

CL25-16L Safety Light Curtain User Manual

Introduction

The safety light curtain creates a protective barrier by generating a beam of light between the emitter and receiver. When an object or personnel enters the grid area, the light beam is obstructed, immediately triggering the safety system to take appropriate measures. Typically installed at critical points of devices such as doors, automatic doors, lifting equipment, etc., they are positioned to promptly detect potential crushing hazards. These devices are widely utilized in industrial and commercial environments, serving as an indispensable component of automation systems, especially in situations requiring high levels of safety.



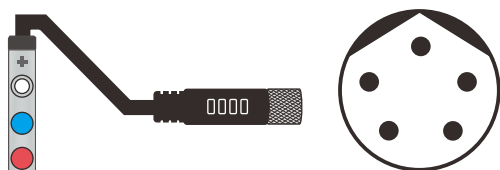
Connection

Receiver

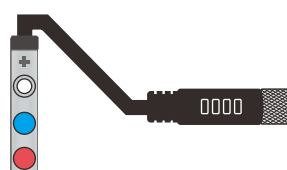
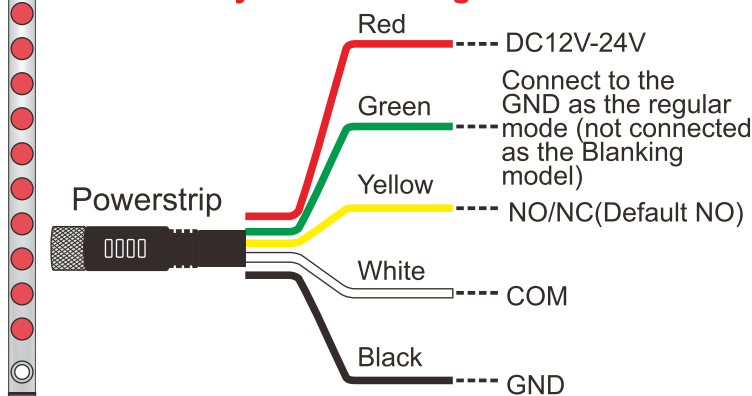
5 pole M8 male connector

Transmitter

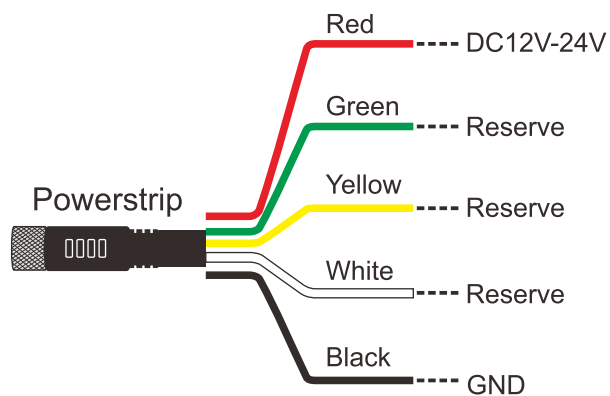
5 pole M8 male connector



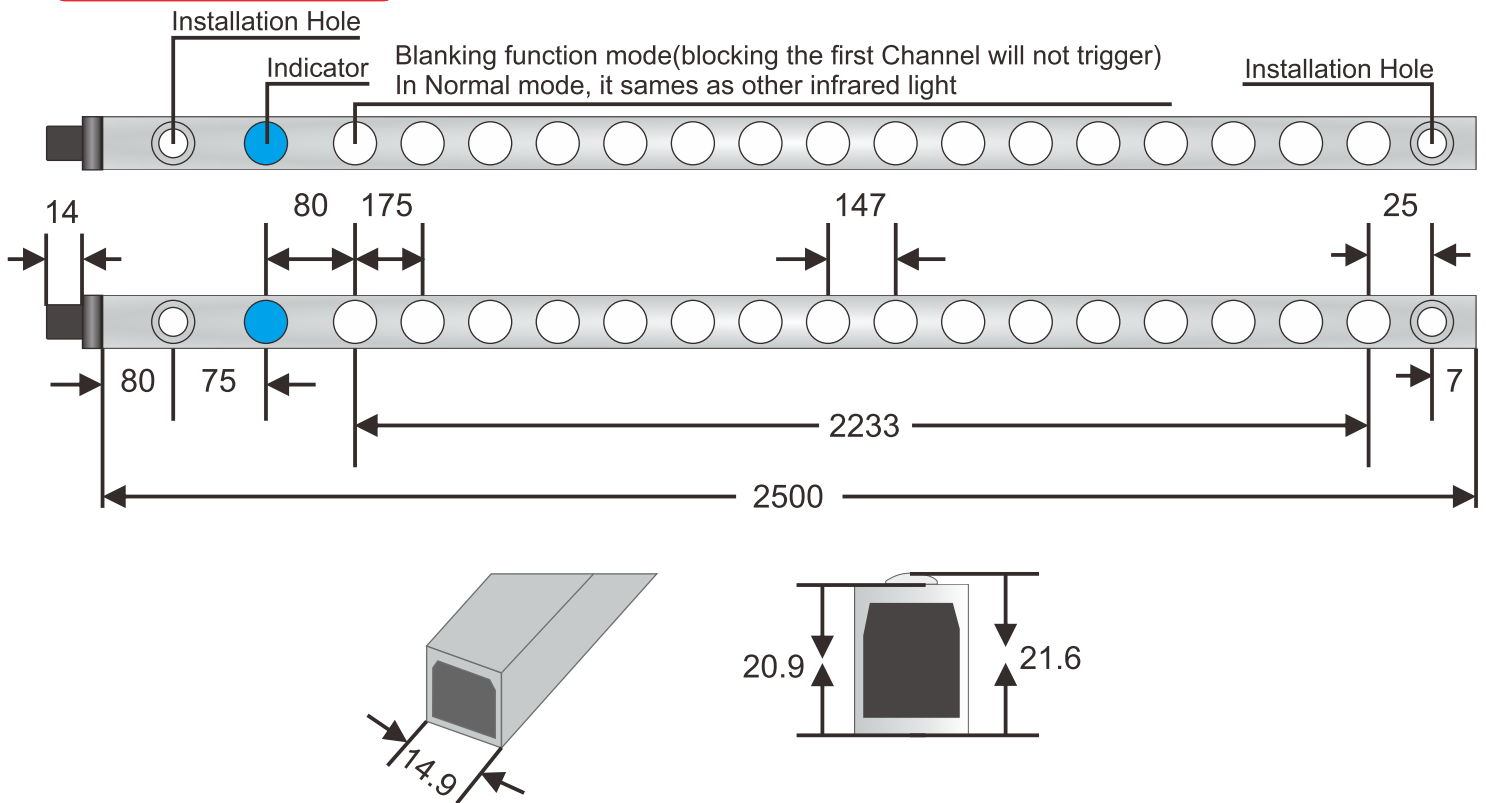
WARNING: NO(NC) must not be connected to the positive terminal of the power supply or the optical relay will be damaged!



Remarks: Within one minute of powering on, the green wire touches the receiver's GND five times (Red light blinks), and the yellow wire will turn into NC. (Red light blinking), the yellow wire will become NC.



Size(Unit:mm)



Data Sheet

	Transmitter	Receiver
Working Current	<65mA@DC12V	<20mA@DC12V
Output	-	NO/NC,COM
LED Status	Blue light constant (Normal), Red light flashing fast (Voltage below 9V, above 28V)	Red light (Object blocked), Blue light (Unblocked), Blue light flashing (First power on, Emitter and receiver not aligned)
Power Cord Length	8m	16m
Working Voltage	DC12-24V	
Operating Range	1-8m	
Maximum Protection Height	2233mm	
Number of Photocells	16	
Operating Temperature	-20°C ~ +60°C	
Protection Level	Ip65	
Shell Material	Aluminum alloy	
Cable Plug	5 pole M8 male connector	

Product Applications

Safety light curtains can be used for the safety anti-pinch (Human or object) function of fast doors and roller shutter doors. They can accurately detect people or objects, providing a signal to open the door and preventing incidents involving pinching of people or objects.



Troubleshooting

Fault Symptoms	Solutions
Slow Flashing Lights After Power On	The emitter and receiver are not aligned; readjust the alignment.
Red Light Flashing Fast (Transmitter End)	Voltage at the transmitter end is below 9V or above 28V, causing the red light to flash.
Light Curtain Is Normal, But The Door Has No Anti-pinch Action	Wiring error
Unable To Enter Concealment Mode	1.Light leakage occurs during the descent of the door, causing discontinuous blocking of the light beam. 2.The bottommost beam is blocked. 3.The lower door or obstruction does not meet the minimum distance required for continuous blocking.

Caveat

- ▶ Keep the connecting cables away from high voltage or high current conductors.
- ▶ Avoid direct exposure of sunlight or other infrared light sources to the receiver.
- ▶ Ensure that the lower door or obstructive object used for concealment meets the minimum distance required for continuous blocking.
- ▶ Minimum distance to maintain continuous coverage
- ▶ Wipe the windows of the emitter and receiver with a dry, soft cloth to prevent dirt from affecting normal operation.
- ▶ Avoid scratching the surface of the infrared lenses
- ▶ Do not bend or twist the light curtain.