FORCE
DOOR OPENER

LIGHT CURTAIN

## F-RASTER 2.5
2500mm light curtain

F-RASTER 2.0
2000mm light curtain

7±0.1

D=4mm

D=4mm

φ4±0.2

15

12
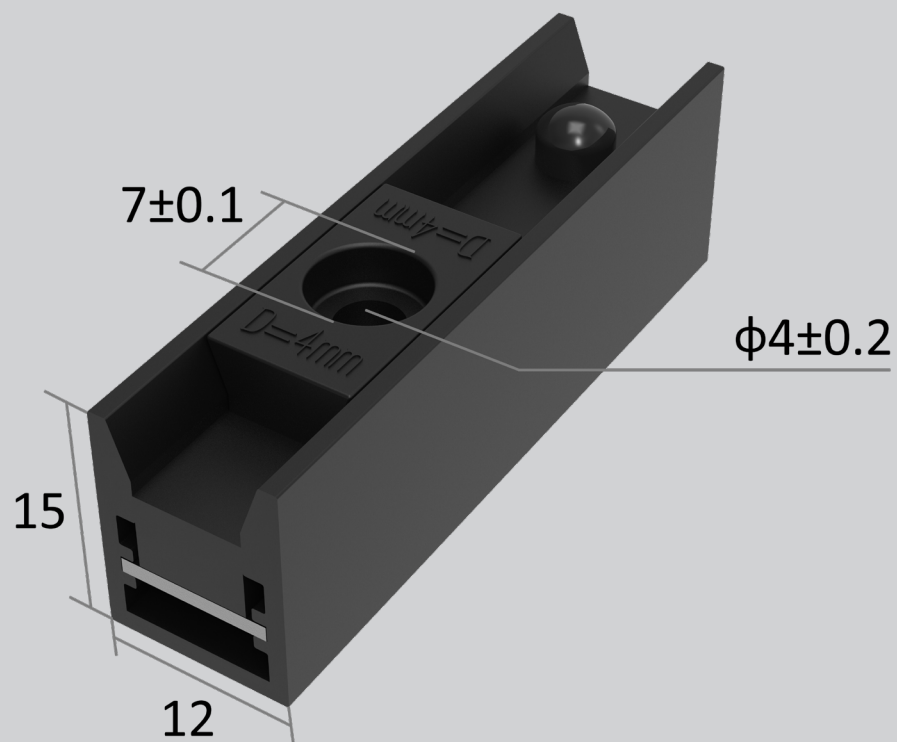
COMPACT DESIGN FOR EASIER INSTALLATION

Cross section only 12mm×15mm, ideal for scenarios with limited installation space.

Direct integration into the door edge (SB and DB types). it features a compact design, allowing it to be embedded in the door edge for installation, and is commonly used in equipment such as industrial high-speed doors. The max. operating speed can reach 1.6 m/s.
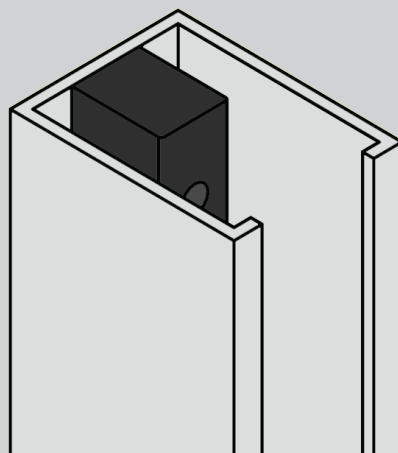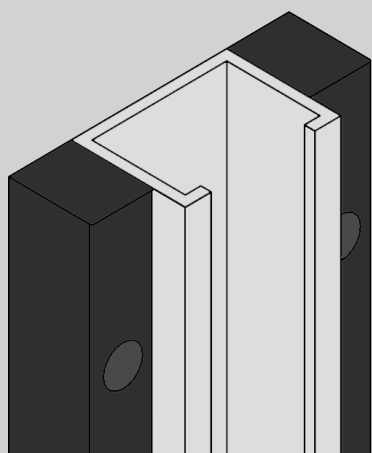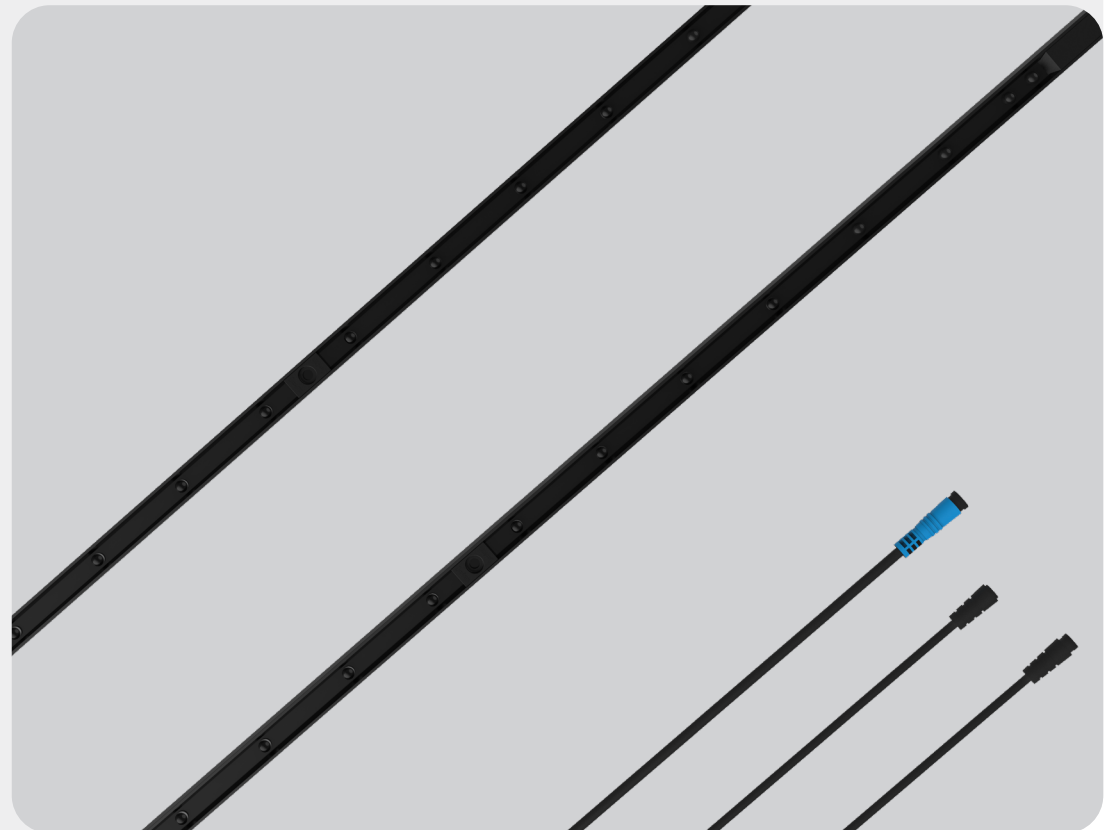
WATERPROOF AND STRONG ANTI-INTERFERENCE CAPABILITY

Electrical synchronization for increased light and strobe immunity.

Waterproof housing (IP67) and very high light reserve make the light curtain insensitive to dust, dirt and water. It can operate stably in harsh environments.

SAFETY CERTIFICATION DIRECTIVE

- EN 61326
- EN 61000-6-3
- EN ISO 13849-1:2008
- EN 12978:2003+A1:2009

- IEC 61496-2:1997
- EN 12445:2000 Chap.7
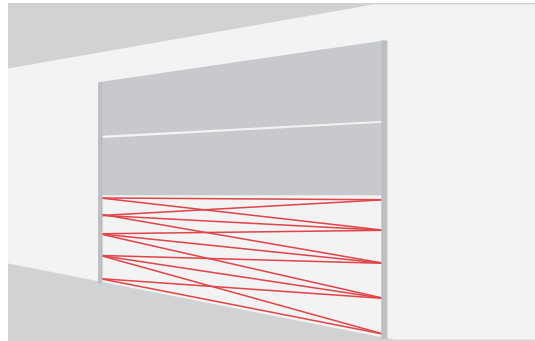- EN 12453:2000 Chap.5

$C\epsilon$

BOTTOM PHOTOEYE ARRANGEMENT ENSURES SAFETY

Criss-cross beams, the emitter and receiver edges form a grid of infrared beams. When the infrared beams are interrupted, the output sends a signal to the connected door controller.

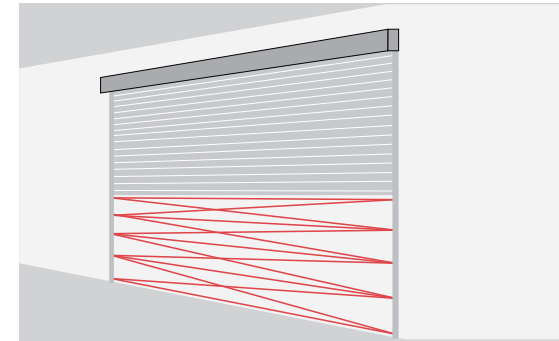Each interval is 45mm

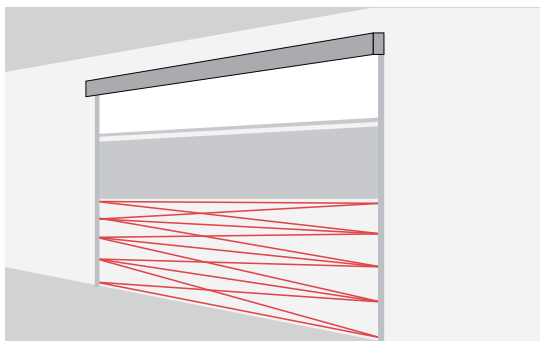Each interval is 22.5mm
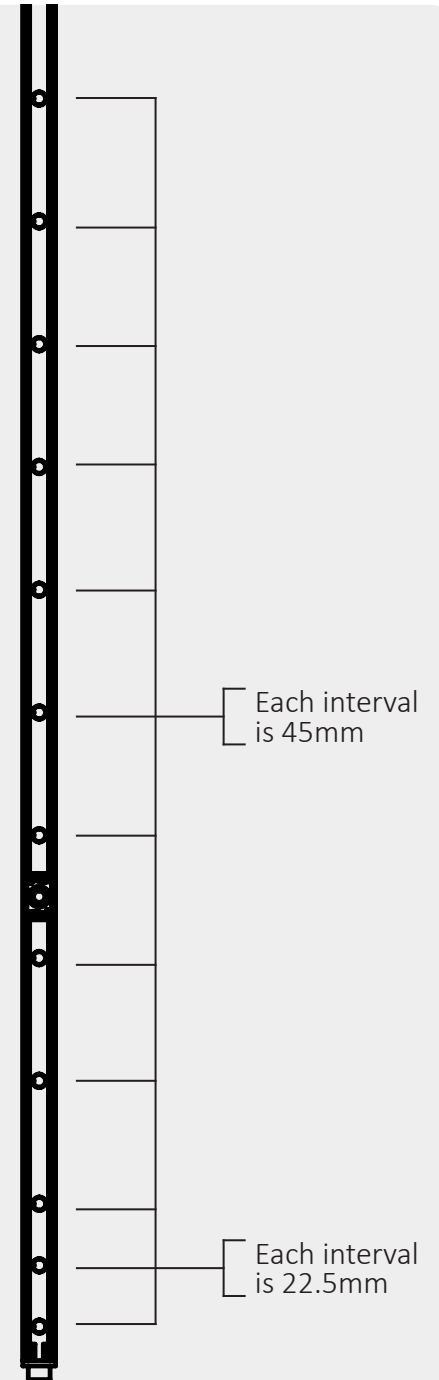
APPLICATION
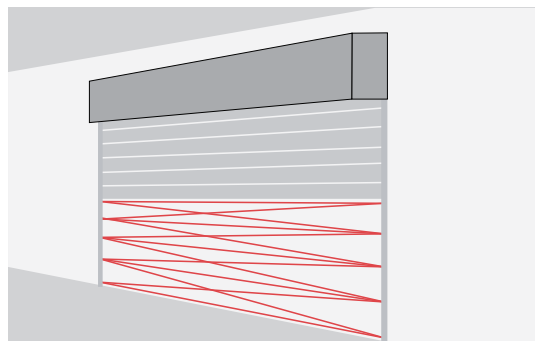
Sectional industrial door

Rolling shutter door
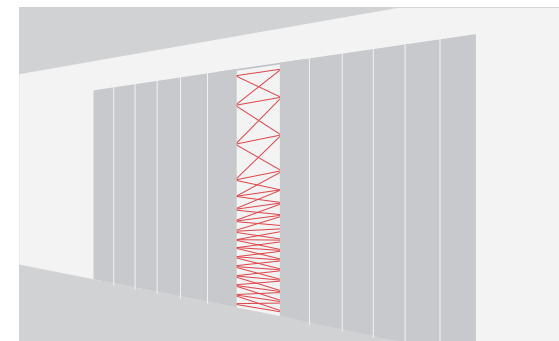
High-speed PVC rolling door

High-speed spiral door

Industrial sliding door

TECHNICAL DATA

OPTICAL	F-RASTER 2.5	F-RASTER 2.0
Operating range	1 ... 10 m	1 ... 10 m
Number of elements	24	20
Max. protection height	2,500 mm	2,000 mm
Aperture angle at 3 m	±10° and Rx: ±20°	±10° and Rx: ±20°
Max. ambient light	100,000 Lux	100,000 Lux

MECHANICAL	
Cross section	12 mm × 15 mm
Housing material	Aluminum alloy anodizing
Enclosure rating	IP67
Temperature range	-40 °C ... +60 °C

CONNECTION CABLE AND ELECTRICAL CONNECTION

Synchronization cable	
Length	10 m
Diameter	Ø 3.5 mm
Material	PVC, black
Plug color	Black
Wires	AWG26
• brown	USP
• blue	GND (0 V)
• black	Communication
• white	Test signal

Connection cable	
Cable length	5 m
Diameter	Ø 4.2 mm
Material	PVC, black
Plug color	Blue
Wires	AWG26
• brown	USP
• blue	GND (0 V)
• black	Output 1 (PNP/NPN)
• white	Test input
• gray	Selectable output logic
• green	Output 2 (FSS)

ELECTRICAL	
Supply voltage USP	10 ... 30 VDC
Current consumption at 24 VDC	30 mA
Output	PNP/NPN (push-pull) and FSS
Output load	100 mA, 100 nF
Typ. response time with 24 elements	90 ms
Max. door speed	1.6 m/s
Status LED Rx:	
Object detected	Red
No object detected	Green
Transmitter connection abnormality	Yellow flash
Status LED Tx:	
Synchronization line fault	Yellow
Synchronization line normal	Green

OPTIONAL ACCESSORIES

LIGHT CURTAIN SYNCHRONIZATION CABLE

5m

10m

SIGNAL CONVERTER F-RASTER-S

Box dimensions: 90*50*42mm	Input voltage: DC 10-30V
Internal dimensions: 85*43*33mm	Box material: PC
Waterproof grade: IP68	Flame retardant grade: V-1
Screw material: 304 stainless steel screw	Sealing part: silicone ring

POWER CONVERTER F-RASTER-110-220V

Box dimensions: 120*70*48mm	Input voltage: 100-265V
Internal dimensions: 114*64*38mm	Output voltage: 12V
Waterproof grade: IP68	Box material: PC
Maximum output current: 400mA	Flame retardant grade: V-1
Screw material: 304 stainless steel screw	Sealing part: silicone ring

POWER CONVERTER F-RASTER-110V

Box dimensions: 120*70*48mm	Input voltage: 90-130V
Internal dimensions: 114*64*38mm	Output voltage: 12V
Waterproof grade: IP68	Box material: PC
Maximum output current: 150mA	Flame retardant grade: V-1
Screw material: 304 stainless steel screw	Sealing part: silicone ring

POWER CONVERTER F-RASTER-220V

Box dimensions: 120*70*48mm	Input voltage: 180-260V
Internal dimensions: 114*64*38mm	Output voltage: 12V
Waterproof grade: IP68	Box material: PC
Maximum output current: 150mA	Flame retardant grade: V-1
Screw material: 304 stainless steel screw	Sealing part: silicone ring

PACKAGING
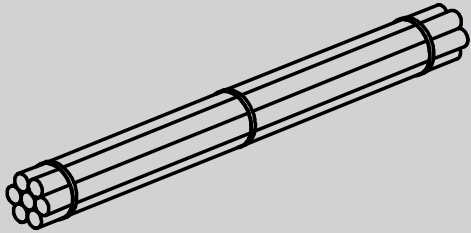
• For quantities of < 12 pieces, use straps for packaging.
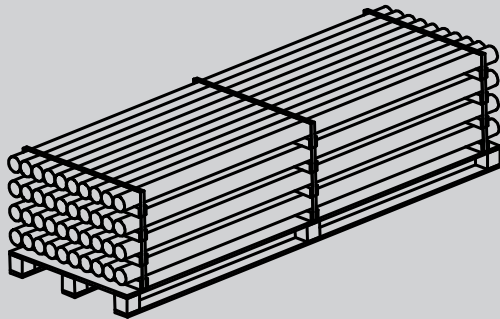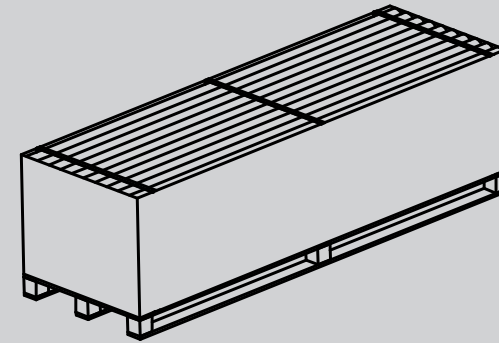
• For quantities ≥ multiples of 12 pieces, use pallets for packaging.

• 12 pieces per layer, with each layer separated by wooden battens, maximum 5 layers.

(For example: The order quantity is 84 pieces, which can be split into bundle of 48 pieces plus one bundle of 36 pieces)

• 84 pieces per wooden box, 7 layers in total

• Pallet dimensions: 2710(L) x 1040(W) x 1070(H)mm

• Wooden blocks: 1035(L) x 50(W) x 50(H)mm

20GP CONTAINER	8 boxes, 672 pieces in total

40GP CONTAINER	16 boxes, 1344 pieces in total