

Laser ranging sensor
Data Sheet
V1.0



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performance parameter	
measuring range	Maximum measurement distance: 22m
	Under strong light at 100KLux environment: 12m
	Under 10% reflectivity of black target: 20m
Measurement Frequency	50...100...250Hz
repeatability	±8.0mm @50~2000mm
	±20.0mm @2000~6000mm
	±30.0mm @6000~20000mm
Absolute accuracy	±20.0mm @200~2000mm; Near blind zone of 20-200mm, with large error
	±30.0mm @2000~6000mm
	<1% @6000~20000mm
Multi target detection	Double Peaks
temperature compensation	have
reflectivity correction	Yes, the target deviation for different colors is less than 5mm
blind area	0.2m
light source	
Working Laser	905nm, Class 1
Field of View (FOV)	<2°
spot size	Φ 3.5cm@1m ; Φ 11.5cm@5m Φ 23cm@10m ; Φ 50cm@20m
Indicating laser	650-660nm, Class 2, (IEC 60825-1:2014, EN 60825-1:2014)
work environment	
operation temperature	-20~50°C
storage temperature	-40~85°C
degrees of protection provided by enclosure	IP65
Electrical parameters	
working voltage	DC+9~35V
Working current	107mA@12V Indicate laser operation
	103mA@12V Instruct laser to turn off
Reverse protection	have

SDA 产品手册

quarantine	have
Laser lifespan	Over 50000 hours

output interface

output interface	Two PNP channels	Two NPN channels	RS485-Modbus	UART	relay
	normally open/normally closed	normally open/normally closed	4...20mA		
Switching output maximum current load	100mA				
Maximum load of analog output	250Ω				

Display button

Number of digital tubes	4 people
Key function	Adjustment of switch threshold; Indicate laser switch; Adjustment of analog range

mechanical parameters

weight	73g ± 3g (glue filling error)
casing	ABS
size	45*45*49.5mm

accessory

bolt	M4 * 55mm 2 pieces;
bracket	Optional
Electrical connection	1*M8, 1-meter long cable

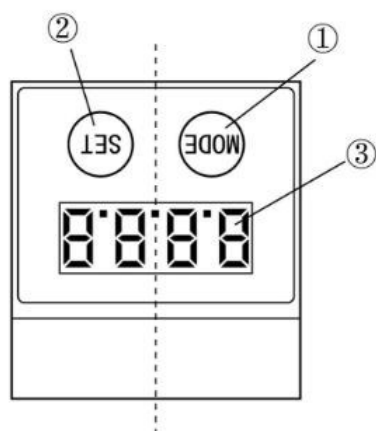
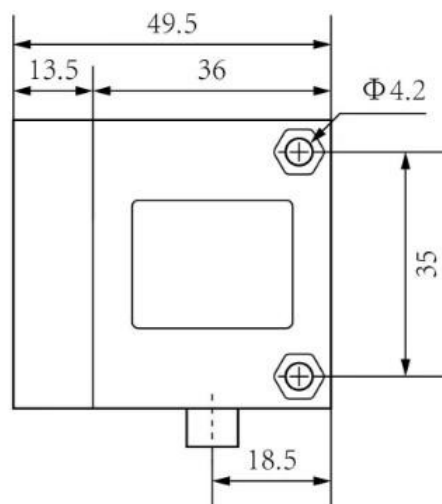
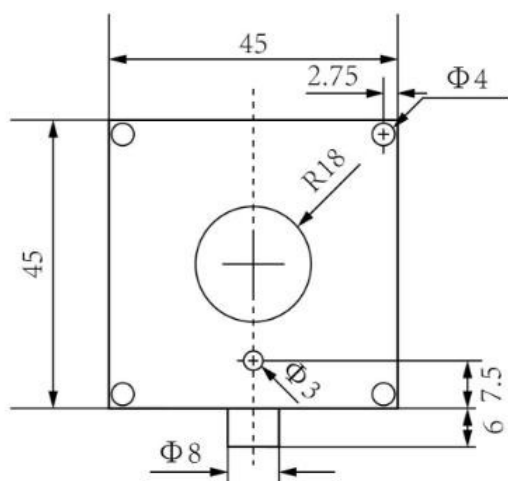
Order Model Table

range	interface	model	range	interface	model
1m	Two PNP channels	SDA-01P	10m	Two PNP channels	SDA-10P
2m	Two PNP channels	SDA-02P		Two NPN channels	SDA-10N
3m	Two PNP channels	SDA-03P		RS485/4-20mA	SDA-10DA
4m	Two PNP channels	SDA-04P		Two way relay	SDA-10R
5m	Two PNP channels	SDA-05P	20m	Two PNP channels	SDA-20P
	Two NPN channels	SDA-05N		Two NPN channels	SDA-20N
	RS485/4-20mA	SDA-05DA		RS485/4-20mA	SDA-20DA
	Two way relay	SDA-05R		Two way relay	SDA-20R
				TTL	SDA-20T

Definition of Cable

Serial Number	Line color	SDA-P/N	SDA-DA	SDA-T
1	brown	VCC, DC9~35V	VCC, DC9~35V	VCC, DC3.3V
2	black	GND	GND, Analog ground	Power Ground
3	blue	OUT1	RS485 A	RX
4	white	OUT2	RS485 B	TX
5	grey	not have	analog output	

External dimensions



- ① MODE按键
- ② SET按键
- ③ 数值显示屏
- ④ 所有单位mm

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