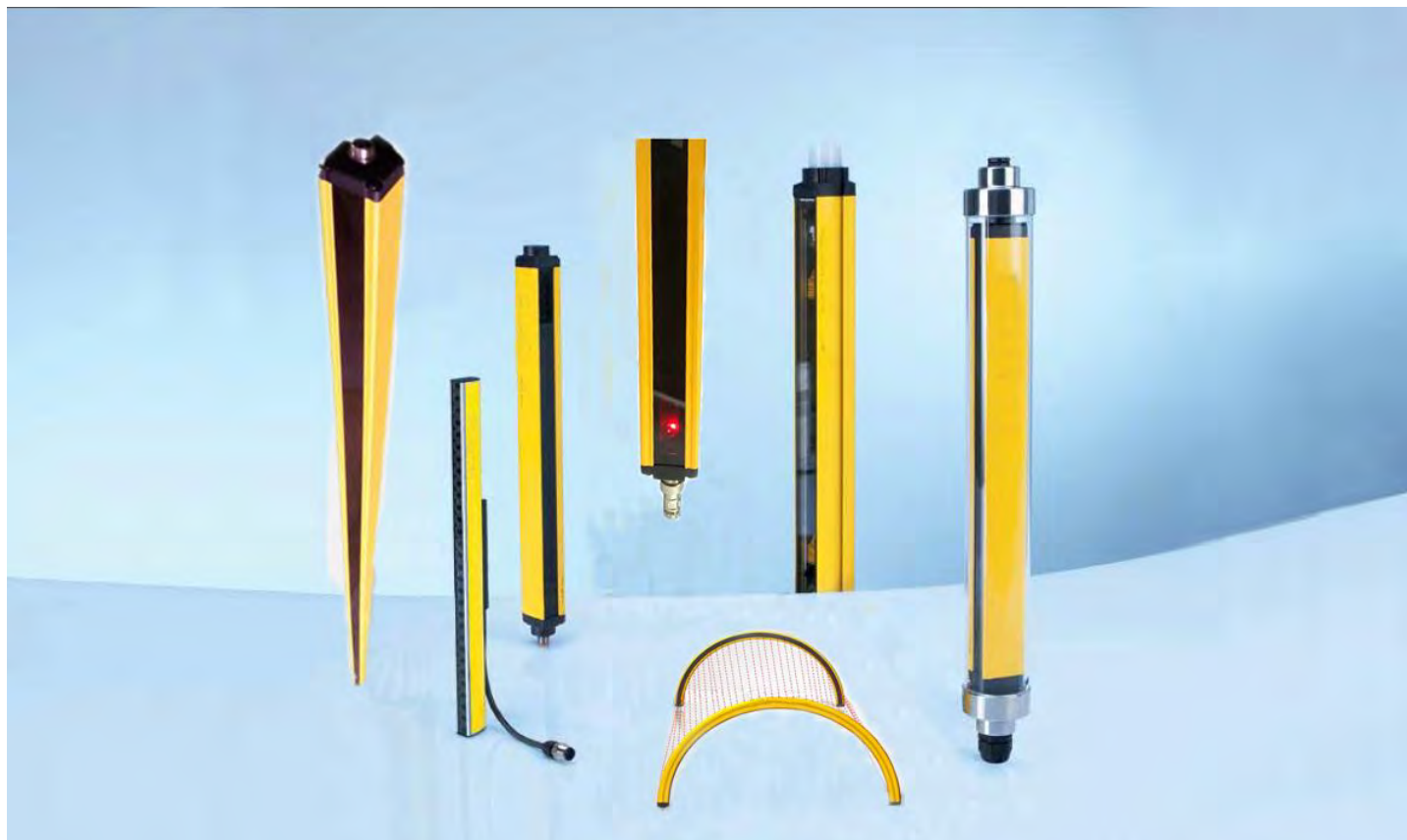
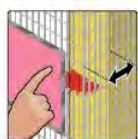


SAFETY LIGHT CURTAIN



Safety light curtains, multiple and signal-beam photoelectric safety switches from SENSONG are ideal for the following safety tasks:

Hazardous point protection



Finger and hand detection
Detects a human finger when workers operate very close to the hazardous point of the machine.



Hand and person detection
Detects hands and prevents start-up while a person is in the hazardous area

Access protection



Single-sided access protection
Approaching persons are detected by identifying the person's body



With differentiation between person and material
Approaching persons are detected by identifying a human body. A distinction is made between humans and material.



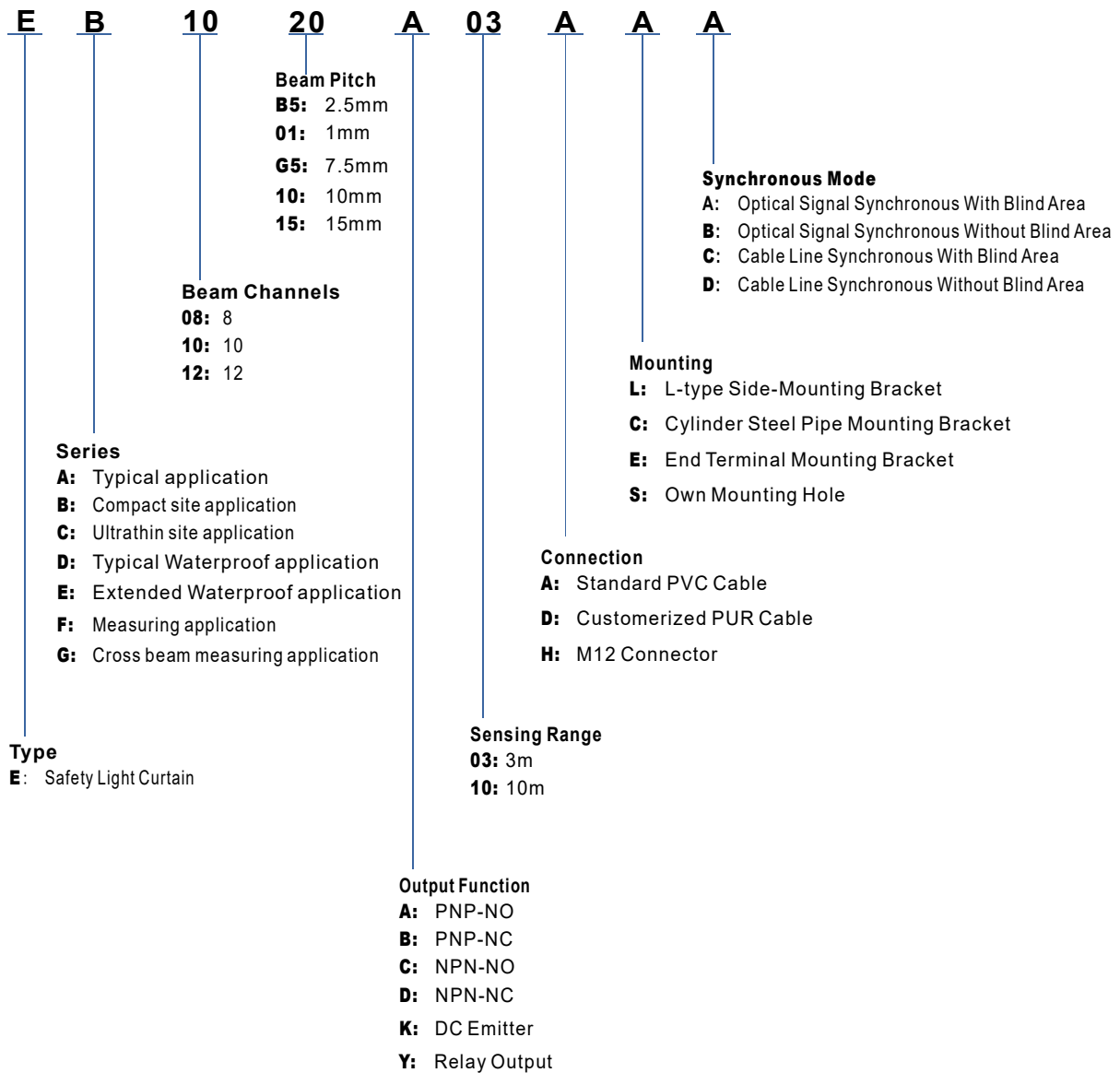
Multi-sided access protection
Approaching persons are detected by identifying the person's body

Hazardous area protection



Person detection
Approaching and present persons are detected by identifying legs in the scanning range

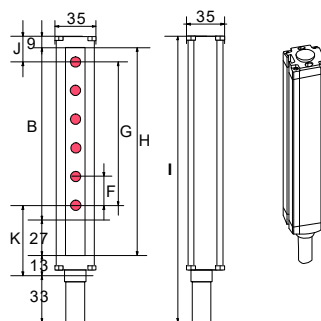
SELECTION GUIDE FOR SAFETY LIGHT CURTAIN





Features

- 1mm min. detectable object size
- Less than 1 mm beam pitch
- 40 ... 3000mm sensing height
- 250 ... 10000mm sensing range
- Fast to 9μs reaction time
- Built-in electric protection
- -15°C ... +65°C operating temperature
- Cable version
- M12 connector version
- IP65 protection

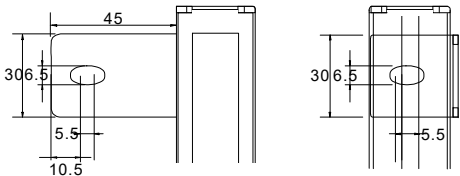


B: Beam panel length
F: Beam pitch
H: Panel height
L: Beam channel number

Measuring Height $G = (L-1) \times F \text{ mm}$
Overall Height $I = L \times F + 81 \text{ mm}$

(Unit: mm)

Specifications

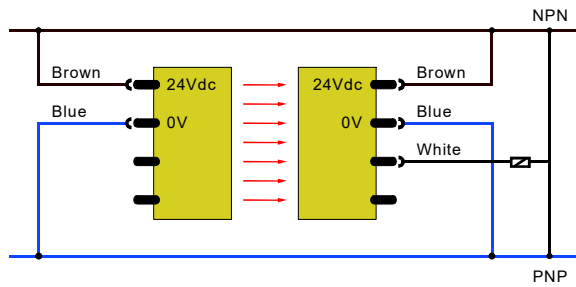
Beam pitch			2mm							
Beam channels			22	26	30	34	38	42	46	...
Sensing height			42mm	50mm	58mm	66mm	74mm	82mm	90mm	...
Cable version	Emitter		EF2202K03ALA	EF2602K03ALA	EF3002K03ALA	EF3402K03ALA	EF3802K03ALA	EF4202K03ALA	EF4602K03ALA	...
	Receiver	NPN-NO	EF2202C03ALA	EF2602C03ALA	EF3002C03ALA	EF3402C03ALA	EF3802C03ALA	EF4202C03ALA	EF4602C03ALA	...
		NPN-NC	EF2202D03ALA	EF2602D03ALA	EF3002D03ALA	EF3402D03ALA	EF3802D03ALA	EF4202D03ALA	EF4602D03ALA	...
		PNP-NO	EF2202A03ALA	EF2602A03ALA	EF3002A03ALA	EF3402A03ALA	EF3802A03ALA	EF4202A03ALA	EF4602A03ALA	...
		PNP-NC	EF2202B03ALA	EF2602B03ALA	EF3002B03ALA	EF3402B03ALA	EF3802B03ALA	EF4202B03ALA	EF4602B03ALA	...
		Relay SPDT	EF2202Y03ALA	EF2602Y03ALA	EF3002Y03ALA	EF3402Y03ALA	EF3802Y03ALA	EF4202Y03ALA	EF4602Y03ALA	...
M12 connector	Emitter		EF2202K03HLA	EF2602K03HLA	EF3002K03HLA	EF3402K03HLA	EF3802K03HLA	EF4202K03HLA	EF4602K03HLA	...
	Receiver	NPN-NO	EF2202C03HLA	EF2602C03HLA	EF3002C03HLA	EF3402C03HLA	EF3802C03HLA	EF4202C03HLA	EF4602C03HLA	...
		NPN-NC	EF2202D03HLA	EF2602D03HLA	EF3002D03HLA	EF3402D03HLA	EF3802D03HLA	EF4202D03HLA	EF4602D03HLA	...
		PNP-NO	EF2202A03HLA	EF2602A03HLA	EF3002A03HLA	EF3402A03HLA	EF3802A03HLA	EF4202A03HLA	EF4602A03HLA	...
		PNP-NC	EF2202B03HLA	EF2602B03HLA	EF3002B03HLA	EF3402B03HLA	EF3802B03HLA	EF4202B03HLA	EF4602B03HLA	...
Beam pitch			1mm,2mm,2.5mm,5mm,7.5mm,10mm,15mm,20mm,30mm,40mm,60mm							
Sensing range			3m Standard(1 ... 10m customized sensing range)							
Sensing object			Φ2mm or more opaque object(<2mm sensing object can also be customized)							
Supply voltage			12 to 24V DC ±10% Ripple p-p 10% or less							
Sensing mode			Through beam							
Synchronous mode			Optical Signal Synchronous or Cable Line Synchronous							
Output	NPN		NPN open-collector transistor, Max. Load current:100mA; Voltage Drop: <1.5V							
	PNP		PNP open-collector transistor, Max. load current:100mA; Voltage Drop: <1.5V							
	Relay		Relay SPDT, 5A/250VAC, 5A/30VDC							
Output operation			ON when all beams are received, OFF when one or more beams are interrupted.							
Short-circuit protection			Built-in							
Response time			10ms or less							
Indicator	Emitter		Power indicator: green LEDX2(light up when the power is ON; If emitter is off that is indicated by the number of LEDs lighting up)							
	Receiver		Operation indicator: Red LED(lights up when one or more beams are interrupted), Stable indicator: Green LED(lights up when all beams are stable received)							
Protection			IP65							
Interference prevention function			Incorporated							
Ambient temperature			-15℃ ... +65℃							
Ambient humidity			35 to 85% RH							
Ambient illuminance			Sunlight: 10,000L x at the light -receiving face, Incandescent light: 3,000 x at the light-receiving face							
EMC immunity			RFI>10V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)							
Voltage withstand ability			1,000 V AC for one min. between all supply terminals connected together and enclosure							
Insulation resistance			>100 MΩ							
Vibration resistance			10 to 150 Hz frequency, 0.75 mm 0.030 in amplitude in X, Y and Z directions for two hours each							
Shock resistance			490m/s2, acceleration(50G approx) in X, Y and Z directions for three times each							
Emitting			Infrared LED							
Material			Aluminum Enclosure, Polyester lens							
Connection			2m PVC Cable / M12 Connector							
Weight (g)			Approx. 240g ... 570g							
Mounting brackets										

(Unit: mm)

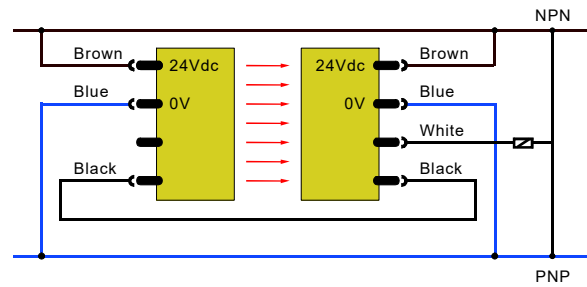
(Unit: mm)

WIRING DIAGRAM FOR SAFETY LIGHT CURTAIN

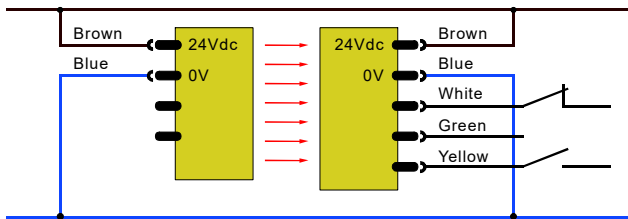
Optical Signal Synchronous



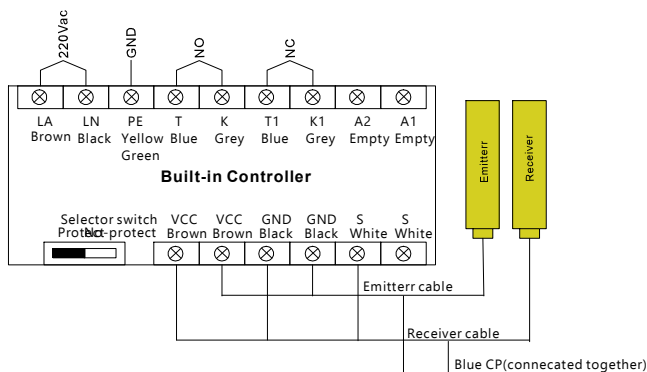
Cable Line Synchronous



Relay Output



Built-in Controller Wiring



External Controller Wiring

