

SF4B-G SERIES Ver.2

Related Information

■ General terms and conditions..... F-17

■ Sensor selection guide..... P.511~

■ Glossary of terms P.1359~

■ General precautions P.1405

NEW


panasonic-electric-works.net/sunx
Conforming to Machine
& EMC Directives

Listing

OSHA / ANSI



Certified



Self-diagnosis



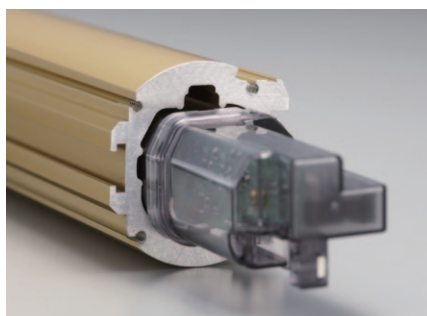
Test input

PNP output
type availableInterference
prevention

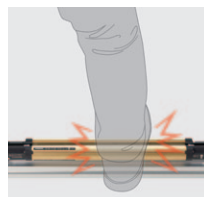
Robust and Shock resistant

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

IP67 protected structure

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

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.

SF4C

SF4B

SF4B-G

SF2B

BSF4-AH80

Selection
Guide

Laser Scanner

Single Beam
Sensor

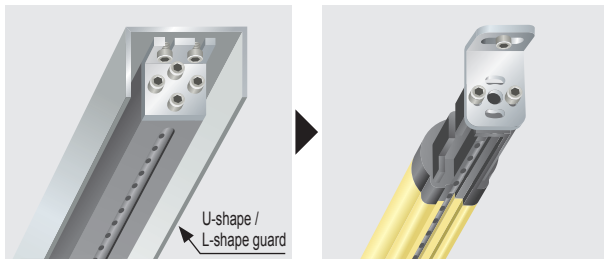
Light Curtains

Control Units

Optical Touch
SwitchDefinition of
Sensing Heights

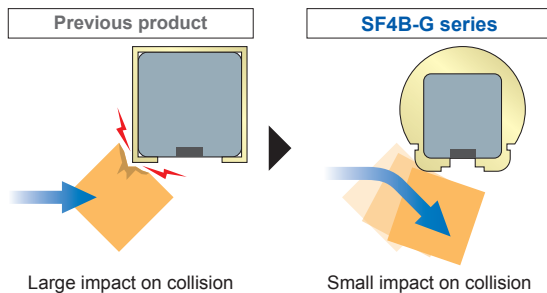
No guard needed

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



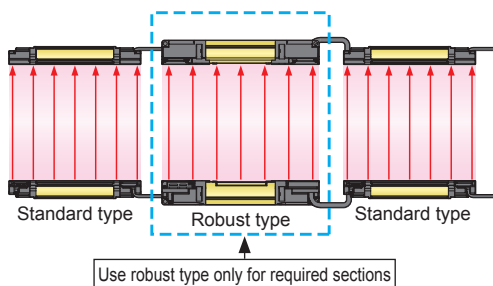
Round design minimizes damage to the workpiece

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



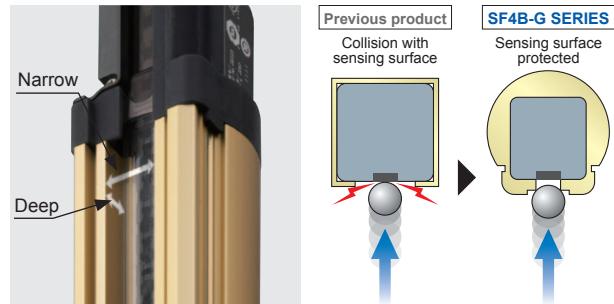
Enables series connection with standard type possible

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.



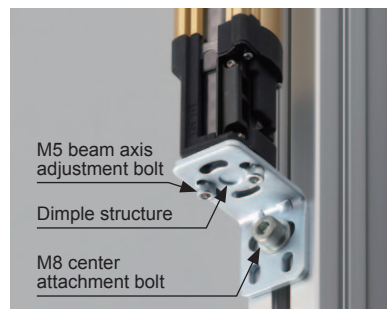
Fully protected sensing surface

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



Mounting bracket for simple & secure installation

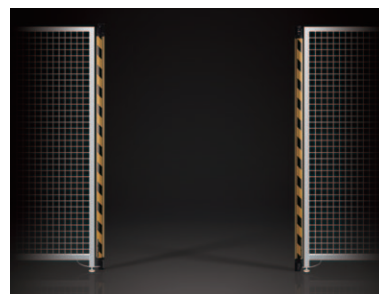
The light curtain and the mounting bracket are firmly secured with just two bolts. The light curtain is situated in the center of the mounting bracket, preventing beam axis deviation. The dimple structure makes alignment easy to adjust.



Thickness
4 mm
0.157 in
M5 bolt × 2

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



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

FIBER SENSORS

LASER SENSORS

PHOTOELECTRIC SENSORS

MICRO PHOTOELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASUREMENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

LASER MARKERS

PLC / TERMINALS

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide

Laser Scanner

Single Beam Sensor

Light Curtains

Control Units

Optical Touch Switch

Definition of Sensing Heights

SF4C

SF4B

SF4B-G

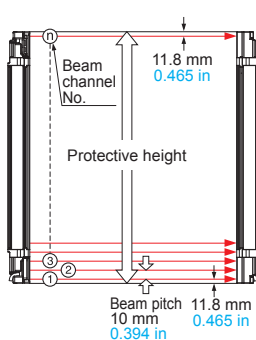
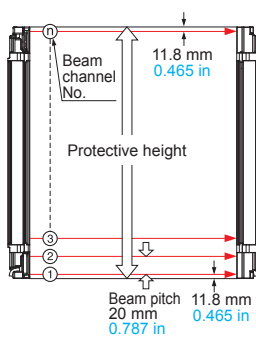
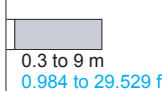
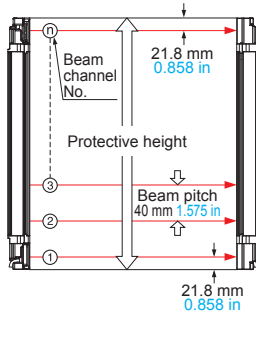
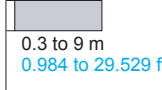
SF2B

BSF4-AH80

ORDER GUIDE

For details of options (cables etc.), refer to **SF4B Ver.2** pages.

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 $\phi 14$ mm 0.551 in (10 mm 0.394 in beam pitch)			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 $\phi 25$ mm 0.984 in (20 mm 0.787 in beam pitch)			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.
			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 $\phi 45$ mm 1.772 in (40 mm 1.575 in beam pitch)			SF4B-A6G<V2>
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.
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

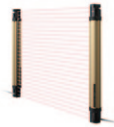
The Robust type **SF4B-□G<V2>** is different from the standard type **SF4B-□<V2>** in the following ways:

- 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** pages.

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)

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.

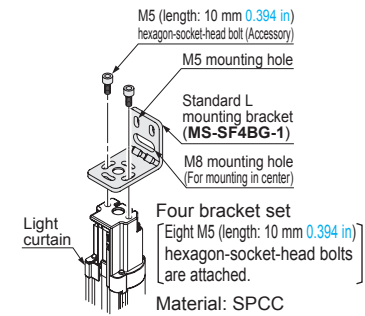
- 1 set: **SF4B-F□G<V2>** ... Light curtain with 79 to 127 beam channels
SF4B-H□G<V2> ... Light curtain with 40 to 64 beam channels
SF4B-A□G<V2> ... Light curtain with 20 to 32 beam channels
 2 sets: **SF4B-H□G<V2>** ... Light curtain with 72 to 96 beam channels
SF4B-A□G<V2> ... Light curtain with 36 to 48 beam channels

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)

Standard L mounting bracket

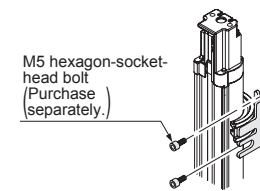
• MS-SF4BG-1



Intermediate supporting bracket

• MS-SF4BG-2

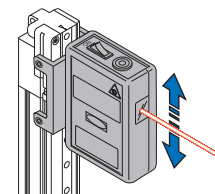
<In case of rear mounting>



Material: SPCC

Laser alignment tool

• SF-LAT-4BG



* Illustration shows standard type light curtain.

Attention tape

• SF-TP-BG10



FIBER
SENSORS

LASER
SENSORS

PHOTOELECTRIC
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MICRO
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SENSORS

LIGHT
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PRESSURE /
FLOW
SENSORS

INDUCTIVE
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SENSORS

PARTICULAR
USE SENSORS

SENSOR
OPTIONS

SIMPLE
WIRE-SAVING
UNITS

WIRE-SAVING
SYSTEMS

MEASUREMENT
SENSORS

STATIC CONTROL
DEVICES

ENDOSCOPE

LASER
MARKERS

PLC /
TERMINALS

HUMAN MACHINE
INTERFACES

ENERGY CONSUMPTION
VISUALIZATION
COMPONENTS

FA COMPONENTS

MACHINE VISION
SYSTEMS

UV CURING
SYSTEMS

Selection
Guide

Laser Scanner

Single Beam
Sensor

Light Curtains

Control Units

Optical Touch
Switch

Definition of
Sensing Heights

SF4C

SF4B

SF4B-G

SF2B

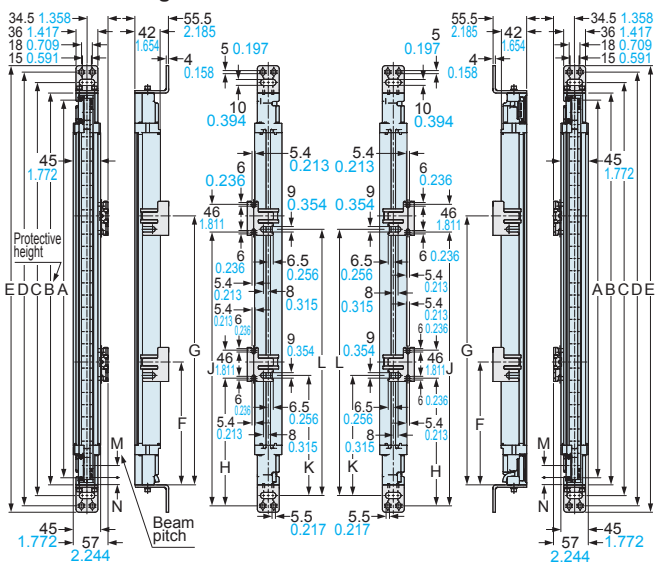
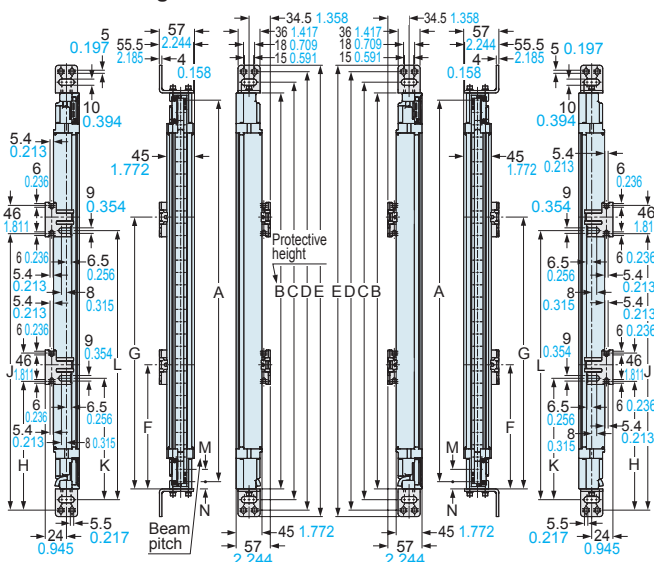
BSF4-AH80

DIMENSIONS (Unit: mm in)

The CAD data in the dimensions can be downloaded from our website.

SF4B-□G<V2>

Light curtain

Assembly dimensionsMounting 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)		Protective height (Main body length)		Mounting pitch		Total length	Intermediate supporting bracket mounting pitch								
			A				B	C		D	E	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>	220	8.661	200	7.874	244	9.606	279 10.984	313 12.323	334 13.150	—	—	—	—	—	—	—
SF4B-F31G<V2>	SF4B-H16G<V2>	SF4B-A8G<V2>	300	11.811	280	11.024	324	12.756	359 14.134	393 15.472	414 16.299	—	—	—	—	—	—	—
SF4B-F39G<V2>	SF4B-H20G<V2>	SF4B-A10G<V2>	380	14.961	360	14.173	404	15.906	439 17.283	473 18.622	494 19.449	—	—	—	—	—	—	—
SF4B-F47G<V2>	SF4B-H24G<V2>	SF4B-A12G<V2>	460	18.110	440	17.323	484	19.055	519 20.433	553 21.772	574 22.598	—	—	—	—	—	—	—
SF4B-F55G<V2>	SF4B-H28G<V2>	SF4B-A14G<V2>	540	21.260	520	20.472	564	22.205	599 23.583	633 24.921	654 25.748	—	—	—	—	—	—	—
SF4B-F63G<V2>	SF4B-H32G<V2>	SF4B-A16G<V2>	620	24.409	600	23.622	644	25.354	679 26.732	713 28.071	734 28.898	—	—	—	—	—	—	—
SF4B-F71G<V2>	SF4B-H36G<V2>	SF4B-A18G<V2>	700	27.559	680	26.772	724	28.504	759 29.882	793 31.220	814 32.047	—	—	—	—	—	—	—
SF4B-F79G<V2>	SF4B-H40G<V2>	SF4B-A20G<V2>	780	30.709	760	29.921	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>	940	37.008	920	36.220	964	37.953	999 39.331	1033 40.669	1054 41.496	521 20.512	—	494 19.449	—	499 19.646	—	—
SF4B-F111G<V2>	SF4B-H56G<V2>	SF4B-A28G<V2>	1,100	43.307	1,080	42.520	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>	1,260	49.606	1,240	48.819	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>	1,420	55.905	1,400	55.118	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>	1,580	62.205	1,560	61.417	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>	1,740	68.504	1,720	67.716	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>	1,900	74.803	1,880	74.016	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

FIBER SENSORS
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MICRO PHOTO-ELECTRIC SENSORS
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PARTICULAR USE SENSORS
SENSOR OPTIONS
SIMPLE WIRE-SAVING UNITS
WIRE-SAVING SYSTEMS
MEASUREMENT SENSORS
STATIC CONTROL DEVICES
ENDOSCOPE
LASER MARKERS
PLC / TERMINALS
HUMAN MACHINE INTERFACES
ENERGY CONSUMPTION VISUALIZATION COMPONENTS
FA COMPONENTS
MACHINE VISION SYSTEMS
UV CURING SYSTEMS
Selection Guide
Laser Scanner
Single Beam Sensor
Light Curtains
Control Units
Optical Touch Switch
Definition of Sensing Heights

SF4C

SF4B

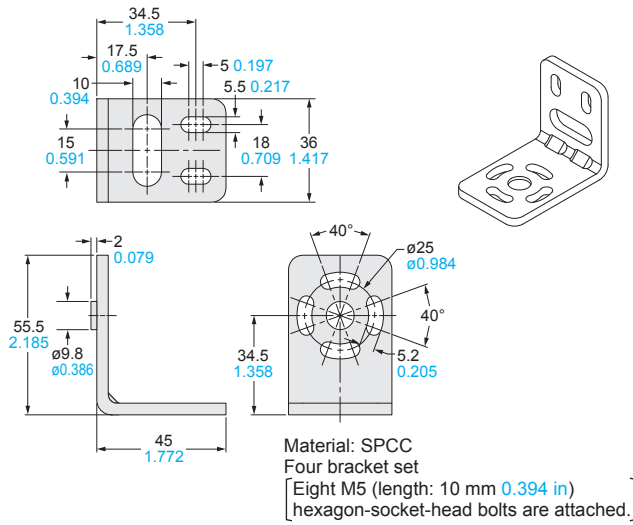
SF4B-G

SF2B

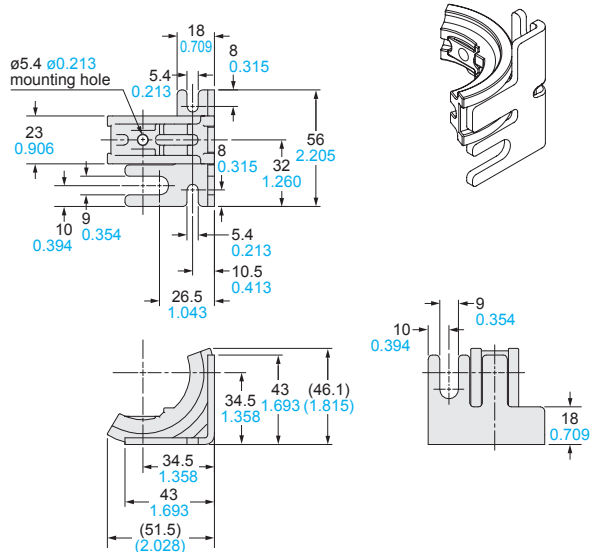
BSF4-AH80

DIMENSIONS (Unit: mm in)

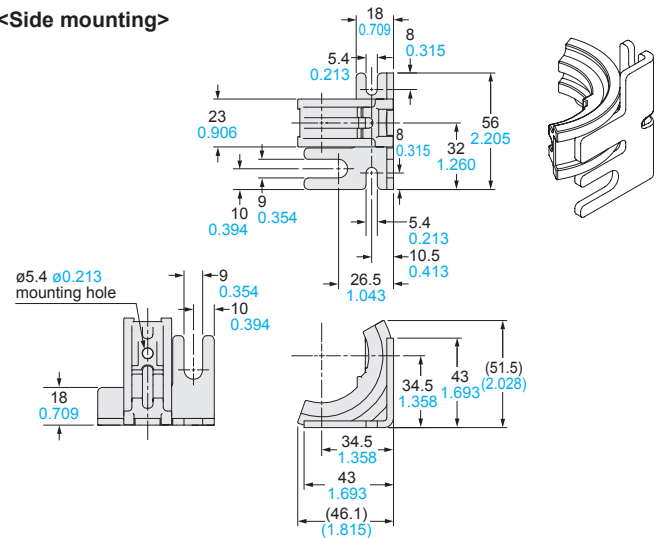
The CAD data in the dimensions can be downloaded from our website.

MS-SFBG-1 Standard L mounting bracket (Optional)**MS-SF4BG-2** Intermediate supporting bracket (Accessory for light curtain)

<Rear mounting>

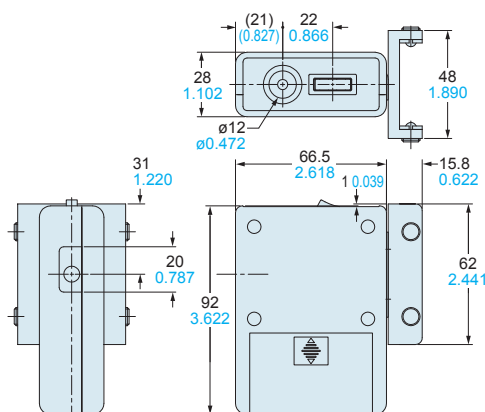


<Side mounting>



Note: The intermediate supporting bracket **MS-SF4BG-2** is enclosed with the following products. The quantity differs depending on the product as shown below:

- 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

SF-LAT-4BG Laser alignment tool (Optional)FIBER
SENSORSLASER
SENSORSPHOTO-
ELECTRIC
SENSORSMICRO
PHOTO-
ELECTRIC
SENSORSAREA
SENSORSLIGHT
CURTAINSPRESSURE /
FLOW
SENSORSINDUCTIVE
PROXIMITY
SENSORSPARTICULAR
USE
SENSORSSENSOR
OPTIONSSIMPLE
WIRE-
SAVING
UNITSWIRE-
SAVING
SYSTEMSMEASURE-
MENT
SENSORSSTATIC
CONTROL
DEVICES

ENDOSCOPE

LASER
MARKERSPLC /
TERMINALSHUMAN
MACHINE
INTERFACESENERGY
CONSUMPTION
VISUALIZATION
COMPONENTSFA
COMPONENTSMACHINE
VISION
SYSTEMSUV
CURING
SYSTEMSSelection
GuideLaser
ScannerSingle Beam
SensorLight
CurtainsControl
UnitsOptical Touch
SwitchDefinition of
Sensing Heights

SF4C

SF4B

SF4B-G

SF2B

BSF4-AH80