

IO-Link
SensorsPhotoelectric
SensorsFiber-optic
Sensors

Standard Fibers

Fiber Sensors
Communication
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Laser Sensors

Safety Sensors

Pressure &
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Proximity
SensorsMeasurement
SensorsIonizers/
Electrostatic
Sensors

Accessories

SF4D



SF4D

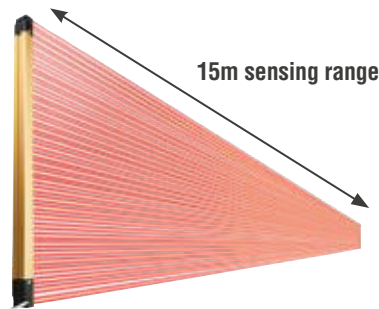
Typ 4 · PLe · SIL3

Robust safety light curtain

Features

■ Easy installation of emitter and receiver thanks to improved optical properties

Thanks to a higher emission power, the **SF4D** not only works reliably on shorter distances, but also covers a longer sensing range up to 15m.



■ Twisting- and bending-resistant design

The new interior design makes the safety light curtain more rigid and thus more robust. The SF4D does not bend or twist as easily when it comes into contact with other objects.



Resists twisting



Resists bending

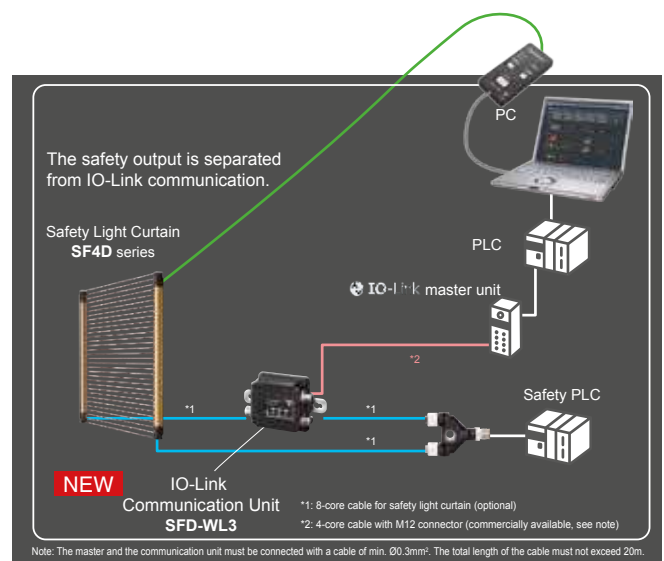


Resists shock

■ Main functions

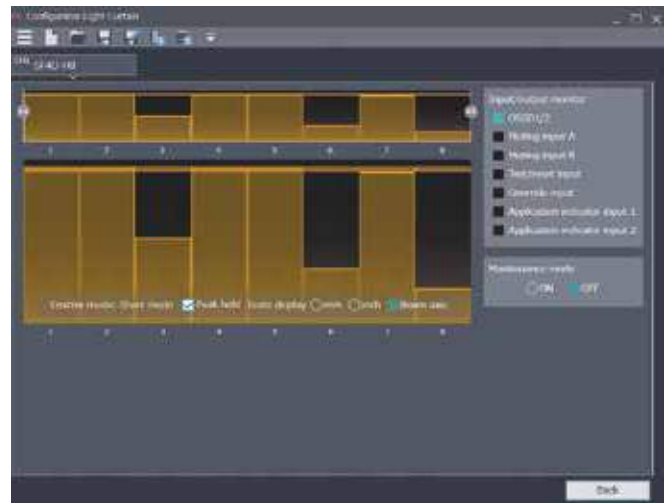
- › Operation monitoring
 - » Monitoring of the incident beam intensity and extraneous light
 - » I/O monitoring
- › Error history display
- › Light blockage history, unstable light incidence history
- › Muting setting function
- › Override setting function
- › Blanking setting function (both fixed and floating blanking)
- › External device monitoring setting function
- › Auxiliary output setting functions

Which functions are available depends on the synchronization method and the type of cables (5-core, 8-core, 12-core) used.





Selection of light curtain



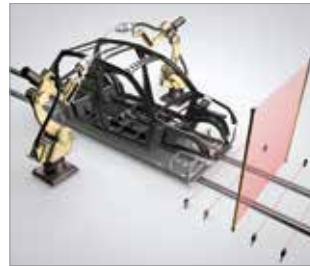
Monitoring of received light intensity and extraneous light during operation

Typical applications

Serial connection of 5 safety light curtains for roboter housing



Automobile production with muting



Technical specifications

Typ	Finger protection type	Hand protection type	Arm / Foot protection type
Model no.	SF4-F□ (notes 1,2)	SF4-H□	SF4-A□
Safety category	Typ 4, PLe, SIL3		
Sensing height	150 to 1270mm	150 to 1910mm	
Sensing range	0 to 12m	0 to 15m	
Resolution	10mm	20mm	40mm
Object to be sensed	Min. Ø 14mm (opaque)	Min. Ø 25mm (opaque)	Min. Ø 45mm (opaque)
Power supply	24V DC ±10%		
Response time	ON → OFF: max. 10ms, OFF → ON: max. 50ms		
Control outputs	OSSD1 and OSSD2 (2 x PNP or 2 x NPN open collector transistor, switchable), max. 350mA		
Emitting element	Infrared LED		
Protection	IP67/ IP65 (IEC)		
Ambient temperature	-10 to +55°C		
Material	Frame: Aluminium / Enclosures: Acrylic, Polycarbonate, Nylon		
Connection method	Connector		
Dimensions (HxWxD)	Hx30x28mm (H= protective height)		

Notes:

- 1.) □ Number of beam channels
- 2.) For a system configuration, please contact your sales office or service hotline: +49 89 45354-2737

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SF4D

■ Finger protection type (min. object to be sensed \varnothing 14mm, 10mm beam pitch)

Model no.	Sensing range	No. of beam axes	Protective height	Beam pitch
SF4D-F15	0 to 7m (short mode) 0 to 12m (long mode) (selectable by DIP switch)	15	150mm	10mm
SF4D-F23		23	230mm	
SF4D-F31		31	310mm	
SF4D-F39		39	390mm	
SF4D-F47		47	470mm	
SF4D-F55		55	550mm	
SF4D-F63		63	630mm	
SF4D-F71		71	710mm	
SF4D-F79		79	790mm	
SF4D-F95		95	950mm	
SF4D-F111		111	1110mm	
SF4D-F127		127	1270mm	

■ Hand protection type (min. object to be sensed \varnothing 25mm, 20mm beam pitch)

Model no.	Sensing range	No. of beam axes	Protective height	Beam pitch
SF4D-H8	0 to 9m (short mode) 0 to 15m (long mode) (selectable by DIP switch)	8	150mm	20mm
SF4D-H12		12	230mm	
SF4D-H16		16	310mm	
SF4D-H20		20	390mm	
SF4D-H24		24	470mm	
SF4D-H28		28	550mm	
SF4D-H32		32	630mm	
SF4D-H36		36	710mm	
SF4D-H40		40	790mm	
SF4D-H48		48	950mm	
SF4D-H56		56	1110mm	
SF4D-H64		64	1270mm	
SF4D-H72		72	1430mm	
SF4D-H80		80	1590mm	
SF4D-H88		88	1750mm	
SF4D-H96		96	1910mm	

■ Arm / Foot protection type (min. object to be sensed \varnothing 45mm, 40mm beam pitch)

Model no.	Sensing range	No. of beam axes	Protective height	Beam pitch
SF4D-A4	0 to 9m (short mode) 0 to 15m (long mode) (selectable by DIP switch)	4	150mm	40mm
SF4D-A6		6	230mm	
SF4D-A8		8	310mm	
SF4D-A10		10	390mm	
SF4D-A12		12	470mm	
SF4D-A14		14	550mm	
SF4D-A16		16	630mm	
SF4D-A18		18	710mm	
SF4D-A20		20	790mm	
SF4D-A24		24	950mm	
SF4D-A28		28	1110mm	
SF4D-A32		32	1270mm	
SF4D-A36		36	1430mm	
SF4D-A40		40	1590mm	
SF4D-A44		44	1750mm	
SF4D-A48		48	1910mm	