Panasonic

ideas for life

NEW

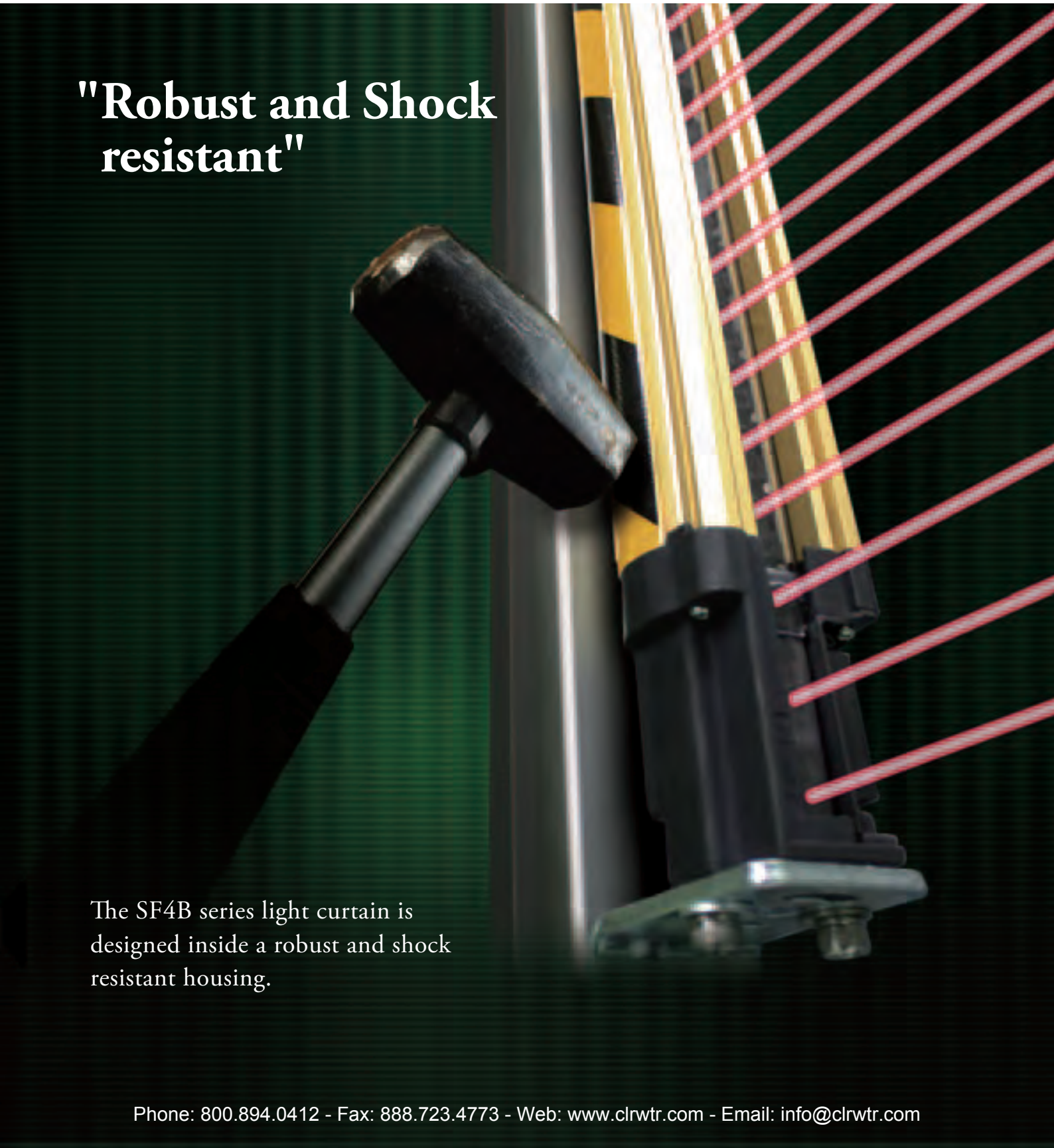
Type 4

Category 4 PLe SIL3

ROBUST LIGHT CURTAIN

SF4B-□G<V2>

Conforming to Machine & EMC Directive | Certified | Listing | OSHA/ANSI | JIS



"Robust and Shock resistant"

The SF4B series light curtain is designed inside a robust and shock resistant housing.

Phone: 800.894.0412 - Fax: 888.723.4773 - Web: www.clrwtr.com - Email: info@clrwtr.com

Robust

The inner unit is fully protected with a thick metal case. Impact between the workpiece and the sensor is prevented by narrowing and deepening the exposed area of the sensing surface.

* For simulation purpose

Thick and robust housing resistant to impact

The **SF4B-G** series light curtain is enclosed in a 5 mm (0.197 in) thick robust metal case, protecting the workpiece from various types of impact, such as collision or being stepped on.

Average thickness
5 mm
0.197 in

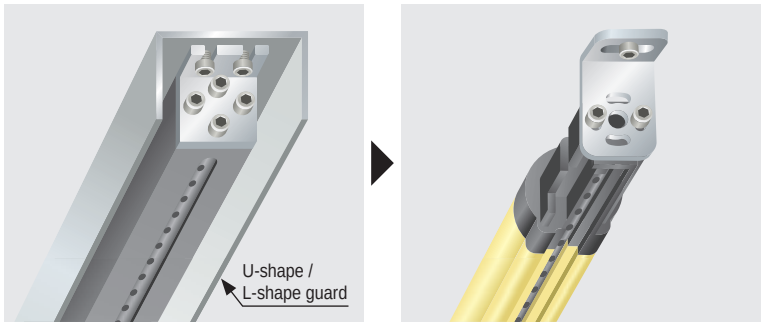
Stepped on - kicked

Collision - Impact

Loads applied - dropped

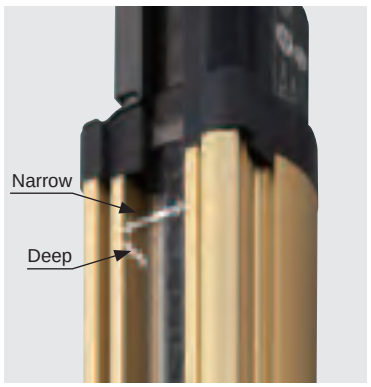
No guard needed

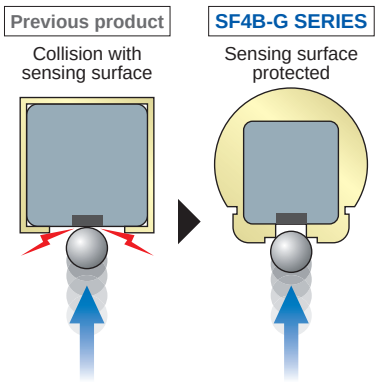
The robust light curtain can be used without an L-shape or U-shape guard, reducing installation and maintenance.



Fully protected sensing surface

The sensing surface is fully protected by narrowing and deepening the exposed area of the sensing surface.



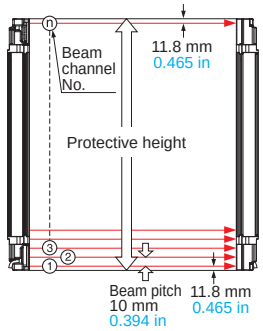
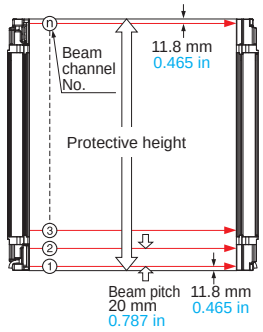
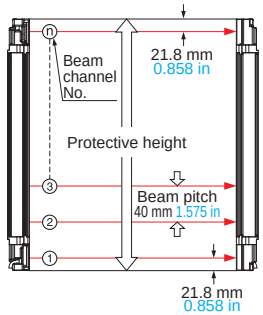


IP67 protected structure

The seamless structure protects the sensor from being exposed to water.

ORDER GUIDE

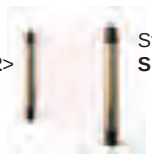
For details of options (cables etc.), refer to **SF4B** Ver.2 catalog or website.
Mounting bracket and bottom cap cable are not supplied with the light curtain. Be sure to order them separately.

Type	Appearance	Operating range	Model No.	Number of beam channels	Protective height (mm in)	Net weight (Total of emitter and receiver)
Finger protection type Min. sensing object ø14 mm 0.551 in (10 mm 0.394 in beam pitch)		0.3 to 7 m 0.984 to 22.966 ft	**SF4B-F23G<V2>**	23	244 9.606	980 g approx.
			SF4B-F31G<V2>	31	324 12.756	1,340 g approx.
			SF4B-F39G<V2>	39	404 15.906	1,700 g approx.
			SF4B-F47G<V2>	47	484 19.055	2,000 g approx.
			SF4B-F55G<V2>	55	564 22.205	2,400 g approx.
			SF4B-F63G<V2>	63	644 25.354	2,800 g approx.
			SF4B-F71G<V2>	71	724 28.504	3,200 g approx.
			SF4B-F79G<V2>	79	804 31.654	3,400 g approx.
			SF4B-F95G<V2>	95	964 37.953	4,200 g approx.
			SF4B-F111G<V2>	111	1,124 44.252	5,000 g approx.
			SF4B-F127G<V2>	127	1,284 50.551	5,600 g approx.
Hand protection type Min. sensing object ø25 mm 0.984 in (20 mm 0.787 in beam pitch)		0.3 to 9 m 0.984 to 29.529 ft	**SF4B-H12G<V2>**	12	244 9.606	980 g approx.
			SF4B-H16G<V2>	16	324 12.756	1,340 g approx.
			SF4B-H20G<V2>	20	404 15.906	1,700 g approx.
			SF4B-H24G<V2>	24	484 19.055	2,000 g approx.
			SF4B-H28G<V2>	28	564 22.205	2,400 g approx.
			SF4B-H32G<V2>	32	644 25.354	2,800 g approx.
			SF4B-H36G<V2>	36	724 28.504	3,200 g approx.
			SF4B-H40G<V2>	40	804 31.654	3,400 g approx.
			SF4B-H48G<V2>	48	964 37.953	4,200 g approx.
			SF4B-H56G<V2>	56	1,124 44.252	5,000 g approx.
			SF4B-H64G<V2>	64	1,284 50.551	5,600 g approx.
		0.3 to 7 m 0.984 to 22.966 ft	**SF4B-H72G<V2>**	72	1,444 56.850	6,400 g approx.
			SF4B-H80G<V2>	80	1,604 63.150	7,000 g approx.
			SF4B-H88G<V2>	88	1,764 69.449	7,800 g approx.
			SF4B-H96G<V2>	96	1,924 75.748	8,400 g approx.
Arm / Foot protection type Min. sensing object ø45 mm 1.772 in (40 mm 1.575 in beam pitch)		0.3 to 9 m 0.984 to 29.529 ft	**SF4B-A6G<V2>**	6	244 9.606	980 g approx.
			SF4B-A8G<V2>	8	324 12.756	1,340 g approx.
			SF4B-A10G<V2>	10	404 15.906	1,700 g approx.
			SF4B-A12G<V2>	12	484 19.055	2,000 g approx.
			SF4B-A14G<V2>	14	564 22.205	2,400 g approx.
			SF4B-A16G<V2>	16	644 25.354	2,800 g approx.
			SF4B-A18G<V2>	18	724 28.504	3,200 g approx.
			SF4B-A20G<V2>	20	804 31.654	3,400 g approx.
			SF4B-A24G<V2>	24	964 37.953	4,200 g approx.
			SF4B-A28G<V2>	28	1,124 44.252	5,000 g approx.
			SF4B-A32G<V2>	32	1,284 50.551	5,600 g approx.
		0.3 to 7 m 0.984 to 22.966 ft	**SF4B-A36G<V2>**	36	1,444 56.850	6,400 g approx.
			SF4B-A40G<V2>	40	1,604 63.150	7,000 g approx.
			SF4B-A44G<V2>	44	1,764 69.449	7,800 g approx.
			SF4B-A48G<V2>	48	1,924 75.748	8,400 g approx.

Differences from standard type

The Robust type **SF4B-□G<V2>** is different from the standard type **SF4B-□<V2>** in the following ways:
• Sensing width (protective height) • Profile • Net weight • Mounting bracket
• Large alignment tool • Noncompliant with Japanese and Korean press standard
• Noncompliant with Korean regulations • Noncompliant with Chinese GB standard (acquisition planned)
Other specifications, input/output circuits, and options are common to the standard type.
For details of specifications etc., refer to the **SF4B** Ver. 2 catalog or website.

Robust type
SF4B-□G<V2>



Standard type
SF4B-□<V2>

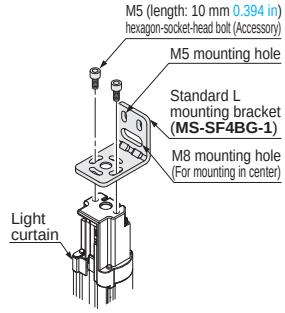
ORDER GUIDE

Mounting bracket

Designation	Model No.	Description
Standard L mounting bracket	**MS-SF4BG-1**	Mounting is possible behind or at the side of the light curtain. Mount with two M5 bolts or one M8 bolt. (4 pcs. per set for emitter and receiver)

Standard L mounting bracket

• **MS-SF4BG-1**



Four bracket set
[Eight M5 (length: 10mm 0.394 in) hexagon-socket-head bolts are attached.]
Material: SPCC

Spare parts (Accessories for light curtain)

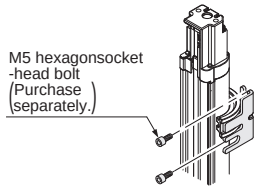
Designation	Model No.	Description
Intermediate supporting bracket (Note)	**MS-SF4BG-2**	Used to mount the light curtain in the intermediate position. (2 pcs. per set for emitter and receiver) Mounting is possible behind or at the side of the light curtain.

Note: The number of sets required varies depending on the product.
1 set: **SF4B-F□G<V2>** … Light curtain with 79 to 127 beam channels
SF4B-H□G<V2> … Light curtain with 40 to 64 beam channels
SF4B-A□G<V2> … Light curtain with 20 to 32 beam channels
2 sets: **SF4B-H□G<V2>** … Light curtain with 72 to 96 beam channels
SF4B-A□G<V2> … Light curtain with 36 to 48 beam channels

Intermediate supporting bracket

• **MS-SF4BG-2**

In case of rear mounting



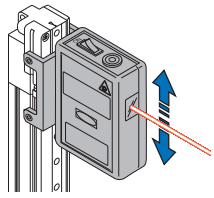
Material: SPCC

OPTIONS

Designation	Model No.	Description
Laser alignment tool	**SF-LAT-4BG**	Allows easy beam axis alignment using easy-to-see laser beam
Attention tape	**SF-TP-BG10**	Attached to the side of the light curtain to alert workers to hazards (10 m 32.8 ft long)

Laser alignment tool

• **SF-LAT-4BG**



* Illustration shows standard type light curtain.

Attention tape

• **SF-TP-BG10**

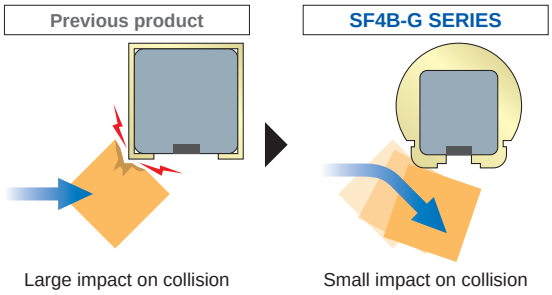
Phone: 800.894.0412 - Fax: 888.723.4773 - Web: www.clrwtr.com - Email: info@clrwtr.com

Impact-friendly structure

The cylindrical frame construction allows mechanical shock to dissipate upon impact, minimizing severe damage in the event of a collision. This unique design minimizes the possibility of beam axis misalignment and provides a safer workplace.

Round design minimizes damage to the workpiece

The case is designed so that shock upon impact is dissipated alleviating potential damage to the workpiece in the event of a collision.

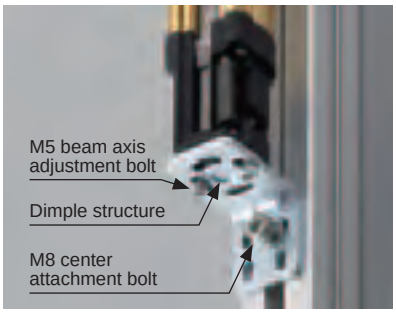


Workpiece not contaminated with paint

The body has a alumite-treated case whereby paint does not stick to the workpiece in the event of a collision.

Mounting bracket for simple & secure installation

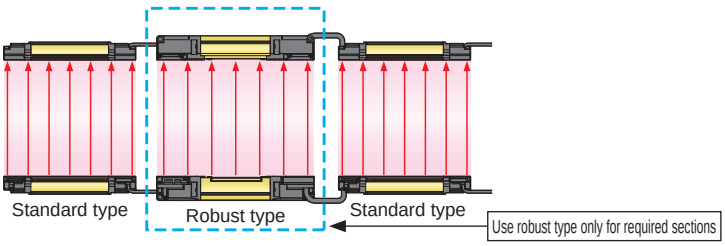
The light curtain and the mounting bracket are firmly secured with just two bolts. The light curtain is situated in the center of the mounting bracket, preventing beam axis deviation. The dimple structure makes alignment easy to adjust.



Thickness 4 mm
0.157 in
M5 bolt × 2

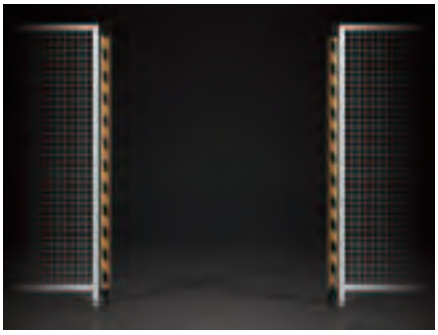
Enables series connection with standard type possible

The mating cable is standard, allowing the robust and standard types to be connected in series. The mating cable can be removed or attached while the mounting bracket is fixed, allowing easy maintenance.



Black and yellow caution tape

Black and yellow striped attention tape is attached to the side of the light curtain, alerting workers to use caution. Hazardous openings are very obvious.



Attention tape
• **SF-TP-BG10**

• Fit to width of light curtain
• Made of fabric, making it easy to cut

DIMENSIONS (Unit: mm in)

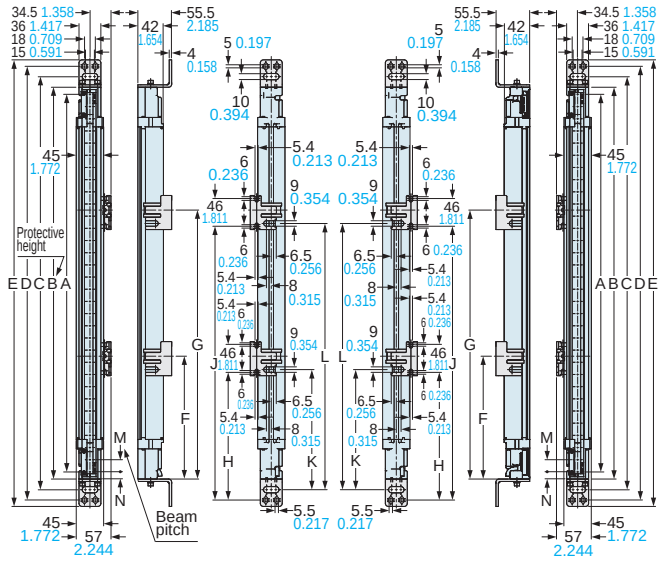
The CAD data in the dimensions can be downloaded from the website:
panasonic-electric-works.net/sunx

SF4B-□G<V2> Light curtain

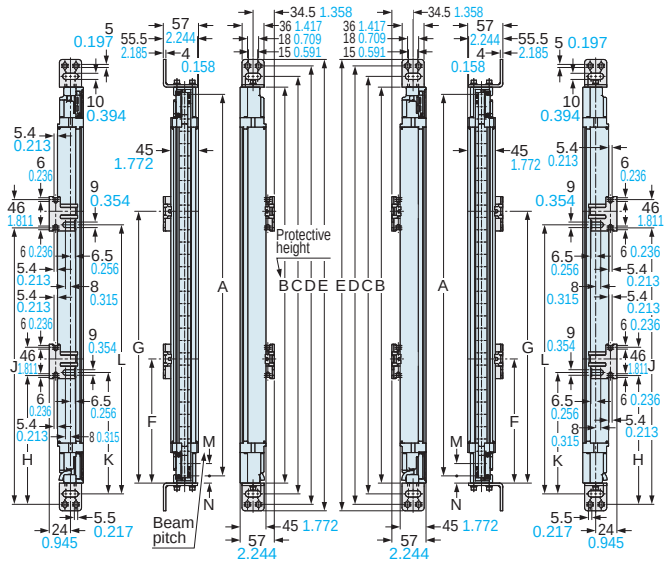
Assembly dimensions

Mounting drawing for light curtains using the standard mounting brackets **MS-SF4BG-1** (optional) and the intermediate supporting brackets.

Rear mounting



Side mounting



Model No.			Distance between beam axes (Top / Bottom channels) A		Protective height (Main body length) B	Mounting pitch C	Mounting pitch D	Total length E	Intermediate supporting bracket mounting pitch F	G	H	J	K	L
			SF4B-F□G<V2>	SF4B-H□G<V2> SF4B-A□G<V2>										
SF4B-F23G<V2>	SF4B-H12G<V2>	SF4B-A6G<V2>	200 7.874	220 8.661	244 9.606	279 10.984	313 12.323	334 13.150	—	—	—	—	—	—
SF4B-F31G<V2>	SF4B-H16G<V2>	SF4B-A8G<V2>	280 11.024	300 11.811	324 12.756	359 14.134	393 15.472	414 16.299	—	—	—	—	—	—
SF4B-F39G<V2>	SF4B-H20G<V2>	SF4B-A10G<V2>	360 14.173	380 14.961	404 15.906	439 17.283	473 18.622	494 19.449	—	—	—	—	—	—
SF4B-F47G<V2>	SF4B-H24G<V2>	SF4B-A12G<V2>	440 17.323	460 18.110	484 19.055	519 20.433	553 21.772	574 22.598	—	—	—	—	—	—
SF4B-F55G<V2>	SF4B-H28G<V2>	SF4B-A14G<V2>	520 20.472	540 21.260	564 22.205	599 23.583	633 24.921	654 25.748	—	—	—	—	—	—
SF4B-F63G<V2>	SF4B-H32G<V2>	SF4B-A16G<V2>	600 23.622	620 24.409	644 25.354	679 26.732	713 28.071	734 28.898	—	—	—	—	—	—
SF4B-F71G<V2>	SF4B-H36G<V2>	SF4B-A18G<V2>	680 26.772	700 27.559	724 28.504	759 29.882	793 31.220	814 32.047	—	—	—	—	—	—
SF4B-F79G<V2>	SF4B-H40G<V2>	SF4B-A20G<V2>	760 29.921	780 30.709	804 31.654	839 33.031	873 34.370	894 35.197	441 17.362	—	414 16.299	—	419 16.496	—
SF4B-F95G<V2>	SF4B-H48G<V2>	SF4B-A24G<V2>	920 36.220	940 37.008	964 37.953	999 39.331	1,033 40.669	1,054 41.496	521 20.512	—	494 19.449	—	499 19.646	—
SF4B-F111G<V2>	SF4B-H56G<V2>	SF4B-A28G<V2>	1,080 42.520	1,100 43.307	1,124 44.252	1,159 45.630	1,193 46.968	1,214 47.795	601 23.661	—	574 22.598	—	579 22.795	—
SF4B-F127G<V2>	SF4B-H64G<V2>	SF4B-A32G<V2>	1,240 48.819	1,260 49.606	1,284 50.551	1,319 51.929	1,353 53.268	1,374 54.094	681 26.811	—	654 25.748	—	659 25.945	—
–	SF4B-H72G<V2>	SF4B-A36G<V2>	1,400 55.118	1,420 55.905	1,444 56.850	1,479 58.228	1,513 59.567	1,534 60.394	520 20.472	1,001 39.409	493 19.409	974 38.346	498 19.606	979 38.543
–	SF4B-H80G<V2>	SF4B-A40G<V2>	1,560 61.417	1,580 62.205	1,604 63.150	1,639 64.528	1,673 65.866	1,694 66.693	573 22.559	1,108 43.622	546 21.496	1,081 42.559	551 21.693	1,086 42.756
–	SF4B-H88G<V2>	SF4B-A44G<V2>	1,720 67.716	1,740 68.504	1,764 69.449	1,799 70.827	1,833 72.165	1,854 72.992	627 24.685	1,215 47.835	600 23.622	1,188 46.772	605 23.819	1,193 46.968
–	SF4B-H96G<V2>	SF4B-A48G<V2>	1,880 74.016	1,900 74.803	1,924 75.748	1,959 77.126	1,993 78.464	2,014 79.291	680 26.772	1,321 52.008	653 25.709	1,294 50.945	658 25.906	1,289 50.748

Model No.	Beam pitch	First beam channel position
	M	N
SF4B-F□G<V2>	10 0.394	11.8 0.465
SF4B-H□G<V2>	20 0.787	11.8 0.465
SF4B-A□G<V2>	40 1.575	21.8 0.858