SPECIFICATIONS

Light curtain individual specifications

SF4B-F□(-01)<V2>

Item \ Type	Min. sensing object ø14 mm ø0.551 in type (10 mm 0.394 in beam pitch)					
Model No. (Note 2)	**SF4B-F23(-01)<V2>**	**SF4B-F31(-01)<V2>**	**SF4B-F39(-01)<V2>**	**SF4B-F47(-01)<V2>**	**SF4B-F55(-01)<V2>**	**SF4B-F63(-01)<V2>**
No. of beam channels	23	31	39	47	55	63
Protective height	230 mm 9.055 in	310 mm 12.205 in	390 mm 15.354 in	470 mm 18.504 in	550 mm 21.654 in	630 mm 24.803 in
Current consumption	Emitter: 80 mA or less, Receiver: 120 mA or less			Emitter: 100 mA or less, Receiver: 160 mA or less		
Net weight (Total of emitter and receiver)	510 g approx.	660 g approx.	810 g approx.	960 g approx.	1,100 g approx.	1,260 g approx.

Item \ Type	Min. sensing object ø14 mm ø0.551 in type (10 mm 0.394 in beam pitch)				
Model No. (Note 2)	**SF4B-F71(-01)<V2>**	**SF4B-F79(-01)<V2>**	**SF4B-F95(-01)<V2>**	**SF4B-F111(-01)<V2>**	**SF4B-F127(-01)<V2>**
No. of beam channels	71	79	95	111	127
Protective height	710 mm 27.953 in	790 mm 31.102 in	950 mm 37.402 in	1,110 mm 43.701 in	1,270 mm 50.000 in
Current consumption	Emitter: 100 mA or less, Receiver: 160 mA or less	Emitter: 115 mA or less, Receiver: 190 mA or less		Emitter: 135 mA or less, Receiver: 230 mA or less	
Net weight (Total of emitter and receiver)	1,420 g approx.	1,570 g approx.	1,870 g approx.	2,170 g approx.	2,470 g approx.

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) The models with the suffix "**-01**" cannot be used with the handy-controller **SFB-HC**.

SF4B-H□(-01)<V2>

Item \ Type	Min. sensing object ø25 mm ø0.984 in type (20 mm 0.787 in beam pitch)					
Model No. (Note 2)	**SF4B-H12(-01)<V2>**	**SF4B-H16(-01)<V2>**	**SF4B-H20(-01)<V2>**	**SF4B-H24(-01)<V2>**	**SF4B-H28(-01)<V2>**	**SF4B-H32(-01)<V2>**
No. of beam channels	12	16	20	24	28	32
Protective height	230 mm 9.055 in	310 mm 12.205 in	390 mm 15.354 in	470 mm 18.504 in	550 mm 21.654 in	630 mm 24.803 in
Current consumption	Emitter: 70 mA or less, Receiver: 95 mA or less			Emitter: 80 mA or less, Receiver: 115 mA or less		
Net weight (Total of emitter and receiver)	510 g approx.	660 g approx.	810 g approx.	960 g approx.	1,110 g approx.	1,260 g approx.

Item \ Type	Min. sensing object ø25 mm ø0.984 in type (20 mm 0.787 in beam pitch)				
Model No. (Note 2)	**SF4B-H36(-01)<V2>**	**SF4B-H40(-01)<V2>**	**SF4B-H48(-01)<V2>**	**SF4B-H56(-01)<V2>**	**SF4B-H64(-01)<V2>**
No. of beam channels	36	40	48	56	64
Protective height	710 mm 27.953 in	790 mm 31.102 in	950 mm 37.402 in	1,110 mm 43.701 in	1,270 mm 50.000 in
Current consumption	Emitter: 80 mA or less, Receiver: 115 mA or less	Emitter: 90 mA or less, Receiver: 140 mA or less		Emitter: 100 mA or less, Receiver: 160 mA or less	
Net weight (Total of emitter and receiver)	1,420 g approx.	1,570 g approx.	1,870 g approx.	2,170 g approx.	2,470 g approx.

Item \ Type	Min. sensing object ø25 mm ø0.984 in type (20 mm 0.787 in beam pitch)			
Model No. (Note 2)	**SF4B-H72(-01)<V2>**	**SF4B-H80(-01)<V2>**	**SF4B-H88(-01)<V2>**	**SF4B-H96(-01)<V2>**
No. of beam channels	72	80	88	96
Protective height	1,430 mm 56.299 in	1,590 mm 62.598 in	1,750 mm 68.898 in	1,910 mm 75.197 in
Current consumption	Emitter: 110 mA or less, Receiver: 180 mA or less		Emitter: 120 mA or less, Receiver: 200 mA or less	
Net weight (Total of emitter and receiver)	2,770 g approx.	3,070 g approx.	3,370 g approx.	3,670 g approx.

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) The models with the suffix "**-01**" cannot be used with the handy-controller **SFB-HC**.

SF4B-A□(-01)<V2>

Item \ Type	Min. sensing object ø45 mm ø1.772 in type (40 mm 1.575 in beam pitch)					
Model No. (Note 2)	**SF4B-A6(-01)<V2>**	**SF4B-A8(-01)<V2>**	**SF4B-A10(-01)<V2>**	**SF4B-A12(-01)<V2>**	**SF4B-A14(-01)<V2>**	**SF4B-A16(-01)<V2>**
No. of beam channels	6	8	10	12	14	16
Protective height	230 mm 9.055 in	310 mm 12.205 in	390 mm 15.354 in	470 mm 18.504 in	550 mm 21.654 in	630 mm 24.803 in
Current consumption	Emitter: 65 mA or less, Receiver: 85 mA or less			Emitter: 70 mA or less, Receiver: 95 mA or less		
Net weight (Total of emitter and receiver)	510 g approx.	660 g approx.	810 g approx.	960 g approx.	1,110 g approx.	1,260 g approx.

Item \ Type	Min. sensing object ø45 mm ø1.772 in type (40 mm 1.575 in beam pitch)				
Model No. (Note 2)	**SF4B-A18(-01)<V2>**	**SF4B-A20(-01)<V2>**	**SF4B-A24(-01)<V2>**	**SF4B-A28(-01)<V2>**	**SF4B-A32(-01)<V2>**
No. of beam channels	18	20	24	28	32
Protective height	710 mm 27.953 in	790 mm 31.102 in	950 mm 37.402 in	1,110 mm 43.701 in	1,270 mm 50.000 in
Current consumption	Emitter: 70 mA or less, Receiver: 95 mA or less	Emitter: 75 mA or less, Receiver: 105 mA or less		Emitter: 80 mA or less, Receiver: 120 mA or less	
Net weight (Total of emitter and receiver)	1,420 g approx.	1,570 g approx.	1,870 g approx.	2,170 g approx.	2,470 g approx.

Item \ Type	Min. sensing object ø45 mm ø1.772 in type (40 mm 1.575 in beam pitch)			
Model No. (Note 2)	**SF4B-A36(-01)<V2>**	**SF4B-A40(-01)<V2>**	**SF4B-A44(-01)<V2>**	**SF4B-A48(-01)<V2>**
No. of beam channels	36	40	44	48
Protective height	1,430 mm 56.299 in	1,590 mm 62.598 in	1,750 mm 68.898 in	1,910 mm 75.197 in
Current consumption	Emitter: 85 mA or less, Receiver: 130 mA or less		Emitter: 95 mA or less, Receiver: 140 mA or less	
Net weight Total of emitter and receiver)	2,770 g approx.	3,070 g approx.	3,370 g approx.	3,670 g approx.

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) The models with the suffix "**-01**" cannot be used with the handy-controller **SFB-HC**.

SPECIFICATIONS

Light curtain common specifications

Item \ Type	Min. sensing object ø14 mm ø0.551 in type	Min. sensing object ø25 mm ø0.984 in type	Min. sensing object ø45 mm ø1.772 in type
Model No. (Note 2)	**SF4B-F□(-01)<V2>**	**SF4B-H□(-01)<V2>**	**SF4B-A□(-01)<V2>**
Applicable standards: International standard	IEC 61496-1/2 (Type 4), ISO 13849-1: 1999 (Category 4)		
Applicable standards: Japan	JIS B 9704-1/2 (Type 4), JIS B 9705-1 (Category 4)		
Applicable standards: Europe	EN 61496-1 (Type 4), EN 55011, EN 954-1: 1997 (Category 4)		
Applicable standards: North America	UL 61496-1/2 (Type 4), UL 1998, CSA C22.2 No.14, CSA C22.2 No.0.8, OSHA 1910.212, OSHA 1910.217 (C), ANSI B11.1 to B11.19, ANSI/RIA 15.06		
Operating range (Note 3)	0.3 to 7 m 0.984 to 22.966 ft	12 to 64 beam channels type: 0.3 to 9 m 0.984 to 29.528 ft 72 to 96 beam channels type: 0.3 to 7 m 0.984 to 22.966 ft	6 to 32 beam channels type: 0.3 to 9 m 0.984 to 29.528 ft 36 to 48 beam channels type: 0.3 to 7 m 0.984 to 22.966 ft
Min. sensing object (Note 4)	ø14 mm ø0.551 in opaque object	ø25 mm ø0.984 in opaque object	ø45 mm ø1.772 in opaque object
Effective aperture angle	±2.5° or less [for an operating range exceeding 3 m 9.843 ft (conforming to IEC 61496-2 / UL 61496-2)]		
Supply voltage	24 V DC ±10 % Ripple P-P 10 % or less		
Control outputs (OSSD 1, OSSD 2)	PNP open-collector transistor / NPN open-collector transistor (switching method) • When selecting PNP output: Max. source current 200 mA, When selecting NPN output: Max. sink current 200 mA • Applied voltage: same as supply voltage (When selecting PNP output: between the control output and +V, When selecting NPN output: between the control output and 0 V) • Residual voltage: 2.5 V or less (When selecting PNP output: source current 200 mA, when selecting NPN output: sink current 200 mA) (when using 20 m 65.617 ft length cable)		
Control outputs: 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)(Note 5,6)		
Control outputs: Protection circuit	Incorporated		
Response time	OFF response: 14 ms or less, ON response: 80 to 90 ms		
Auxiliary output (Non-safety output)	PNP open-collector transistor / NPN open-collector transistor (switching method) • When selecting PNP output: Max. source current 60 mA, When selecting NPN output: Max. sink current 60 mA • Applied voltage: same as supply voltage (When selecting PNP output: between the auxiliary output and +V, When selecting NPN output: between the auxiliary output and 0 V) • Residual voltage: 2.5 V or less (When selecting PNP output: source current 60 mA, when selecting NPN output: sink current 60 mA) (when using 20 m 65.617 ft length cable)		
Auxiliary output: Operation mode	OFF when control outputs are ON, ON when control outputs are OFF (Factory setting, operating mode can be changed using the **SFB-HC** handy-controller).		
Auxiliary output: Protection circuit	Incorporated		
Interference prevention function	Incorporated (Note 7)		
Emission halt function / Interlock function	Incorporated / Incorporated [Manual reset / Auto reset (Note 8)]		
External device monitoring function	Incorporated		
Override function / Muting function	Incorporated (Note 7) / Incorporated (Note 7)		
Optional functions (Note 9)	Fixed blanking, floating blanking, auxiliary output switching, interlock setting changing, external relay monitor setting changing, muting setting changing, protecting, light emitting amount control		
Environmental resistance: Degree of protection	IP67 / IP65 (IEC)		
Environmental resistance: Ambient temperature	–10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: –25 to +70 °C –13 to +158 °F		
Environmental resistance: Ambient humidity	30 to 85 % RH, Storage: 30 to 95 % RH		
Environmental resistance: Ambient illuminance	Incandescent light: 3,500 ℓx or less at the light-receiving face		
Environmental resistance: Dielectric strength voltage	1,000 V AC for one min. between all supply terminals connected together and enclosure		
Environmental resistance: Insulation resistance	20 MΩ, or more, with 500 V DC megger between all supply terminals connected together and enclosure		
Environmental resistance: Vibration resistance	10 to 55 Hz frequency, 0.75 mm 0.030 in amplitude in X, Y and Z directions for two hours each		
Environmental resistance: Shock resistance	300 m/s² acceleration (30 G approx.) in X, Y and Z directions for three times each		
Emitting element	Infrared LED (Peak emission wavelength: 870 nm 0.034 mil)		
Material	Enclosure: Aluminium, Upper / lower case: Aluminium, Sensing surface: Polycarbonate • Polyester resin, Cap: PBT		
Connecting method / Cable length	Connector / Total length up to 50 m 164.042 ft is possible for both emitter and receiver, with optional mating cables (Note 10)		
Accessories	**MS-SFB-2** (Intermediate supporting bracket): (Note 11) **SF4B-TR14** (Test rod): 1 No	**MS-SFB-2** (Intermediate supporting bracket): (Note 11) **SF4B-TR25** (Test rod): 1 No	**MS-SFB-2** (Intermediate supporting bracket): (Note 11)

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) The models with the suffix "**-01**" cannot be used with the handy-controller **SFB-HC**.
3) 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.
4) When the floating blanking function is used, the size of the min. sensing object is changed. For details, refer to "**Safety distance**" (p.32~).
5) The outputs are not "OFF" when muting function is active even if the beam channel is interruped.
6) In case the blanking function is valid, the operation mode is changed. For details, refer to "**Safety distance**" (p.32~).
7) Please use 12-core cable.
8) The manual reset and auto reset are possible to be switched depending on the wiring status.
9) In case of using optional function, the handy-controller (**SFB-HC**) (optional) is required. However, a handy-controller cannot be used with the **SF4B-□-01<V2>** and the **SF-C14EX-01**.
10) The cable can be extended within 30 m 98.425 ft (for emitter / receiver) when two light curtains are connected in series, within 20 m 65.617 ft when three light curtains are connected in series. Furthermore, when the muting lamp is used, the cable can be extended within 40 m 131.234 ft (for emitter / receiver).
11) The intermediate supporting bracket (**MS-SFB-2**) is enclosed with the following models. The quantity of the enclosed bracket differs depending on the model as follows:
1 set: **SF4B-F□(-01)<V2>** ..... Light curtain with 79 to 111 beam channels, **SF4B-H□(-01)<V2>** ..... Light curtain with 40 to 56 beam channels, **SF4B-A□(-01)<V2>** ..... Light curtain with 20 to 28 beam channels
2 sets: **SF4B-F127(-01)<V2>**, **SF4B-H□(-01)<V2>**...Light curtain with 64 to 80 beam channels, **SF4B-A□(-01)<V2>**...Light curtain with 32 to 40 beam channels
3 sets: **SF4B-H□(-01)<V2>**..... Light curtain with 88 to 96 beam channels, **SF4B-A□(-01)<V2>** ..... Light curtain with 44 to 48 beam channels

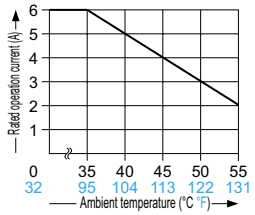
SPECIFICATIONS

Control units

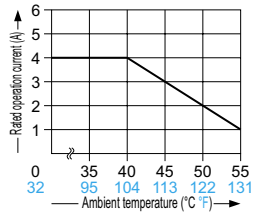
Item \ Model No.	SF-C11	SF-C12	SF-C13
Connectable light curtains	**SF4B** / **SF2B** series	**SF4B** series	Light curtains manufactured by SUNX
Applicable standards	IEC 61496-1, UL 61496-1, JIS B 9704-1		
Control category	ISO 13849-1: 1999 (EN 954-1: 1997, JIS B 9705-1) compliance up to Category 4 standards		
Supply voltage / Current consumption	24 V DC ±10 % Ripple P-P 10 % or less / 100 mA or less (excluding light curtain)		
Fuse (rating)	Built-in electronic fuse, Triggering current: 0.5 A or more, Reset after power down		
Enabling path	NO contact × 3 (13-14, 23-24, 33-34)	NO contact × 2 (13-14, 23-24)	NO contact × 3 (13-14, 23-24, 33-34)
Utilization category	AC-15, DC-13 (IEC 60947-5-1)		
Rated operation voltage (Ue) / Rated operation current (Ie)	30 V DC / 6 A, 230 V AC / 6 A, resistive load (For inductive load, during contact protection) Min. applicable load: 10 mA (at 24 V DC) (Note 2)	24 V DC / 1 A, resistive load (For inductive load, during contact protection) Min. applicable load: 15 mA (at 24 V DC)	30 V DC / 4 A, 230 V AC / 4 A, resistive load (For inductive load, during contact protection) Min. applicable load: 10 mA (at 24 V DC) (Note 2)
Contact resistance	100 mΩ or less (initial value)	50 mΩ or less (initial value)	100 mΩ or less (initial value)
Contact protection fuse rating	6 A (slow blow)	3 A (slow blow)	4 A (slow blow)
Pick-up delay (Auto reset / Manual reset)	80 ms or less / 90 ms or less	30 ms or less / 30 ms or less	80 ms or less / 90 ms or less
Response time	10 ms or less	14 ms or less	10 ms or less
Auxiliary output	Safety relay contact (NC contact) ×1 (41-42) (Related to enabling path)	Safety relay contact (NC contact) × 1 (31-32) (Related to enabling path)	Safety relay contact (NC contact) × 1 (41-42) (Related to enabling path)
Rated operation voltage / current	24 V DC / 2 A, Min. applicable load: 10 mA (at 24 V DC)	30 V DC / 3 A, Min. applicable load: 15 mA (at 24 V DC)	24 V DC / 2 A, Min. applicable load: 10 mA (at 24 V DC)
Contact protection fuse rating	2 A (slow blow)	3 A (slow blow)	2 A (slow blow)
Semiconductor auxiliary output (AUX)	<Minus ground (Setting for PNP)> PNP open-collector transistor	<Plus ground (Setting for NPN)> NPN open-collector transistor	——	PNP open-collector transistor
Output operation	Related to auxiliary output of light curtain	——	ON when the light curtain is interrupted
Excess voltage category	III		
Polarity selection function (Note 3)	Incorporated (Sliding switch allows selection of plus / minus ground) Minus ground: Correspond to PNP output light curtain Plus ground: Correspond to NPN output light curtain		Incorporated (Cable connection allows selection of plus / minus ground) Minus ground: Correspond to PNP output light curtain Plus ground: Correspond to NPN output light curtain
Pollution degree	2		
Protection	Enclosure: IP40, Terminal: IP20	IP65	Enclosure: IP40, Terminal: IP20
Ambient temperature	–10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: –25 to +70 °C –13 to +158 °F		
Enclosure material	ABS	Die-cast aluminum	ABS
Weight	Net weight: 320 g approx.	Net weight: 1 kg approx.	Net weight: 200 g approx.

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) If several **SF-C11** or **SF-C13** units are being used in a line together, leave a space of 5 mm 0.197 in or more between each unit. If the units are touching each other, reduce the rated operating current for safety output in accordance with the ambient operating temperature as shown in the graphs at right.
3) Please switch the sliding switch to the PNP side for minus ground and to the NPN side for plus ground.
4) For details of control unit **SF-C1**□ (**SF-C10** series), refer to the SUNX website (sunx.com) or SUNX general catalog.

Dilating when SF-C11 units are mounted close together



Dilating when SF-C13 units are mounted close together



Item \ Model No.	SF-C14EX(-01) (Note 2)
Connectable light curtains	**SF4B** series
Applicable standards	IEC 61496-1, UL 61496-1, EN 61496-1, JIS B 9704-1
Control category	Applicable to Category 4 based on ISO 13849-1: 1999 (EN 954-1: 1997, JIS B 9705-1)
Supply voltage / Current consumption	24 V DC ±10 % Ripple P-P 10 % or less / 0.2 A or less (Excluding light curtain and other external connecting device)
Enabling path (Enabling path 1, 2, 3)	PNP open-collector transistor 2 outputs × 3 or NPN open-collector transistor 2 outputs × 3 (selectable using a slider switch)
Operation mode (Output operation)	Enabling path 1: ON when the light curtain is in light receiving condition, OFF when the light curtain is in light interrupted condition (Note 3) Enabling path 2: ON when the light curtain is in light receiving condition or the muting function is valid OFF when the light curtain is in light interrupted condition and the muting function is invalid (Note 3) Enabling path 3: ON when the emergency stop is invalid, OFF when the emergency stop is valid
Response time	OFF response: 14 ms or less (Enabling path 1 and 2: including the response time of the light curtain) ON response: 90 ms or less (auto-reset) / 140 ms or less (manual reset) (Note 4)
Auxiliary outputs [Auxiliary output 1, 2, 3, 4 (Note 5)]	PNP open-collector transistor × 3 or NPN open-collector transistor × 3 (selectable using a slider switch) <When PNP output is selected> • Maximum source current: 60 mA or less • Applied voltage: same as supply voltage (between the auxiliary output and +V) • Residual voltage: 2 V or less (at 60 mA source current) <When NPN output is selected> • Maximum sink current: 60 mA or less • Applied voltage: same as supply voltage (between the auxiliary output and 0 V) • Residual voltage: 2 V or less (at 60 mA sink current)
Operation mode (Output operation)	Auxiliary output 1: ON when the muting function is invalid, OFF when the muting function is valid Auxiliary output 2: ON when the override function is invalid, OFF when the override function is valid Auxiliary output 3: ON when the muting lamp is normal, OFF when the muting lamp is error Auxiliary output 4: ON when the light curtain is in light interrupted condition, OFF when the light curtain is in light receiving condition (Note 5)
Muting lamp output	Applicable muting lamp: 24 V DC, 3.6 to 30 W (L1, L2 of each unit)
Protection	Enclosure: IP40, Terminal: IP20
Ambient temperature	–10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: –25 to +70 °C –13 to +158 °F
Material	Enclosure: ABS
Connection terminal	Detachable spring gauge terminal
Weight	Net weight: 250 g approx.

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) **SF-C14EX-01** is Handy-controller non-compatible type.
3) Both enabling path 1 and 2 are OFF when the emergency stop is valid regardless of whether the light curtain is in the light receiving or light interrupted condition.
4) The auto-reset cannot be used with enabling path 3.
5) The auxiliary output incorporated in the **SF4B** series is outputed.

SPECIFICATIONS

Handy-controller

Item \ Model No.	SFB-HC
Supply voltage	24 V DC ±10 % Ripple P-P10 % or less (common to light curtain power supply)
Current consumption	65 mA or less
Communication method	RS-485 two-way communications (Specific procedure)
Digital display	4-digit red LED display × 2 (Selected beam channels, setting contents etc. are displayed.)
Function indicator	Green LED × 9 (set function is displayed.)
Functions	Fixed blanking (Factory setting: Disabled) / Floating blanking (Factory setting: Disabled) / Auxiliary output change (Factory setting: Negative Logic of OSSD) / Light emitting amount control (Factory setting: Disabled) / Muting setting change [Factory setting: All beam channels enabled, A = B, Setting of the muting lamp diagnosis function enabled (Ver. 2 or later), Muting sensor output operation setting N.O. / N.O. (Ver. 2.1 or later)] Interlock setting change (Factory setting: start / restart) / External device monitoring setting change (Factory setting: Enabled, 300 ms) / Override setting changing function 60 sec. (Ver. 2.1 only) / Setting detail monitoring / Protecting (Factory setting: Disabled)(Factory password setting: 0000) / Initialization / Copy
Ambient temperature	–10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: –25 to +70 °C –13 to +158 °F
Ambient humidity	30 to 85 % RH, Storage: 30 to 85 % RH
Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure
Insulation resistance	20 MΩ , or more, with 500 V DC megger between all supply terminals connected together and enclosure
Cable	8-core shielded cable, 0.5 m 1.640 ft long, with a connector at the end (2 cables)
Weight	Net weight: 200 g approx.
Accessories	Adapter cable: 2 cables

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

Laser alignment tool

Item \ Model No.	SF-LAT-2N
Supply voltage	3 V (LR6 battery × 2 pcs.)
Battery	1.5 V (LR6 battery) × 2 pcs. (replaceable)
Battery lifetime	30 hours approx. of continuous operation (LR6 battery, at +25 °C +77 °F ambient temperature)
Light source	Red semiconductor laser: Class 2 (IEC / JIS), Class Ⅱ (FDA) (Max. output: 1 mW, Peak emission wavelength: 650 nm 0.026 mil) (Note 2)
Spot diameter	10 mm 0.394 in approx. (at 5 m 16.404 ft distance)
Ambient temperature	0 to +40 °C +32 to +104 °F (No dew condensation), Storage: 0 to +55 °C +32 to +131 °F
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH
Material	Enclosure: ABS, Mounting part: Aluminum
Weight	Net weight: 200 g approx. (including batteries)
Accessories	LR6 battery: 2 pcs.

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +20 °C +68 °F.
2) As for FDA regulation, the product complies with 21 CFR 1040.10 and 1040.11 based on Laser Notice No. 50, dated June 24, 2007, issued by CDRH under the FDA.

Corner mirror

Item \ Model No.		RF-SFBH-□
Attenuation rate of sensing range		With one mirror: Declined to 90 %, With two mirrors: Declined to 80 % (When used in combination with the **SF4B** series)
Environmental resistance	Ambient temperature	–10 to +55 °C +14 to +131 °F (No dew condensation or icing allowed), Storage: –25 to +70 °C –13 to +158 °F
	Ambient humidity	30 to 85 % RH, Storage: 30 to 95 % RH
	Vibration resistance	10 to 55 Hz frequency, 0.75 mm 0.030 in amplitude in X, Y and Z directions for two hours each
	Shock resistance	300 m/s² acceleration (30 G approx.) in X, Y and Z directions for three times each
Material		Enclosure: Alminium, Mounting bracket: Stainless steel, Mirror (rear surface mirror): Glass, Side cover: EPDM
Accessories		Intermediate supporting bracket: 1 set (**RF-SFBH-40/48/56/64**), 2 sets (**RF-SFBH-72/80/88/96**)

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