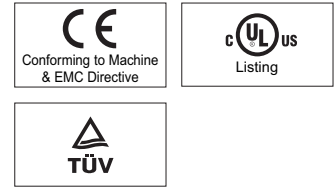


Small Light Curtain Type 2

SF2-N SERIES

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- LASER SENSORS
- PHOTOELECTRIC SENSORS
- MICRO PHOTOELECTRIC SENSORS
- AREA SENSORS
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Related Information ■ General terms and conditions..... P.1 ■ SF-AC..... P.588
 ■ Glossary of terms..... P.983~ ■ General precautions P.986~



SUNX website <http://www.sunx.com>

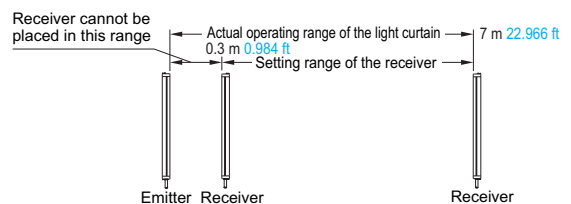
Delivering global standard safety Type 2 series connection type

ORDER GUIDE

Light curtains Mating cable is not supplied with the light curtain. Please order it separately.

Type	Appearance	Operating range (Note 1)	Model No. (Note 2)		Number of beam channels	Protective height (mm in) (Note 3)
			NPN output type	PNP output type		
Normal case	20 mm 0.787 in beam pitch	0.3 to 7 m 0.984 to 22.966 ft	SF2-NH8	SF2-NH8-PN	8	190 7.480
			SF2-NH12	SF2-NH12-PN	12	270 10.630
			SF2-NH16	SF2-NH16-PN	16	350 13.780
			SF2-NH20	SF2-NH20-PN	20	430 16.929
			SF2-NH24	SF2-NH24-PN	24	510 20.079
			SF2-NH28	SF2-NH28-PN	28	590 23.228
			SF2-NH32	SF2-NH32-PN	32	670 26.378
			SF2-NH36	SF2-NH36-PN	36	750 29.528
			SF2-NH40	SF2-NH40-PN	40	830 32.677
			SF2-NH48	SF2-NH48-PN	48	990 38.976
	40 mm 1.575 in beam pitch	0.3 to 7 m 0.984 to 22.966 ft	SF2-NH56	SF2-NH56-PN	56	1,150 45.276
			SF2-NH64	SF2-NH64-PN	64	1,310 51.575
			SF2-NA4	SF2-NA4-PN	4	190 7.480
			SF2-NA6	SF2-NA6-PN	6	270 10.630
			SF2-NA8	SF2-NA8-PN	8	350 13.780
			SF2-NA10	SF2-NA10-PN	10	430 16.929
			SF2-NA12	SF2-NA12-PN	12	510 20.079
			SF2-NA14	SF2-NA14-PN	14	590 23.228
			SF2-NA16	SF2-NA16-PN	16	670 26.378
			SF2-NA18	SF2-NA18-PN	18	750 29.528
40 mm 1.575 in beam pitch	0.3 to 7 m 0.984 to 22.966 ft	SF2-NA20	SF2-NA20-PN	20	830 32.677	
		SF2-NA24	SF2-NA24-PN	24	990 38.976	
		SF2-NA28	SF2-NA28-PN	28	1,150 45.276	
		SF2-NA32	SF2-NA32-PN	32	1,310 51.575	
		SF2-NA36	SF2-NA36-PN	36	1,470 57.874	
		SF2-NA40	SF2-NA40-PN	40	1,630 64.173	

- Notes: 1) The operating range is the possible setting distance between the emitter and the receiver.
 The light curtain can detect an object less than 0.3 m 0.984 ft away.
- 2) The model No. with suffix "P" shown on the label affixed to the product is the emitter, "D" shown on the label is the receiver.
 (e.g.) Emitter of SF2-NH8-PN: SF2-NH8P-PN
 Receiver of SF2-NH8-PN: SF2-NH8D-PN
- 3) Refer to the "Definition of light curtain and area sensor sensing heights" (p.589) for the definition of the protective height.





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SPECIFICATIONS
P.584

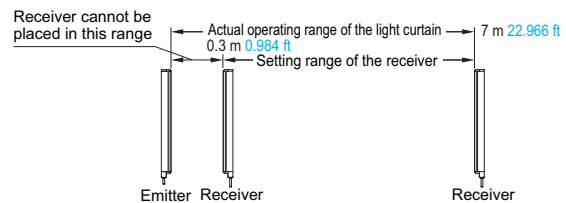
PRECAUTIONS FOR PROPER USE
P.584

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Light curtains Mating cable is not supplied with the light curtain. Please order it separately.

Type	Appearance	Operating range (Note 1)	Model No. (Note 2)		Number of beam channels	Protective height (mm in) (Note 2)
			NPN output type	PNP output type		
With spatter protection hood	20 mm 0.787 in beam pitch	0.3 to 7 m 0.984 to 22.966 ft	SF2-NH8-H	SF2-NH8-PN-H	8	190 7.480
			SF2-NH12-H	SF2-NH12-PN-H	12	270 10.630
			SF2-NH16-H	SF2-NH16-PN-H	16	350 13.780
			SF2-NH20-H	SF2-NH20-PN-H	20	430 16.929
			SF2-NH24-H	SF2-NH24-PN-H	24	510 20.079
			SF2-NH28-H	SF2-NH28-PN-H	28	590 23.228
			SF2-NH32-H	SF2-NH32-PN-H	32	670 26.378
			SF2-NH36-H	SF2-NH36-PN-H	36	750 29.528
			SF2-NH40-H	SF2-NH40-PN-H	40	830 32.677
			SF2-NH48-H	SF2-NH48-PN-H	48	990 38.976
	40 mm 1.575 in beam pitch	0.3 to 7 m 0.984 to 22.966 ft	SF2-NH56-H	SF2-NH56-PN-H	56	1,150 45.276
			SF2-NH64-H	SF2-NH64-PN-H	64	1,310 51.575
			SF2-NA4-H	SF2-NA4-PN-H	4	190 7.480
			SF2-NA6-H	SF2-NA6-PN-H	6	270 0.630
			SF2-NA8-H	SF2-NA8-PN-H	8	350 13.780
			SF2-NA10-H	SF2-NA10-PN-H	10	430 16.929
			SF2-NA12-H	SF2-NA12-PN-H	12	510 20.079
			SF2-NA14-H	SF2-NA14-PN-H	14	590 23.228
			SF2-NA16-H	SF2-NA16-PN-H	16	670 26.378
			SF2-NA18-H	SF2-NA18-PN-H	18	750 29.528
SF2-NA20-H	SF2-NA20-PN-H	20	830 32.677			
SF2-NA24-H	SF2-NA24-PN-H	24	990 38.976			
SF2-NA28-H	SF2-NA28-PN-H	28	1,150 45.276			
SF2-NA32-H	SF2-NA32-PN-H	32	1,310 51.575			
SF2-NA36-H	SF2-NA36-PN-H	36	1,470 57.874			
SF2-NA40-H	SF2-NA40-PN-H	40	1,630 64.173			

- Notes: 1) The operating range is the possible setting distance between the emitter and the receiver.
The light curtain can detect an object less than 0.3 m 0.984 ft away.
- 2) The model No. with suffix "P" shown on the label affixed to the product is the emitter, "D" shown on the label is the receiver.
(e.g.) Emitter of SF2-NH8-PN-H: SF2-NH8P-PN-H
Receiver of SF2-NH8-PN-H: SF2-NH8D-PN-H
- 3) Refer to the "Definition of light curtain and area sensor sensing heights" (p.589) for the definition of the protective height.



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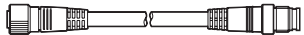
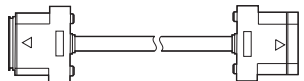
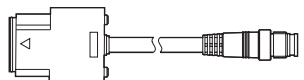
WIRE-SAVING SYSTEMS

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LASER MARKERS

Mating cables Mating cable is not supplied with the light curtain. Please order it separately.

Designation	Appearance	Model No.	Description
Cable with connector on one end		SF2N-CC3	Length: 3 m 9.843 ft Net weight: 400 g approx. (two cables) These cables are used for wiring. 7-core (6-core for emitter) shielded cable, with connector on one end, two cables per set
		SF2N-CC7	Length: 7 m 22.966 ft Net weight: 870 g approx. (two cables) Cable outer diameter: ø6 mm ø0.236 in Connector outer diameter: ø14 mm ø0.551 in max. Cable color: Gray (for emitter) Gray with black line (for receiver)
		SF2N-CC10	Length: 10 m 32.808 ft Net weight: 1,200 g approx. (two cables) Connector color: Gray (for emitter) Black (for receiver) The min. bending radius: R 30 mm 1.181 in
Cable with connector on both ends		SF2N-CCJ10	Length: 10 m 32.808 ft Net weight: 1,200 g approx. (two cables) This cable is used for cable extension. Shielded cable, with connector on both ends, two cables per set Cable outer diameter: ø6 mm ø0.236 in Connector outer diameter: ø14 mm ø0.551 in max. Cable color: Gray (for emitter) Gray with black line (for receiver) Connector color: Gray (for emitter) Black (for receiver) The min. bending radius: R 30 mm 1.181 in
Cable for series connection		SF2N-CSL02	Length: 200 mm 7.874 in Net weight: 80 g approx. (two cables) Used to connect light curtains in series
		SF2N-CSL05	Length: 500 mm 19.685 in Net weight: 110 g approx. (two cables) Shielded cable, with connector on both ends, two cables per set (common for emitter and receiver) Cable outer diameter: ø6 mm ø0.236 in Cable color: Gray (common for emitter and receiver) The min. bending radius: R 30 mm 1.181 in
Bottom cap cable for series connection (Note)		SF2N-CB05	Length: 500 mm 19.685 in Net weight: 120 g approx. (two cables) In case of series connection, if the number of connected sets is three or the total number of beam channels exceeds 48 [SF2-NA□(-PN) : more than 24 beam channels], connect this cable to the terminating light curtain. Shielded cable, with connector on both ends, two cables per set Cable outer diameter: ø6 mm ø0.236 in Cable color: Gray (for emitter), Gray with black line (for receiver) The min. bending radius: R 30 mm 1.181 in

Note: Note that the dimensions of **SF2-N** series will change when using the bottom cap cable for series connection (**SF2N-CB05**). Contact our office for further details.

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CAUTION



- In case **SF2-N** series light curtains are connected in series under the conditions mentioned below, replace the bottom cap cable, enclosed with **SF2-N** series, by the optional bottom cap cable for series connection (**SF2N-CB05**). If it is not replaced, the internal protection circuit of **SF2-N** series may work, causing a breakdown.
- In case the number of sets connected in series is three.
- In case the total number of beam channels connected in series exceeds the following
SF2-NH□(-PN)(-H): 48 beam channels
SF2-NA□(-PN)(-H): 24 beam channels

Example for bottom cap cable replacement

Product used (Note 1)	No. of sets	Total No. of beam channels	Bottom cap cable
SF2N-NH64	1 set	64	Attached bottom cap cable
SF2N-NH24 SF2N-NH24	2 sets	48	Attached bottom cap cable
SF2N-NH24 SF2N-NH28	2 sets	52	Optional bottom cap cable for series connection (SF2N-CB05) (Note 2)
SF2N-NH24 SF2N-NH12 SF2N-NH12	3 sets	48	Optional bottom cap cable for series connection (SF2N-CB05) (Note 2)

Notes: 1) Series connection is not possible between a 20 mm (**0.787 in**) beam pitch type light curtain and a 40 mm (**1.575 in**) beam pitch type light curtain.

2) Note that the dimensions of **SF2-N** series will change when using the bottom cap cable for series connection (**SF2N-CB05**). Contact our office for further details.

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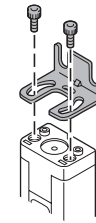
Spare parts (Accessories for light curtain)

Designation	Model No.	Description	
Rear mounting bracket	MS-SF2N-1	Used to mount the light curtain on the rear surface (1 set for emitter and receiver)	
U-shaped rear mounting intermediate supporting bracket (Note)	MS-SF2N-2	For SF2-N□(-PN)	Used to hold the light curtain at the intermediate position for protection against vibration (for rear surface mounting) (1 set for emitter and receiver)
	MS-SF4A-H2	For SF2-N□(-PN)-H	
L-shaped intermediate supporting bracket (Note)	MS-SF2N-L	Used to install the U-shaped intermediate supporting bracket on the wall side, etc. (1 set for emitter and receiver)	
Test rod	SF2-NH-TR	Used for standard sensing to detect the smallest objects (ø30 mm ø1.181 in), with 20 mm 0.787 in beam pitch	

Note: The number of sets required varies depending on the product. Refer to "SPECIFICATIONS" on p.584 for further details.

Rear mounting bracket

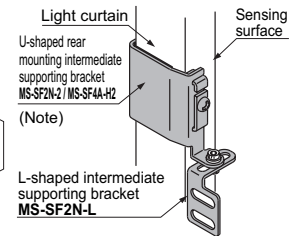
- **MS-SF2N-1**



Four bracket set
[Eight M3 (length 5 mm 0.197 in) hexagon-socket head bolts are attached.]

U-shaped rear mounting intermediate supporting bracket
L-shaped intermediate supporting bracket

- **MS-SF2N-2**
- **MS-SF4A-H2**
- **MS-SF2N-L**



Note: The above figure is only applicable to the **MS-SF2N-2**. The **MS-SF4A-H2** has a different shape.

- **MS-SF2N-2 / MS-SF4A-H2**
Set of 2 pcs. each of U-shaped rear supporting bracket and retaining plate
- **MS-SF2N-L**
Two L-shaped bracket set
[Two M3 (length 10 mm 0.394 in) pan head screws, two M4 (length 10 mm 0.394 in) hexagon-socket-head bolts and two nuts are attached.]

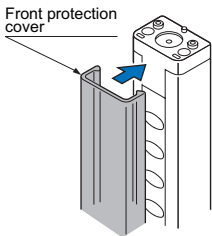
OPTIONS

Designation	Applicable beam channels	20 mm 0.787 in beam pitch	8 beam channels	12 beam channels	16 beam channels	20 beam channels	24 beam channels	28 beam channels	32 beam channels	36 beam channels	40 beam channels	48 beam channels	56 beam channels	64 beam channels	—	—
		40 mm 1.575 in beam pitch	4 beam channels	6 beam channels	8 beam channels	10 beam channels	12 beam channels	14 beam channels	16 beam channels	18 beam channels	20 beam channels	24 beam channels	28 beam channels	32 beam channels	36 beam channels	40 beam channels
Front protection cover	For SF2-N□(-PN)	Model No.	FC-SF2N-A4	FC-SF2N-A6	FC-SF2N-A8	FC-SF2N-A10	FC-SF2N-A12	FC-SF2N-A14	FC-SF2N-A16	FC-SF2N-A18	FC-SF2N-A20	FC-SF2N-A24	FC-SF2N-A28	FC-SF2N-A32	FC-SF2N-A36	FC-SF2N-A40
	For SF2-N□(-PN)-H	Model No.	FC-SF4A-H8-H	FC-SF4A-H12-H	FC-SF4A-H16-H	FC-SF4A-H20-H	FC-SF4A-H24-H	FC-SF4A-H28-H	FC-SF4A-H32-H	FC-SF4A-H36-H	FC-SF4A-H40-H	FC-SF4A-H48-H	FC-SF4A-H56-H	FC-SF4A-H64-H	FC-SF4A-H72-H	FC-SF4A-H80-H
Slit mask	For SF2-N□(-PN)	Model No.	OS-SF2N-A4	OS-SF2N-A6	OS-SF2N-A8	OS-SF2N-A10	OS-SF2N-A12	OS-SF2N-A14	OS-SF2N-A16	OS-SF2N-A18	OS-SF2N-A20	OS-SF2N-A24	OS-SF2N-A28	OS-SF2N-A32	OS-SF2N-A36	OS-SF2N-A40
	For SF2-N□(-PN)-H	Model No.	OS-SF4A-H8-H	OS-SF4A-H12-H	OS-SF4A-H16-H	OS-SF4A-H20-H	OS-SF4A-H24-H	OS-SF4A-H28-H	OS-SF4A-H32-H	OS-SF4A-H36-H	OS-SF4A-H40-H	OS-SF4A-H48-H	OS-SF4A-H56-H	OS-SF4A-H64-H	OS-SF4A-H72-H	OS-SF4A-H80-H

Note: The model Nos. given above denote a single unit, not a pair of units. 2 pcs. (2 sets) are required to mount the emitter / receiver.

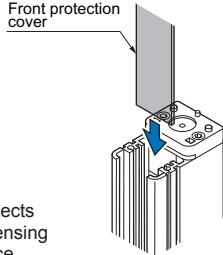
Front protection cover

- **FC-SF2N-A□**



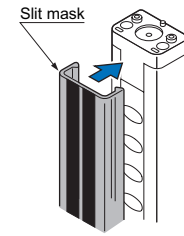
It protects the sensing surface.

- **FC-SF4A-H□-H**

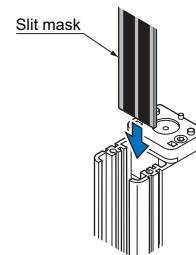


Slit mask

- **OS-SF2N-A□**



- **OS-SF4A-H□-H**



The slit mask restrains the amount of beam emitted or received and hence reduces the interference between neighboring light curtains. However, the operating range reduces when the slit mask is used.

Operating range

<**OS-SF2N-A□ / OS-SF4A-H□-H**>

- Slit on the emitter side: 0.3 to 2.6 m **0.984 to 8.530 ft**
- Slit on the receiver side: 0.3 to 2.6 m **0.984 to 8.530 ft**
- Slit on both sides: 0.3 to 1.2 m **0.984 to 3.937 ft**

Operating range

<**FC-SF2N-A□ / FC-SF4A-H□-H**>

- Front protection cover on the emitter side: 0.3 to 7 m **0.984 to 22.966 ft**
- Front protection cover on the receiver side: 0.3 to 6m **0.984 to 19.685 ft**
- Front protection cover on both sides: 0.3 to 5 m **0.984 to 16.404 ft**

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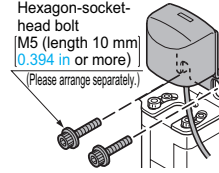
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- LASER SENSORS
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Designation	Model No.	Description
Large display unit for light curtain	SF-IND-2	<p>With the large display unit put on the light curtain, the operation is easily observable from various directions.</p> <p>Specifications</p> <ul style="list-style-type: none"> Supply voltage: 24 V DC \pm 15 % Current consumption: 12 mA or less Indicators: Orange LED (8 pcs. used) [Light up when external contact is ON] Ambient temperature: -10 to $+55$ °C $+14$ to $+131$ °F (No dew condensation or icing allowed) Material: POM (Case) Polycarbonate (Cover) Cold rolled carbon steel (SPCC) (Bracket) Cable: 0.3 mm² 2-core cabtyre cable, 3 m 9.843 ft long Net weight: 70 g approx. (including bracket) <p>I/O circuit diagrams</p> <p><With NPN output type></p> <p><With PNP output type></p>
		<p>Side mounting bracket</p> <p>MS-SF2N-3</p> <p>Used for side-mounting of light curtains (four bracket set for emitter and receiver)</p>
U-shaped side mounting intermediate supporting bracket (Note 1)	<p>MS-SF2N-4</p> <p>For SF2-N□(-PN)</p> <p>MS-SF4A-H4</p> <p>For SF2-N□(-PN)-H</p>	<p>Used to hold the light curtain at the intermediate position for protection against vibration (for side mounting)(1 set for emitter and receiver)</p>
Center sensor mounting bracket (Note 2)	MS-SF2N-5	<p>Used for one-point rear mounting</p> <p>Convenient for mounting on an aluminum frame (four bracket set for emitter and receiver)</p>
Test rod	SF2-NA-TR	<p>Used for standard sensing to detect the smallest objects (ϕ50 mm ϕ1.969 in), with 40 mm 1.575 in beam pitch</p>
Laser alignment tool (Note 3)	SF-LAT-2N	<p>Easy to align the beam axis with the visible laser beam</p>

- Notes: 1) The number of sets required varies depending on the product. Refer to the "Note 2" on the right side of the chart above for details.
- 2) Multiple beam channel light curtains requiring the intermediate supporting bracket (20 mm **0.787 in** beam pitch type : 36 beam channels or more, 40 mm **1.575 in** beam pitch type: 18 beam channels or more) cannot be mounted on an aluminum frame with the center sensor mounting bracket.
- 3) Refer to "SF4B series" on p.494 / p.513 for further details about the laser alignment tool.

Large display unit for light curtain

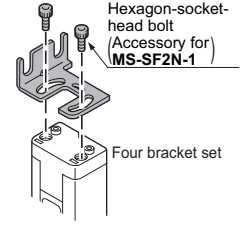
• **SF-IND-2**



Attaches to upper edge of light curtain. Tighten together the mounting bracket provided with the light curtain and the mounting bracket of SF-IND-2.

Side mounting bracket

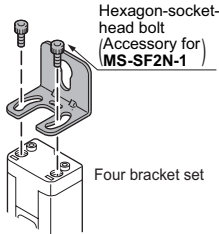
• **MS-SF2N-3**



Four bracket set

Center sensor mounting bracket

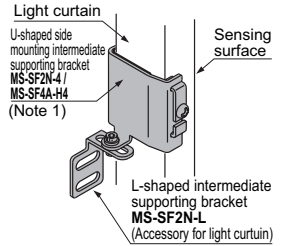
• **MS-SF2N-5**



Four bracket set

U-shaped side mounting intermediate supporting bracket

• **MS-SF2N-4**
• **MS-SF4A-H4**



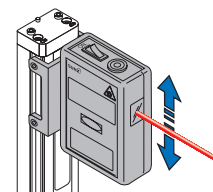
Set of 2 pcs. each of U-shaped side supporting bracket and retaining plate

- Notes: 1) The above figure is only applicable to the **MS-SF2N-4**. The **MS-SF4A-H4** has a different shape.
- 2) The number of attached U-shaped side mounting intermediate supporting brackets is different depending on the light curtain as follows.

- For **MS-SF2N-4**
SF2-NH36(-PN), **SF2-NH40(-PN)**, **SF2-NA18(-PN)**, **SF2-NA20(-PN)**: 1 set
SF2-NH48(-PN), **SF2-NA24(-PN)**: 2 sets
SF2-NH56(-PN), **SF2-NH64(-PN)**, **SF2-NA28(-PN)**, **SF2-NA32(-PN)**, **SF2-NA36(-PN)**: 3 sets
SF2-NA40(-PN): 4 sets
- For **MS-SF4A-H4**
SF2-NH36(-PN)-H, **SF2-NH40(-PN)-H**, **SF2-NA18(-PN)-H**, **SF2-NA20(-PN)-H**: 1 set
SF2-NH48(-PN)-H, **SF2-NA24(-PN)-H**: 2 sets
SF2-NH56(-PN)-H, **SF2-NH64(-PN)-H**, **SF2-NA28(-PN)-H**, **SF2-NA32(-PN)-H**, **SF2-NA36(-PN)-H**: 3 sets
SF2-NA40(-PN)-H: 4 sets

Laser alignment tool

• **SF-LAT-2N**



SPECIFICATIONSThe CAD data in the dimensions can be downloaded from the SUNX website: <http://www.sunx.com>**Common specifications**

Item	Type Model No.	20 mm 0.787 in beam pitch		40 mm 1.575 in beam pitch	
		NPN output SF2-NH□(-H)	PNP output SF2-NH□-PN(-H)	NPN output SF2-NA□(-H)	PNP output SF2-NA□-PN(-H)
Applicable standards	Category 2 based on EN 954-1 (Type 2 based on IEC 61496-1/2)				
Operating range	0.3 to 7 m 0.984 to 22.966 ft (Note 2)				
Detection capability	ø30 mm ø1.181 in opaque object		ø50 mm ø1.969 in opaque object		
Effective aperture angle	±5° or less for a operating range exceeding 3 m 9.843 ft (conforming to IEC 61496-2 / UL 61496-2)				
Supply voltage	24 V DC ± 15 % Ripple P-P 10 % or less				
Control output (OSSD)	<NPN output type> NPN open-collector transistor • Maximum sink current: 200 mA • Applied voltage: Same as supply voltage (between control output and 0 V) • Residual voltage: 2.0 V or less (at 200 mA sink current)		<PNP output type> PNP open-collector transistor • Maximum source current: 200 mA • Applied voltage: Same as supply voltage (between control output and +V) • Residual voltage: 2.5V or less (at 200 mA source current)		
	Utilization category	DC-12 or DC-13			
	Operation mode	ON when all beam channels are received, OFF when one or more beam channels are interrupted (OFF also in case of any malfunction in the light curtain or the synchronization signal)			
Response time	OFF response: 15 ms or less, ON response: 28 ms or less (under stable light received condition)				
Alarm output	<NPN output type> NPN open-collector transistor • Maximum sink current: 60 mA • Applied voltage: Same as supply voltage (between alarm output and 0 V) • Residual voltage: 2.0 V or less (at 60 mA sink current)		<PNP output type> PNP open-collector transistor • Maximum source current: 60 mA • Applied voltage: Same as supply voltage (between alarm output and +V) • Residual voltage: 2.5 V or less (at 60 mA source current)		
	Operation mode	Normal operation: Alarm output ON, Failure resulting in emission halt, or when test input is applied: Alarm output OFF			
Test input (emission halt) function	Incorporated				
Master / Slave selection input	Connection to 0 V (Low): Master mode operation, Open (High): Slave mode operation				
Interference prevention function	Incorporated	[Series connection: 3 sets max. [SF2-NH□(-PN)(-H): total 128 beam channels max., SF2-NA□(-PN)(-H): total 64 beam channels max.] Parallel connection: 2 sets max. Series and parallel mixed connection: Series connection of 3 sets max. and parallel connection of 2 sets max. are simultaneously possible. 20 mm 0.787 in beam pitch type and 40 mm 1.575 in beam pitch type cannot be combined together in series connection.]			
Pollution degree	3 (Industrial environment)				
Degree of protection	IP65 (IEC) (Refer to p.984 for details of standards)				
Ambient temperature	-10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: -25 to +70 °C +13 to +58 °F				
Emitting element	Infrared LED (Peak emission wavelength: 870 nm 0.034 mil)				
Material	Enclosure: Aluminium, Resin case: ABS, Lens: Polycarbonate, Cap: PBT				
Dimensions	Normal case Type: W28 × H (protective height + 12) × D19 mm W1.102 × H (protective height + 0.472) × D0.748 in With spatter protection hood type: W28 × H (protective height + 12) × D39 mm W1.102 × H (protective height + 0.472) × D1.535 in				
Accessories	MS-SF2N-1 (Rear mounting bracket): 1 set for emitter and receiver MS-SF2N-2 (U-shaped rear mounting intermediate supporting bracket, MS-SF4A-H2 for “-H” type): (Note 3) MS-SF2N-L (L-shaped intermediate supporting bracket): (Note 3) SF2-NH-TR (Test rod): 1 pc. [SF2-NH□(-PN)(-H) only]				

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.

2) The operating range is the possible setting distance between the emitter and the receiver.

The light curtain can detect an object less than 0.3 m 0.984 ft away.

3) U-shaped rear mounting intermediate supporting bracket (**MS-SF2N-2** or **MS-SF4A-H2**) and L-shaped intermediate supporting bracket (**MS-SF2N-L**) are attached with the following light curtains. The number of attached U-shaped rear mounting intermediate supporting bracket and L-shaped intermediate supporting bracket are different depending on the light curtain as follows.
SF2-NH36(-PN)(-H), SF2-NH40(-PN)(-H), SF2-NA18(-PN)(-H), SF2-NA20(-PN)(-H): 1 set, SF2-NH48(-PN)(-H), SF2-NA24(-PN)(-H): 2 sets
SF2-NH56(-PN)(-H), SF2-NH64(-PN)(-H), SF2-NA28(-PN)(-H), SF2-NA32(-PN)(-H), SF2-NA36(-PN)(-H): 3 sets, SF2-NA40(-PN)(-H): 4 sets
PRECAUTIONS FOR PROPER USE

Refer to p.986~for general precautions.



- Do not utilize this light curtain in “PSDI Mode”, in which the light curtain is utilized as an activator for machinery.
- To use this product in the U.S.A., refer to OSHA 1910. 212 and OSHA 1910. 217 for installation, and in Europe, refer to EN 999 as well. Observe your national and local requirements before installing this product.
- This light curtain is a Type 2 electro-sensitive protective equipment. It is specified that this light curtain be utilized only within systems implementing control categories 2, 1 and B (safety-related categories for control systems), as determined by European Standard EN 954-1. This light curtain must never be utilized in any system that requires the usage of category 4 equipment, such as press machines; nor for systems requiring category 3 equipment.

- This catalog is a guide to select a suitable product. Be sure to read the instruction manual attached to the product prior to its use.

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Curtains**SF4B****SF2B****BSF4-AH80**Control
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