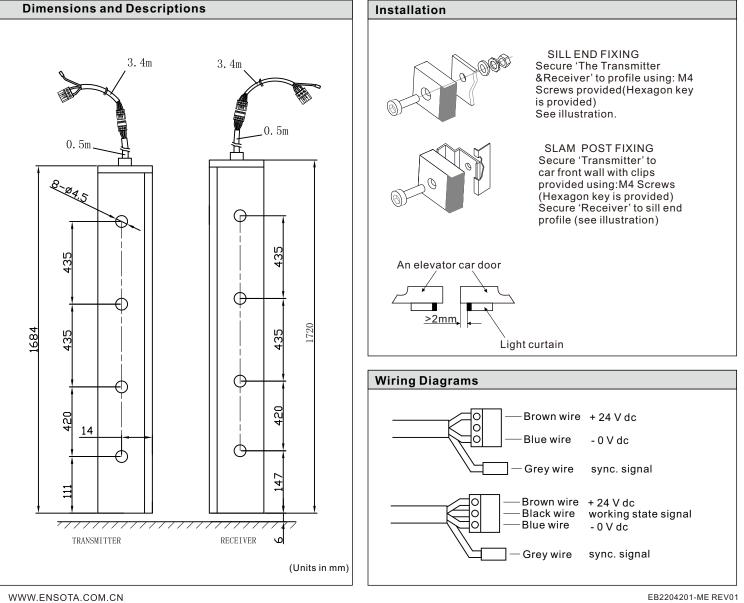
### **Light Curtain** Ensota ·))) **Installation Instructions**

EB 2204201

Light Curtain Specification				
Catalog	Technical Parameters			Remark
Detection Range	0-3.0m			
Number of Beam	42 beams			Infrared
	The highest beam:1548mm,The lowest beam: 26mm			
Fail-safe State	Cable fault		Fail-safe to detecting obstacle status	
	Power failture		The output to detecting obstacle status	
Power Control Box	No			
Operating Voltage	DC18V-30V			Secondary safety requirements
Installation	Using a mobile installation			
Cable Length	3.4m			
Case Material	Aluminum alloy		Surface anodizing (silver white)	
Filter	Infrared penetrating materials		Fixed on the case	
Installation Tolerances	Angle: $\pm7^{\circ}$ ,Vertical $\pm10$ mm, Horizont al $\pm4$ mm			
Installation Kit	Screws	M4×16 M4×14 M4 φ4 φ4	1part 10pcs 21pcs 7pcs 21pcs 28pcs 28pcs 7pcs 1pcs	Fixed with hex wrench



## Ensota •)))

# Light Curtain Installation Instructions

IMPORTANT-The Curtain of light (COL) is a sealed unit; the plastic lens filter cannot be removed without damage.

#### INSTALLATION DETAILS

- 1. The COL may be mounted on the landing side of the car door/s, in a fixed location to the rear of the door track or clamped to the car front wall with the plastic edge facing the entrance and the recessed side of the mounting points facing the landing.
- 2. When mounted to the door the COL should be positioned approximately 6mm above the door still and 2mm back from the leading edge.
- 3.Secure the units to either the door panel, sill ends or slam post using the appropriate fixing accessories supplied. On side opening entrances the Tx must always be mounted on the car front door with the Rx COL on the door.
- 4. If mounted to the doors the cables must be routed through the cable chains and then secured to prevent flexing.

#### **ELECTRICAL CONNECTION**

The EB2204201 is designed to connect directly to heavy duty AMD and ADV type door operators without the use of a control box. (All other installations will require the Universal Interface EP1 or EP3. Photo Cell (P.C.) input on the AMD/ADV doors.

Both the (Brown wire) of the Transmitter (TX) and Receiver (RX) must be connected to +24V and the (Blue wire)to GND, the P.C. supply is the most appropriate. The RX also has a black signal wire which must be connected to the P.C. inputon the car door operator. The output from the COL is by means of an open collector NPN transistor. This will pull the signal line low (to GND) when the beams are not obstructed.

#### COMMISSIONING

In the operational state the visible indication of system operation is by a green LED on both RX and TX which indicate power present, an red LED, located on the RX unit which lights to indicate an obstruction and otherwise is off.

A blue LED on the TX indicates the TX is is power reduction mode. This mode is required to optimise the systems sensitivity during the later parts of dynamic door closing.

A yellow LED on the RX edge is ON if the system has reached Optical Service Limit (OSL). OSL indicates that whilst the COL is still functioning, it is approaching the limit of operating and imminent servicing is required. This could simply be due to an alignment, dust or other problem.

#### Trouble shooting

If the green LEDs are on and the red LED is off but the doors will not close, then one of the following could be the problem.

- 1.The signal output is disconnected from the door operator or controller.
- 2.The door operator or controller is not responding to the signals. This can be checked by connecting the signal input to GND, this should allow the doors to close. If it does not, the problem lies within the control system.
- If the Red LED is on but the doors will not close there are three most likely causes
- 1. The distance between the units is greater than the maximum specified.
- 2.There is an alignment problem
- 3.An obstruction, dust dirt or black greaseon the lens filter.

If none of the previous possibilities resolve the problem, substitution of one or both of the units is necessary.

#### ROUTINE MAINTENANCE

The system will be maintained in optimum working condition if the plastic lens filter on the leading edge of each COL unit are periodically cleaned. Extreme build-up of dirt and dust can cause beam obstruction and subsequent false triggering.