

图片

PICTURE

特点/Features:

- 光轴间距: 20mm
- beam pitch: 20mm
- 最小检测物: 25mm
- Min. detectable object: ϕ 25mm
- 拥有自检功能
- with self-diagnosis function
- 具备输出短路保护回路
- Short circuit protection and revised polarity protection



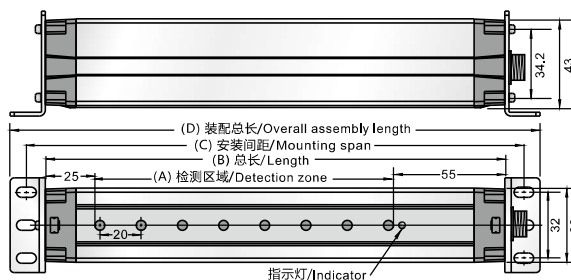
CE



CE

发射器/Emitter	GMDE-E5M-D04/2YV5	* 01	GMDE-E10M-D04/2YV5	* 01
接收/Receiver:				
直流-4线/DC-4 wires NPN N.O.	GMDE-T5MNA-D04/2YV6	* 02	GMDE-T10MNA-D04/2YV6	* 02
直流-4线/DC-4 wires NPN N.C.	GMDE-T5MNB-D04/2YV6	* 02	GMDE-T10MNB-D04/2YV6	* 02
直流-4线/DC-4 wires PNP N.O.	GMDE-T5MPA-D04/2YV6	* 03	GMDE-T10MPA-D04/2YV6	* 03
直流-4线/DC-4 wires PNP N.C.	GMDE-T5MPB-D04/2YV6	* 03	GMDE-T10MPB-D04/2YV6	* 03
检测距离/ Protected area width	0.5-5m		0.5-10m	
分辨率/ Resolution	25mm(用于存在检测)/25mm(presence detection)			
工作电压/Supply voltage	DC12...24V			
工作电流/Current consumption	\leq 100mA			
输出状态/Output status	所有光轴对正输出/All light channel light on			
电缆长度/Cable length	3M			
光源/Light source	调制红外光 /Infrared light			
保护电路/Protection circuit	短路保护和瞬间反极性保护/Short circuit and Reversed polarity protection			
残留电压/Residual voltage(V_r)	0.8V max.			
漏电流/Leakage current	0.1mA max.			
LED 显示/Display	绿色: 电源灯; 红色: 输出状态/Power: Green LED; Output status: Red LED			
响应时间/Response time	<12ms			
复位时间/Reset time	<20ms			
抗光干扰/Anti light interference	>5000LUX(入射角大于5°)/>5000LUX(Angle of incidence>5°)			
保护等级/Protection	IP65			
连接方式/Connection	圆形插座, 配连接电缆/Round socket , M12 connector			
外壳材质/Housing material	外壳: 铝合金, 上下盖: 增强尼龙/Aluminum alloy, Top and bottom cover: nylon			
使用环境/Operating temperature	-5°C...55°C; 25% ...85% RH (未结露状态) /-5°C...55°C; 25% ...85% RH(no condensation)			
绝缘阻抗/Insulation resistance	\geq 50M Ω			
震动测试/Vibration resistance	10...55Hz, (周期1分钟) 振幅1.5mm, 在X、Y、Z方向各2个小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			

尺寸图
Dimensional drawing



备注/Remark

注 1: *01, *02, *03...表示接线图序号, 详见M-19页。

2: 尺寸图详细资料见M-17页

图片

PICTURE

特点/Features:

- 光轴间距: 40mm
- beam pitch: 40mm
- 最小检测物: 45mm
- Min, detectable object: ϕ 45mm
- 拥有自检功能
- with self-diagnosis function
- 具备输出短路保护回路
- Short circuit protection and revised polarity protection

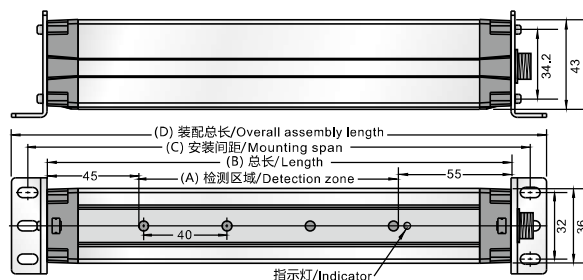
发射器/Emitter	GMDE-E5M-D04/4YV5	* 01	GMDE-E10M-D04/4YV5	* 01
接收/Receiver:				
直流-4线/DC-4 wires NPN N.O.	GMDE-T5MNA-D04/4YV6	* 02	GMDE-T10MNA-D04/4YV6	* 02
直流-4线/DC-4 wires NPN N.C.	GMDE-T5MNB-D04/4YV6	* 02	GMDE-T10MNB-D04/4YV6	* 02
直流-4线/DC-4 wires PNP N.O.	GMDE-T5MPA-D04/4YV6	* 03	GMDE-T10MPA-D04/4YV6	* 03
直流-4线/DC-4 wires PNP N.C.	GMDE-T5MPB-D04/4YV6	* 03	GMDE-T10MPB-D04/4YV6	* 03
检测距离/ Protected area width	0.5-5m		0.5-10m	
分辨率/ Resolution	25mm(用于存在检测)/25mm(presence detection)			
工作电压/Supply voltage	DC12...24V			
工作电流/Current consumption	\leq 100mA			
输出状态/Output status	所有光轴对正输出/All light channel light on			
电缆长度/Cable length	3M			
光源/Light source	调制红外光 /Infrared light			
保护电路/Protection circuit	短路保护和瞬间反极性保护/Short circuit and Reversed polarity protection			
残留电压/Residual voltage(V_r)	0.8V max.			
漏电流/Leakage current	0.1mA max.			
LED 显示/Display	绿色: 电源灯; 红色: 输出状态/Power: Green LED; Output status: Red LED			
响应时间/Response time	<12ms			
复位时间/Reset time	<20ms			
抗光干扰/Anti light interference	>5000LUX(入射角大于 5°)/>5000LUX(Angle of incidence $>5^\circ$)			
保护等级/Protection	IP65			
连接方式/Connection	圆形插座, 配连接电缆/Round socket , M12 connector			
外壳材质/Housing material	外壳: 铝合金, 上下盖: 增强尼龙/Aluminum alloy, Top and bottom cover: nylon			
使用环境/Operating temperature	-5°C...55°C; 25% ...85% RH (未结露状态) /-5°C...55°C; 25% ...85% RH(no condensation)			
绝缘阻抗/Insulation resistance	\geq 50M Ω			
震动测试/Vibration resistance	10...55Hz, (周期1分钟) 振幅1.5mm, 在X、Y、Z方向各2个小时/10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			

Light Curtain

光幕传感器

尺寸图

Dimensional drawing

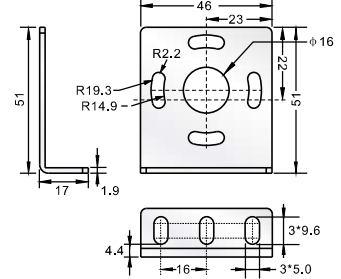
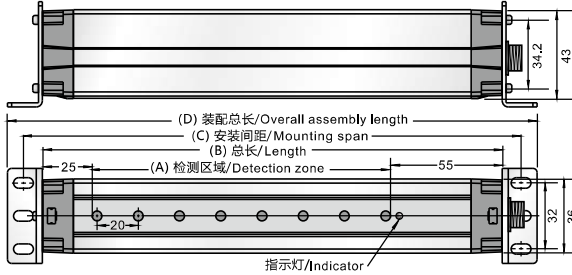


备注/Remark

1: *01,*02,*03-NO of wiring diagram (refers to page M-19) 2: Check page M-17 for detailed dimension.

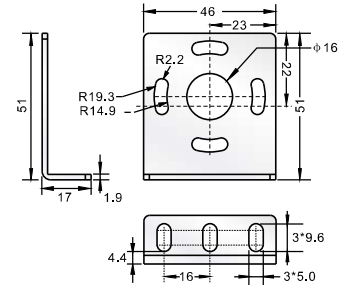
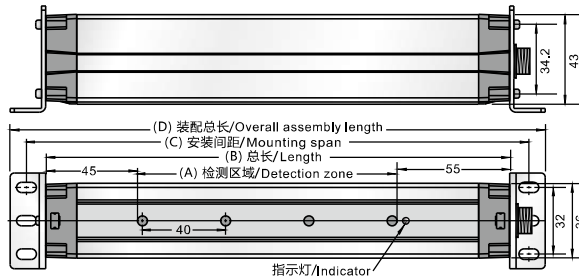
安装尺寸规格图 (单位: mm)
Dimension (Unit: mm)

● 安全光幕 20mm 光轴间距(GMDE系列)
20mm beam pitch



类型 A Type	GMDE-E5M-D04/2YV5 GMDE-T5M[N] [G] -D04/2YV6	GMDE-E5M-D08/2YV5 GMDE-T5M[N] [G] -D08/2YV6	GMDE-E5M-D12/2YV5 GMDE-T5M[N] [G] -D12/2YV6	GMDE-E5M-D16/2YV5 GMDE-T5M[N] [G] -D16/2YV6	GMDE-E5M-D20/2YV5 GMDE-T5M[N] [G] -D20/2YV6	GMDE-E5M-D24/2YV5 GMDE-T5M[N] [G] -D24/2YV6	GMDE-E5M-D28/2YV5 GMDE-T5M[N] [G] -D28/2YV6
B (mm)	60	140	220	300	380	460	540
C (mm)	140	220	300	380	460	540	620
D (mm)	158	238	318	398	478	558	638
(mm)	174	254	334	414	494	574	654

● 安全光幕 40mm 光轴间距(GMDE系列)
40mm beam pitch



类型 Type	GMDE-E5M-D04/4YV5 GMDE-T5M[N] [G] -D04/4YV6	GMDE-E5M-D06/4YV5 GMDE-T5M[N] [G] -D06/4YV6	GMDE-E5M-D08/4YV5 GMDE-T5M[N] [G] -D08/4YV6	GMDE-E5M-D10/4YV5 GMDE-T5M[N] [G] -D10/4YV6	GMDE-E5M-D12/4YV5 GMDE-T5M[N] [G] -D12/4YV6	GMDE-E5M-D14/4YV5 GMDE-T5M[N] [G] -D14/4YV6	GMDE-E5M-D16/4YV5 GMDE-T5M[N] [G] -D16/4YV6
A (mm)	120	200	280	360	440	520	600
B (mm)	220	300	380	460	540	620	700
C (mm)	238	318	398	478	558	638	718
D (mm)	254	334	414	494	574	654	734

类型 Type	GMDE-E5M-D18/4YV5 GMDE-T5M[N] [G] -D18/4YV6	GMDE-E5M-D20/4YV5 GMDE-T5M[N] [G] -D20/4YV6	GMDE-E5M-D22/4YV5 GMDE-T5M[N] [G] -D22/4YV6	GMDE-E5M-D24/4YV5 GMDE-T5M[N] [G] -D24/4YV6	GMDE-E5M-D26/4YV5 GMDE-T5M[N] [G] -D26/4YV6	GMDE-E5M-D28/4YV5 GMDE-T5M[N] [G] -D28/4YV6
A (mm)	680	760	840	920	1000	1080
B (mm)	780	860	940	1020	1100	1180
C (mm)	798	878	958	1038	1118	1198
D (mm)	814	894	974	1054	1134	1214

注: [N]表示NPN/PNP可选择; [G]表示常开/常闭可选择,根据用户不同需求选择使用。

Note: [N]NPN/PNP changeable; [G]N.O./N.C. Changeable.

自检功能指示灯说明/Notes for self-diagnosis indicator

	绿灯 LED green	黄灯 LED yellow	红灯 LED red	输出 Output	说明 Notes
	接收 Receiver	○	●	●	OFF
○		○	●	OFF	不稳定接收/Unstable reception
●		○	○	ON	不稳定阻断/Unstable blocking
●		●	○	ON	稳定阻断/Stable blocking
●		●	●	OFF	过流/Excessive current
▶		○	▶	OFF	输出故障/output fault
○		○	○	OFF	接收电路故障/Receiving circuit fault
○		●	○	OFF	发射电路故障/Emitting circuit fault
○		○	○	OFF	同步时钟故障/Synchronous clock fault

	绿灯 LED green	黄灯 LED yellow	红灯 LED red	输出 Output	说明 Notes
	发射 Emitter	○	---	○	---
○		---	●	---	主模式/Master mode
●		---	○	OFF	测试模式/test mode
▶		---	▶	OFF	发射元件故障/Emitting component fault
●		---	●	OFF	发射电路故障/Emitting circuit fault

备注/Remark: ○ 亮/Light on ● 暗/Light off ● 交替闪烁/Alternately flashing
▶ 同时闪烁/Synchronous flashing

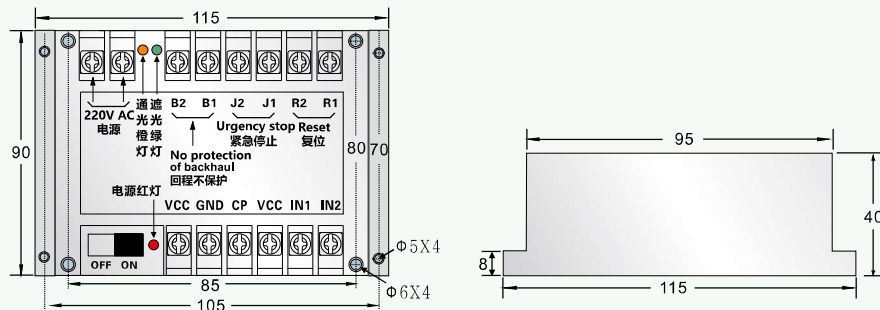
注意事项: 1、GMDE光幕安装启动时,发射端和接收端需同时上电; 2、GMDE光幕因某些原因进入故障报错状态,在故障排除之后,也需重新上电复位,才能正常工作。

图片
PICTURE

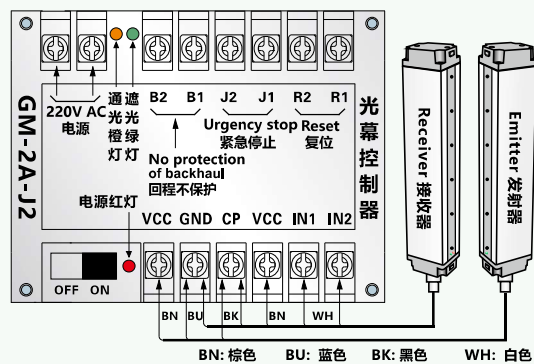


型号/Model	GM-2A-J2
工作电压/Supply voltage	AC:220V(50/60Hz)
功耗/Power consumption	<15W
输出触点容量/Output contact capacity	AC250V/3A or DC30V/3A
使用环境/Operating temperature	-5°C...55°C; 25% ...85% RH (未结露状态) / -5°C...55°C; 25% ...85% RH(no condensation)
响应时间/Response time	<20ms
指示灯/Display	红色: 电源; 黄色: 透光; 绿色: 遮光/Red: power; Yellow: Clear; Green: Blocked
绝缘阻抗/Insulation resistance	≥50MΩ
绝缘强度/Insulation intensity	AC2000V, 50/60HZ, 1分钟/AC2000V, 50/60HZ, 1minute
继电器寿命/Relay life span	100万次以上/> 1 million

尺寸图
Dimensional drawing

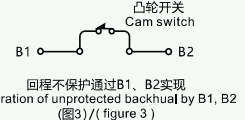
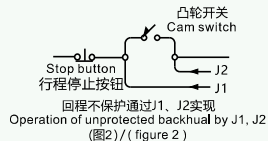


接线图
Wiring Diagram



- R1、R2为复位接点，出厂时已用导线短接，拆去短线，接上复位按钮即可设置自保功能。
- R1、R2 contacts are reset contacts . They have been shorted sub with wires before shipment . Remove the wire , connect the reset contacts , then you can set up the self-protection function .
- B1、B2接点为回程不保护接点，是无源接点，切勿接入电源！
- B1、B2 contacts are unprotected backhaul contacts . They are passive contacts . No access to power input is allowed .
- 回程不保护功能的实现
(1)回程不保护功能由机床自身实现时，无需另外接线。
(2)回程不保护功能需要借助控制器实现时，接线可按以下两种方式进行。
- How to operate unprotected backhaul function :
(1) If the unprotected backhaul function is provided by the machine tool itself , no extra wiring is needed .
(2) If the unprotected backhaul function is provided by other controller , there are 2 kinds of wiring as below :
A. Parallely connect the pair of NO contacts of cam switch with J1、J2 contacts . Shown in figure 2 .
B. Connect the pair of NC contacts of cam switch with B1、B2 contacts in series . Shown in figure 3 .

- 标识有J1、J2的线按下图所示方式接入控制回路中。
- The wires marked J1、J2 should be connected into control circuit as shown in figure 1



备注/Remark

光幕控制器为光幕传感器专用配套产品，为了光幕传感器的稳定工作，避免不良电压损伤光幕传感器，我们建议客户使用本公司相配套的光幕控制器。Light curtain controller is a specified product to ensure stable performance of light curtain and avoid any related damages . You are strongly suggested to purchase our matched light curtain controller and light curtain together .

● 光幕传感器配线图(GMDC、GMDE系列)
Standard Light Curtain and Safety Light Curtain

接头式连接配线图/Connecting type

01 发射器/Emitter

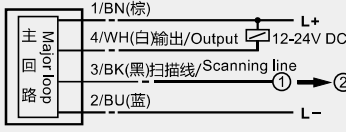


注：发射器和接收器的黑线(扫描线)相连接
Notes: Emitter and Receiver are connected with black line (scanning line)

① = ②

DC 12-24V

02 接收器/Receiver NPN NO/NC

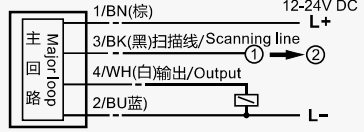


注：发射器和接收器的黑线(扫描线)相连接
Notes: Emitter and Receiver are connected with black line (scanning line)

① = ②

DC 12-24V

03 接收器/Receiver PNP NO/NC



注：发射器和接收器的黑线(扫描线)相连接
Notes: Emitter and Receiver are connected with black line (scanning line)

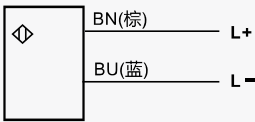
① = ②

DC 12-24V

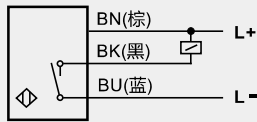
● 光幕传感器配线图(GMDF、GMDH系列)
Mini Light Curtain and Economical Light Curtain

出线式连接配线图/Cable type

04 发射器/Emitter



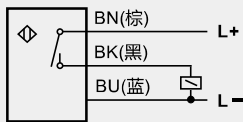
05 NPN N.O.



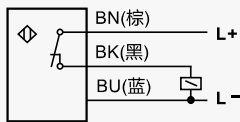
06 NPN N.C.



07 PNP N.O.



08 PNP N.C.



● 光幕传感器配线图(GMDF/T、GMDH/T系列)
Mini Light Curtain and Economical Light Curtain

接头式连接配线图/Connecting type

09 发射器/Emitter



注：发射器和接收器的黑线(扫描线)相连接
Notes: Emitter and Receiver are connected with black line (scanning line)

① = ②

DC 12-24V

10 接收器/Receiver NPN NO/NC

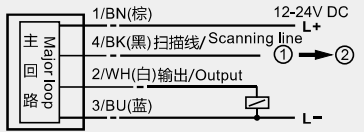


注：发射器和接收器的黑线(扫描线)相连接
Notes: Emitter and Receiver are connected with black line (scanning line)

① = ②

DC 12-24V

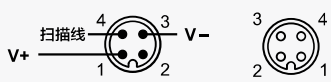
11 接收器/Receiver PNP NO/NC



注：发射器和接收器的黑线(扫描线)相连接
Notes: Emitter and Receiver are connected with black line (scanning line)

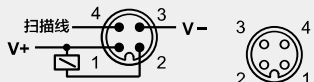
① = ②

DC 12-24V



连接面 Connector 母接头面 Female plug

发射器/Emitter DC 12~24V



连接面 Connector 母接头面 Female plug

接收器/Receiver DC 12~24V NPN



连接面 Connector 母接头面 Female plug

接收器/Receiver DC 12~24V PNP