Small laser distance measuring sensor **PDE-CM1** series



Features

- ◆ Ultra-small size, metal housing, solid and durable
- ◆ Convenient operation panel with visualized OLED display to complete all function settings fastly
- ◆ The detection distance can reach up to 1 meters and is less affected by the surface of the detected object
- ◆ The menu supports Chinese and English switching, featuring a simple and user-friendly operation.
- ◆ Powerful function setting and flexible output way
- ◆ Complete shielded desgin, stronger anti-interference perfomance

Part number

RS-485	PDE-CM1THR	4...20mA / 0-10V	PDE-CM1THIU

Technical specifications

Measuring range	60-1000mm	Response Time	3ms/10ms/25ms/100ms/1000ms Adjustable
Digital display range	50-1100mm	Dimension	45mm*27mm*21mm
Supply voltage	12...24VDC	Display	OLED Display(size:18*10mm)
Consumption power	≤1200mW	Indicator	Laser operation indicator: green LED (steady on); Switch output indicator: yellow LED
Load current	≤100mA	Protection circuit④	Short circuit,reverse polarity,overload Surge protection
Voltage drop	<2V	Built-in function⑤	Slave address & baud rate setting; zero-point setting; analog mapping; language setting; output setting
Light source	Read laser (650nm); Laser level: Class 2		Single-point / two-point / three-point teaching; window teaching; restore factory settings,
Light diameter⑦	Approx. Φ2mm (@ 1000 mm)	Service environment	Operation temperature:-10…+45℃; Storage temperature:-20…+60℃
Resolution	1mm		Ambient temperature:35...85%RH(No condensation)
Linear accuracy①②	±0.3%F.S.	Anti ambient light	Incandescent light:＜3,000lux;Sunlight interference: ≤40,000 lux
Repeat accuracy①②③	3mm	Protection degree	IP65
Output 1	RS-485(Support Modbus protocol)	Material	Housing: zinc alloy; lens: PMMA; display: glass
	Switch outputs ×2: NPN/PNP type, NO/NC configurable	Vibration resistance	10...55Hz Double amplitude1mm,2H each in X,Y,Z directions
Output 2	4...20mA(Load resistance＜390Ω/0-10V (>5kΩ)	Impulse resistance	500m/s²(About 50G)3 times each in X,Y,Z directions
	Switch outputs ×2: NPN/PNP type, NO/NC configurable		2 m composite cable (0.2 mm²)
Distance setting	RS-485:Keypress/RS-485 setting	Accessory	M3 screws (30mm length) ×2, nuts ×2, washers ×2, mounting bracket
	Analog output: configurable via buttons		Operation manual

Remark:

① Test conditions:Standard data at 25℃；Supply voltage 24VDC;Standard sensing object 90% white card

② The statistical data follows the 3σ criteria

③ Repeat accuracy:23 ± 5 ℃ environment,90% reflectivity white card,100 test data results

④ Protecion circuit only for switch output

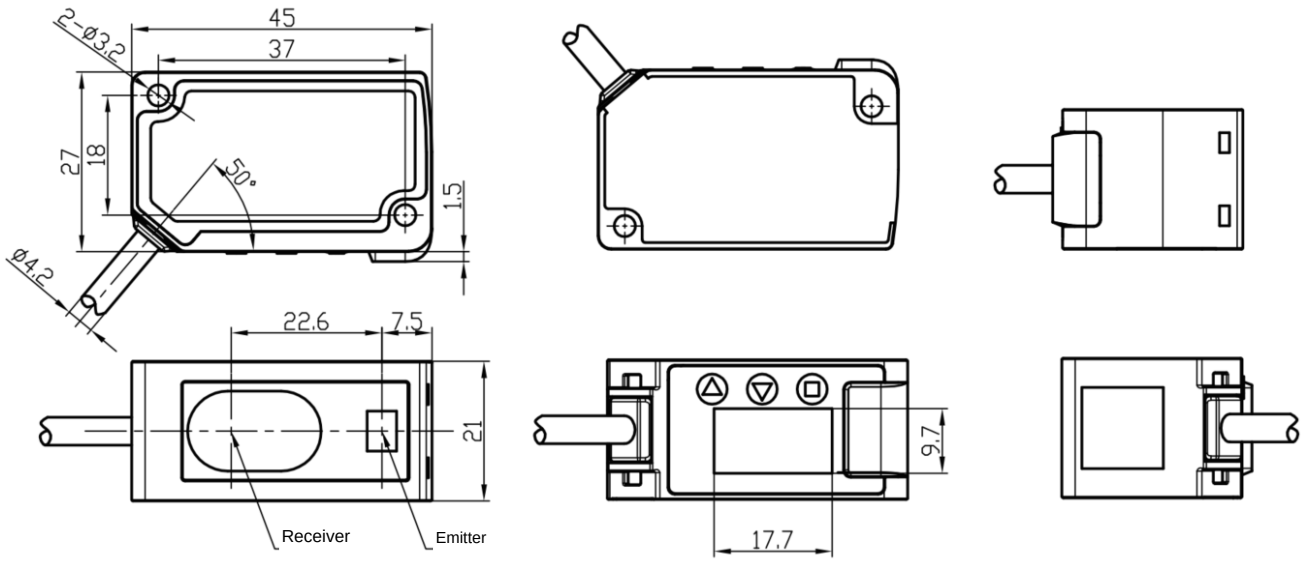
⑤ Slave address,baud rate setting only for RS-485 series

⑥ Product operation steps and precautions in "Operation manual

⑦ This data represents the measured values of the center distances

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Dimension



Wiring Defination

Wire Color	RS485 Output	Analog Output
Brown	Power +	Power +
Blue	Power -	Power -
Black	Switch Output 1	Switch Output 1
Pink	Switch Output 2	Switch Output 2
White	RS485-A	
Gray	RS485-B	4-20mA/0-10V