AC / 22V~32V DC           |
|                          |                               | Intrinsically Safe: 22V~28V DC (Supplied by Safety Barrier) |
|                          | Temperature Range             | -30°C ~150°C / -22 °F ~302 °F                               |
| Output                   | Accuracy                      | ≤±1°C (FS≤100°C ); ≤±2°C (FS>100°C )                        |
|                          | Repeatability                 | ≤±0.2%FS                                                    |
|                          | Display                       | 4 digit 0.56 inch 14-segment LED display                    |
|                          | 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                   | 4 relays, normally open or closed contact                   |
|                          | Voltage Supply                | ≤277V AC;≤30V DC                                            |
|                          | Current Supply                | ≤3A                                                         |
|                          | Response                      | about 20s                                                   |
|                          | 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~750s                                                     |
| 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                                                        |
|                          | Sensor Plug                   | water-proof aviation plug                                   |

## Outline Construction (Unit: mm)



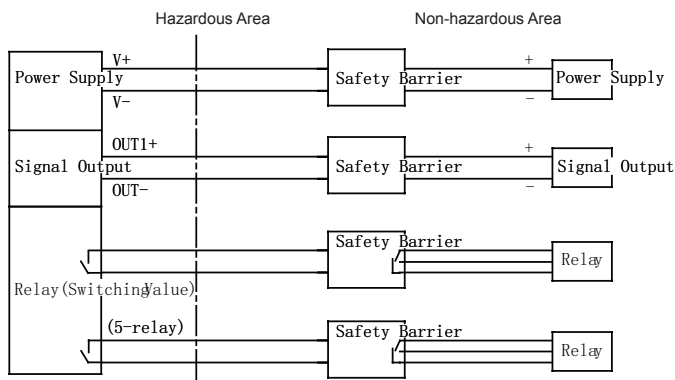
Outline Construction and Dimension

## Terminal Diagram



External Terminal Diagram

## Electrical connection



### Safety Barrier Output Explosion Proof Parameters:

[Exib Gb]IIA

#### Supply terminal, Signal terminal:

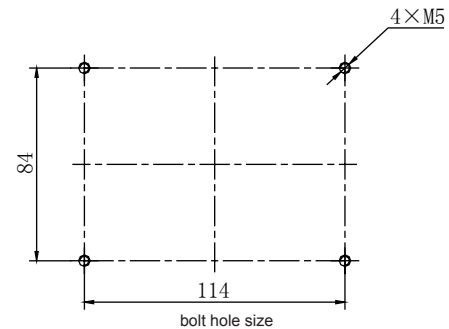
Ui: 28V DC li: 93mADC Uo: 28V DC lo: 93mA DC  
Li: 4.0mH Ci: 0.6uF Pi: 0.65W Po: 0.65W

#### Relay Output Terminal:

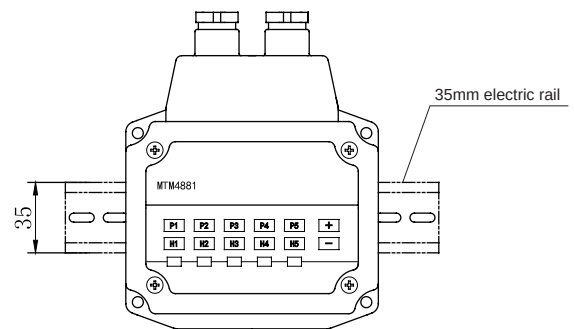
Ui: 10.5V DC li: 14mA DC Uo: 10.5V DC lo: 14mA DC  
Li: 0mH Ci: 0 uF Pi: 37mW Po: 37mW

## Installation

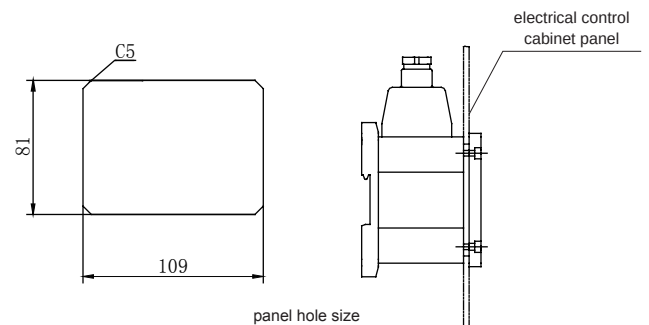
MTM4881 Temperature Transmitting Controller can be installed by rail mounting, cover mounting, back mounting.



Back Mounting



35mm Electric Rail Mounting



Cover Mounting

## Order Guide

| MTM4881 |  | Temperature Transmitting Controller |  |                               |    |                                                                                                     |      |                 |
|---------|--|-------------------------------------|--|-------------------------------|----|-----------------------------------------------------------------------------------------------------|------|-----------------|
|         |  | Temperature Range                   |  |                               |    |                                                                                                     |      |                 |
|         |  | [X~Y]°C                             |  | -30°C ~150°C / -22 °F ~302 °F |    |                                                                                                     |      |                 |
|         |  |                                     |  | Code                          |    | Power Supply                                                                                        |      |                 |
|         |  |                                     |  | AC                            |    | 220V AC (Non Intrinsically Safe Only)                                                               |      |                 |
|         |  |                                     |  | DC                            |    | 22V~32V DC (Non Intrinsically Safe)<br>22V~28V DC (Intrinsically Safe , supplied by Safety Barrier) |      |                 |
|         |  |                                     |  | Code                          |    | Output                                                                                              |      |                 |
|         |  |                                     |  | KA                            |    | 4-relay +analog (4mA~20mA)                                                                          |      |                 |
|         |  |                                     |  | KV                            |    | 4-relay +analog (0V~10V)                                                                            |      |                 |
|         |  |                                     |  | KAV                           |    | 4-relay +analog (4mA~20mA / 0V~10V double use)                                                      |      |                 |
|         |  |                                     |  | Code                          |    | Probe Thread                                                                                        |      |                 |
|         |  |                                     |  | C1                            |    | M20×1.5 male(temperature casing pipe)                                                               |      |                 |
|         |  |                                     |  | C3                            |    | G1/2 male(temperature casing pipe)                                                                  |      |                 |
|         |  |                                     |  | i                             |    | Intrinsically Safe ExibIIAT6 Gb                                                                     |      |                 |
|         |  |                                     |  | Code                          |    | Probe Length(unit: mm)                                                                              |      |                 |
|         |  |                                     |  | L                             |    | L: 20, 100,200                                                                                      |      |                 |
| MTM4881 |  | [0~100]°C                           |  | DC                            | KA | C3                                                                                                  | L100 | the whole spec. |

## Notes

1. Probe 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.

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