Product Discontinuation

Safety Light Curtain

F3SG-4RA☐☐☐☐-25-01TS series

➡

Recommended Replacement

Safety Light Curtain

F3SG-4SR☐☐☐☐☐-25(-F) series

[Final order entry date]

The end of April, 2025

[Date of The Last Shipping]

The end of July, 2025

[Caution on recommended replacement]

- The output type of the recommended replacement product changes depending on where the power line is connected. When wiring the recommended replacement product, please wire it according to the output type of the discontinued product.
- The recommended replacement product does not come with the main body cable required for wiring. Be sure to order the main body cable (for extension) F39-JGR3K(-L/D) or the main body cable (discrete wire) F39-JG☐☐(-L/D).
- Please contact your sales representative regarding wiring when reusing existing wiring.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics
F3SG-4SR☐☐☐☐☐-25(-F)	**	--	--	--	*

** : Compatible
* : The change is a little/Almost compatible
-- : Not compatible
- : No corresponding specification

[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
F3SG-4RA0185-25-01TS	F3SG-4SRA0160-25
	F3SG-4SRB0160-25
	F3SG-4SRA0200-25-F
	F3SG-4SRB0200-25-F
F3SG-4RA0265-25-01TS	F3SG-4SRA0240-25
	F3SG-4SRB0240-25
	F3SG-4SRA0280-25-F
	F3SG-4SRB0280-25-F
F3SG-4RA0345-25-01TS	F3SG-4SRA0320-25
	F3SG-4SRB0320-25
	F3SG-4SRA0360-25-F
	F3SG-4SRB0360-25-F
F3SG-4RA0425-25-01TS	F3SG-4SRA0400-25
	F3SG-4SRB0400-25
	F3SG-4SRA0440-25-F
	F3SG-4SRB0440-25-F
F3SG-4RA0505-25-01TS	F3SG-4SRA0480-25
	F3SG-4SRB0480-25
	F3SG-4SRA0520-25-F
	F3SG-4SRB0520-25-F
F3SG-4RA0585-25-01TS	F3SG-4SRA0560-25
	F3SG-4SRB0560-25
	F3SG-4SRA0600-25-F
	F3SG-4SRB0600-25-F
F3SG-4RA0665-25-01TS	F3SG-4SRA0640-25
	F3SG-4SRB0640-25
	F3SG-4SRA0680-25-F
	F3SG-4SRB0680-25-F
F3SG-4RA0745-25-01TS	F3SG-4SRA0720-25
	F3SG-4SRB0720-25
	F3SG-4SRA0760-25-F
	F3SG-4SRB0760-25-F
F3SG-4RA0825-25-01TS	F3SG-4SRA0800-25
	F3SG-4SRB0800-25
	F3SG-4SRA0840-25-F
	F3SG-4SRB0840-25-F
F3SG-4RA0905-25-01TS	F3SG-4SRA0880-25
	F3SG-4SRB0880-25
	F3SG-4SRA0920-25-F
	F3SG-4SRB0920-25-F
F3SG-4RA0985-25-01TS	F3SG-4SRA0960-25
	F3SG-4SRB0960-25
	F3SG-4SRA1000-25-F
	F3SG-4SRB1000-25-F
F3SG-4RA1065-25-01TS	F3SG-4SRA1040-25
	F3SG-4SRB1040-25
	F3SG-4SRA1120-25
	F3SG-4SRB1120-25

[Product Discontinuation and recommended replacement] (continued from previous page)

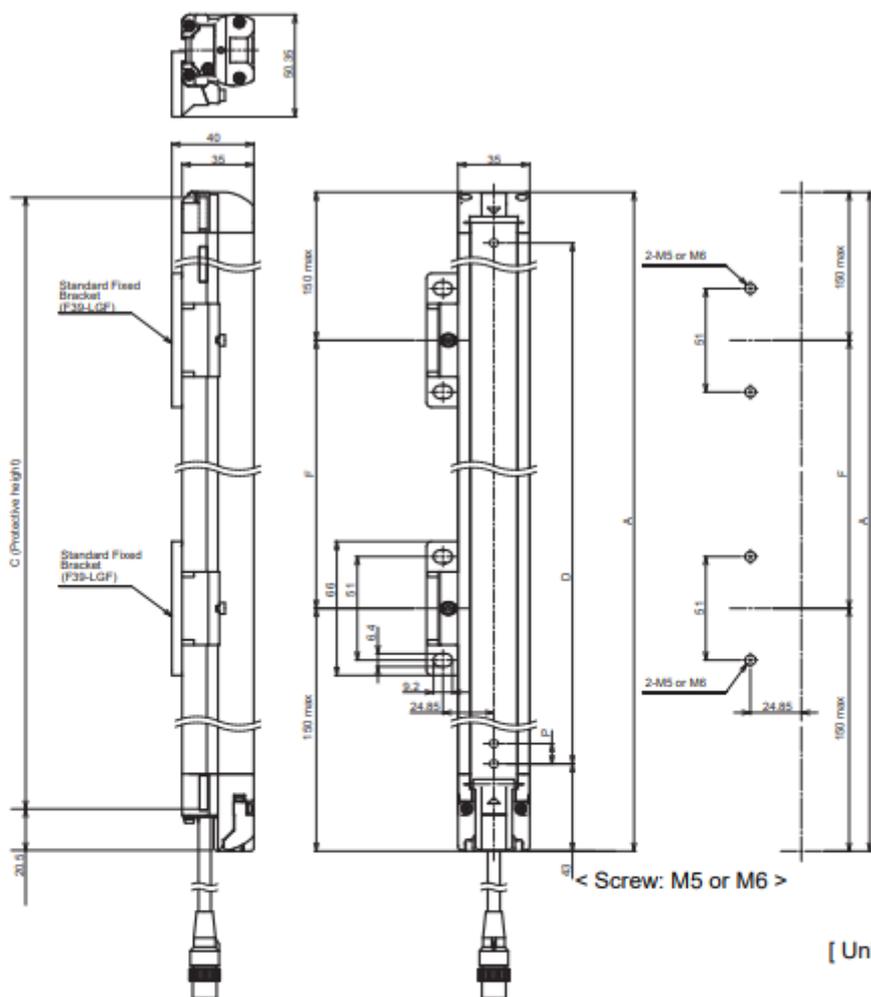| Product discontinuation	Recommended replacement
F3SG-4RA1145-25-01TS	F3SG-4SRA1120-25
	F3SG-4SRB1120-25
	F3SG-4SRA1200-25
	F3SG-4SRB1200-25
F3SG-4RA1225-25-01TS	F3SG-4SRA1200-25
	F3SG-4SRB1200-25
	F3SG-4SRA1280-25
	F3SG-4SRB1280-25
F3SG-4RA1305-25-01TS	F3SG-4SRA1280-25
	F3SG-4SRB1280-25
	F3SG-4SRA1360-25
	F3SG-4SRB1360-25
F3SG-4RA1385-25-01TS	F3SG-4SRA1360-25
	F3SG-4SRB1360-25
	F3SG-4SRA1440-25
	F3SG-4SRB1440-25
F3SG-4RA1465-25-01TS	F3SG-4SRA1440-25
	F3SG-4SRB1440-25
	F3SG-4SRA1520-25
	F3SG-4SRB1520-25
F3SG-4RA1545-25-01TS	F3SG-4SRA1520-25
	F3SG-4SRB1520-25
	F3SG-4SRA1600-25
	F3SG-4SRB1600-25
F3SG-4RA1625-25-01TS	F3SG-4SRA1600-25
	F3SG-4SRB1600-25
	F3SG-4SRA1680-25
	F3SG-4SRB1680-25
F3SG-4RA1705-25-01TS	F3SG-4SRA1680-25
	F3SG-4SRB1680-25
	F3SG-4SRA1760-25
	F3SG-4SRB1760-25
F3SG-4RA1785-25-01TS	F3SG-4SRA1760-25
	F3SG-4SRB1760-25
	F3SG-4SRA1840-25
	F3SG-4SRB1840-25
F3SG-4RA1865-25-01TS	F3SG-4SRA1840-25
	F3SG-4SRB1840-25
	F3SG-4SRA1920-25
	F3SG-4SRB1920-25
F3SG-4RA1945-25-01TS	F3SG-4SRA1920-25
	F3SG-4SRB1920-25
	F3SG-4SRA2080-25
	F3SG-4SRB2080-25

OMRON

[Body color]

Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□-25(-F)
Black & Yellow	**Black & Yellow**
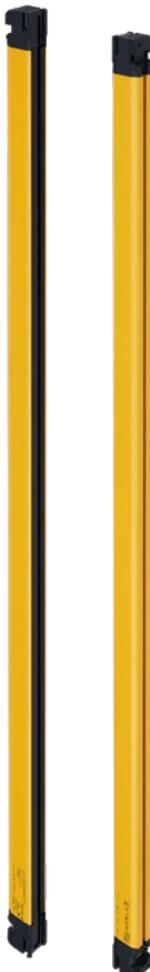
[Dimensions & Mounting dimensions]

Product discontinuation
Model F3SG-4RA□□□□-25-01TS

Backside Mounting (When using F39-LGF)

Standard Fixed Bracket (F39-LGF)

Standard Fixed Bracket (F39-LGF)

C (Protective height)

2-M5 or M6

2-M5 or M6

< Screw: M5 or M6 >

[Unit : mm]

F3SG-4RA□□□□-25-01TS Series

Dimension A	C+23
Dimension C	4-digit number of the type name (Protective height)
Dimension D	C-45
Dimension P	20

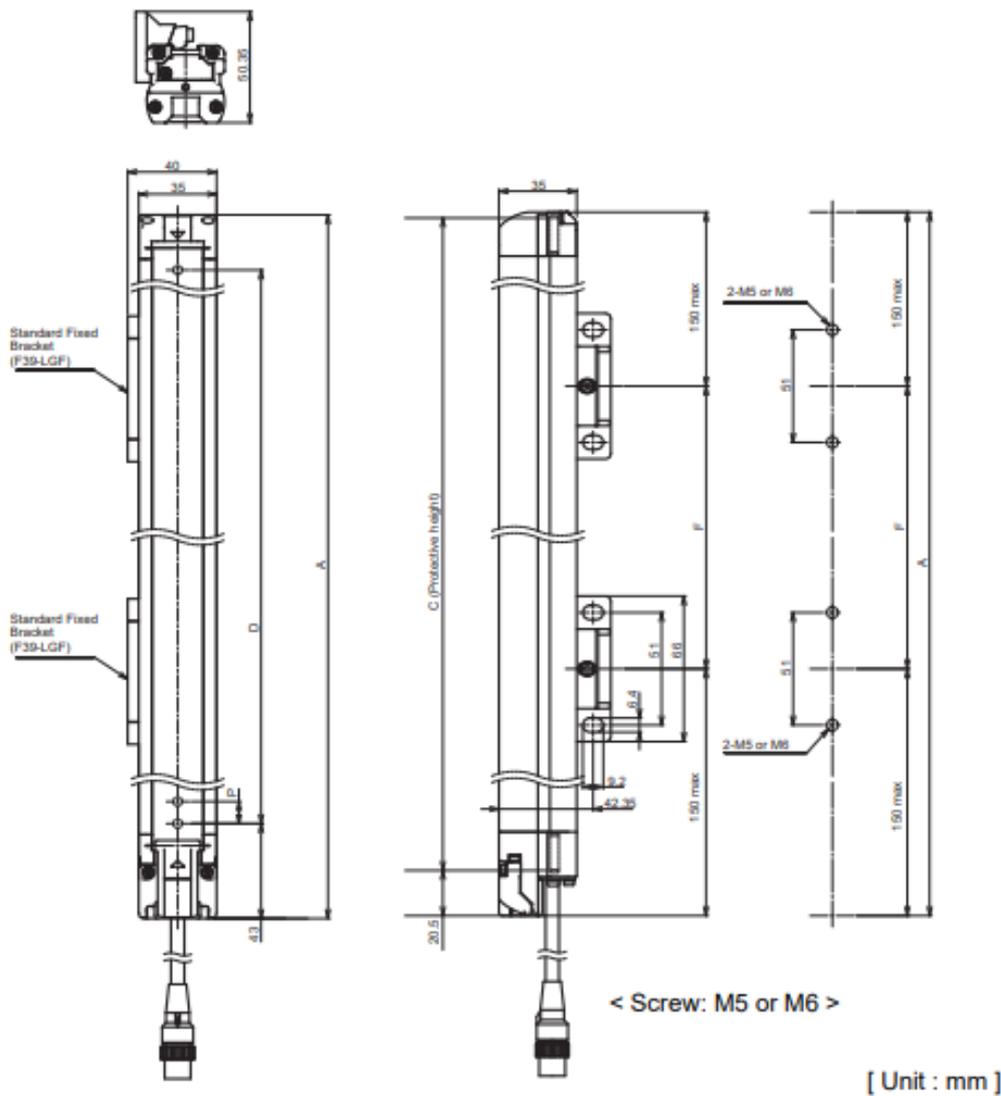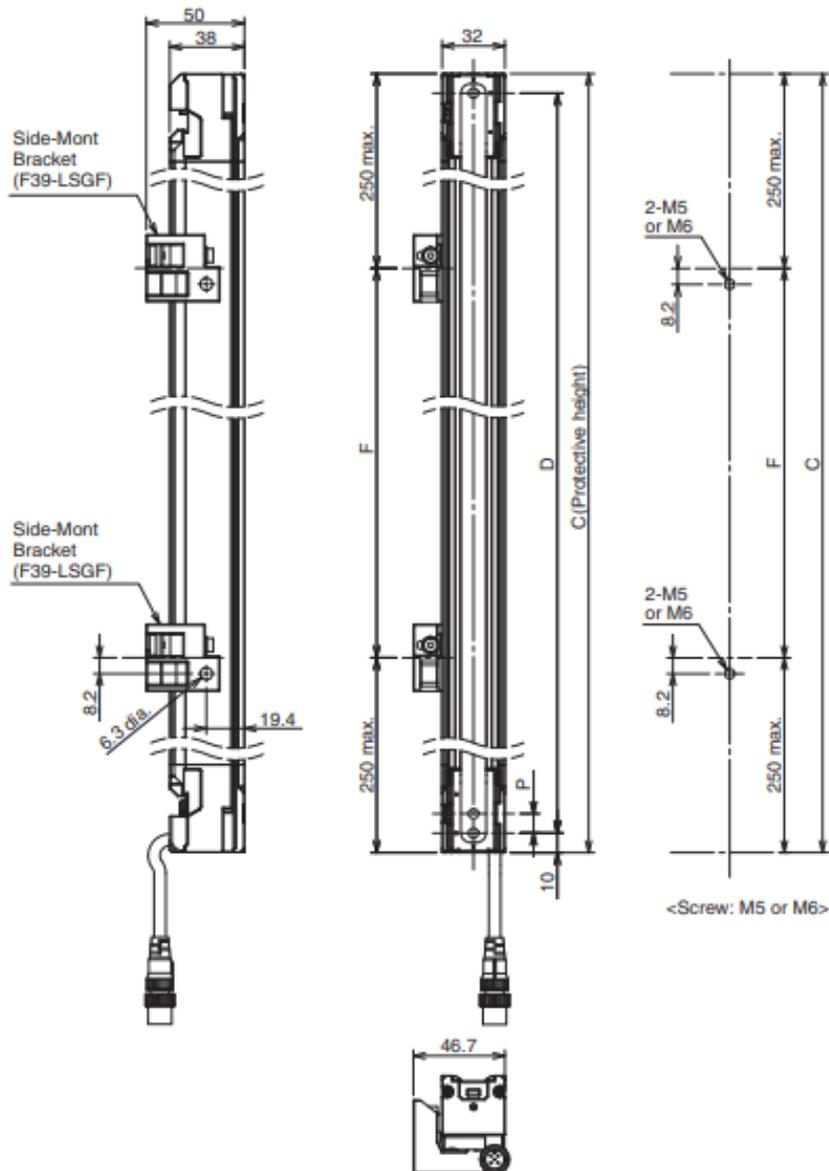| Protective height (C)	Number of Standard Fixed Brackets *1	Dimension F
0185 to 1225	2 *2	1000 mm max.
1305 to 1945	3	1000 mm max.

*1. The number of brackets required to mount either one of emitter or receiver.

*2. Mounting an emitter or receiver with one bracket is possible for the models of protective height of 0185 or 0265. In this case, locate this bracket at half the Dimension A (or at the center of the sensor length).

[Dimensions & Mounting dimensions] (continued from previous page)

Recommendable replacement Model F3SG-4SR□□□□□-25(-F)

Backside Mounting (When using F39-LSGF)

Side-Mont Bracket (F39-LSGF)

Side-Mont Bracket (F39-LSGF)

46.7
32
38
250 max.
F
D
C(Protective height)
250 max.

2-M5 or M6
5.7
250 max.
F
C

2-M5 or M6
5.7
250 max.

P
10

50

<Screw: M5 or M6>

[Unit : mm]

34.4
5.7
6.3 dia.

Dimension C	4-digit number of the type name (Protective height: △)	
Dimension D	F3SG-□SR□△△△△-14	C-20
	F3SG-□SR□△△△△-25	
	F3SG-□SR□△△△△-45	C-40
	F3SG-□SR□△△△△-85	
Dimension P	F3SG-□SR□△△△△-14	10
	F3SG-□SR□△△△△-25	20
	F3SG-□SR□△△△△-45	40
	F3SG-□SR□△△△△-85	80

Protective height (Dimension C)	Number of Side-Mount Bracket *	Dimension F
0160 to 1440	2	1000 mm max.
1520 to 2480	3	1000 mm max.

* The number of brackets required to mount either one of emitter or receiver.

[Dimensions & Mounting dimensions] (continued from previous page)

Product discontinuation
Model F3SG-4RA☐☐☐☐-25-01TS

Side Mounting (When using F39-LGF)

Standard Fixed Bracket (F39-LGF)

Standard Fixed Bracket (F39-LGF)

2-M5 or M6

2-M5 or M6

< Screw: M5 or M6 >

[Unit : mm]

F3SG-4RA☐☐☐☐-25-01TS Series

Dimension A	C+23
Dimension C	4-digit number of the type name (Protective height)
Dimension D	C-45
Dimension P	20

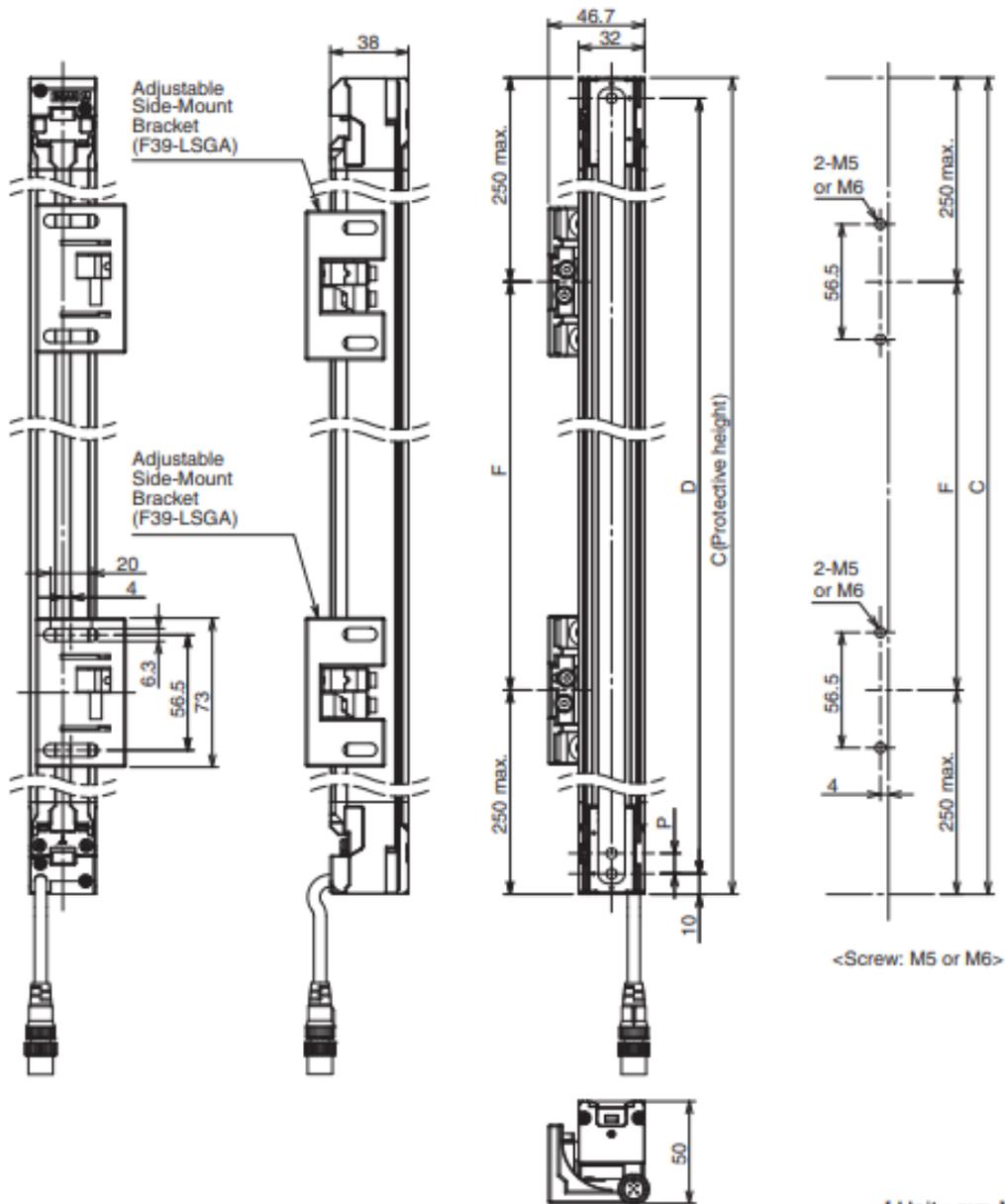| Protective height (C)	Number of Standard Fixed Brackets *1	Dimension F
0185 to 1225	2 *2	1000 mm max.
1305 to 1945	3	1000 mm max.

*1. The number of brackets required to mount either one of emitter or receiver.
*2. Mounting an emitter or receiver with one bracket is possible for the models of protective height of 0185 or 0265. In this case, locate this bracket at half the Dimension A (or at the center of the sensor length).

[Dimensions & Mounting dimensions] (continued from previous page)

Recommendable replacement Model F3SG-4SR□□□□□-25(-F)

Side Mounting (When using F39-LSGF)

Side-Mont Bracket (F39-LSGF)

Side-Mont Bracket (F39-LSGF)

50

38

32

250 max.

F

250 max.

8.2

6.3 dia.

19.4

D

C (Protective height)

P

10

2-M5 or M6

8.2

250 max.

F

C

2-M5 or M6

8.2

250 max.

<Screw: M5 or M6>

46.7

[Unit : mm]

Dimension C	4-digit number of the type name (Protective height: △)	
Dimension D	F3SG-□SR□△△△△-14	C-20
	F3SG-□SR□△△△△-25	
	F3SG-□SR□△△△△-45	C-40
	F3SG-□SR□△△△△-85	
Dimension P	F3SG-□SR□△△△△-14	10
	F3SG-□SR□△△△△-25	20
	F3SG-□SR□△△△△-45	40
	F3SG-□SR□△△△△-85	80

Protective height (Dimension C)	Number of Side-Mount Bracket *	Dimension F
0160 to 1440	2	1000 mm max.
1520 to 2480	3	1000 mm max.

* The number of brackets required to mount either one of emitter or receiver.

[Dimensions & Mounting dimensions] (continued from previous page)

Product discontinuation
Model F3SG-4RA□□□□-25-01TS

Backside Mounting (When using F39-LGA)

< Screw: M5 or M6 >

[Unit : mm]

F3SG-4RA□□□□-25-01TS Series

Dimension A	C+23
Dimension C	4-digit number of the type name (Protective height)
Dimension D	C-45
Dimension P	20

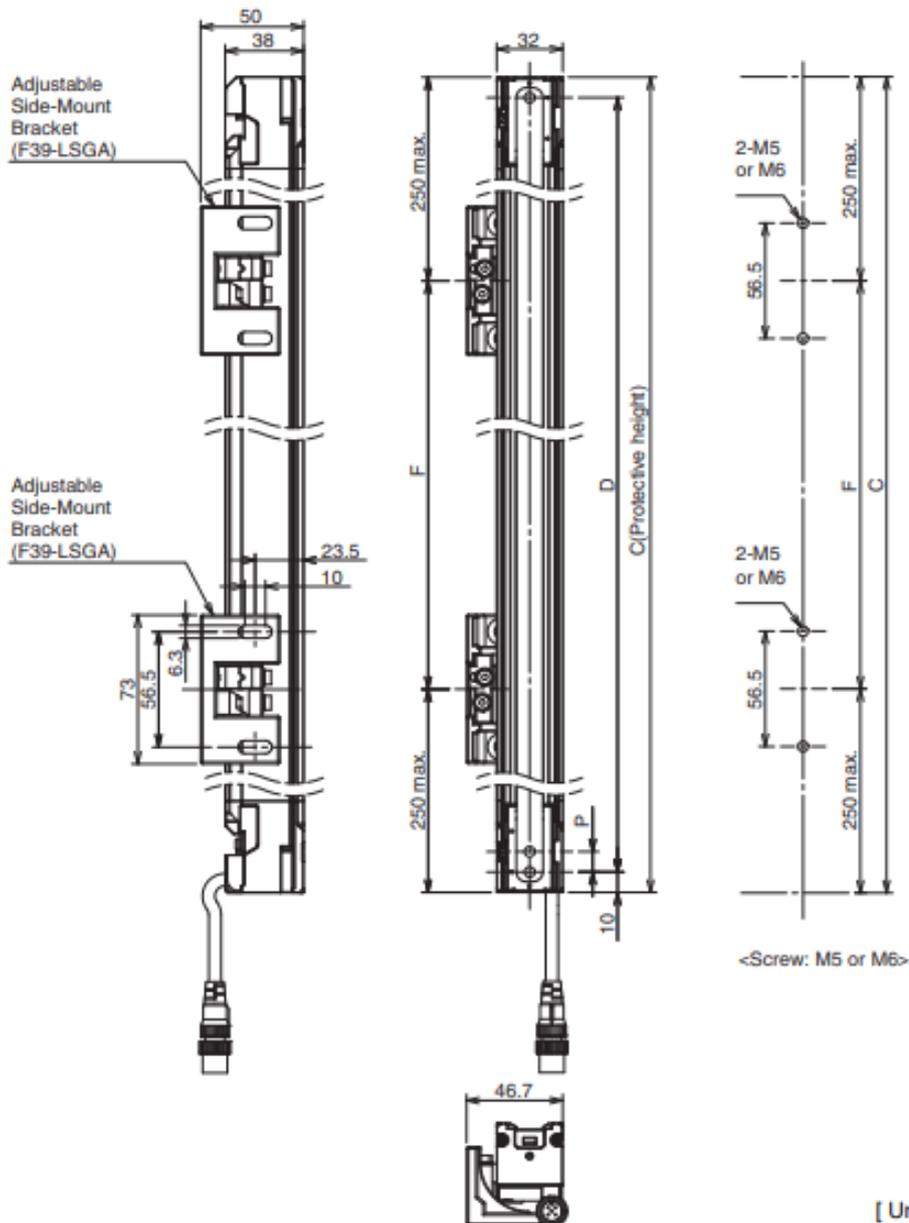| Protective height (C)	Number of Standard Fixed Brackets *1	Dimension F
0185 to 1225	2 *2	1000 mm max.
1305 to 1945	3	1000 mm max.

*1. The number of brackets required to mount either one of emitter or receiver.
*2. Mounting an emitter or receiver with one bracket is possible for the models of protective height of 0185 or 0265. In this case, locate this bracket at half the Dimension A (or at the center of the sensor length).

OMRON

[Dimensions & Mounting dimensions] (continued from previous page)

| Recommendable replacement |
| Model F3SG-4SR□□□□□-25(-F) |

Backside Mounting (When using F39-LSGA)

[Unit : mm]

Dimension C	4-digit number of the type name (Protective height: △)	
Dimension D	F3SG-□SR□△△△△-14	C-20
	F3SG-□SR□△△△△-25	
	F3SG-□SR□△△△△-45	C-40
	F3SG-□SR□△△△△-85	
Dimension P	F3SG-□SR□△△△△-14	10
	F3SG-□SR□△△△△-25	20
	F3SG-□SR□△△△△-45	40
	F3SG-□SR□△△△△-85	80

Protective height (Dimension C)	Number of Adjustable Side-Mount Bracket *	Dimension F
0160 to 0280	1	-
0320 to 1440	2	1000 mm max.
1520 to 2480	3	1000 mm max.

* The number of brackets required to mount either one of emitter or receiver.
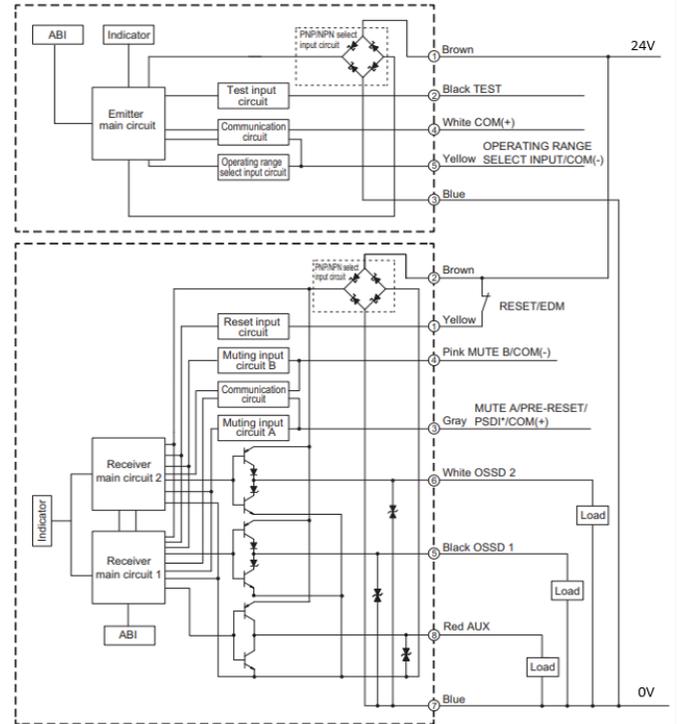
10

[Dimensions & Mounting dimensions] (continued from previous page)

Product discontinuation
Model F3SG-4RA□□□□-25-01TS

Side Mounting (When using F39-LGA)

Standard Adjustable Bracket (F39-LGA)

Standard Adjustable Bracket (F39-LGA)

2-M5 or M6

2-M5 or M6

< Screw: M5 or M6 >

[Unit : mm]

F3SG-4RA□□□□-25-01TS Series

Dimension A	C+23
Dimension C	4-digit number of the type name (Protective height)
Dimension D	C-45
Dimension P	20

Protective height (C)	Number of Standard Fixed Brackets *1	Dimension F
0185 to 1225	2 *2	1000 mm max.
1305 to 1945	3	1000 mm max.

*1. The number of brackets required to mount either one of emitter or receiver.
*2. Mounting an emitter or receiver with one bracket is possible for the models of protective height of 0185 or 0265. In this case, locate this bracket at half the Dimension A (or at the center of the sensor length).

[Dimensions & Mounting dimensions] (continued from previous page)

Recommendable replacement
Model F3SG-4SR□□□□□-25(-F)

Side Mounting (When using F39-LSGA)

[Unit : mm]

Dimension C	4-digit number of the type name (Protective height: △)	
Dimension D	F3SG-□SR□△△△△-14	C-20
	F3SG-□SR□△△△△-25	
	F3SG-□SR□△△△△-45	C-40
	F3SG-□SR□△△△△-85	
Dimension P	F3SG-□SR□△△△△-14	10
	F3SG-□SR□△△△△-25	20
	F3SG-□SR□△△△△-45	40
	F3SG-□SR□△△△△-85	80

Protective height (Dimension C)	Number of Adjustable Side-Mount Bracket *	Dimension F
0160 to 0280	1	-
0320 to 1440	2	1000 mm max.
1520 to 2480	3	1000 mm max.

* The number of brackets required to mount either one of emitter or receiver.

[Wire connection]
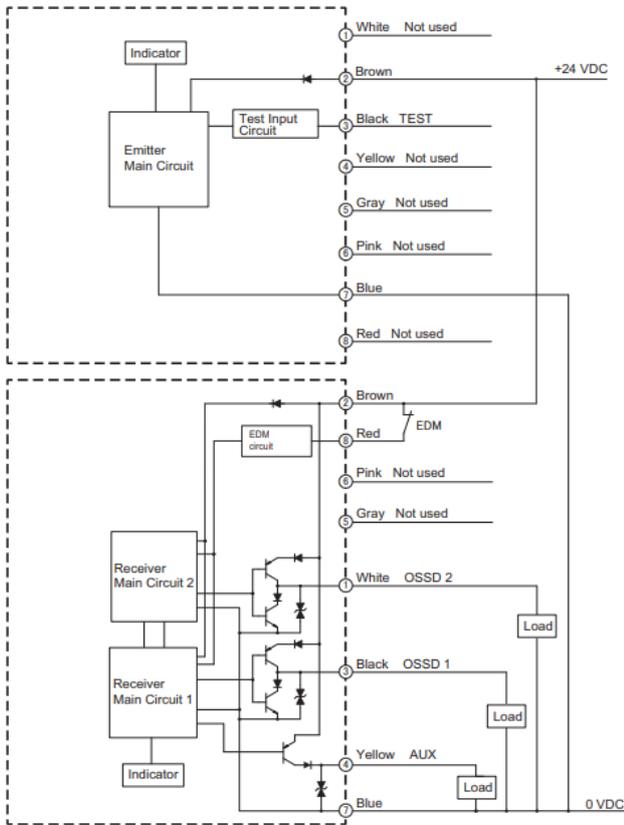
Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□-25(-F)
PNP Output	**PNP Output**
NPN Output	**NPN Output**
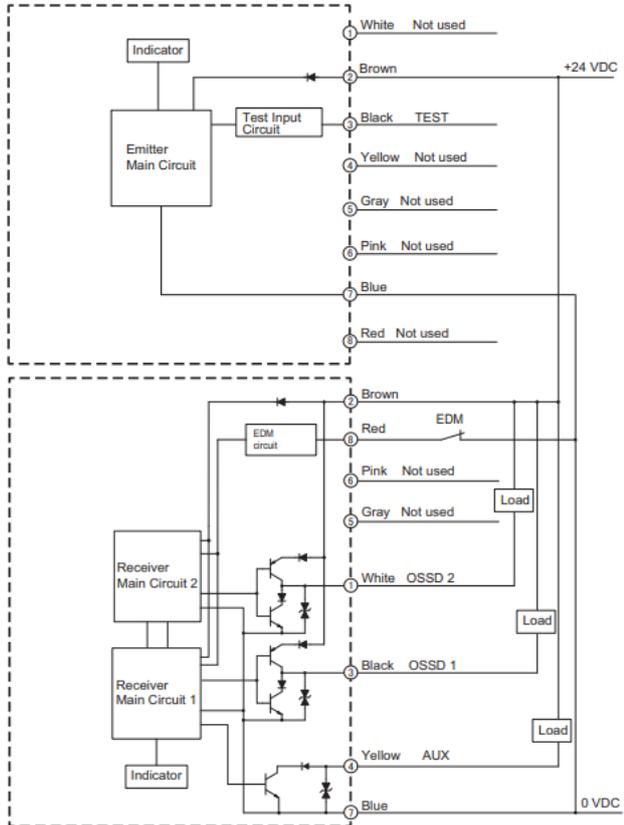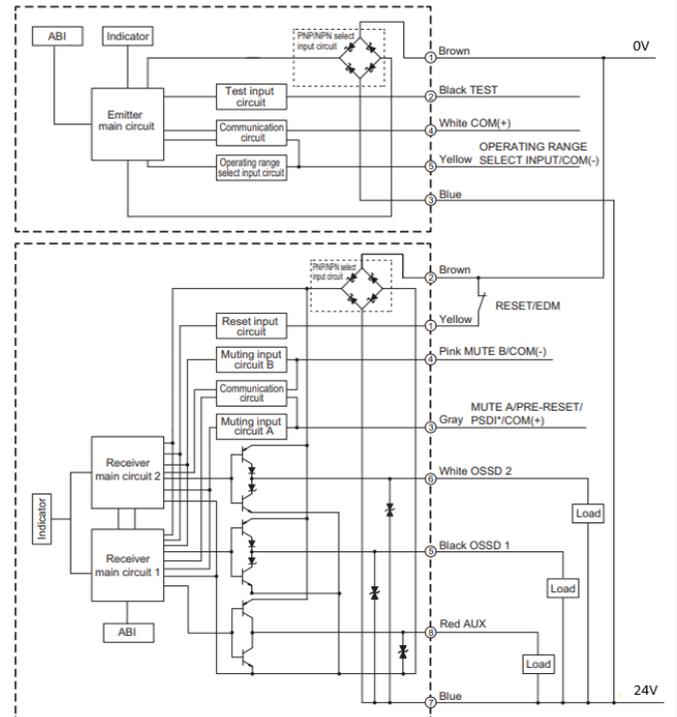
[Characteristics]

Item	Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□□-25(-F)
Object Resolution (Detection Capability)	Opaque objects 25-mm dia.	Opaque objects 25-mm dia.
Beam Gap	20 mm	20 mm
Number of Beams	8 to 96	8 to 104
Lens Size	6.0W × 5.0Hmm	6.7W×4.5Hmm
Protective height	185 to 1,945 mm	160 to 2,080 mm
Operating range	・Long：0.3 to 17.0 m ・Short：0.3 to 5.0 m	・Long：0.3 to 20.0 m ・Short：0.3 to 7.0 m
Response time (Normal mode)	・ON → OFF Optical synchronization：8 to 13ms ・OFF → ON Optical synchronization：40 to 65ms	・ON → OFF Optical synchronization：8 to 13ms Wired synchronization：10 to 17ms ・OFF → ON Optical synchronization：40 to 65ms Wired synchronization：50 to 85ms
Effective Aperture Angle (EAA) (IEC 61496-2)	・Type 4 ±2.5° max., emitter and receiver at operating range of 3 m or greater	・Type 4 ±2.5° max. , emitter and receiver at operating range of 3 m or greater
Light Source	Infrared LEDs, Wavelength: 870 nm	Infrared LEDs, Wavelength: 870 nm
Startup Waiting Time	2 s max.	3 s max.
Power Supply Voltage (Vs)	SELV/PELV 24 VDC±20% (ripple p-p 10% max.)	SELV/PELV 24 VDC±20% (ripple p-p 10% max.)
Current Consumption	・Emitter 35mA to 75mA ・Receiver 75mA to 95mA	・Emitter 61mA to 192mA ・Receiver 96mA to 215mA
Safety Outputs (OSSD)	・Two PNP or NPN transistor outputs (PNP or NPN is selectable by DIP Switch.)	・Two PNP or NPN transistor outputs (PNP or NPN is selectable by wiring of power supply.)
	・Load current of 300 mA max. ・Residual voltage of 2 V max. (except for voltage drop due to cable extension) ・Capacitive load of 1 μF max. ・Inductive load of 2.2 H max. ・Leakage current of 1 mA max. (PNP), 2 mA max. (NPN)	・Load current: 300 mA max. ・Residual voltage: 2 V max. (except for voltage drop due to cable extension), ・Capacitive load: 1 µF max. ・Inductive load: 2.2 H max. ・Leakage current: 1 mA max.(PNP), 2 mA max.(NPN)
Auxiliary Output	・One PNP or NPN transistor output (PNP or NPN is selectable by DIP Switch.)	・One PNP or NPN transistor output (PNP or NPN is selectable by wiring of power supply.)
	・Load current of 100 mA max. ・Residual voltage of 2 V max.	・Load current: 100 mA max. ・Residual voltage: 2 V max. * * The residual voltage is 3 V max. when the Intelligent Tap is connected to the sensor

[Characteristics] (continued from previous page)

Item	Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□□-25(-F)
Output Operation Mode	・Safety Output Light-ON (Safety output is enabled when the receiver receives an emitting signal.)	・Safety Output Light-ON (Safety outputs are turned to the ON state when the receiver receives an emitting signal.)
	・Auxiliary Output Safety output (Inverted signal output:Enable) (default) (Cofigurable by Configuration Tool)	・Auxiliary Output Safety output (Inverted signal output: Enable) (default) (Configurable by SD Manager 3)
Input Voltage (EDM)	PNP ・ON voltage: Vs-3 V to Vs (short circuit current: approx. 6.5 mA) ・OFF voltage: 0 V to 1/2 Vs, or open (short circuit current: approx. 8.0 mA)	PNP ・ON voltage: Vs-3 V to Vs (short circuit current: approx. 9.5 mA) ・OFF voltage: 0 V to 1/2 Vs, or open (short circuit current: approx. 13.0 mA)
	NPN ・ON voltage: 0 V to 3 V (short circuit current: approx. 8.0 mA) ・OFF voltage: 1/2 Vs to Vs, or open (short circuit current: approx. 6.5 mA)	NPN ・ON voltage: 0 to 3 V (short circuit current: approx. 13.0 mA) ・OFF voltage: 1/2 Vs to Vs, or open (short circuit current: approx. 9.5 mA)
Input Voltage (TEST)	24 V Active ・ON voltage: 0 V to 3 V or open (short circuit current: approx. 2.0 mA) ・OFF voltage: 9 V to Vs (short circuit current: approx. 2.5 mA)	Light emission stops when connected to 24 VDC ・ON voltage: Vs-3 V to Vs (short circuit current: approx. 5.0 mA) ・OFF voltage: 0 V to 1/2 Vs, or open (short circuit current: approx. 6.0 mA)
	0 V Active ・ON voltage: 9 V to Vs or open (short circuit current: approx. 2.5 mA) ・OFF voltage: 0 V to 3 V (short circuit current: approx. 2.0 mA)	Light emission stops when connected to 0 V ・ON voltage: 0 to 3 V (short circuit current: approx. 6.0 mA) ・OFF voltage: 1/2 Vs to Vs, or open (short circuit current: approx. 5.0 mA)
Overvoltage Category (IEC 60664-1)	II	II
Protective Circuit	・Output short protection ・Power supply reverse polarity protection	・Output short-circuit protection
Insulation Resistance	20 MΩ or higher (500 VDC megger)	20 MΩ or higher (500 VDC megger)
Dielectric Strength	1,000 VAC, 50/60 Hz (1 min)	1,000 VAC, 50/60 Hz (1 min)
Mutual Interference Prevention	・Optical synchronization by Scan Code: in up to 2 sets	・Optical synchronization by Scan Code: in up to 2 sets ・Wired synchronization: in up to 3 sets
Cascade Connection	・Number of cascaded segments: 3 max. ・Total number of beams: 255 max. ・Cable length between sensors: 10 m max. (not including cascading cable (F39-JGR2W) and power cable)	・Number of cascaded segments: 3 max. ・Total number of beams: 255 max.

[Characteristics] (continued from previous page)

Item	Product discontinuation Model F3SG-4RA☐☐☐☐-25-01TS	Recommendable replacement Model F3SG-4SR☐☐☐☐☐-25(-F)
Test Function	・Self-test (at power-on, and during operation) ・External test (light emission stop function by test input)	・Self-test (at power-on, and during operation) ・External test (light emission stop function by test input)
Safety-Related Functions	・External Device Monitoring (EDM) ・PNP/NPN Selection ・Scan Code Selection	・External Device Monitoring (EDM) ・PNP/NPN Selection ・Interlock ・Pre-Reset ・Fixed Blanking/Floating Blanking ・Reduced Resolution ・Muting/Override ・Response Time Adjustment ・Mutual Interference Prevention ・PSDI
Ambient Temperature	Operating：-10 to 55°C (non-icing)	Operating：-30 to 55 °C (non-icing)
	Storage：-25 to 70°C	Storage：-30 to 70 °C
Ambient Humidity	Operating：35% to 85%	Operating：35% to 85% (non-condensing)
	Storage：35% to 95%	Storage：35% to 95%
Ambient Illuminance	Incandescent lamp: 3,000 lx max. on receiver surface Sunlight: 10,000 lx max. on receiver surface	Incandescent lamp: 3,000 lx max. on receiver surface Sunlight: 10,000 lx max. on receiver surface
Degree of Protection (IEC 60529)	IP65 and IP67	IEC 60529: IP65 and IP67 JIS C 0920 Annex 1: IP67G
Vibration Resistance (IEC 61496-1)	Class 3M4 (IEC TR 60721-4-3) ・Operation limit: 5~150Hz ・Multiple amplitude of 7mm ・Acceleration of 1G ・10 sweeps each in X, Y, and Z directions (no delay at resonant frequencies)	Class 3M4 (IEC TR 60721-4-3) ・Operation limit: 5~150Hz ・Multiple amplitude of 7mm ・Acceleration of 1G ・10 sweeps each in X, Y, and Z directions (no delay at resonant frequencies)
Shock Resistance (IEC 61496-1)	Class 3M4 (IEC TR 60721-4-3) ・Operation limit: Acceleration of 15G ・Pulse duration of 6ms ・100 shocks for each in X, Y, and Z directions (600 shocks in total)	Class 3M4 (IEC TR 60721-4-3) ・Operation limit: Acceleration of 15G ・Pulse duration of 6ms ・100 shocks for each in X, Y, and Z directions (600 shocks in total)
Pollution Degree (IEC 60664-1)	Pollution Degree 3	Pollution Degree 3
Type of connection of Root cable	・To sensors: dedicated connector ・To external: M12 connectors(8-pin emitter and receiver) ・IP67 rated when mated ・Cables prewired to the sensors	・To sensors: dedicated connector ・To external: M12 connector type (5-pin emitter and 8-pin receiver) or open-ended type ・IP67 and IP67G rated when mated.
Number of wires of Root cable	Emitter: 5, Receiver: 8	Emitter: 5, Receiver: 8
Cable length of Root cable	0.3 m	・Root-Plug Cable for Extended：0.3m ・Root-Straight Cable：3m to 10m
Cable diameter of Root cable	6 mm	6 mm

[Characteristics] (continued from previous page)

Item	Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□□-25(-F)
Minimum bending radius of Root cable	R5 mm	R5 mm
Type of connection of Cascading cable	・To sensors: dedicated connector ・To cascading sensors: M12 connectors (8-pin emitter and receiver) ・IP67 rated when mated	・To sensors: dedicated connector ・To cascading sensors: M12 connector type (5-pin emitter and 8-pin receiver) or dedicated connector ・IP67 and IP67G (JIS C 0920 Annex 1) rated when mated.
Number of wires of Cascading cable	Emitter: 5, Receiver: 8	Emitter: 5, Receiver: 8
Cable length of Cascading cable	0.2 m	0.3m
Cable diameter of Cascading cable	6 mm	6 mm
Minimum bending radius of Cascading cable	R5 mm	R5 mm
Type of connection of Extension cable	・M12 connectors: 8-pin emitter and receiver ・IP67 rated when mated	・M12 connector type (5-pin emitter and 8-pin receiver) ・IP67 rated when mated
Number of wires of Extension cable	Emitter: 5, Receiver: 8	Emitter: 5, Receiver: 8
Cable length of Extension cable	・Single-Ended Cable(F39-JG**A-* series)：3m to 20m ・Double-Ended Cable(F39-JG**B-* series)：0.5m to 20m	・Single-Ended Cable(F39-JG**A-* series)：3m to 20m ・Double-Ended Cable(F39-JG**B-* series)：0.5m to 20m
Cable diameter of Extension cable	6.6 mm	6.6 mm
Minimum bending radius of Extension cable	R36 mm	R36 mm
Extension of Root Cable	100m max. (Emitter/Receiver)	100m max. (Emitter/Receiver)
Material	Housing: Aluminium alloy Cap: PBT resin Front window: Acrylic resin FE plate: Stainless steel Cable: Oil resistant PVC resin	Housing: Aluminum alloy Cap: PBT resin Front window: Acrylic resin FE plate: Stainless steel
Weight	Net: 0.7kg to 5.3kg Packaged: 1.4kg to 7.4kg	Net: 0.4kg to 5.3kg Packaged: 0.8kg to 6.3kg
Included Accessories	・Safety Precautions Safety Precautions (This corresponds to an instruction sheet.) ・Quick Installation Manual ・Troubleshooting Guide Sticker	・Instruction Sheet ・Quick Installation Manual ・Troubleshooting Guide Sticker ・Warning Zone Label ・End Cap (for switching Scan Code Selection function)
Type of ESPE (IEC 61496-1)	Type4	Type4
Performance Level (PL)/Safety category	PL e/Category 4 (EN ISO 13849-1:2015)	PL e/Category 4 (EN ISO 13849-1:2015)
PFHD	1.1×10^{-8} (IEC 61508)	1.1×10^{-8} max. (IEC 61508)
Proof test interval TM	Every 20 years (IEC 61508)	Every 20 years (IEC 61508)
SFF	99% (IEC 61508)	99% (IEC 61508)
HFT	1 (IEC 61508)	1 (IEC 61508)

[Characteristics] (continued from previous page)

Item	Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□□-25(-F)
Classification	Type B (IEC 61508-2)	Type B (IEC 61508-2)

[Wiring connection method with peripheral devices]

Product discontinuation Model F3SG-4RA□□□□-25-01TS	Recommendable replacement Model F3SG-4SR□□□□-25(-F)

Wiring connection method with F39-GIF

■ How to Connect
1. Make sure that the F3SG is powered off. Unscrew the screws (M2.5) of the DIP Switch cover of the F3SG receiver and open the cover.
2. Connect the Dedicated Cables 1 and 2 and Interface Unit as shown below.
3. Insert the connected cables to the USB port of the PC and the Communication Port of the F3SG receiver.
4. Turn on the power of the F3SG.
5. Run the SD Manager 2.

F3SG Receiver (DIP Switch cover is open.)

PC
To USB port
Communication Port
Screw (M2.5)
Dedicated Cable 1
Dedicated Cable 2
Interface Unit
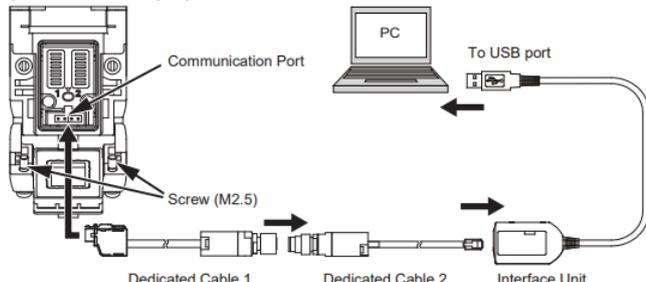
When attaching the cover, tightly fasten the screws (M2.5, recommended torque: 0.35 N•m).

■ Wiring of F3SG
Refer to wiring diagrams in the F3SG-R Series User's Manual.

■ How to Disconnect
1. Quit the SD Manager 2.
2. Turn OFF the F3SG.
3. Disconnect the product from the F3SG and the PC.
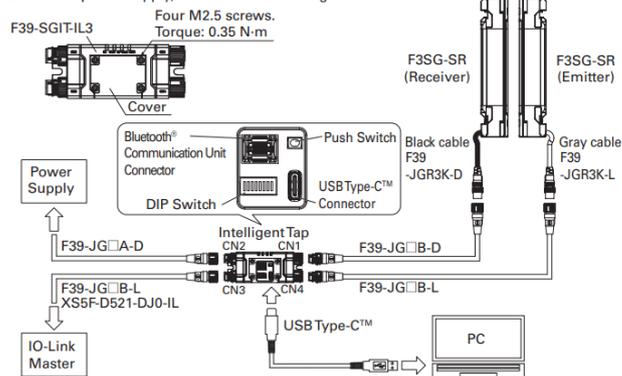4. Close the DIP Switch cover and tighten the screws (M2.5).

Wiring connection method with F39-SGIT-IL3

■ How to Install Driver
The driver is installed automatically(*1) when the SD Manager 3 is installed. Download the SD Manager 3 from the website. For details, refer to your local Omron website.
*1. Do not connect the F39-SGIT-IL3 with a PC until the installation of the SD Manager 3 is complete. Otherwise it may cause an error.

■ Wiring
1. Make sure that the F39-SGIT-IL3 is powered off. Loosen the M2.5 screws and disconnect the cover from the F39-SGIT-IL3.
2. Connect the F39-SGIT-IL3, the F3SG-SR, PC and IO-Link master(*2) as shown below. Attach the XS5Z-11 or XS2Z-11 Waterproof Cover to the connector that is not connected with the cable. Tighten the XS2Z-11by an XY2F-0004 Torque Wrench. (Recommended torque: 0.39 to 0.49 N·m)
*2. If you use the IO-Link master, see an instruction manual of the IO-Link master you use for more information.
3. Connect the power supply according to the F3SG-SR Series User's Manual.
4. Turn on the power supply, and run the SD Manager 3.

F39-SGIT-IL3
Four M2.5 screws. Torque: 0.35 N·m
Cover
F3SG-SR (Receiver)
F3SG-SR (Emitter)
Bluetooth® Communication Unit Connector
Push Switch
Power Supply
DIP Switch
USB Type-C™ Connector
Black cable F39-JGR3K-D
Gray cable F39-JGR3K-L
F39-JG□A-D
Intelligent Tap
CN2 CN1
F39-JG□B-D
F39-JG□B-L
XS5F-D521-DJ0-IL
CN3 CN4
F39-JG□B-L
USB Type-C™
IO-Link Master
PC

■ How to Disconnect
1. Quit the SD Manager 3.
2. Turn off the F39-SGIT-IL3 and the F3SG-SR.
3. Disconnect the USB cable from the F39-SGIT-IL3 and the PC.
4. Attach the cover to the F39-SGIT-IL3 and tighten the M2.5 screws. (recommended torque: 0.35 N·m)
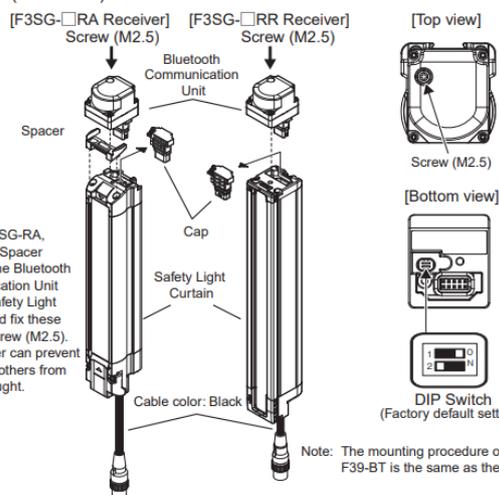
Wiring connection method with F39-BT and F39-BTLP

1. Make sure that the Safety Light Curtain is powered off. Remove the Cap (terminal connector) from the socket of the receiver body of the Safety Light Curtain. Then insert the connector of the product to the socket.
2. Securely tighten the screw (M2.5, recommended torque: 0.35N•m).
   To change the settings of the F3SG-RA with SD Manager 2, also perform the steps 3 to 5 below. When you use the F3SG-RA only for monitoring statuses or checking logs or use the F3SG-RR, the steps 3 to 5 below are not necessary.
3. Unscrew the screws (M2.5) of the DIP Switch cover of the F3SG-RA receiver and open the cover.
4. Make sure the Position 8 of the F3SG-RA's DIP Switch is set to Configuration Tool Enabled (ON position).
5. Close the DIP Switch cover and tighten the screws (M2.5, recommended torque: 0.35N•m).

[DIP Switch on F3SG-RA receiver]

□: Indicates a switch position.

■ Example (F39-BTLP)

[F3SG-□RA Receiver] Screw (M2.5)
[F3SG-□RR Receiver] Screw (M2.5)
[Top view]
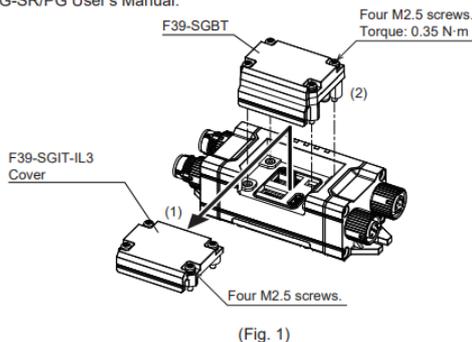Bluetooth Communication Unit
Spacer
Screw (M2.5)
Cap
[Bottom view]
For the F3SG-RA, attach the Spacer between the Bluetooth Communication Unit and the Safety Light Curtain and fix these with the screw (M2.5). The Spacer can prevent wires and others from getting caught.
Safety Light Curtain
Cable color: Black
DIP Switch (Factory default settings)

Note: The mounting procedure of the F39-BT is the same as the above.

Wiring connection method with F39-SGBT

(1) Make sure the power is off, remove the screws (M2.5) from the cover of the F39-SGIT-IL3, and open the cover. (Fig. 1(1))
(2) Connect the F39-SGIT-IL3 to the F39-SGBT. (Fig. 1(2))
(3) Tighten the screws (M2.5) that are included with the F39-SGBT. (Tightening torque: 0.35 N•m)
(4) Make sure the power is off, and connect the F39-SGIT-IL3 to the F3SG-SR/PG. For the connection method, refer to the instructions for the F39-SGIT-IL3.
(5) Pair the F39-SGBT with the PC or smartphone on which SD Manager 3 or SD Manager 3 Mobile APP is installed. For details on the pairing method, refer to the F3SG-SR/PG User's Manual.

F39-SGBT
Four M2.5 screws. Torque: 0.35 N·m
(2)
F39-SGIT-IL3 Cover
(1)
Four M2.5 screws.

(Fig. 1)