

# PCT/PDT10SR-4841 Intelligent Pressure/Differential Pressure Transmitting Controller

## Features

- $\Phi 150\text{mm}$  outline, highlight LED with full 4-digit pressure display
- Various power supply optional
- RS485 interface with Modbus RTU protocol, convenient for networking and data transmission
- Available for remote setting for zero and span display value and control value
- Site setting for controller's specification, zero and password classification management by keys
- Analog output 4mA~20mADC or 0V~10VDC
- 5-way controlling contact, contact value and status with any setting available
- Return difference setting for each controlling contact to avoid contact chattering, stable operation
- Reliable EMC protection design
- Vertical / axial mounting available, convenient for site application



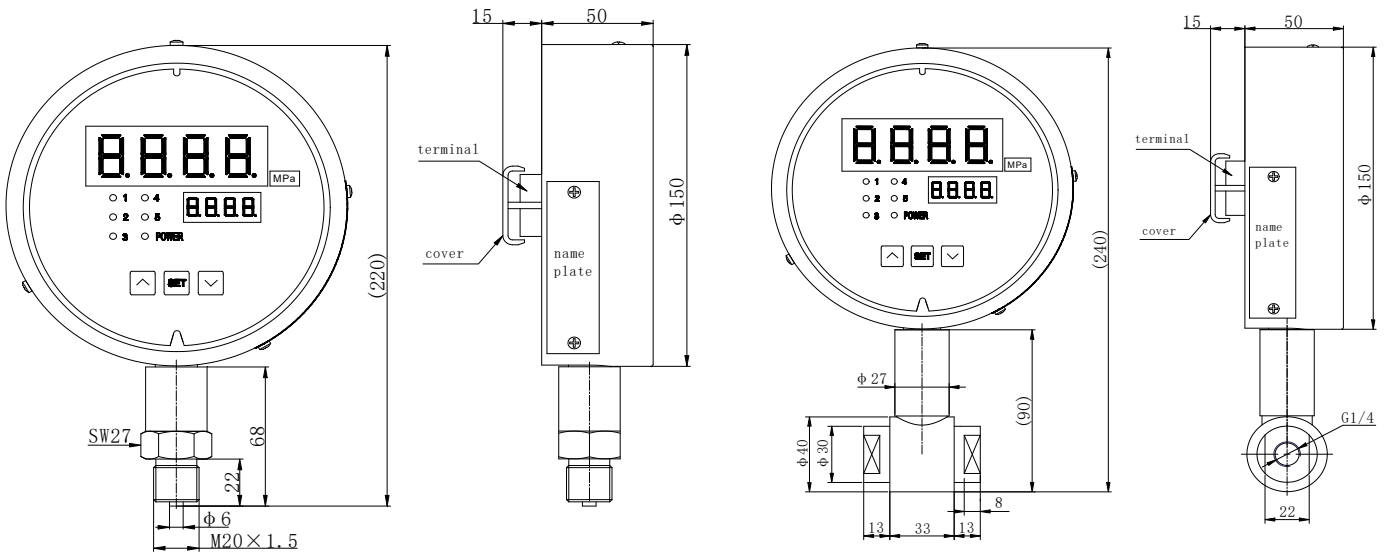
## Introduction

PCT/PDT10SR-4841 Intelligent Pressure/ Differential Pressure Transmitting Controller is a full-digital measurement and control product combining pressure/differential pressure measurement, display, relay control and output together with RS485 interface with Modbus\_RTU protocol. It can be installed in pressure/differential pressure measurement places or control panel of test-bed. Users could set many kinds of parameters including zero, span value and controlling contact value by keys and also could realize networking, digital signal transmission and remote setting and calibration for transmitter parameters through RS485 bus function. It is widely used in industrial controlling areas including hydro-power, metallurgy and chemical industry for pressure/differential pressure measurement and control of fluid.

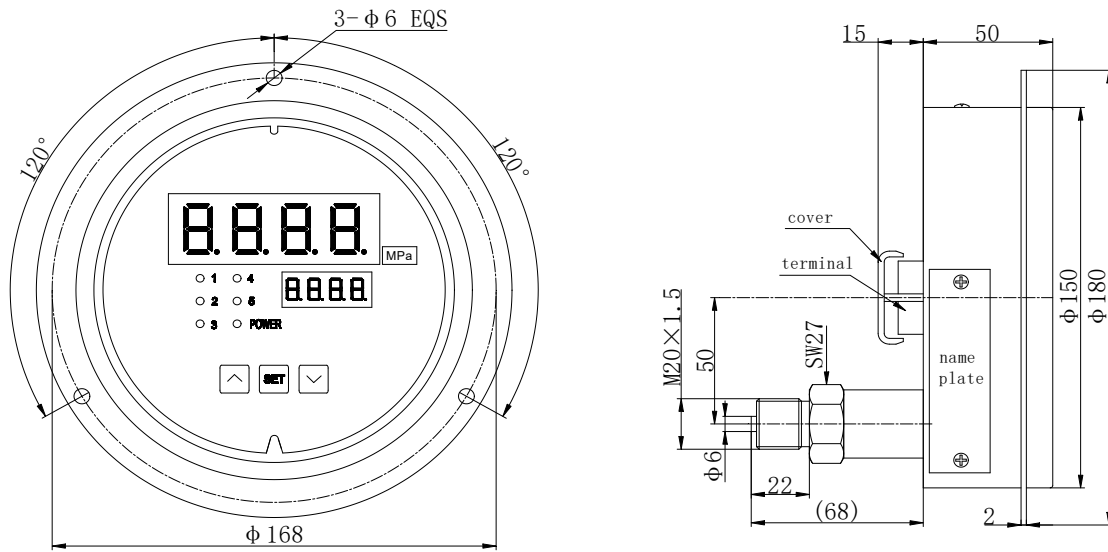
## Specifications

<p><b>PCT10SR-4841</b>                  Pressure range: -100kPa...0kPa~                  10kPa...100MPa                  Overpressure: 1.5 times FS or 110MPa                  (min. value is valid)</p> <p><b>PDT10SR-4841</b>                  Pressure range: 0kPa~35kPa...3.5MPa                  Static pressure: ≤20MPa                  Accuracy: ±0.25%FS (typ.), ±0.5%FS (max.)                  Temperature error:                  ±0.03%FS%°C (≤100kPa)                  ±0.02%FS%°C (&gt;100kPa)                  Long-term stability: ≤±0.5%FS/year</p>	<p>Power supply:                  220V AC/ 110~370V DC/24V DC                  Max Consumption: ≤3.5W                  Output signal:                  Analog output: 4mA~20mA DC / 0V~10V DC                  Digital output: RS485(Modbus RTU protocol)                  Relay qty.: 1~5                  Load: 240V/3A AC / 30V/3A DC                  Contact life: &gt;100000 times                  Display:                  main screen: 4-digit 0.8" red highlight LED                  secondary screen: 4-digit 0.36" red highlight LED                  Display range: -1999~9999                  Indicator: 2~6 red LED lights</p>
<p>Working temp.: -10°C~60°C                  Media temp.: -10°C~80°C                  Storage temp.: -40°C~80°C                  Relative humidity: 0%~80%                  Vibration: acceleration≤3g,                  frequency 0Hz~300Hz                  impact: ≤10g</p>	<p>Pressure port: stainless steel 1Cr18Ni9Ti                  Electric housing: stainless steel(front shell),                  aluminium alloy(bottom shell)                  Diaphragm: stainless steel 316L                  Sealing method: viton or full-welded                  Pressure port: various types optional                  Installation method: vertical and axial mounting</p>

Outline Construction(mm)

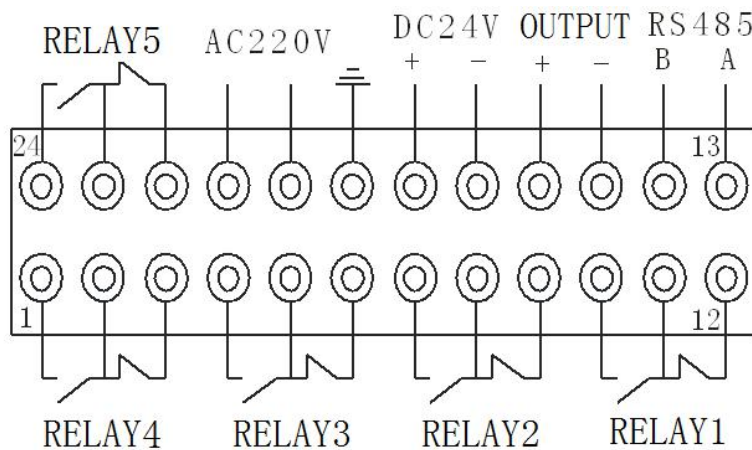


PCT/PDT10SR-4841 Pressure Transmitting Controller    MDM484ZL Differential Pressure Transmitting Controller



PCT/PDT10SR-4841 Pressure Transmitting Controller-Axial

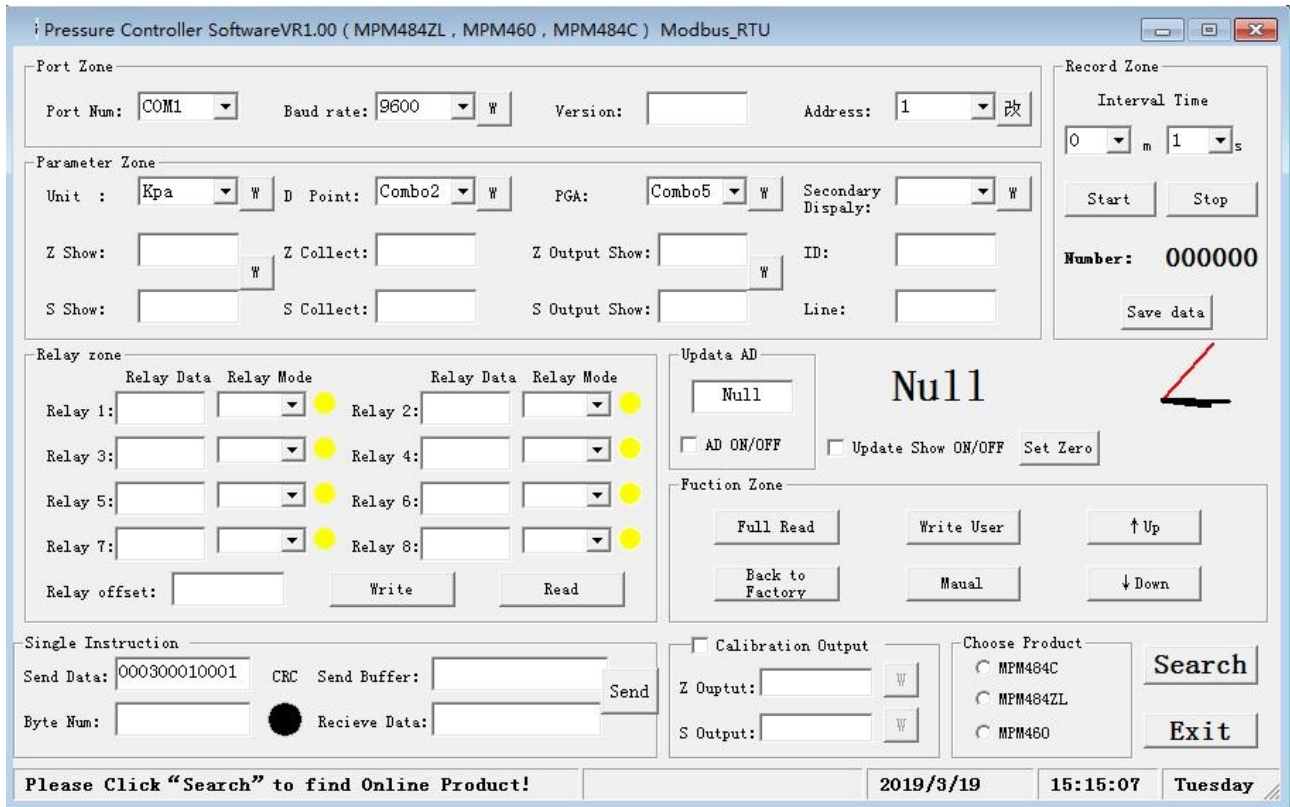
mounting Electric connection



- 1, 2, 3: NO, COM and NC of relay 4;
- 4, 5, 6: NO, COM and NC of relay 3;
- 7, 8, 9: NO, COM and NC of relay 2;
- 10,11,12: NO, COM and NC of relay 1;
- 24, 23, 22: NO, COM and NC of relay 5;
- 13, 14: RS485 communication terminal;
- 15, 16: analog output terminal;
- 19: connected to housing
- 17, 18: 24VDC supply terminal
- 20, 21: 220VAC supply terminal;

User software

If users choose RS485 interface, we could provide user software of controller series product as shown below:



Note: The software version is subject to our website.

## Order Guide

PCT10SR-4841	Intelligent Pressure Transmitting Controller						
PDT10SR-4841	Intelligent Differential Pressure Transmitting Controller						
Range	Measured range kPa or MPa						
[0~X] kPa or MPa	Pressure	-0.1MPa...0MPa~0.01MPa...100MPa					
	Differential pressure	Pressure kPa	Overpressure kPa		Pressure kPa	Overpressure kPa	
			+	-		+	-
		0~35	70	35	0~700	1400	700
		0~70	150	70	0~1000	2000	1000
		0~100	200	100	0~2000	4000	1000
	0~200	400	200	0~3500	7000	1000	
	0~350	700	350				
Code	Output signal						
E	4mA~20mA DC						
F	1V~5V DC						
J	0V~5V DC						
V	0V~10V DC						
Q	0mA~10mA DC						
U	0mA~20mA DC						
R <sub>8</sub>	RS485 interface (Modbus RTU protocol)						
Code	Construction material						
	Diaphragm	Pressure port	Housing				

				22	SS316L	SS	Aluminium alloy
				24	SS316L	SS316L	Aluminum alloy
				25	Tantalum	SS	Aluminium alloy
				35	Tantalum	Hastelloy C	Aluminium alloy
					Code	Others	
					C <sub>1</sub>	M20×1.5 male, face type seal	MPM484ZL
					C <sub>3</sub>	G1/2 male	
					C <sub>5</sub>	M20×1.5 male, waterline seal	
					P	Flush diaphragm, G1/2 male	
					G	Gauge	
					A	Absolute	
					S	Sealed gauge	
					C <sub>4</sub>	G1/4 female	MDM484ZL
					X	Axial mounting(default vertical mounting)	MPM/MDM484ZL
					J <sub>n</sub>	Relay qty. n=1~5	
					V <sub>1</sub>	24V DC	
					V <sub>2</sub>	220V AC(compatible with 110V~370V DC)	
PCT10SR-4841	[0~200]kPa	F		22	C <sub>3</sub> AJ <sub>2</sub> V <sub>1</sub>	the whole spec.	

## Order note

1. Please remark the power supply (default 24VDC), accuracy (default 0.5), output signal and relay qty. when doing the code selection.
2. If users order RS485 interface products, please download the communication software and instruction from our website.
3. Pressure port can be provided according to users' needs. Please contact us if you have any special requirement.
4. It is suggested that users should make on-site protection when installing and using the product to prevent any possible damages caused by lightning, rain, etc.
5. The range of pressure transmitting controller with Flush diaphragm is 0~70kPa...35MPa;
6. If users choose PDT10SR-4841 products, please pay attention to the relationship between the differential pressure range and the allowable overpressure and maximum pressure of the positive and negative pressure, and should be consistent with the requirements for on-site use. In order to ensure a safe and reliable operation of the transmitter, it is recommended to install a three-valve between the measured point and the transmitter, so that the measured medium is slowly and evenly applied to the positive and negative pressure chambers of the PDT10SR-4841.
7. If the user has special requirement, please feel free to contact our company.