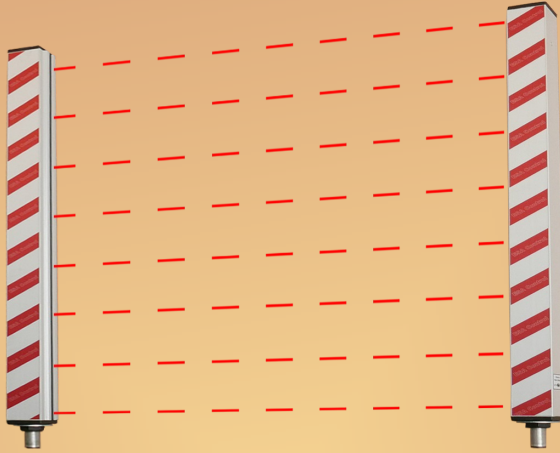


"ESA Control" Ltd



SAFETY LIGHT CURTAIN
/ PHOTOELECTRIC BARRIER /

Series SLC4

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Application and operating principle

The safety light curtain (photoelectric barrier) of the series SLC4 is a specialized product used to protect the machines and other moving elements from accidental interventions and to protect the machine operator from injuries. The degree of protection of the optical safety barrier is IP65. Can be installed in open and closed spaces.

The optical barrier consists of the following elements: Emitter (SLC4 / E), Receiver (SLC4 / R), Controller (SLC4 / C) and two connecting cables (SLC4-Cable). The emitter and the receiver are situated one against the other and are connected by infrared light rays (optical axes). The maximum number of light rays for the series SLC4 is 32. In a normal operation, the output relay of the controller is switched on and a current flows through the operational circuit (LED "Relay" - lights up). If only one of the rays is interrupted, the output relay of the controller is switched off and interrupts the current in the operating circuit (LED "Relay" - goes out). The restoring of the working process of the light curtain and turning on of the output relay starts by pushing once the "Reset" button situated on the face panel of the controller. Additional external button "Reset" can be used set between terminals 1 and 5 of the controller. The light curtain operates in automatic mode if terminals 1 and 5 are shorted.

For precise operation of the protective light curtain, its working distance is divided into two ranges: 0 + 2.50 m and 2.50 + 10 m. The operating range is selected using a small switch located on the lower rear of the emitter.



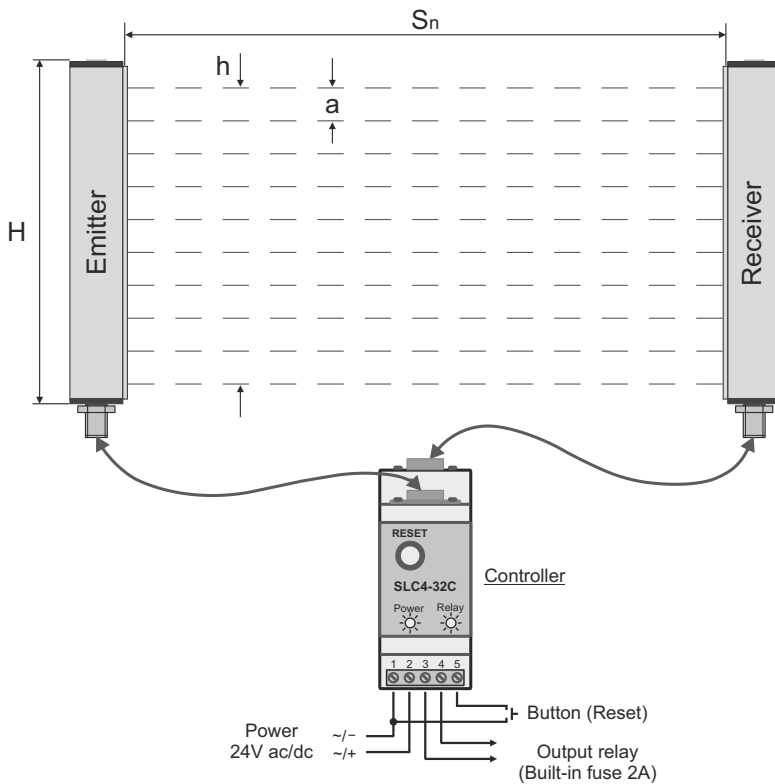
Technical parameters

Operating distance, S_n	0...10 m (Option: 16m; 20m)
Supply voltage, U_s	24 V AC/DC \pm 10%
Current consumption, I_s	120+240 mA
Output - Relay (1 x NC)	1A / 220VAC (2A, Fuse)
Reaction time (ON to OFF)	100 ms
Startup waiting time (OFF to ON)	400 ms
Operating temperature range, T_{amb}	-20°...+50°C
Degree of protection - emitter, receiver	IP65
Degree of protection - controller	IP40
Indicator of the supply voltage	LED (green)
Indicator for the state of the output relay	LED (red)
Connecting a controller with a receiver (emitter)	Canon-9 / Connector M12
The controller joining	Terminal block
The controller size (for M35 DIN-rail)	86x35x58 mm

Type parameters

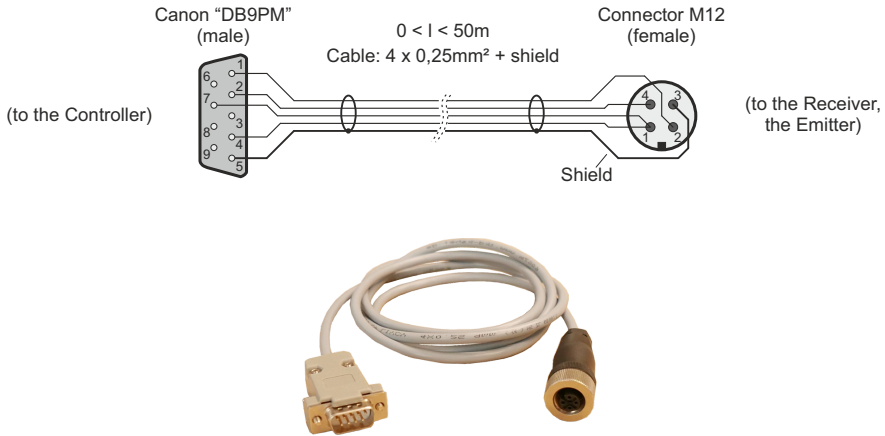
Type	Number of optical axes n	Optical axes pitch a /mm/	Effective height of action h /mm/	Height of curtain H /mm/
SLC4-08-030	8	30	210	270
SLC4-08-060	8	60	420	480
SLC4-16-030	16	30	450	510
SLC4-16-060	16	60	900	960
SLC4-24-030	24	30	690	750
SLC4-24-060	24	60	1380	1440
SLC4-32-030	32	30	930	990
SLC4-32-060	32	60	1860	1920

Joining

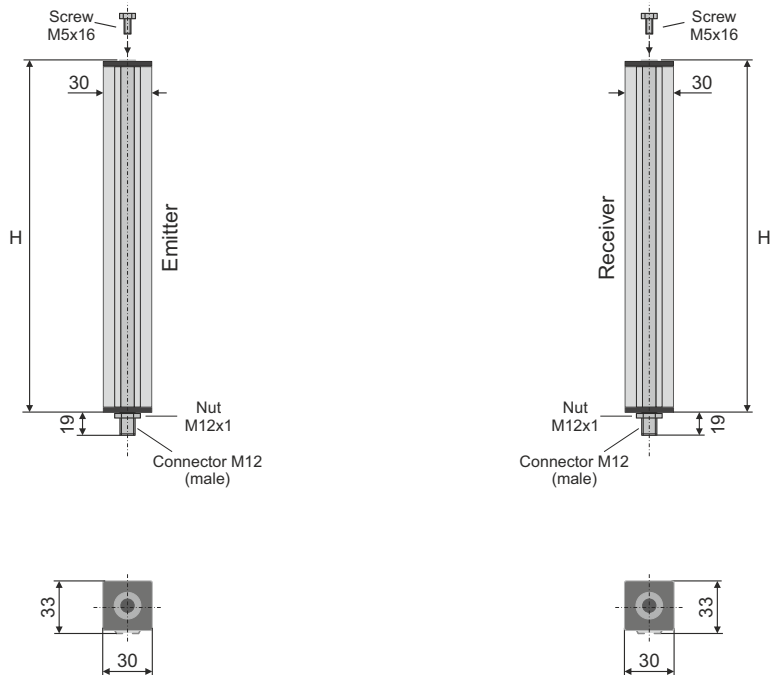


Joining cable (controller - emitter; controller - receiver)

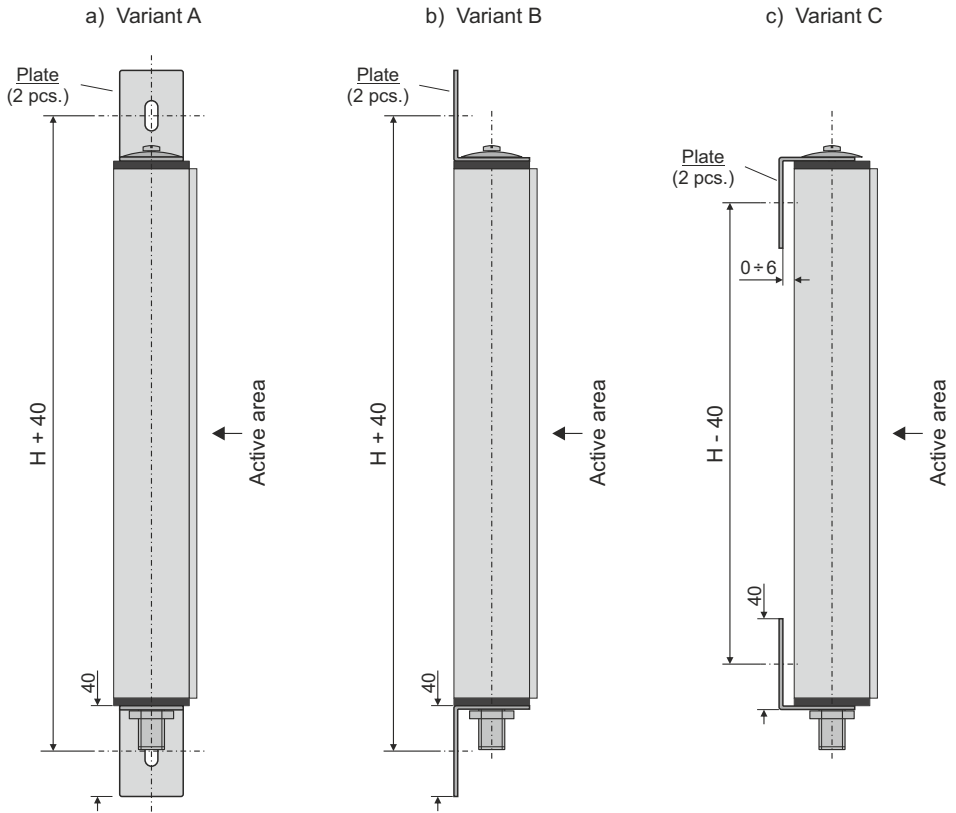
Two SLC4-Cable type shielded connection cables are required for the operation of the optical safety barrier series SLC4. One is used to connect the controller to the emitter and the other to connect the controller to the receiver. The cables are equivalent and interchangeable, but can be of different lengths. The ends of the cables terminate in "Canon 9" (male) and "M12 Connector" (female) connectors.



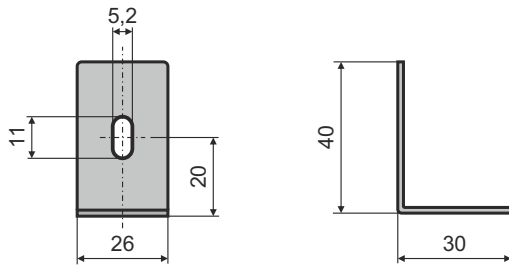
Overall and joining sizes



Method of installation the emitter and receiver using fixing plates



Fixing plates



Controller SLC4-32C

The SLC4-32C controller is part of the SLC4 series safety light curtain kit. It is an electronic device providing supply voltage to the emitter and the receiver, and synchronizes their signals. The controller is powered with 24V direct or alternating voltage. There is a relay output of "dry contact" type which includes to the control circuit of the actuation mechanisms. Direct inclusion of the controller to power circuits is not allowed. In the controller is mounted 2A fuse to protect the output circuit from overloading. The controller is designed for a M35 DIN rail mounting.

