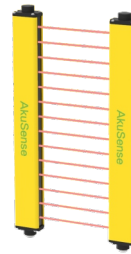


Safety Light Curtain

SAF Series

Area



Appearance	
Security Level	Type 4 Cat.4 PLe
Executive standard	GB/T19436.1; GB/T 19436.2; GB4584-2007; IEC 61496-1; IEC61496-2
Light source	Infrared LED (center wavelength 940nm)
Sectional area	52X35mm
NO.of beams	4~72
Protection height	130~3000mm
Protection distance	0.1~40m
Beam pitch	10/20/30/40mm
Min. sized detectable objects	> ϕ 18/ ϕ 28/ ϕ 38/ ϕ 48mm, Opaque
EAA	Meet the requirements of IEC 61496-2, when the detection distance is more than 3m, EAA <2.5°
Supply voltage	24V DC $\pm$ 10%
Current consumption	Transmitter $\leq$ 300mA; Receiver $\leq$ 100mA (Non load)
Output type	PNP (Two groups)
EMC	Comply with the requirements of Class 4 safety light curtain in GB / T19436-1 and GB4584-2007
EMI	Comply with EN61326-1 and EN55011 electromagnetic field requirements for industrial sites
Response time	$\leq$ 20ms
Output characteristics	PNP transistor output X2 (ON), load current is less than 300mA, residual voltage is less than 3.5V (excluding the effect of wire extension)
Ambient temperature	Operating: $-10^{\circ}\text{C}\sim+55^{\circ}\text{C}$ (No freezing and no condensation) ; Storage: $-10^{\circ}\text{C}\sim+55^{\circ}\text{C}$
Ambient humidity	Operating: 35~85%RH; Storage: 35~95%RH
Anti-interference ability	Incandescent: 3000Lux; Fluorescent: 3000Lux; Sunlight: 10000Lux
Vibration resistance	Frequency: 10 ~ 55Hz; amplitude: 0.35 $\pm$ 0.05mm; Scanning times: three axes, 20 times per axis
Impact resistance	Acceleration 10g, pulse duration: 16ms, number of collisions: three axes, 1000 $\pm$ 10 times per axis
Degree of protection	IP65
Supporting controller	Not equipped with controller; or equipped with CSRMB module, output relay passive contact signal
Accessories	Transmission line, mounting bracket

Product description

Safety light curtain integrated controller function into the sensor, is designed for risk assessment does not need to be equipped with a controller and need to have level signal control of equipment (for example: using PLC, computer-controlled equipment) to provide photoelectric protection device, can output two safe PNP signal.

Meets the requirements of safety level IV. SAF series photoelectric protection device can effectively detect any opaque objects that enter the light curtain area beyond the detection accuracy. It is suitable for the safety protection of mechanical presses, hydraulic presses, shearing machines, bending machines and other dangerous occasions. Can be used for detection and anti-theft.

Features

- Perfect self-test function, realizing full self-test including output signal.
- Floating shield function can be realized, which is convenient to realize the processing of long materials;
- Provide two relay passive contact outputs, higher safety performance
- High detection accuracy up to 18mm, which can protect fingers
- Large detection distance, up to 40m;
- Large detection height, up to 2840mm;
- Multiple product specifications, wide range of application;
- Can provide split indication function, intuitive display of beam on/off status.
- Good vibration damping performance, suitable for high-speed punching, large tonnage presses, long service life.
- Strong resistance to light interference and electromagnetic interference; more stable work.
- When configured with safety relay module, it can provide 3 normally open and 1 normally closed output and 2 normally open and 1 normally closed output in two forms.

Light curtains

Standard type
Top-emitting type
Side-emitting type
Waterproof type
Measuring type
Economical type

Safety Light Curtain

Beam pitch 10mm
Beam pitch 20mm
Beam pitch 30mm
Beam pitch 40mm

LIDAR scanner

TOF LIDAR scanner
MINI LIDAR scanner
Navigation LIDAR

SAF10

Beam pitch	10mm						
Min. sized detectable objects	φ 18, opaque						
Protection distance	Type A: 0~3m; Type B: 0~12m; Type C: 8~20m;						
NO.of beams	16	20	24	28	32		72
Protection height	150mm	190mm	230mm	270mm	310mm		710mm
Light curtain height	239mm	279mm	319mm	359mm	399mm		799mm
Model NO.	PNP NC	SAF10-T16 ⁰³ PC	SAF10-T20 ⁰³ PC	SAF10-T24 ⁰³ PC	SAF10-T28 ⁰³ PC	SAF10-T32 ⁰³ PC	 SAF10-T72 ⁰³ PC
	Other	⁰³ : Type A 0~3m	¹² : Type B 0~12m	²⁰ : Type C 8~20m			

SAF20

Beam pitch	20mm						
Min. sized detectable objects	φ 28, opaque						
Protection distance	Type A: 0~3m; Type B: 0~12m; Type C: 8~20m;						
NO.of beams	8	10	12	14	16		72
Protection height	140mm	180mm	220mm	260mm	300mm		1420mm
Light curtain height	239mm	279mm	319mm	359mm	399mm		1519mm
Model NO.	PNP NC	SAF20-T08 ⁰³ PC	SAF20-T10 ⁰³ PC	SAF20-T12 ⁰³ PC	SAF20-T14 ⁰³ PC	SAF20-T16 ⁰³ PC	 SAF20-T72 ⁰³ PC
	Other	⁰³ : Type A 0~3m	¹² : Type B 0~12m	²⁰ : Type C 8~20m			

SAF30

Beam pitch	30mm						
Min. sized detectable objects	φ 38, opaque						
Protection distance	Type A: 0~3m; Type B: 0~12m; Type C: 8~20m;						
NO.of beams	6	8	10	12	14		72
Protection height	150mm	210mm	270mm	330mm	390mm		2130mm
Light curtain height	239mm	299mm	359mm	419mm	479mm		2219mm
Model NO.	PNP NC	SAF30-T06 ⁰³ PC	SAF30-T08 ⁰³ PC	SAF30-T10 ⁰³ PC	SAF30-T12 ⁰³ PC	SAF30-T14 ⁰³ PC	 SAF30-T72 ⁰³ PC
	Other	⁰³ : Type A 0~3m	¹² : Type B 0~12m	²⁰ : Type C 8~20m			

SAF40

Beam pitch	40mm						
Min. sized detectable objects	φ 48, opaque						
Protection distance	Type A: 0~3m; Type B: 0~12m; Type C: 8~20m;						
NO.of beams	4	6	8	10	12		72
Protection height	120mm	200mm	280mm	360mm	440mm		2840mm
Light curtain height	239mm	319mm	399mm	479mm	559mm		2959mm
Model NO.	PNP NC	SAF40-T04 ⁰³ PC	SAF40-T06 ⁰³ PC	SAF40-T08 ⁰³ PC	SAF40-T10 ⁰³ PC	SAF40-T12 ⁰³ PC	 SAF40-T72 ⁰³ PC
	Other	⁰³ : Type A 0~3m	¹² : Type B 0~12m	²⁰ : Type C 8~20m			

Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
Vibration
Temperature
Cables
Tester

Guidance

Light curtains
Standard type
Top-emitting type
Side-emitting type
Waterproof type
Measuring type
Economical type

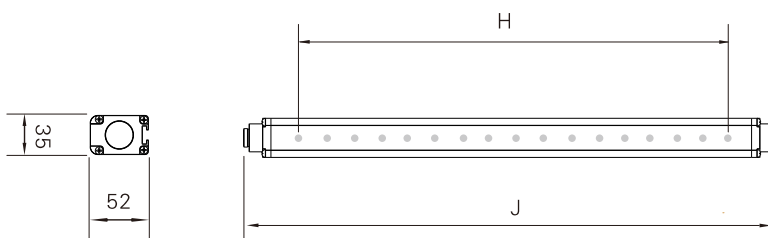
Safety Light Curtain

Beam pitch 10mm
Beam pitch 20mm
Beam pitch 30mm
Beam pitch 40mm

LiDAR scanner

TOF LiDAR scanner
MINI LiDAR scanner
Navigation LiDAR

Dimensions(Unit:mm)

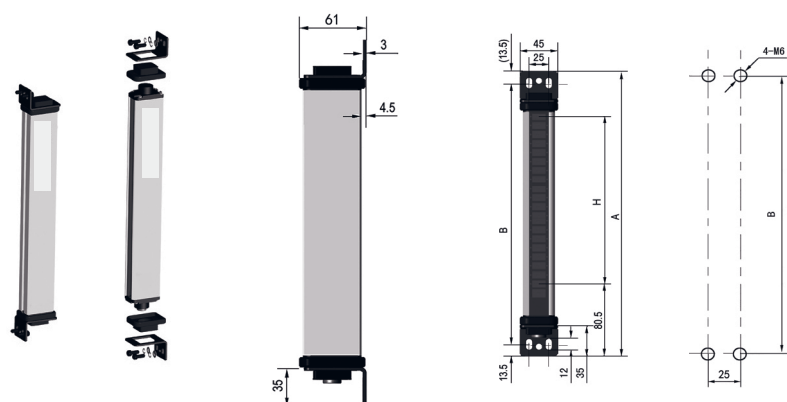


H: Protection height
J: Length of light emitter and light receiver

Safety Light Curtain

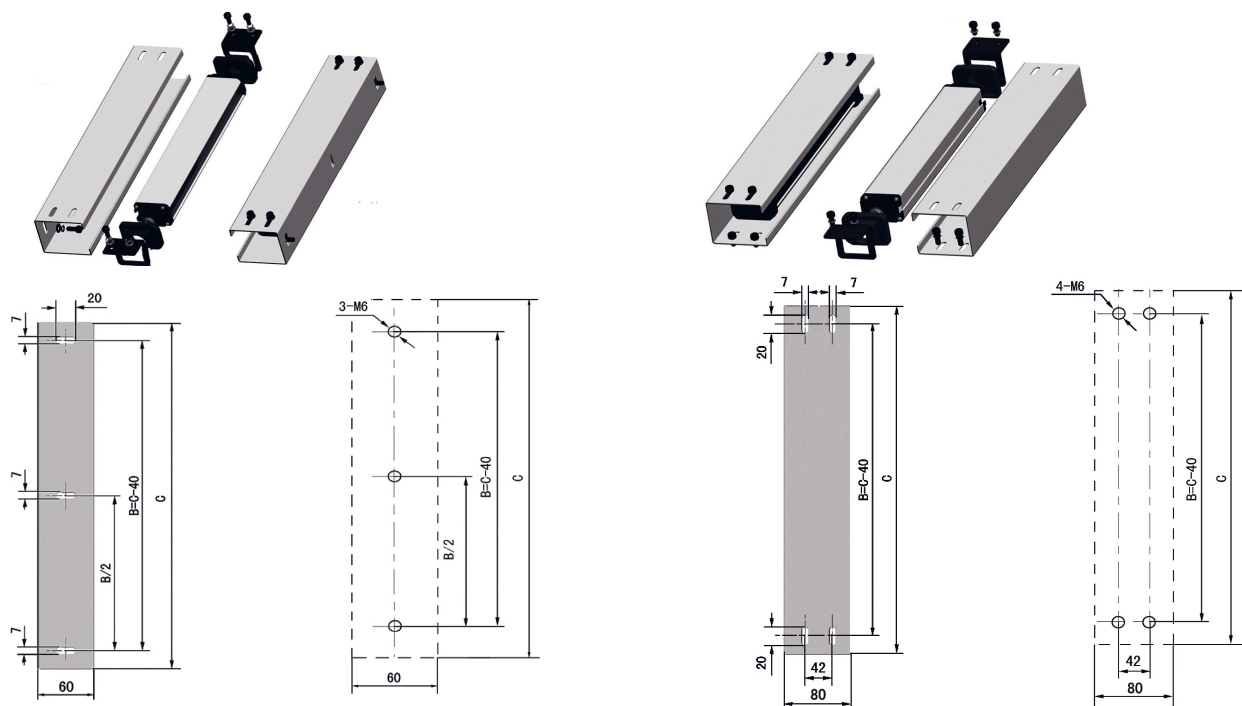
Installation Method

Front and side integrated installation method (ZC)



A	Optical axis spacing 10mm	H+131
	Optical axis spacing 20mm	H+141
	Optical axis spacing 30mm	H+131
	Optical axis spacing 40mm	H+161
B	Optical axis spacing 10mm	H+104
	Optical axis spacing 20mm	H+114
	Optical axis spacing 30mm	H+104
	Optical axis spacing 40mm	H+134
H	Protection height	

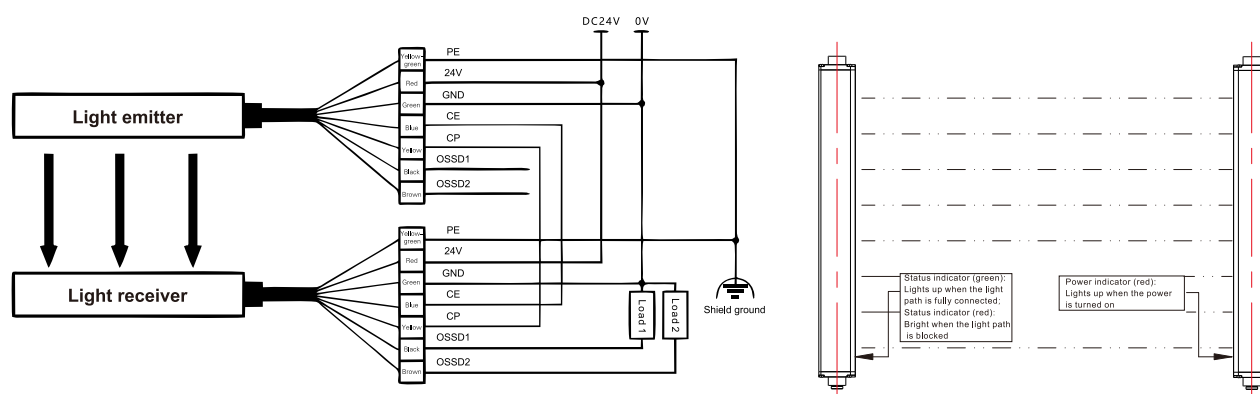
Protective cover installation method (FZC)



Formal installation of protective cover

Side-mounted protective cover

Connection diagram



Note: The control signal lines OSSD1 and OSSD2 at the light emitter end are floating.

Status indicator (green):
Lights up when the light
path is fully connected;
Status indicator (red):
Bright when the light path
is blocked

Power indicator (red):
Lights up when the power
is turned on