

Photoelectric Sensors—Rectangular-OSM42



Description:

Laser displacement sensor, 655nm laser source, metal housing, suitable for logistics, packaging, automobiles, customized equipment. etc.

Features:

- High precision, accurate positioning
- Strong resistance to ambient light, compact size
- 2 switch output

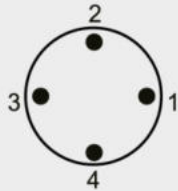
Type:

Type	Distance	Light source	Output	Resolution	Connection	Wiring
OSM42-KL1200C2B6	150...1200mm	Red laser	NPN/PNP	1mm	2m cable	Fig.1
OSM42-KL2000C2B6	95...2000mm	Red laser	NPN/PNP	1mm	2m cable	Fig.1

Technical Data:

Supply voltage	10-30VDC
Ripple voltage	≤10%
No-load current	≤150mA
Power	<0.8W
Switch output	NPN/PNP
Light source	655nm laser source
Protection circuit	Reverse polarity protection, short circuit protection, Overload protection
Response time	500Hz
Repeatability	2mm(150mm~600mm); 5mm(600mm~800mm); 10mm(800mm~1200mm)
Spot diameter	2mm@600mm; 3.5mm@1200mm
Housing material	Die-cast zinc
Ambient temperature	-10°C-50°C
Voltage resistance	1000V/AC/ 50/60Hz 60s
Insulation impedance	≥50MΩ (500VDC)
Shock resistance	Complex amplitude 1.5mm 10... 50Hz (2hr X, Y,Z respectively)
Impact resistance	500m/S ² (50G) 3 times X,Y,Z respectively
Protection class	IP67
Dimensions	46*20*29mm

Interface output:



	Function	Wire color
1	Power +	BN
2	Power -	BU
3	Switch 1	BK
4	Switch 2	WH

Indicator:



STA: status

L/D: light on/dark on

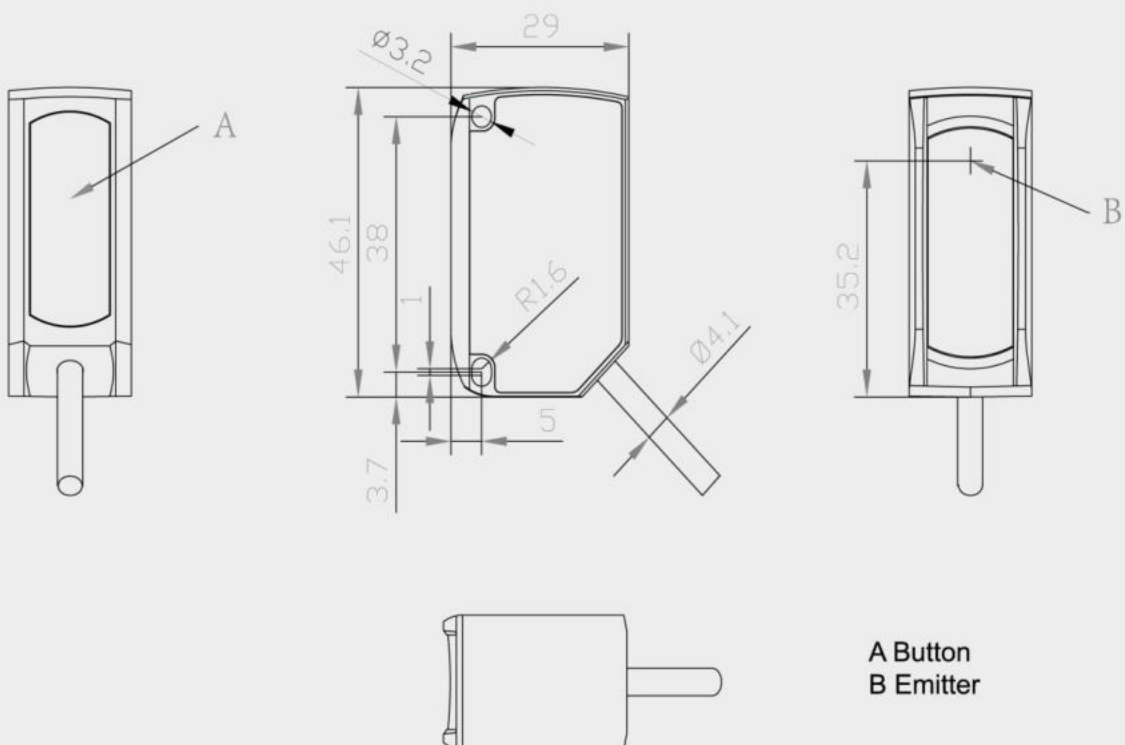
OUT1: switch 1 digital output

OUT2: switch 2 digital output

Keys instruction:

TEACH: setting

Dimensions:



OSM42 High Precision Laser Sensor

INSTRUCTIONS

1. Description

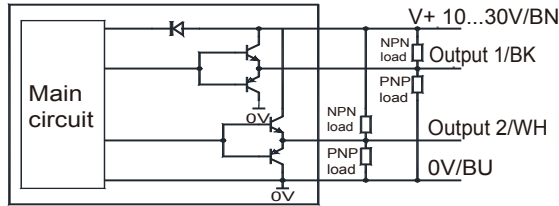
Type	OSM42-KL1200C2B6	Measurement range	150...1200mm
Beame	laser 2 655nm	resolution	1mm
Sport	2mm(150mm~600mm)	Repeatability	2mm@600mm
	5mm(600mm~800mm)		3.5mm@1200mm
	10mm(800mm~1200mm)	Connection	2M Cable



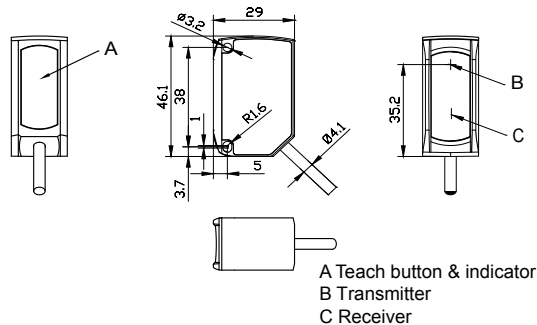
2. Specifications

Power supply: 10...30VDC
 Power Consumption: <0.8W
 Ambient temperature: -10°C...50°C
 Response frequency: 500Hz
 Protection degree: IP67
 Output: 2X PUSH-PULL, adjustable

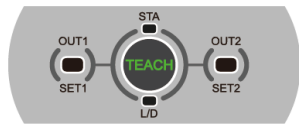
Wiring diagram



Dimensions



3. Teach button & indicator



Indicator description:

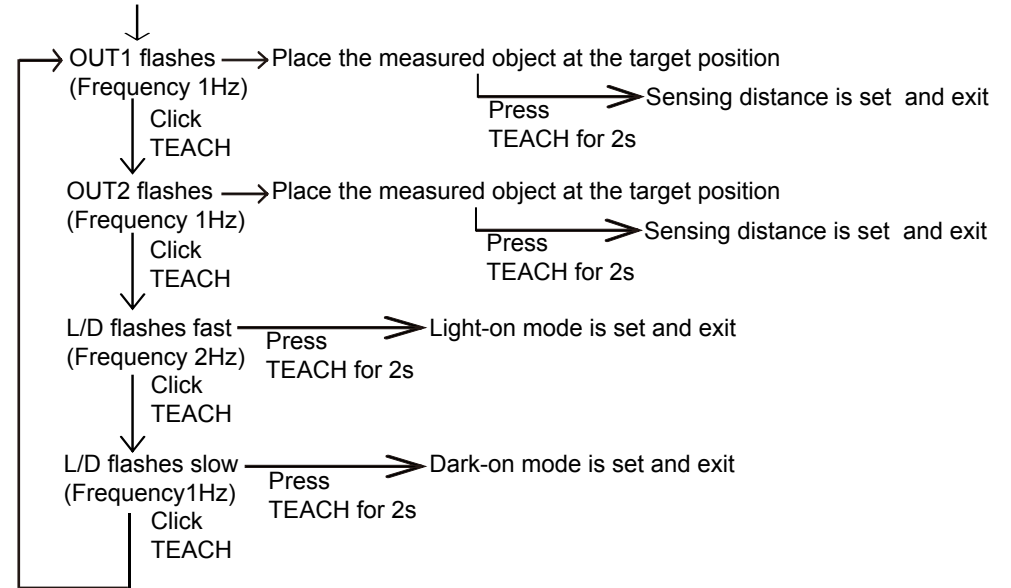
STA: Status indicator, the target object is within the measurement range, LED keep on;
 the target object is out of the measurement range, LED flashes (on 0.5s/off 0.5s);
 L/D: Lumonopus and dark pass indicator, set to light-on, LED on;
 set to dark-on, LED off;
 OUT1: Switch 1 digital out indicator, LED on when output;
 At teaching mode, indicates the setting of switch 1;
 OUT2: Switch 2 digital out indicator, LED on when output;
 At teaching mode, indicates the setting of switch 2;

Key description:

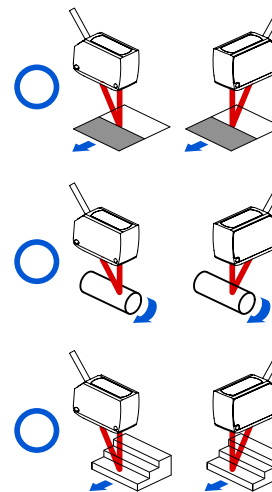
TEACH: Setting key

4. Teaching guide

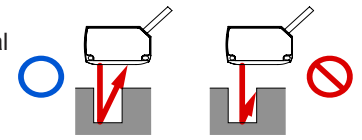
Press TEACH for 2s, to enter the setting mode



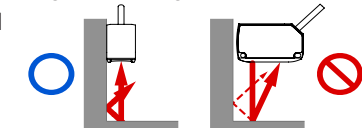
5. Installaton



- In the case of color or material difference
 When the material or color of moving object is extremely different, install it in the direction shown on the left to keep the measurement error to a minimum.
- Detect rotating objects
 When detecting a rotating object, install it in the direction shown on the left, which can suppress the influence of the object's vertical vibration and position shift.
- When there is a step
 If there is a step in the moving detection object, install it according to the method shown on the left, so as to suppress the influence of the step edge during measurement.



- Measure in narrow places and recessed parts
 In the case of measuring in a narrow place or hole, please be careful not to block the light path from the light emitting part to the light receiving part when installing.



- When installed on the wall
 Please install according to the method shown on the left to avoid the multiple reflected light from the wall entering the light receiving part.

*1: This is a laser product, it should be used after warming up for ten minutes.

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