

Product Description:

- Metal casing, 3m or 4m laser BGS diffuse reflection detection distance, coaxial technology, no blind spots, precise positioning, wide voltage power supply.
- Suitable for automotive manufacturing, metallurgical industry, non-standard equipment, textile machinery, etc



Product features:

- BGS function greatly improves detection performance
- Long detection distance
- Adjust sensitivity by adjusting the knob
- IP67 protection rating
- 2x Push-Pull output mode



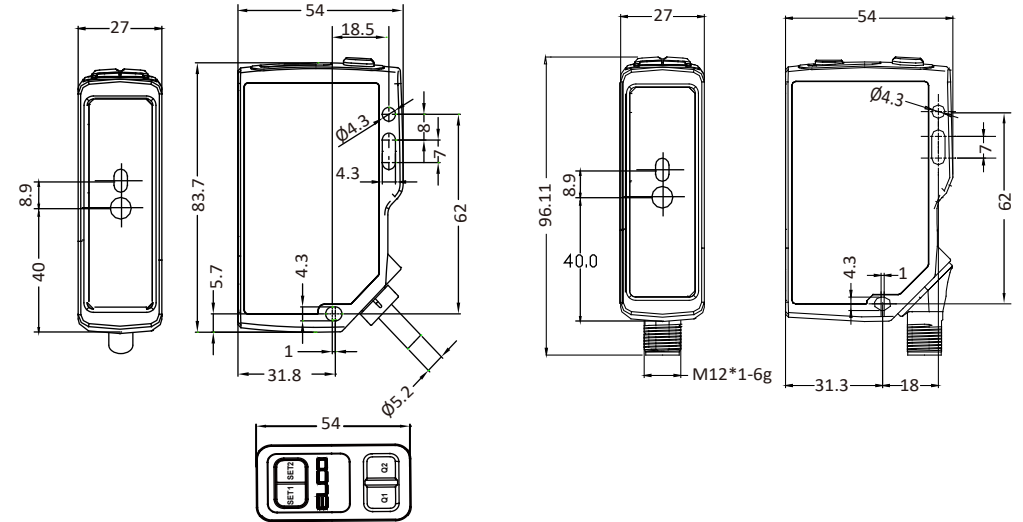
Type	Distance	light source	Output	Connection	Wiring
OSM70-AKL3000C2B6 *M ¹⁾	0.1m...3m	Infrared VCSEL	2x Push-Pull	Cable	Fig.1
OSM70-AKL4000C2B6 *M ¹⁾	0.1m...4m	Infrared VCSEL	2x Push-Pull	Cable	Fig.1
OSM70-AKL3000C2B6Q	0.1m...3m	Infrared VCSEL	2x Push-Pull	M12 Connector	Fig.2
OSM70-AKL4000C2B6Q	0.1m...4m	Infrared VCSEL	2x Push-Pull	M12 Connector	Fig.2

Note 1): * M refers to the cable length in meters. If there is no * M in the model, the default cable length is 2 meters.

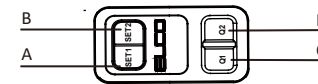
TECHNICAL SPECIFICATION

OPERATING VOLTAGE	10-30VDC	AMBIENT TEMPERATURE OPERATION	-20°C...+60°C
RIPPLE VOLTAGE	±10% of U _B	AMBIENT TEMPERATURE STORAGE	-40°C...+70°C
DETECTION LIGHT SOURCE	Infrared VCSEL Laser(940nm)	CIRCUIT PROTECTION	Short-circuit protection, Reverse polarity protection,
INDICATOR LIGHT SOURCE	Red Laser(655nm)	PROTECTION DEGREE	IP67
OUTPUT SWITCHING	Light+Dark	HOUSING	Die-Casting Zinc
LOAD CURRENT	≤100mA	CONNECTING TYPE	Cable M12 Connector
CONSUMPTION CURRENT	≤50mA	RESPONSE FREQUENCY	20-50Hz
REPEATABILITY	20mm		
Q1 STATE INDICATION	Green LED		
Q2 STATE INDICATION	Red LED		

DIMENSIONS



INDICATORS



A	SET1	
B	SET2	
C	Q1 LED indicator	Green
D	Q2 LED indicator	Red

ELECTRICAL CONNECTION

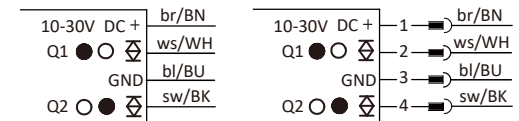
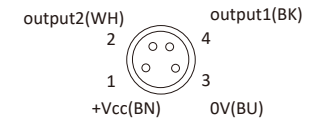


Fig.1

Fig.2



○ = Light on
● = Dark on

产品说明:

- 金属外壳, 3m/4m激光GBS漫反射检测距离。采用同轴技术, 无盲区, 精准定位, 宽电压供电
- 适用于汽车制造、冶金行业、非标设备、纺织机械等应用



产品特点:

- BGS功能极大提升检测效果
- 检测距离长
- 通过按键调节灵敏度
- IP67防护等级
- 两路推挽式输出



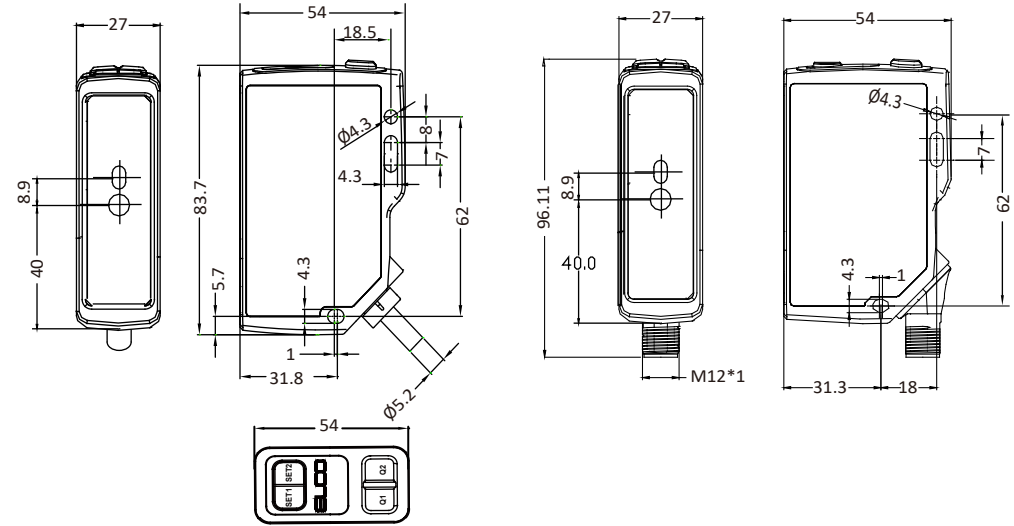
型号	检测距离	光源	输出方式	连接方式	接线图
OSM70-AKL3000C2B6 *M ¹⁾	0.1m...3m	红外激光Class I	2×Push-Pull	线缆	图1
OSM70-AKL4000C2B6 *M ¹⁾	0.1m...4m	红外激光Class I	2×Push-Pull	线缆	图1
OSM70-AKL3000C2B6Q	0.1m...3m	红外激光Class I	2×Push-Pull	M12连接器	图2
OSM70-AKL4000C2B6Q	0.1m...4m	红外激光Class I	2×Push-Pull	M12连接器	图2

注1) : *M表示线缆长度, 单位米, 型号中无*M默认线缆长度为2米。

技术参数

工作电压	10...30VDC	工作环境温度	-20°C...+50°C
纹波电压	±10% of U _B	储存环境温度	-40°C...+70°C
检测光源	红外VCSEL光源 (940nm)	保护电路	短路保护 反极性保护
指示光源	红光激光(655nm)	防护等级	IP67
输出特性	亮态+暗态	外壳	压铸件
负载电流	≤100mA	连接方式	线缆式 M12连接器
消耗电流	≤50mA	开关频率	20-50Hz
重复精度	20mm		
Q1状态指示灯	绿色LED		
Q2状态指示灯	红色LED		

外形尺寸

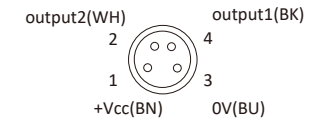
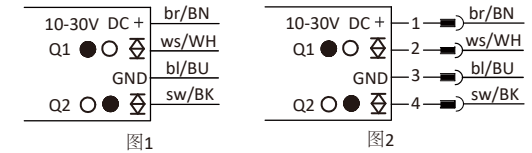


操作指示



A	设置1	
B	设置2	
C	Q1状态指示灯	红色
D	Q2状态指示灯	绿色

接线图

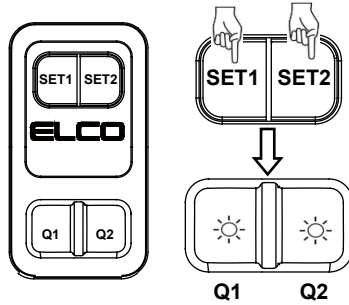


○ = 亮通
● = 暗通

亮暗态设置

- 1) 长按SET1+SET2进入亮暗通设置模式，LED1, LED2指示灯同步快闪3次，之后根据当前通道对应亮暗通状态显示指示灯（LED1-Q1, LED2-Q2, 亮通-灯亮, 暗通-灯灭），默认亮通
- 2) 长按SET1改变Q1的亮暗通状态，LED1指示Q1状态
长按SET2改变Q2的亮暗通状态，LED2指示Q2状态
- 3) 设置结束，长按SET1+SET2 退出模式设置

注：（10s不操作自动保存退出）



单点模式



通道1设置(黑线)

- 1) 长按（3s）SET1进入Q1设置模式，LED1秒闪指示；
- 2) 找目标物体1，短按SET1设置第一点，设置完成LED1快闪3次；
- 3) 短按SET2，结束设置，LED1快闪3次；

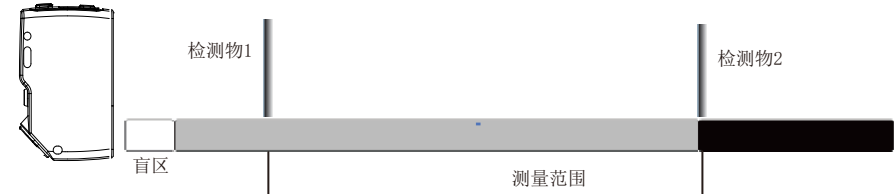
注：（步骤2 后10s无操作默认单点）

通道2设置(白线)

- 1) 长按（3s）SET2进入Q2设置模式，LED2秒闪指示；
- 2) 找目标物体1，短按SET2设置第一点，设置完成LED2快闪3次；
- 3) 短按SET1，结束设置，LED2快闪3次；

注：（步骤2 后10s无操作默认单点）

窗口模式



通道1设置(黑线)

- 1) 长按（3s）SET1进入Q1设置模式，LED1秒闪指示；
- 2) 找目标物体1，短按SET1设置第一点，设置完成LED1快闪3次；
- 3) 找目标物体2，再次短按SET1设置第二点，结束设置，LED1/LED2双灯同步快闪3次；
- 4) 目标物体1为近点，目标物体2为远点。

通道2设置(白线)

- 1) 长按（3s）SET2进入Q2设置模式，LED2秒闪指示；
- 2) 找目标物体1，短按SET2设置第一点，设置完成LED2快闪3次；
- 3) 找目标物体2，再次短按SET2设置第二点，结束设置，LED1/LED2双灯同步快闪3次；
- 4) 目标物体1为近点，目标物体2为远点。

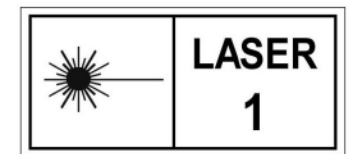
安全警示

所有传感器功能必须符合电子和机械安全规定的法律法规

禁止直视激光束；

禁止把激光指向人；

请保持窗口面清洁，以保证测量精度



IEC 60825-1:2014
EN 60825-1:2014+A11:2021

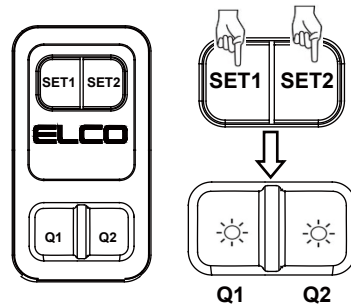
LIGHT AND DARK SETTING

1) Long press SET1 + SET2 enter the light and dark setting mode, LED1 and LED2 flash 3 times, then according to the bright and dark state display indicator (LED1-Q1, LED2-Q2, Light-LED on, Dark-LED off), default Light

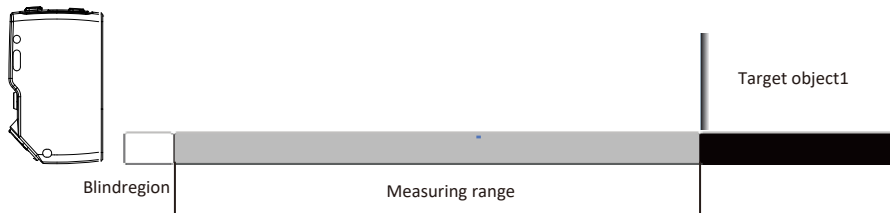
2) Long press SET1 change output1, the LED1 indicates the status of the Q1; Long press SET2 change output2, the LED2 indicates the status of the Q2;

3) Long press SET1 + SET2, save and exit mode settings

(10S does not operate automatic save and exit)



THE POINT MODE



Output 1 setting (Black)

- 1) Long press (3s) SET1 enters the Q1 setting mode, LED1 flash;
- 2) Confirm the target objects 1, click SET1 to set the first point, the LED1 flash 3 times;
- 3) press SET2, end the settings, LED1 flash 3 times;

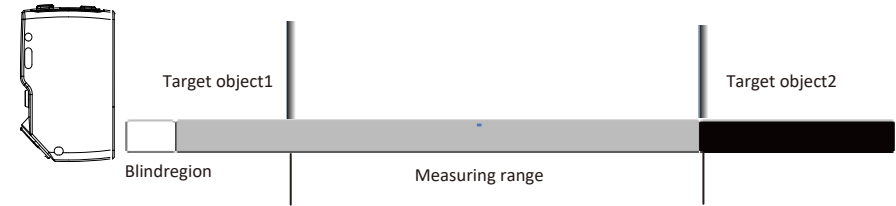
Tips: (after step 2 10S no operation default the point mode)

Output 2 setting (White)

- 1) Long press (3s) SET2 enters the Q2 setting mode, LED2 flash;
- 2) Confirm the target objects 1, click SET2 to set the first point, the LED2 flash 3 times;
- 3) Press SET1, end the settings, LED2 flash 3 times;

Tips: (after step 2 10S no operation default the point mode)

THE WINDOW MODE



Output 1 setting (Black)

- 1) Long press (3s) SET1 enters the Q1 setting mode, LED1 flash;
- 2) Confirm the target objects 1, click SET1 to set the first point, the LED1 flash 3 times;
- 3) Confirm the target object 2, then press SET1 to set the second point, end the setting, LED1 and LED2 flash 3 times;
- 4) The target object 1 is the close point, and the target object 2 is the far point.

Tips: (after step 2 10S no operation default the point mode)

Output 2 setting (White)

- 1) Long press (3s) SET2 enters the Q2 setting mode, LED2 flash;
- 2) Confirm the target objects 1, click SET2 to set the first point, the LED2 flash 3 times;
- 3) Confirm the target object 2, then press SET2 to set the second point, end the setting, LED1 and LED2 flash 3 times;
- 4) In window mode, the target object 1 is the close point, and the target object 2 is the far point.

Tips: (after step 2 10S no operation default the point mode)

ELSAFETY WARINGS

• Safety warning

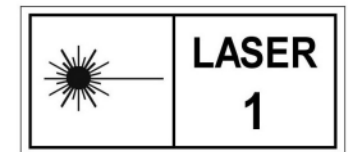
All the safety electrical and mechanical regulations and laws have to be respected during sensor operation. The sensor has to be protected against mechanical damages. Do not look directly into the laser beam! Do not point the laser beam towards people!

• Installation Tips

Please keep the window clean to ensure the accuracy of measurement.

Before setting the mode, please ensure that the detection objects are placed correctly.

If Q1 flickers once and Q2 flickers continuously after setting, it means that there is an error in setting please reset the Settings according to the operation method after Q2 flicker stops.



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