

The Best Ever

SAFETY LIGHT CURTAIN

F3SG-SR/PG SERIES

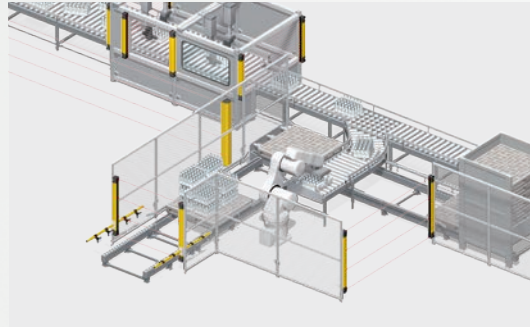


This series redefines safety at manufacturing sites

Manufacturers now need to manage globalization and flexible production. That's why we have developed our F3SG-SR/PG Series. This series offers a complete lineup of light curtains that comply with global safety standards and a wide range of functionality that covers all aspects from design through to maintenance. The F3SG-SR/PG Series helps manufacturers build safety systems.



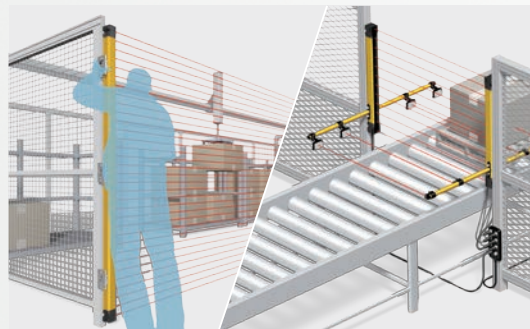
Build flexible safety systems



Design

Easy design of line safety Page 4

Flexible design for equipment Page 6



Set-up

Simple beam adjustment Page 10

Easy installation and angle adjustment Page 11

Various options to reduce wiring Page 12



Operation

Reduction in unwanted machine stoppages Page 14



Maintenance

Maintenance with no special skills required Page 16

Quick maintenance through ICT Page 17

One series covers all protection applications—from machine

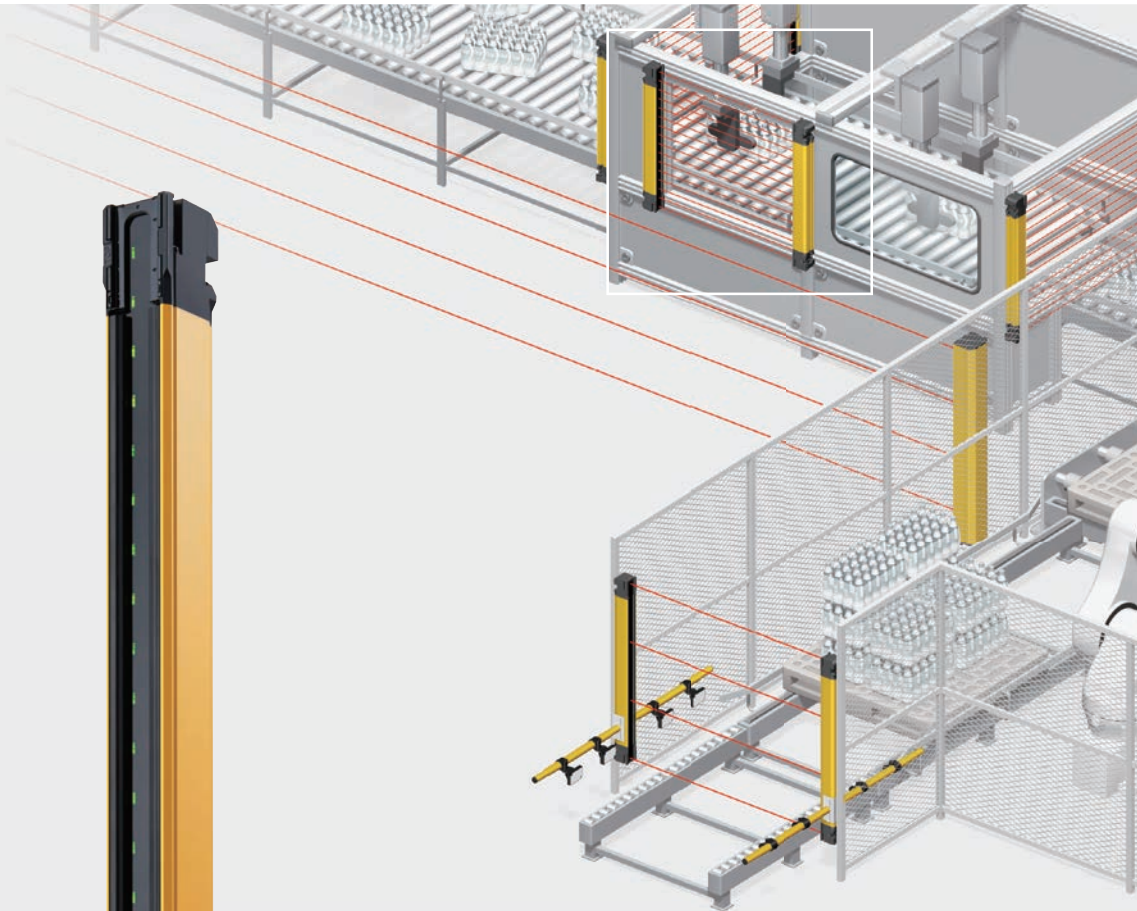
Standardize mechanical design across production lines and eliminate complexity of selection and design.

Protection at machine openings

Safety Light Curtain

F3SG-SR

NEW



Finger Protection

Beam gap	10 mm	Detection capability 14-mm dia.
Protective height	160 to 2,000 mm	
Max. operating range	10 m	



Hand Protection

Beam gap	20 mm	Detection capability 25-mm dia.
Protective height	160 to 2,480 mm	
Max. operating range	20 m	



Arm/Leg Protection

Beam gap	40 mm	Detection capability 45-mm dia.
Protective height	240 to 1,520 mm	
Max. operating range	20 m	



Body Protection

Beam gap	80 mm	Detection capability 85-mm dia.
Protective height	280 to 920 mm	
Max. operating range	20 m	

Common accessories including cables and brackets*

The light curtains share common accessories for ease of design and retrofitting of production lines.

Intelligent Tap
F39-SGIT-IL3

Bluetooth® Communication Unit
F39-SGBT

IO-Link

Bluetooth®

USB Type-C™



Y-Joint Plug/
Socket Connector
F39-GCNY2



Muting Sensor Arm Mounter
F39-FMA

Available soon



Muting Sensor
Connection Box
F39-GCN5

Available soon



Floor Mount Column
F39-ST

Available soon

Mount-Column
Adjustable Base
F39-STB

Available soon



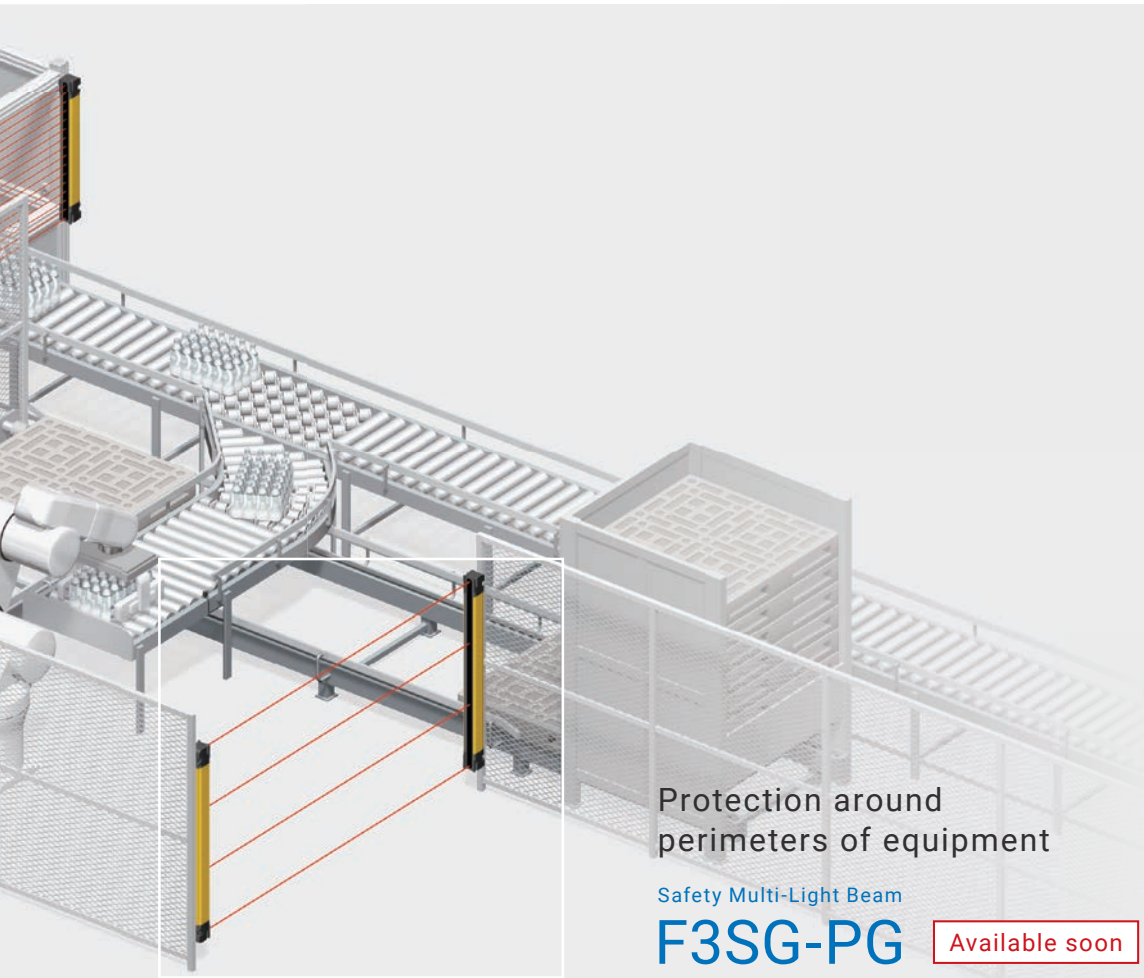
Mirror Column
(for F3SG-SR
Safety
Light Curtain)
F39-SML

Available soon



* Except for some accessories. See page 37 and following for details.

openings to perimeters of equipment




Protection around perimeters of equipment

Safety Multi-Light Beam

F3SG-PG

Available soon



 Perimeter Access Guarding	 Perimeter Guarding Long Range	 Perimeter Guarding Deflect Mirror
Beam gap300/400/500 mm	Beam gap300/400/500 mm	Beam gap300/400/500 mm
Protective height580 to 1,280 mm	Protective height580 to 1,280 mm	Protective height580 to 1,280 mm
Max. operating range20 m	Max. operating range70 m	Max. operating range6~10 m

Helps build safety systems for machines all over the world

Mirror Column
(for F3SG-PG
Safety
Multi-Light Beam)
F39-PML

Available soon



This series conforms to worldwide safety standards*.

* We will apply for GB, TS Mark, S Mark, and KCs Mark.



PNP/NPN selection by changing the wiring allows you to easily bring and install the light curtain across the world.



The unique tightly sealed structure meets IP67G water and oil resistance and IP69K*.

* Available soon

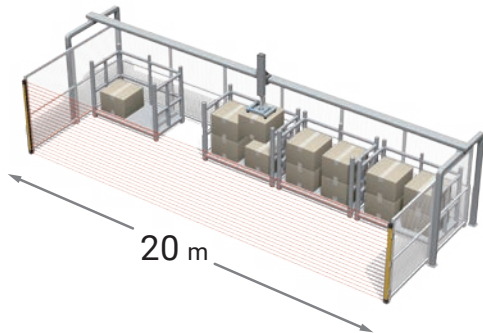


Industry's broadest* lineup for flexible production line design

Create flexible design plans to suit your equipment requirements. * Based on Omron investigation in June 2018.

Long operating range thanks to unique optical design

The long-distance sensing capability enables reliable detection even in harsh environments.



Safety Light Curtain

F3SG-SR

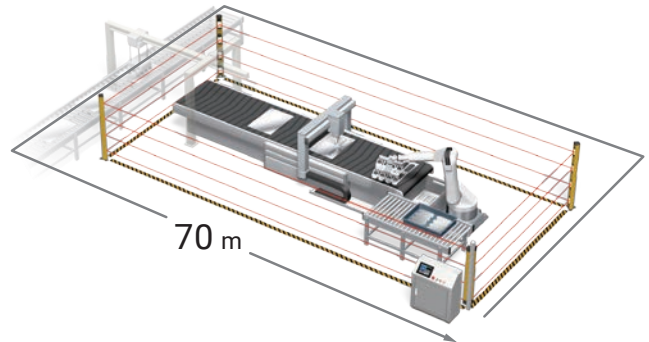
Series

20 m

World's longest class*

The high-power optical system provides stable detection up to 20 m even in harsh environments.

* Except for detection capability of 14-mm dia.



Safety Multi-Light Beam

F3SG-PG

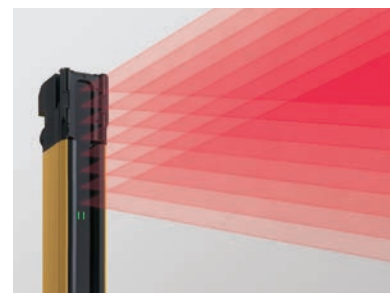
Series

70 m

Patent pending

The unique multi-beam optical design achieves a maximum operating range of 70 m*.

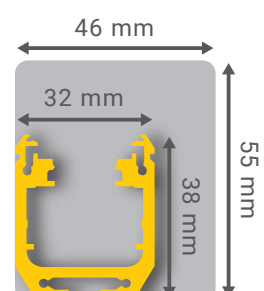
* F3SG-PG Perimeter Guarding Long Range



Omron's unique compact design

The F3SG-SR Safety Light Curtain and F3SG-PG Safety Multi-Light Beam share the same compact housing. This makes mechanical design more flexible.

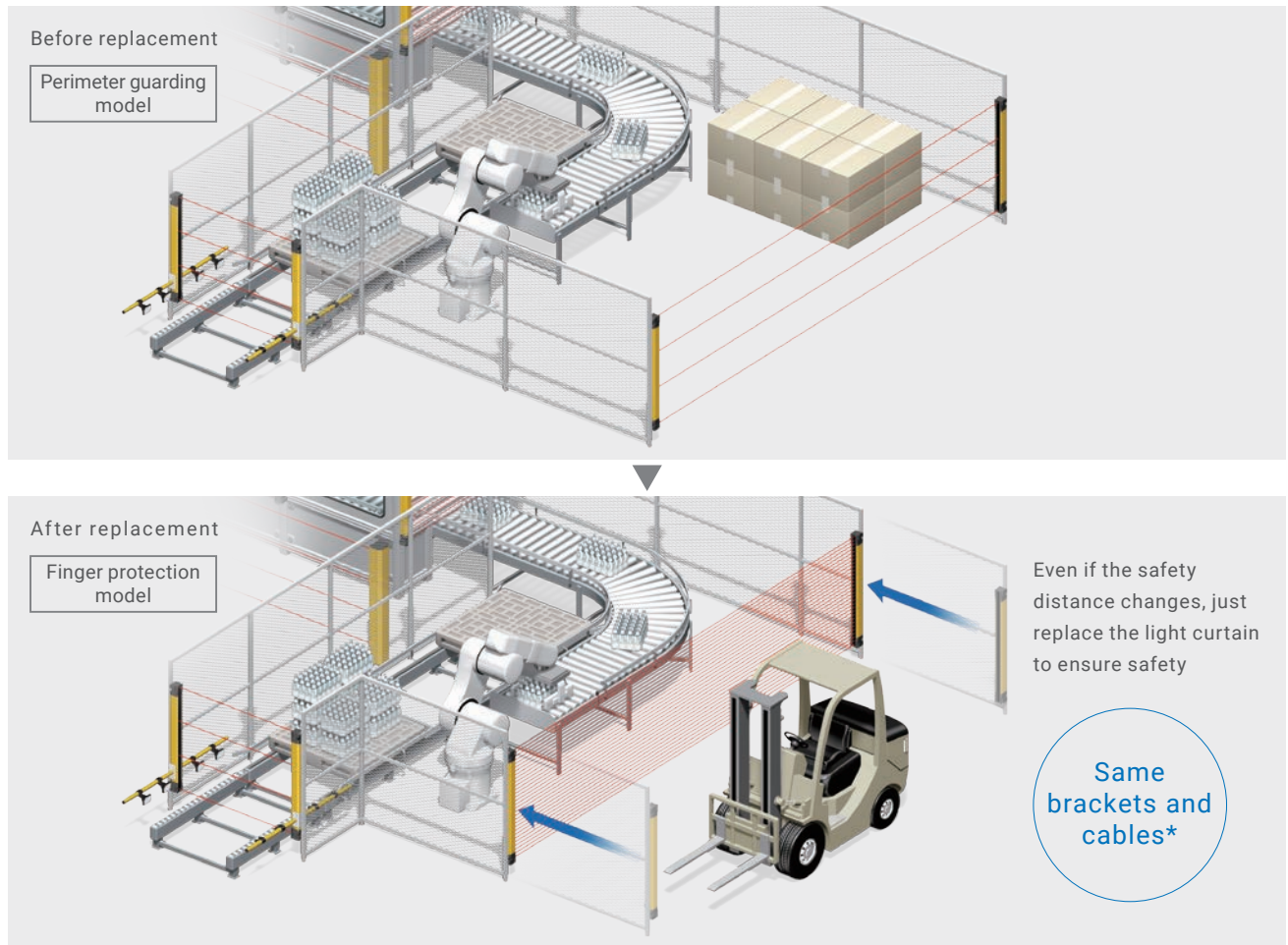
* Compared with Omron STI's PA46 Perimeter Access Guarding Device. (Based on Omron investigation in June 2018)



Easy line layout changes

Simply replace a light curtain using the same accessories because the F3SG-SR Series and F3SG-PG Series share the same housing. There is no need to select and install accessories for a new light curtain.

Example : In order to secure a working space by installing the light curtain closer to the machine, the perimeter guarding model is replaced with the finger protection model



Just replace the light curtain with the same protective height*

F3SG-SR Series lineup

● Standard model ○ Flexible height model (Increments of 40 mm)

Protective height (mm)	160	200	240	280	320	360	400	440	480	520	560	580	600	640	680	720	760	800	840	880	920	960	980	1000	1040	1120	1200	1280
Finger Protection	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Hand Protection	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Arm/Leg Protection				●				●				●				●				●				●				●
Body Protection					●				●				●				●				●							

Protective height (mm)	1360	1400	1440	1520	1600	1680	1760	1800	1840	1920	2000	2080	2280	2480
Finger Protection		●			●			●			●			●
Hand Protection	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Arm/Leg Protection				●										
Body Protection														

F3SG-PG Series lineup

Protective height (mm)	160	200	240	280	320	360	400	440	480	520	560	580	600	640	680	720	760	800	840	880	920	960	980	1000	1040	1120	1200	1280
Perimeter Access Guarding												●								●			●					●
Perimeter Guarding Long Range												●								●			●					●
Perimeter Guarding Deflect Mirror												●								●			●					●

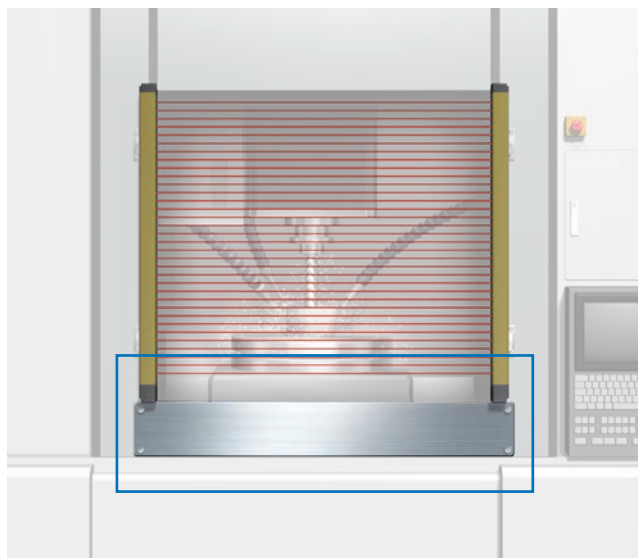
* Except for some models and accessories. See page 37 and following for details.

Perfect fit

Protective heights are available in increments of 40 mm up to 1,000 mm*. The perfect protective height for any protected area ensures safety and eliminates the need for additional measures.

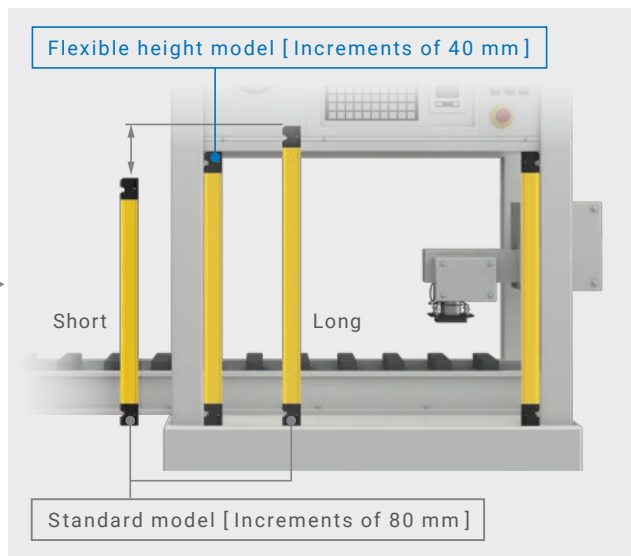
Problem

The light curtain that does not completely fit the protected area requires additional measures (e.g., adding a protection cover).



F3SG-SR*

The flexible height model requires no additional measures.



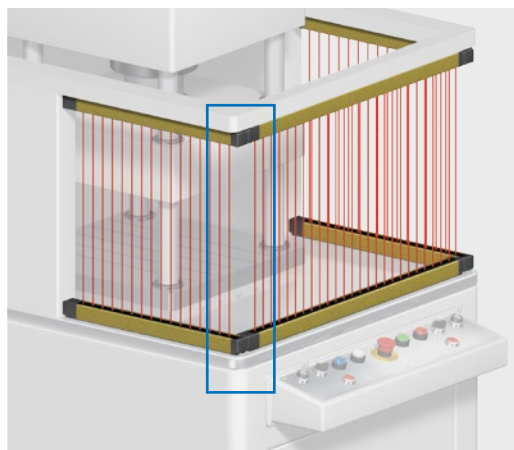
* F3SG-SR Finger and Hand Protection models only.

Protection without dead space*

The F3SG-SR Series eliminates dead space that previously existed even when light curtains are series-connected or U-shape connected. Safer systems can be designed.

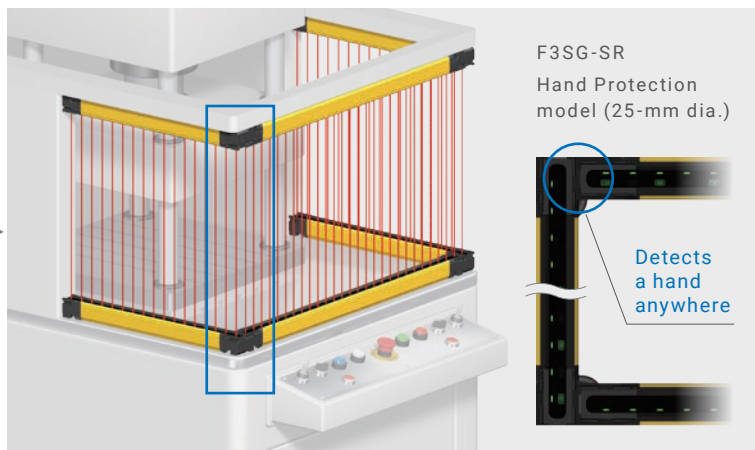
Problem

Dead space exists at the joint.



F3SG-SR*

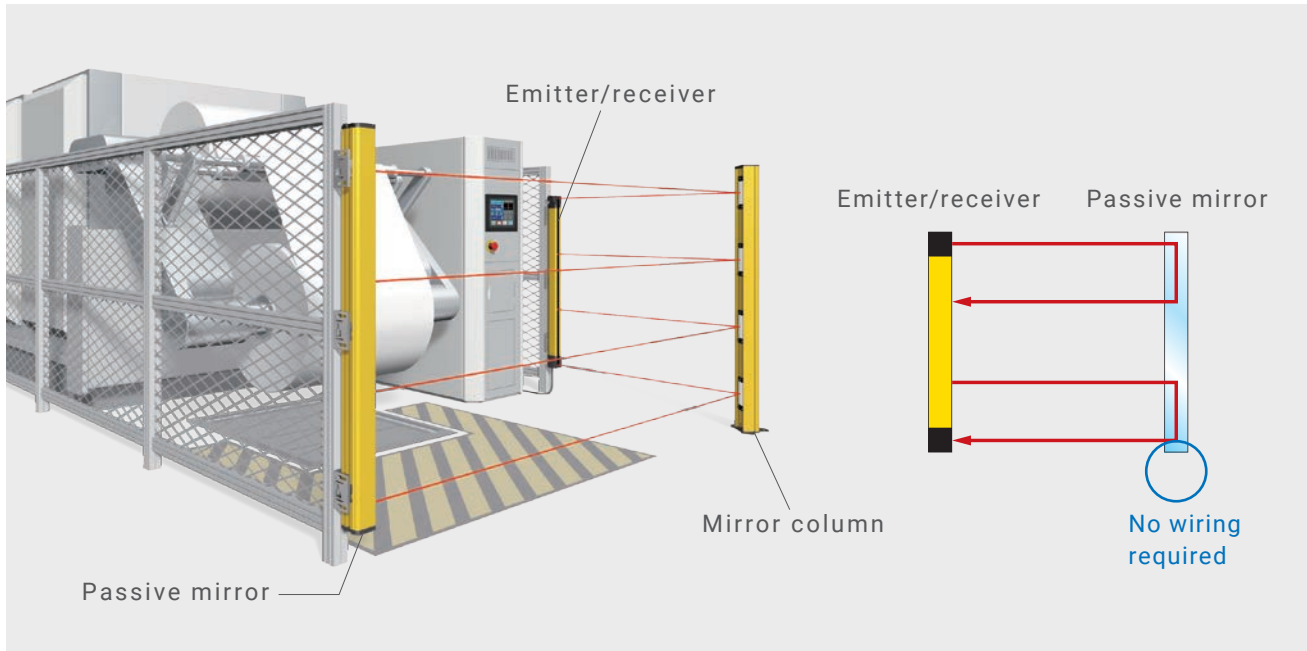
Eliminates dead space and ensures safety.



* Except for F3SG-SR Finger Protection models.

Simple wiring for flexible design

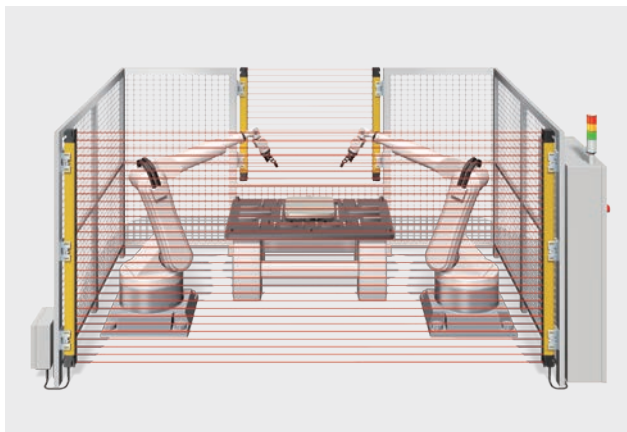
The F3SG-PG* Perimeter Guarding Deflect Mirror only requires wiring to one end for protection around perimeters of equipment, reducing wiring duct design and wiring time.



* Available soon

Two different synchronization systems

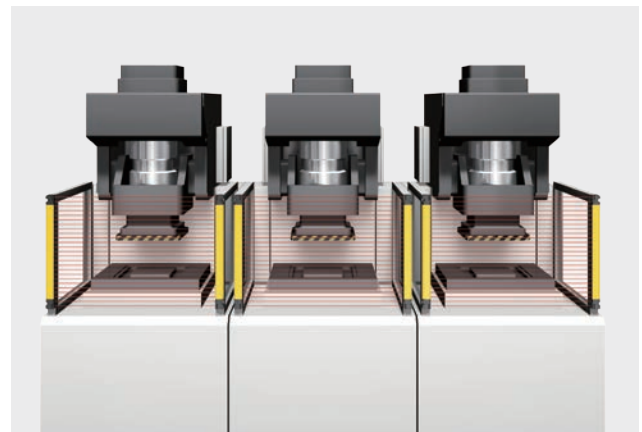
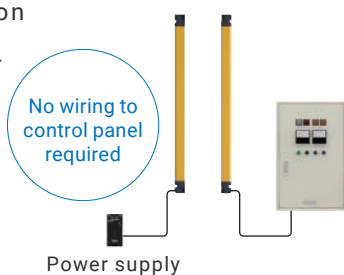
Choose from two different methods of synchronization between the emitter and receiver to suit your equipment.



Optical synchronization

No sync lines are required.
Connect emitter only to power supply.

Mutual interference prevention : Up to 2 sets



Wired synchronization

Mutual interference prevention : Up to 3 sets



Color indication of beam status for quick and easy beam adjustment

Reduce beam adjustment time.

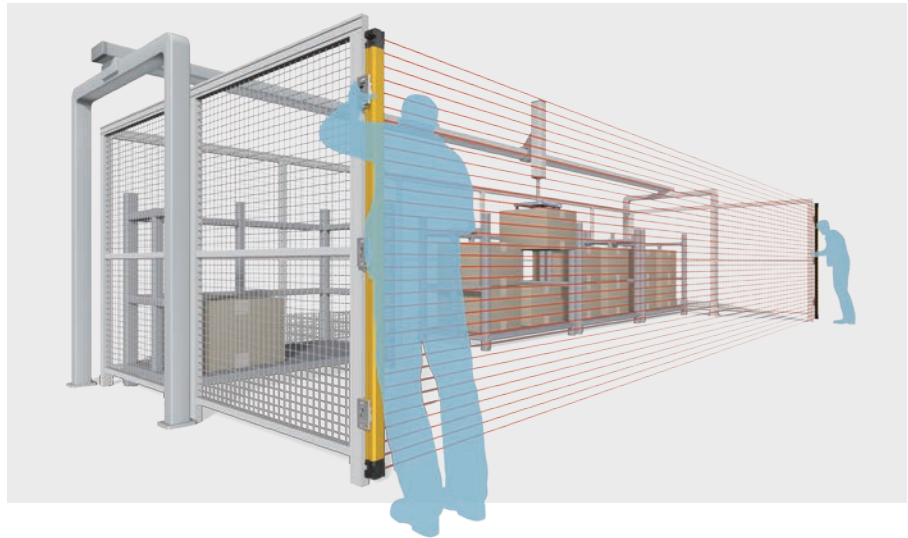
Area Beam Indicator (ABI) for an at-a-glance check of beam status Patent pending

The ON or OFF state of the light curtain and low light intensity can be checked.

The ABI also facilitates fine adjustment of beams for long-distance sensing.



Easy to see



Stable state

Green :
Safety outputs ON

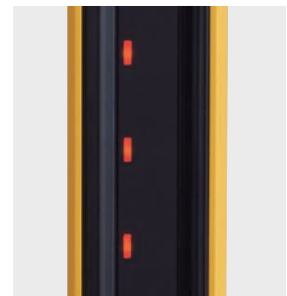
The beams are unblocked.



Low light intensity

Orange :
Safety outputs ON

Adjust beams or check if the light curtain is dirty.



Beams blocked

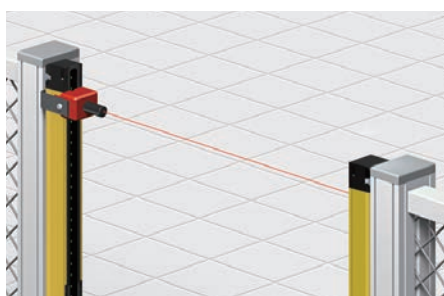
Red :
Safety outputs OFF*

The beams in the area are blocked.

* The indicator of an unblocked area is OFF.

Note : Factory default setting.

The images of indicator illumination may vary somewhat from the actual products.



Laser Alignment Pointer

F39-PTG



Assists with beam adjustment.

Easy-to-see laser beam shows the sensor orientation. It can be attached on the spatter protection cover.

A variety of accessories for easy installation and angle adjustment

Reduce installation time and easily adjust beams after installation without relying on the expertise of experienced engineers.

Easy beam adjustment after installation

Problem

It is difficult to adjust beams after the light curtain is installed and the protection cover is attached.



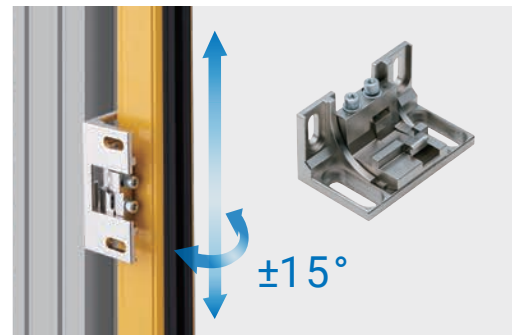
F3SG-SR/PG

The rugged metal housing of the light curtain does not need a protection cover. Beams can be adjusted using optional brackets.



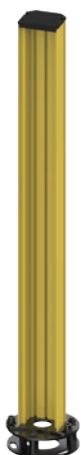
Adjustable Top / Bottom Bracket
F3SJ, F3SN Adapter
F39-LSGTB-SJ

This bracket used at the top and bottom of the light curtain provides horizontal adjustment of $\pm 22.5^\circ$.



Adjustable Side-Mount Bracket
(Intermediate Bracket)
F39-LSGA

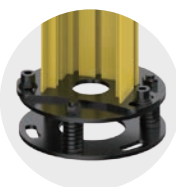
This bracket provides horizontal adjustment of $\pm 15^\circ$ as well as vertical position adjustment.



Floor Mount Column
F39-ST Available soon

This column can be installed independently of equipment or fences, almost anywhere.

Flexible
protection

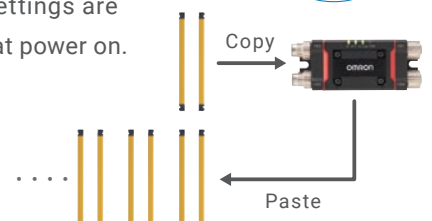


Mount-Column
Adjustable Base
F39-STB

Available soon

Intelligent Tap
F39-SGIT-IL3

Settings can be copied and pasted between light curtains without using a PC, reducing time and effort to install many machines. Backed up settings are automatically restored at power on.



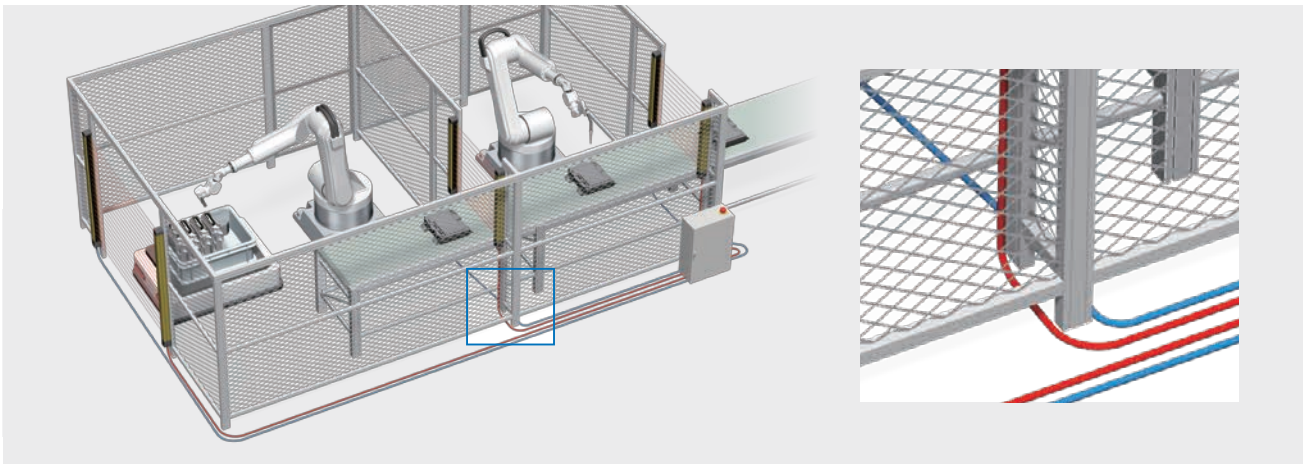
Reduced wiring system for various equipment

Wiring work during line installation and maintenance can be greatly reduced.

Simple wiring around large equipment

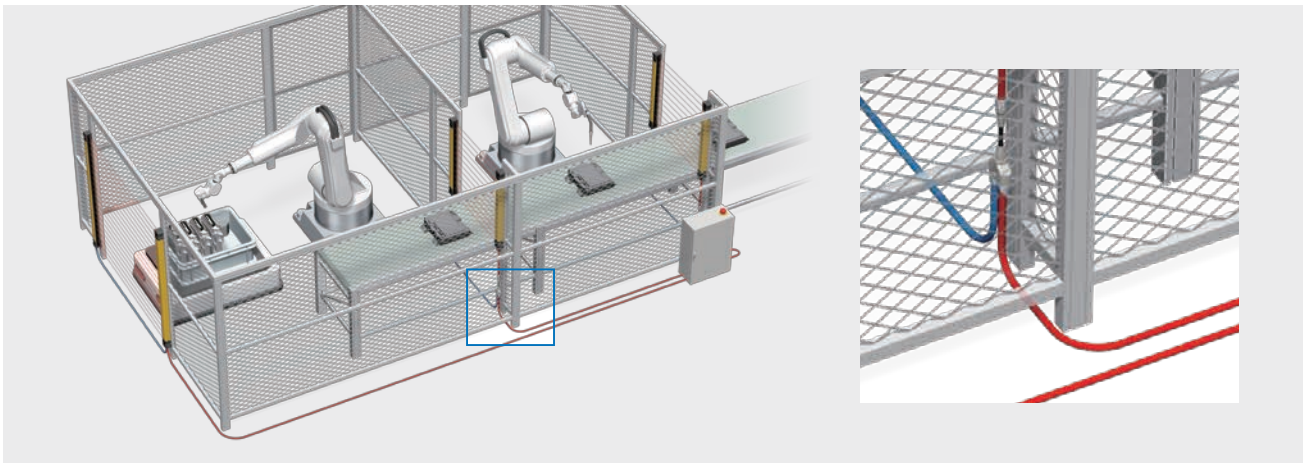
Problem

The distance of wiring around large facilities generally becomes long.



F3SG-SR/PG

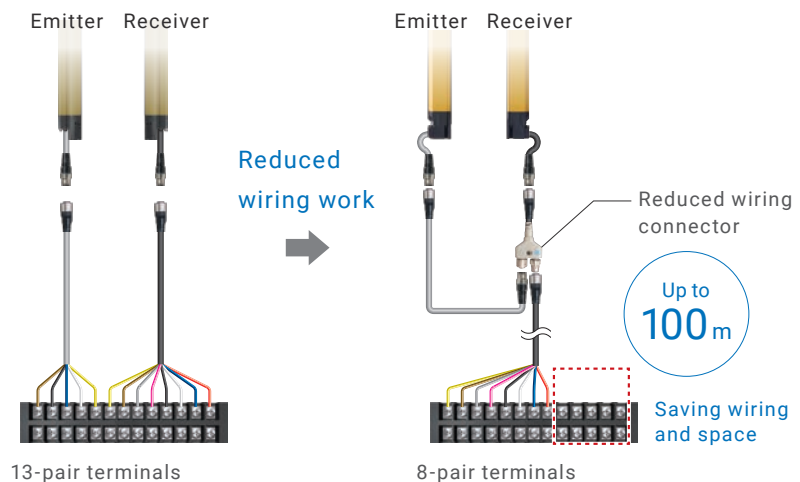
The reduced wiring system reduces the number of cables and terminal blocks and wiring time.



Reduced wiring connector



Y-Joint Plug /
Socket Connector
F39-GCNY2

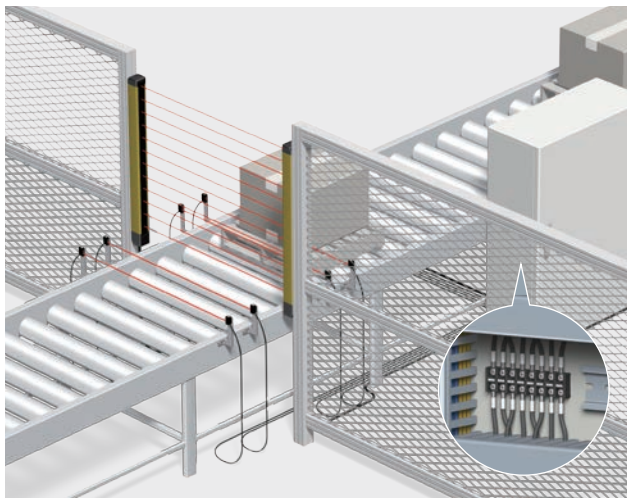


One cable connection to control panel

Options provide simple wiring for muting.

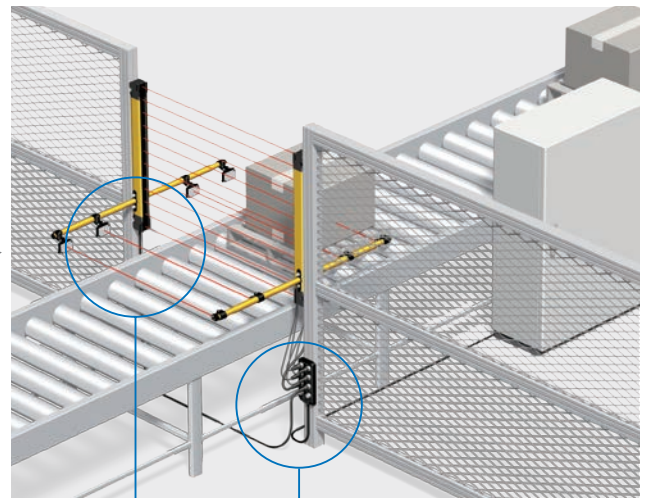
Problem

In order to maintain productivity, the light curtains are often used with muting sensors, which makes wiring in the control panel more complicated.



F3SG-SR/PG

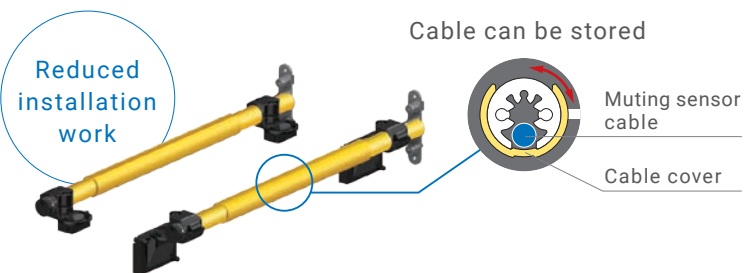
Options to reduce wiring simplify wiring and installation of muting sensors.



Muting Sensor Arm Mounter

F39-FMA Available soon

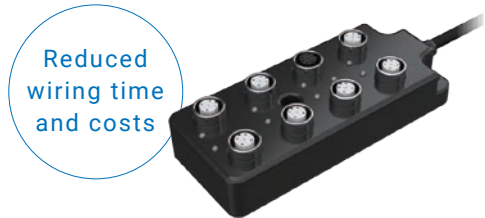
The muting sensor arm mounter facilitates installation of a muting sensor.



Muting Sensor Connection Box

F39-GCN5 Available soon

The connection box simplifies wiring for muting, and only one cable is used to connect to the control panel.

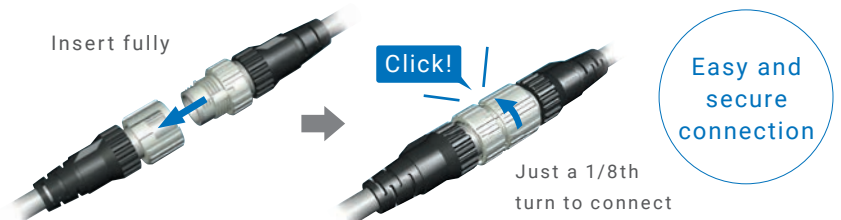


Note : The E3Z Muting Sensor is sold separately.

Smartclick connectors to quickly connect cables



Smartclick is a registered trademark of OMRON Corporation.



Robustness for operation in harsh environments

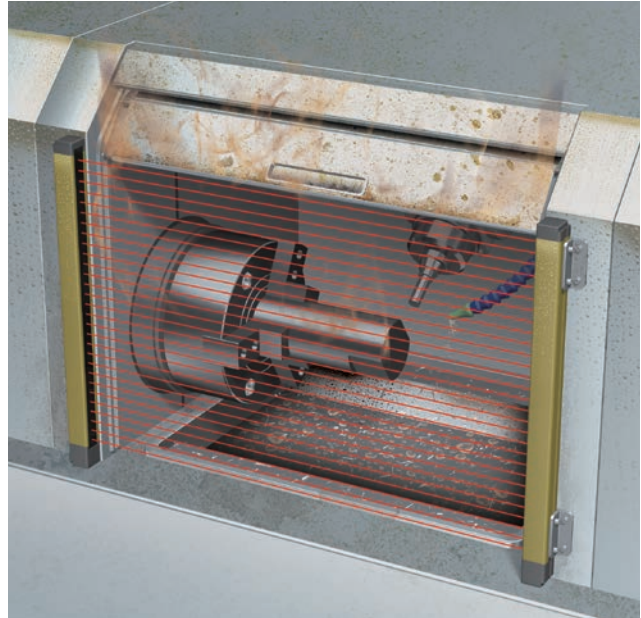
Specifications suitable for use in any environment contribute to stable operation.

Light curtains tend to malfunction in harsh environments where safety measures are required.



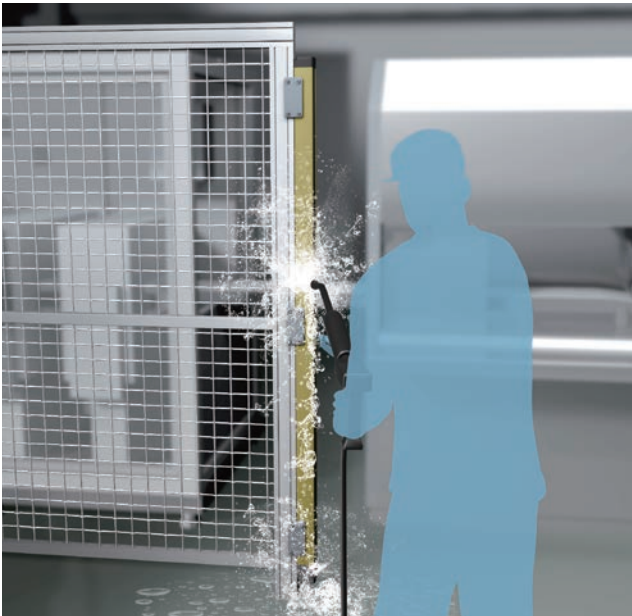
Cold storage warehouse

Safety measures cannot be implemented because there is no light curtain that can be used in cold environments.



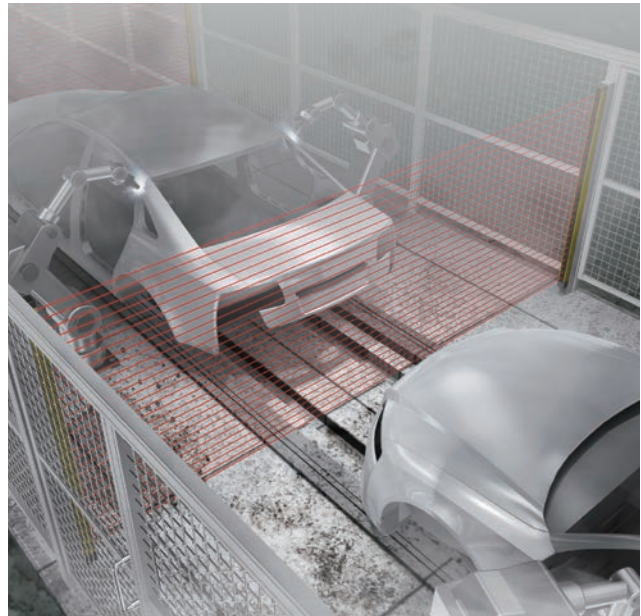
Metal working process

Oil that gets inside the light curtain causes failure at locations where oil mist is present.



Food processing line

Cleaning solution that gets inside the light curtain during machine wash-down causes failure.



Use in harsh environments

The spattered or dusty optical surface of the light curtain causes a malfunction and sudden machine stop.

Use in
temperatures
down to
-30°C

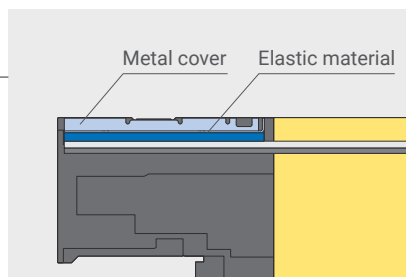
Water/oil
resistance
IP67G

IEC 60529/JIS C 0920 Annex 1

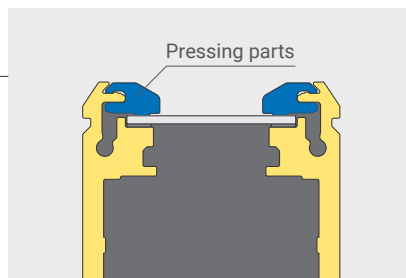
Tightly sealed structure improved environmental resistance

The unique structure firmly presses the optical surface. Stable sealing performance resists penetration of liquid inside the light curtain, which improves environmental resistance of the housing.

Patent pending



Technology 1 to tightly seal the cap



Technology 2 to tightly seal the housing

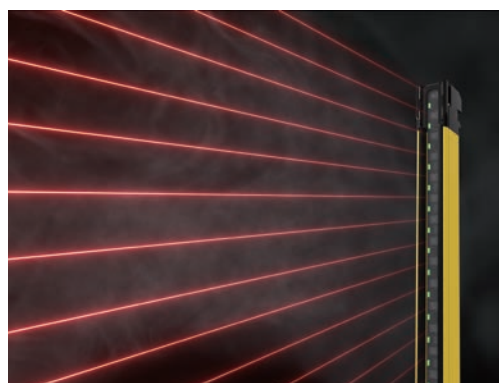
IP69K model for high-pressure wash-down applications

Available soon



Water
resistance
IP69K

High-power optical system provides stable detection



The maximum operating range of the F3SG-SR Safety Light Curtain is 20 m and of the F3SG-PG Safety Multi-Light Beam 70 m. The high-power beam is robust in harsh environments.

Metal housing increases ruggedness

Laser marked information withstands harsh environments



Easy maintenance

Even inexperienced operators can easily check status and replace light curtains.

Easy error diagnosis with clear color indicators

The light curtain status can be checked at a glance.



Status indicator

Clear LED indicators with labels help perform predictive maintenance by dirt detection and determine the optimal replacement timing.

Colors and patterns indicate the status

Status indicator	Color	Status
	Red/Illuminated	LOCKOUT state due to a recoverable error
	Red/Blinking	LOCKOUT state due to a replacement-recommended error
	Orange/Illuminated	Safety outputs are instantaneously turned OFF due to ambient light, vibration, or noise
	Orange/Blinking	The Intelligent Tap is in LOCKOUT state

Lamp

Output status can be checked at a glance.

F39-SGLP Available soon



Output information can be assigned to the lamp and ABI.



Status, such as light intensity drop, can be checked from a distance.

For information on other indicators, refer to *Indicator* on page 63 or *Troubleshooting* on page 95.

Back up and restore settings with Intelligent Tap

Replacement and setting time during maintenance can be reduced to 1/10 or less*.

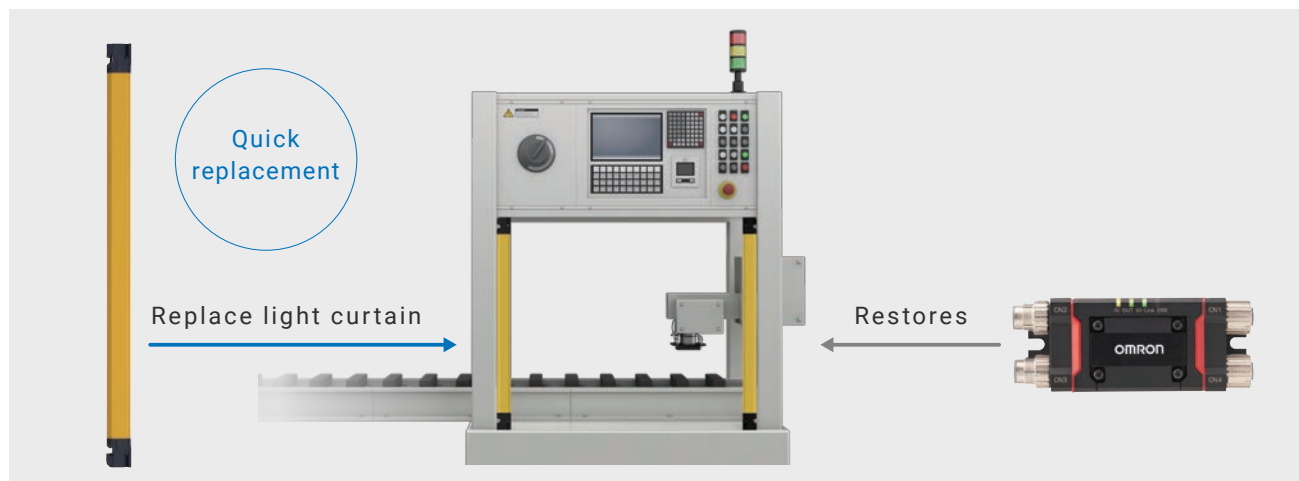
Plug & Work for quick replacement

Install the Intelligent Tap to automatically copy the settings of the replaced light curtain to a new one. Virtually anyone can easily replace light curtains and immediately restart the machine.

Replacement
and setting time
reduced to
1/10 or less*



Intelligent Tap
F39-SGIT-IL3



* Based on Omron investigation in June 2018.

ICT facilitates more detailed data monitoring

There is no need for a PC on site to check the light curtain status.

Easy remote monitoring

Various devices can be connected via IO-Link.*1



Note : Screen images for illustration purposes only.

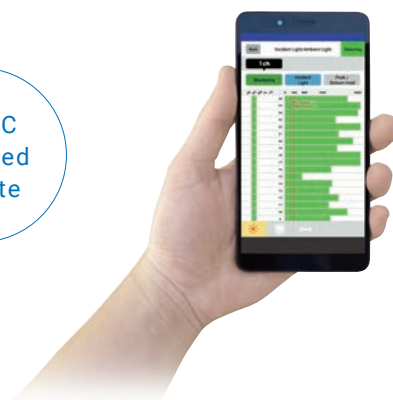
No PC
required
on site

Easy on-site monitoring

The Bluetooth communication unit allows you to monitor information about device stoppages on mobile devices.



SD Manager 3
Mobile APP



Process data

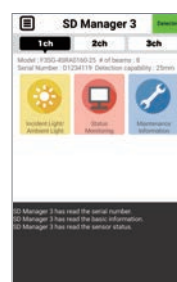
- Auxiliary output status *2
- Muting input status
- Sequence error information
- Unstable state information (each ch)
- Power voltage information
- OSSD output status
- Reset/EDM/override input status
- Instantaneous block information (each ch)
- Light curtain/Intelligent Tap lockout information

Service data

- Light curtain information
- Light intensity information (1 byte: 0-255)
- Light curtain settings
- Light curtain internal status information
- Intelligent Tap power-on time information
- Intelligent Tap information
- Error log (4 errors)

Requirements

Android™ 7.0 or higher
Windows® 10



Startup screen



Error log screen



Light level monitoring

System configuration example



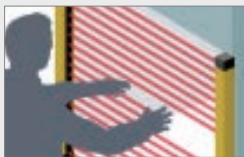
*1. Refer to the IO-Link Series Catalog (Cat. No. Y229) for details. *2. Auxiliary output can be set using the SD Manager 3.

Easy setting via PC software SD Manager 3

The configuration tool allows you to easily monitor status and make settings without using a safety controller.



Manually loaded machining : PSDI



PSDI*, provided as standard, reduces operator effort and increases productivity

There is no need for the operator to press a two-hand control switch, saving operating time and increasing operating efficiency.

Single break

The machine restarts when the light curtain is interrupted and reset once.

Example : Manual loading and automatic unloading press

Double break

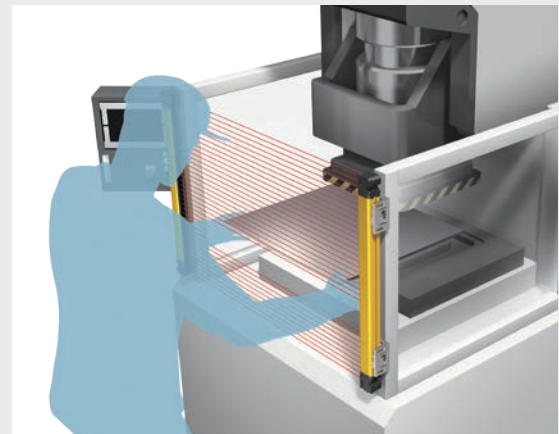
The machine restarts when the interruption and reset are repeated twice.

Example : Manual loading and manual unloading press

* PSDI : Presence Sensing Device Initiation

Read the *User's Manual* (Cat. No. Z405) before using.

Note: Comply with laws and regulations in the countries where the machine operates.



Dangerous restart prevention : Pre-Reset

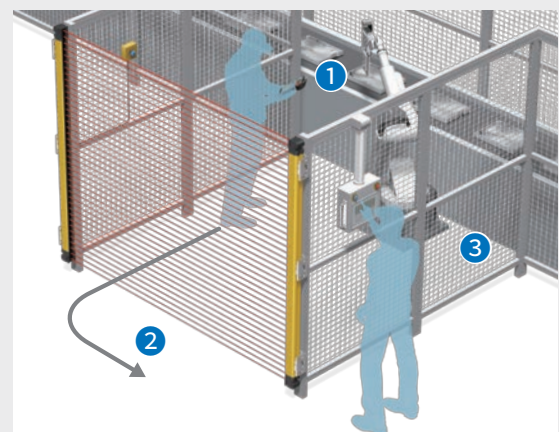


The Pre-Reset function prevents possible accidents

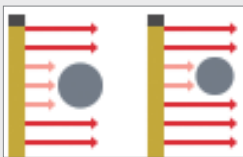
This function prevents the restart of equipment while an unseen worker is still near the robot, ensuring operators' safety.

- 1 Press the pre-reset switch inside the hazardous zone.
 - 2 Get out of the hazardous zone.
 - 3 Press the reset switch in the control panel to restart the light curtain.
- The machine is ready for restart.

The equipment cannot be restarted until the pre-reset switch of the light curtain is pressed and the light curtain is reset.



Ignoring interrupted beams : Reduced Resolution

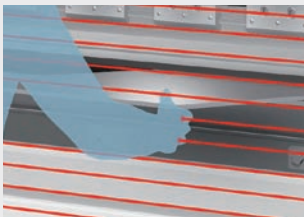


Reduced Resolution changes the detection capability of the light curtain

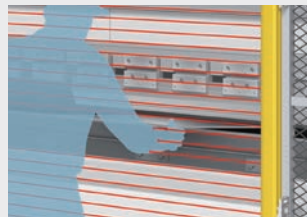
Even when objects (with a size of 1 to 3 interrupted beams) are present discontinuously, this function ignores them and keeps the safety outputs ON. This helps maintain productivity.

Example : Arm and body protection

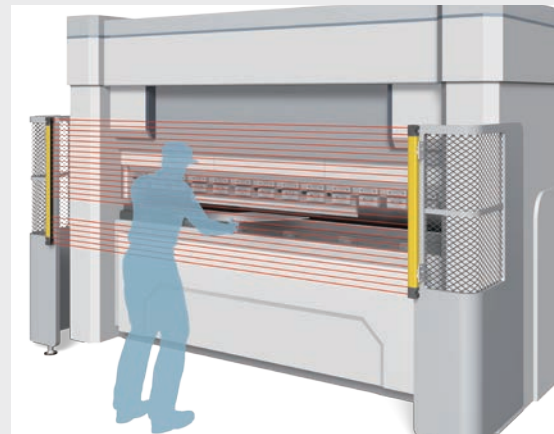
Safety output is kept ON even if worker's finger and an object interrupt 2 beams because they are allowed to enter.



When worker's arm or body, which interrupts 3 beams is detected, safety output is turned OFF.

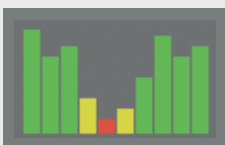


Note : Ensure that the desired safety distance is maintained.



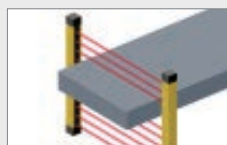
Built-in standard safety functions

Monitoring

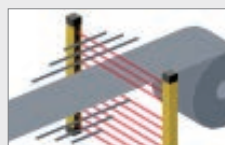


Incident / Ambient Light Level Information

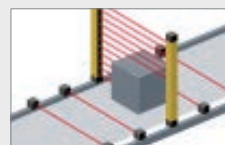
Safety function setting



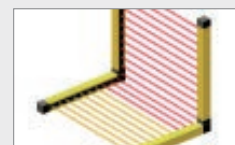
Fixed Blanking



Floating Blanking

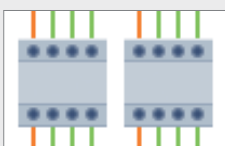


Muting/Override

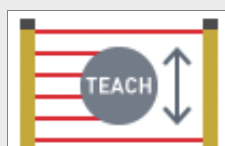


Warning Zone

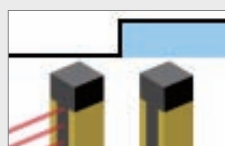
I/O setting



Interlock / External Device Monitoring

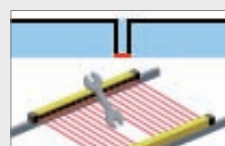


Teach-in Input



External Test Input

Operation state change

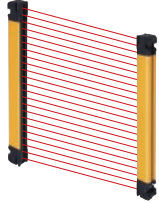
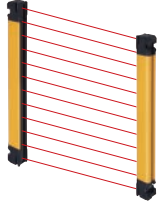
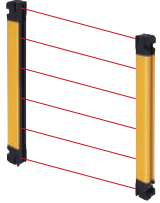
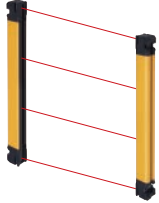





































Response Time Adjustment

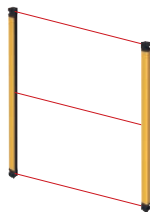
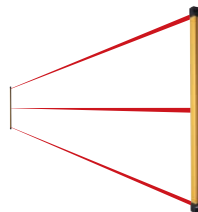
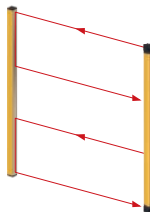






















Operating Range Selection

F3SG-SR/PG Series Features and specifications

Series		Protection at machine openings : Safety Light Curtain F3SG-SR				
		Advanced/Standard				
						
Application	 Finger Protection					
	 Hand Protection					
	 Arm/Leg Protection					
	 Body Protection					
Specification	Detection capability	14-mm dia.	25-mm dia.	45-mm dia.	85-mm dia.	
	Beam gap	10 mm	20 mm	40 mm	80 mm	
	Max. operating range	10 m	20 m	20 m	20 m	
	Protective height	160 to 2,000 mm	160 to 2,480 mm	240 to 1,520 mm	280 to 920 mm	
	Number of beams	15 to 199	8 to 124	6 to 38	4 to 12	
	Degree of protection	IP65, IP67, and IP67G				
Feature	Mutual interference prevention	 (No settings required for wired synchronization)				
	PNP/NPN Selection					
	External Test					
	Interlock	 / 				
	Reset					
	Pre-Reset	 / 				
	PSDI					
	External Device Monitoring (EDM)	 / 				
	Auxiliary Output					
	Muting					
	Blanking	 / 				
	Reduced Resolution					
	Warning Zone					
	Operating Range Selection	 /  / 				
	Response Time Adjustment					
	Area Beam Indicator (ABI)	 * Advanced models only				
	Designated Beam Output					
Connection/wiring	Cascade connection	Available	Available	Available	Available	
	Reduced wiring system*1	Available	Available	Available	Available	
Accessory	Laser Alignment Pointer	Available	Available	Available	Available	
	Lamp Available soon	Available	Available	Available	Available	
	IP69K model Available soon	Available	Available	Not available	Not available	

 Setting by DIP switch on Intelligent Tap
  Setting by configuration tool SD Manager 3
  Setting by wiring
 Setting by end cap

Protection around perimeters of equipment : Safety Multi-Light Beam F3SG-PG				Available soon		
Perimeter Access Guarding		Perimeter Guarding Long Range	Perimeter Guarding Deflect Mirror	Series		
						
				 Finger Protection	Application	
				 Hand Protection		
				 Arm/Leg Protection		
				 Body Protection		
				Detection capability		Specification
300 mm/400 mm/500 mm				Beam gap		
20 m		70 m	6 to 10 m *2	Max. operating range		
580 to 1,280 mm				Protective height		
2 to 4				Number of beams		
IP65 and IP67				Degree of protection		
 (No settings required for wired synchronization)				Mutual interference prevention		Feature
				PNP/NPN Selection		
		Not supported		External Test		
				Interlock		
				Reset		
				Pre-Reset		
Not supported				PSDI		
				External Device Monitoring (EDM)		
				Auxiliary Output		
				Muting		
Not supported				Blanking		
Not supported				Reduced Resolution		
Not supported				Warning Zone		
		Not supported		Operating Range Selection		
				Response Time Adjustment		
				Area Beam Indicator (ABI)		
				Designated Beam Output		
Not available		Not available	Not available	Cascade connection	Connection/ wiring	
Available		Available	Available	Reduced wiring system*1		
Available		Available	Available *3	Laser Alignment Pointer	Accessory	
Available		Available	Available *3	Lamp <div>Available soon</div>		
Available		Not available	Not available	IP69K model <div>Available soon</div>		

*1. The reduced wiring system includes the Y-joint plug/socket connector, reset switch connector, and muting sensor connection box (available soon).

*2. Varies depending on the model.

*3. Cannot be mounted on the passive mirror.

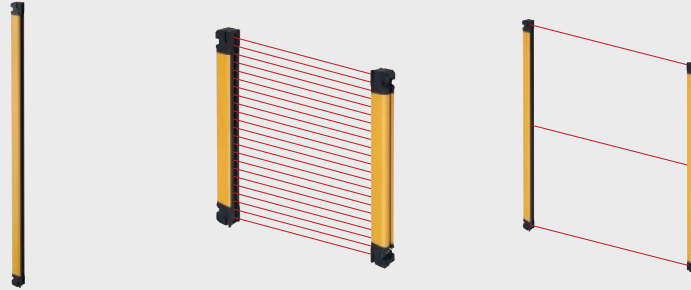
Safety Light Curtain

F3SG-SR/PG Series Product selection

Choose your safety light curtain and accessories from our F3SG Series through a 4-step process.

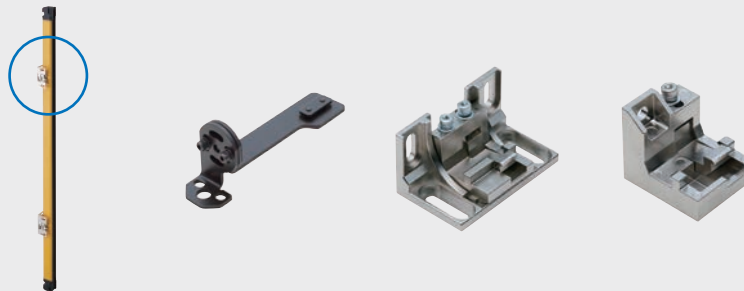
STEP 1

Choose a safety light curtain



STEP 2

Choose a mounting bracket



STEP 3

Choose a wiring method



STEP 4

Choose the accessories you need



STEP 1 Choose a safety light curtain

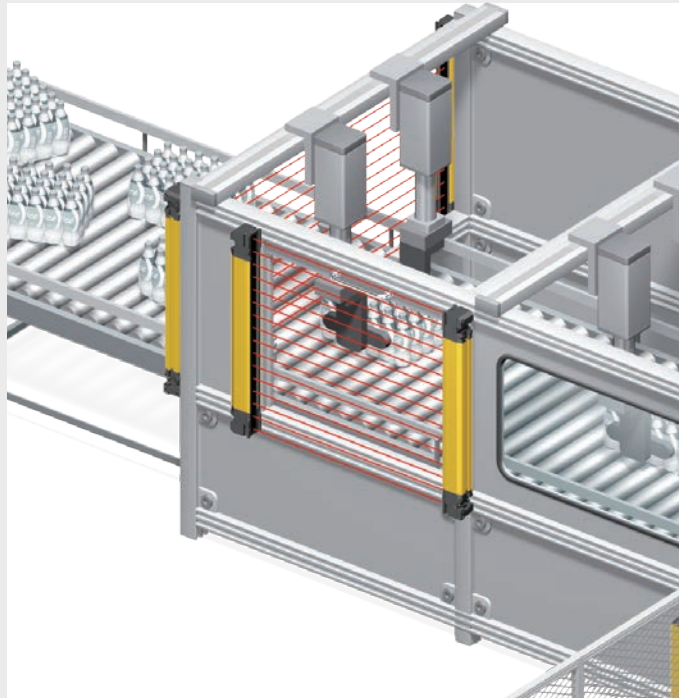
Select a light curtain to suit your application.

Protection at machine openings

SR

Page 24

Safety Light Curtain
F3SG-SR Series



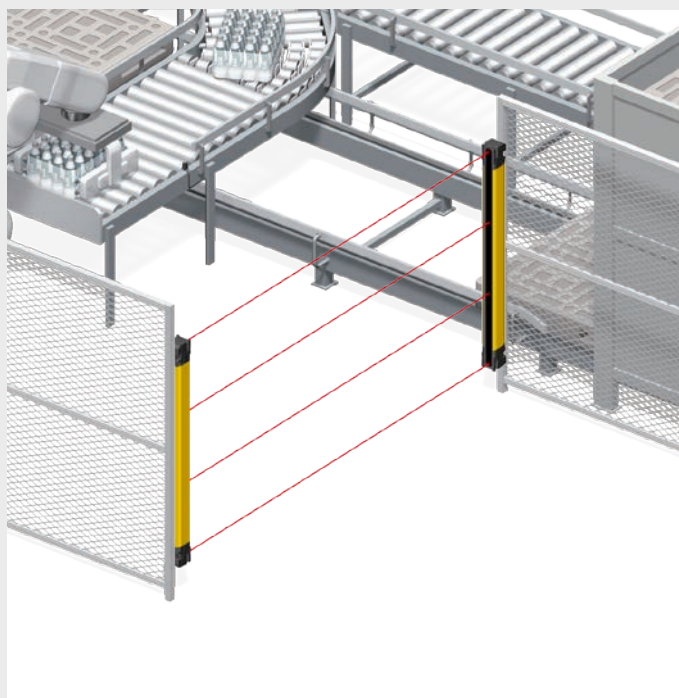
Protection around perimeters of equipment

PG

Page 26

Safety Multi-Light Beam
F3SG-PG Series

Available soon



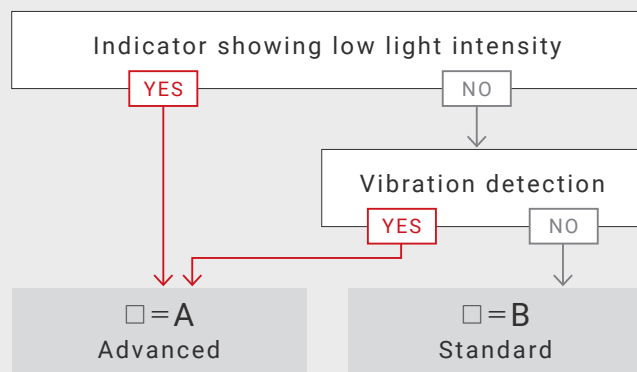
SR

Complete the model number.

F3SG-4SR - - -

①
③
②
④
⑤

1 Select an application.



2 Select detection capability.

Type	②
 Finger Protection Detection capability 14-mm dia. 	<input type="text"/> <input type="text"/> = 14
 Hand Protection Detection capability 25-mm dia. 	<input type="text"/> <input type="text"/> = 25
 Arm/Leg Protection Detection capability 45-mm dia. 	<input type="text"/> <input type="text"/> = 45
 Body Protection Detection capability 85-mm dia. 	<input type="text"/> <input type="text"/> = 85

3 Select protective height.*

Finger Protection

Protective height (mm)	Number of beams	③
160	15	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0160
240	23	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0240
320	31	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0320
400	39	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0400
480	47	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0480
560	55	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0560
640	63	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0640
800	79	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0800
1000	99	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1000
1200	119	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1200
1400	139	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1400
1600	159	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1600
1800	179	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1800
2000	199	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 2000

Arm/Leg Protection

Protective height (mm)	Number of beams	③
240	6	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0240
400	10	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0400
560	14	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0560
720	18	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0720
880	22	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0880
1200	30	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1200
1520	38	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 1520

Body Protection

Protective height (mm)	Number of beams	③
280	4	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0280
440	6	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0440
600	8	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0600
760	10	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0760
920	12	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> = 0920

4 5 Select an option.*

Hand Protection

Protective height (mm)	Number of beams	3
160	8	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0160
240	12	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0240
320	16	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0320
400	20	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0400
480	24	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0480
560	28	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0560
640	32	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0640
720	36	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0720
800	40	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0800
880	44	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0880
960	48	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0960
1040	52	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1040
1120	56	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1120
1200	60	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1200
1280	64	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1280
1360	68	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1360
1440	72	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1440
1520	76	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1520
1600	80	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1600
1680	84	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1680
1760	88	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1760
1840	92	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1840
1920	96	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1920
2080	104	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =2080
2280	114	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =2280
2480	124	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =2480

Type	4
Set of emitter and receiver	Blank
Emitter	<input type="checkbox"/> = L
Receiver	<input type="checkbox"/> = D

Finger Protection and Hand Protection only

Type	5
-	Blank
Flexible Height Model <Protective heights available in increments of 40 mm>	<input type="checkbox"/> = F

* Representative models are listed. For other models, refer to page 34 and following.

PG

Complete the model number.

F3SG-4PGA - -

2

1

3

1 Select an application and then select a beam gap and number of beams.

Select an application.

Simple wiring to one end

NO

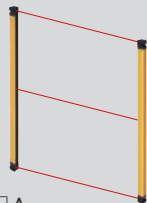
↓

Operating range ≥ 20 m

NO

↓

Perimeter
Access Guarding

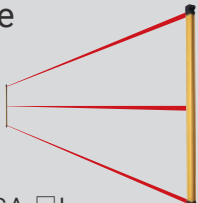


F3SG-PGA-□A

YES

↓

Perimeter
Guarding Long
Range

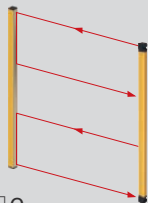


F3SG-PGA-□L

YES

↓

Perimeter
Guarding Deflect
Mirror



F3SG-PGA-□C

Select a beam gap and number of beams.

Beam gap/ number of beams	1
500 mm/2 beams	□□=2A
400 mm/3 beams	□□=3A
300 or 400 mm/ 4 beams	□□=4A

Beam gap/ number of beams	1
500 mm/2 beams	□□=2L
400 mm/3 beams	□□=3L
300 or 400 mm/ 4 beams	□□=4L

Beam gap/ number of beams	1
500 mm/2 beams	□□=2C
400 mm/3 beams	□□=3C
300 or 400 mm/ 4 beams	□□=4C

2 Select protective height.*

Protective height (mm)	Number of beams	2
580	2	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0580
880	3	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0880
980	4	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =0980
1280	4	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> =1280

3 Select an option.

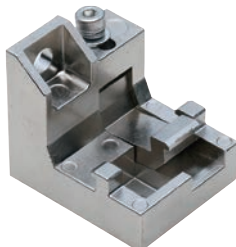
Type	3
Set of emitter and receiver, or set of emitter/receiver and passive mirror	Blank
Emitter	<input type="checkbox"/> =L
Receiver	<input type="checkbox"/> =D
Emitter/receiver (Perimeter Guarding Deflect Mirror only)	<input type="checkbox"/> =LD
Passive mirror (Perimeter Guarding Deflect Mirror only)	<input type="checkbox"/> =M

* Representative models are listed. For other models, refer to page 36 and following.

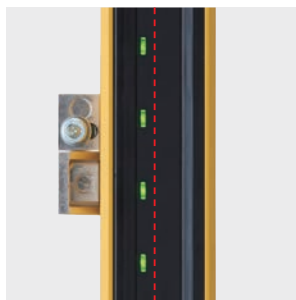
STEP 2 Choose a mounting bracket

See page 37 for details of mounting brackets.

Side-Mount Bracket
(Intermediate Bracket)



Standard accessory



Suitable for mounting on an aluminum profile so that its center is aligned with the center of beams.

- Included as a standard accessory with the light curtain
- Side mounting and backside mounting
- Beams not adjustable after installation

[Number of provided brackets]

Protective height $\leq 1,440$ mm : 4

Protective height $\leq 1,520$ mm : 6

Brackets that allow beam adjustment after the light curtain is installed

Adjustable Side-Mount Bracket
(Intermediate Bracket)
F39-LSGA



- Vertical adjustment
Angle adjustment range : $\pm 15^\circ$
- Side mounting and backside mounting
- Two brackets per set

For F3SG-PG Perimeter Guarding Deflect Mirror

F39-LSGA-C Available soon

Adjustable Top/
Bottom Bracket
F3SJ, F3SN Adapter
F39-LSGTB-SJ



- Used at the top and bottom of the light curtain
- Angle adjustment range : $\pm 22.5^\circ$
- For replacement of F3SJ or F3SN Series
- Side mounting and backside mounting
- Two brackets per set

For F3SG-PG Perimeter Guarding Deflect Mirror

F39-LSGTB-C Available soon

Mounting brackets to easily replace your existing Omron light curtains are also available.

For replacement of F3SG-RA/RE Series

Adjustable Top/Bottom Bracket
F3SG-RA/RE Adapter

F39-LSGTB-RE



For replacement of MS4800 Series and F3SR-B Series

Adjustable Top/Bottom Bracket
MS4800/F3SR Adapter

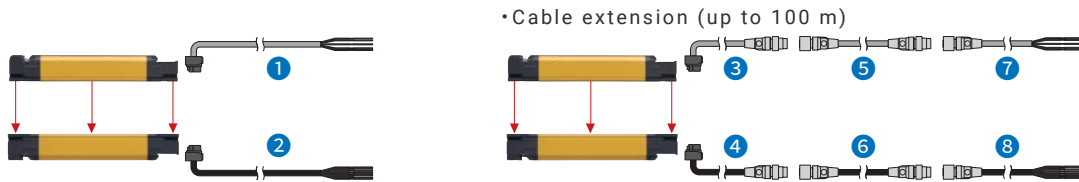
F39-LSGTB-MS



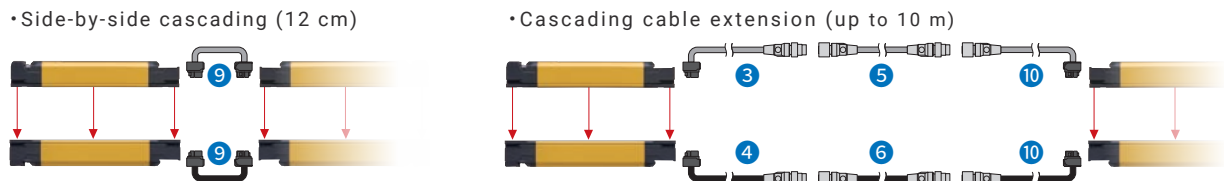
STEP 3 Choose a wiring method

See page 38 and following for details of cables.

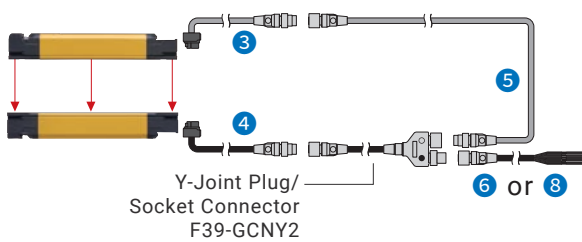
One light curtain



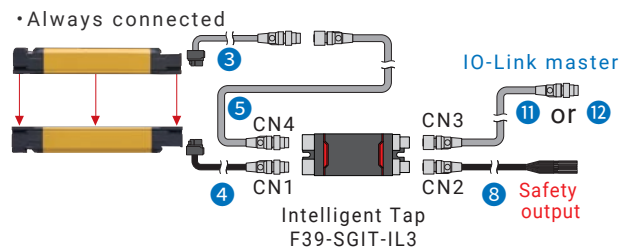
Series-connected



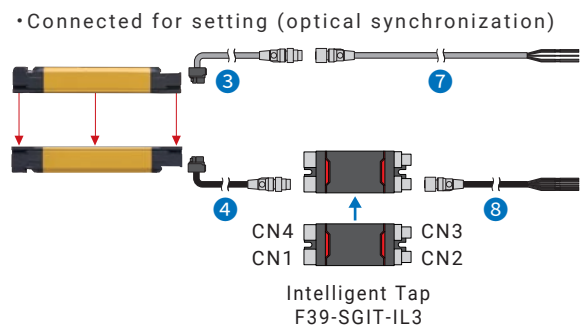
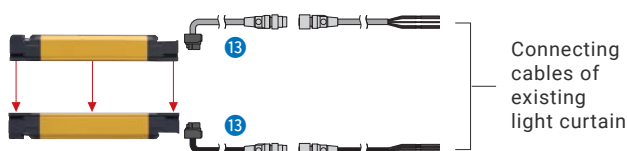
Use of reduced wiring connector



Use of Intelligent Tap



Replacement of Omron light curtain



No.	Product name	Appearance	Model	Cable length	Remarks
①	Root-Straight Cable		F39-JG□C-L	3, 7, 10 m	For emitter, gray
②			F39-JG□C-D	3, 7, 10 m	For receiver, black
③	Root-Plug Cable for Extended		F39-JGR3K-L	30 cm	For emitter, gray
④			F39-JGR3K-D	30 cm	For receiver, black
⑤	Extended Plug-Socket Cable		F39-JG□B-L	3, 10, 20 m	For emitter, gray
⑥	Extended Socket-Straight Cable		F39-JG□B-D	3, 10, 20 m	For receiver, black
⑦			F39-JG□A-L	3, 10 m	For emitter, gray
⑧			F39-JG□A-D	3, 10 m	For receiver, black
⑨	Side-by-side Cascading Cable		F39-JGR12L	12 cm	For emitter and receiver, two cables per set
⑩	Cascading Cable for Extended		F39-JGR3W	30 cm	For emitter and receiver, two cables per set
⑪	Socket-Straight Cable for IO-Link		F39-JG□B-L	3, 10, 20 m	For connection to GX-ILM08C
⑫	Root-Straight Cable for IO-Link		XS5F-D521-DJ0-IL	2 m	For connection to NX-ILM400
⑬	Conversion Cable		F39-JGR3K-SJ	30 cm	For use of wiring for F3SN, F3SJ-A/-B, or F3SR
			F39-JGR3K-RE	30 cm	For use of wiring for F3SG-RE
			F39-JGR3K-MS	30 cm	For use of wiring for MS4800

STEP 4 Choose the accessories you need

* See page 42 and following for details of accessories.

Intelligent Tap and configuration tool SD Manager 3

Easy monitoring, setting, and IO-Link connection with external devices

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Intelligent Tap
F39-SGIT-IL3



Configuration tool
for PC
SD Manager 3



Bluetooth
Communication Unit
F39-SGBT



Monitoring tool for
smartphones and tablets
SD Manager 3 Mobile APP

Requirements
Android 7.0 or higher/Windows 10

For details, refer to your local
Omron website.

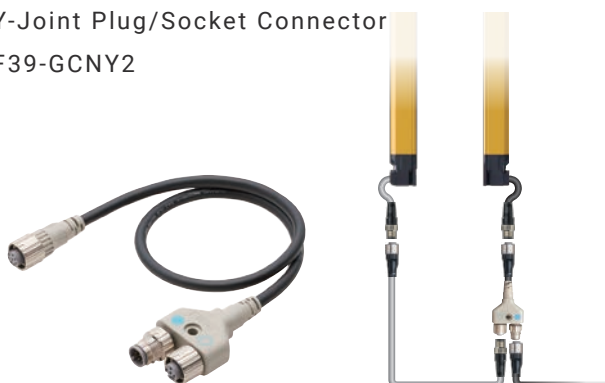


Reduced wiring system

Simple wiring of light curtains and reset switches

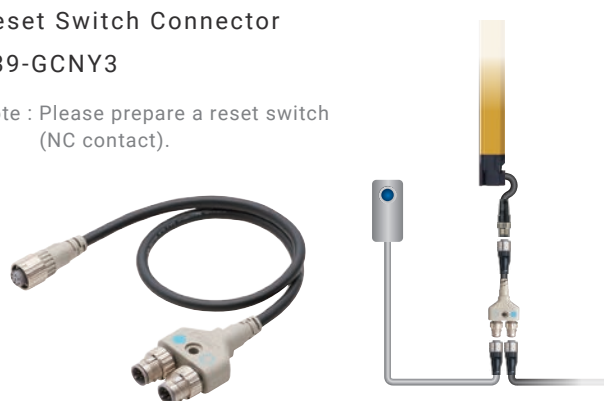
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Y-Joint Plug/Socket Connector
F39-GCNY2



Reset Switch Connector
F39-GCNY3

Note : Please prepare a reset switch
(NC contact).



Muting system

Easy installation and wiring of muting sensors

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Muting Sensor Arm Mounter

F39-FMA□□□T

(Through-beam) Available soon

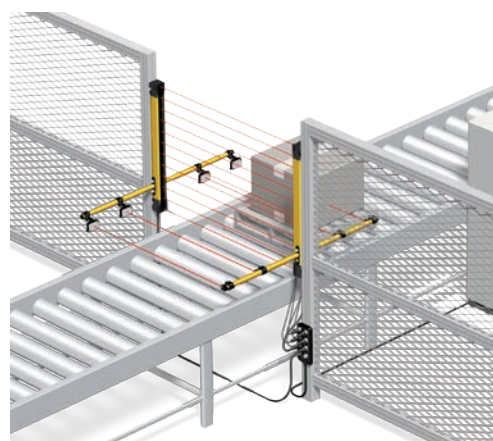
F39-FMA□□□R

(Retro-reflective) Available soon



Muting Sensor Connection Box

F39-GCN5 Available soon



Floor mount system

Easy installation of light curtains and mirrors on floors

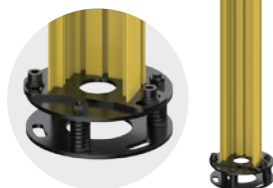
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Floor Mount Column

F39-ST Available soon

Mount-Column Adjustable Base

F39-STB Available soon



Mirror Column

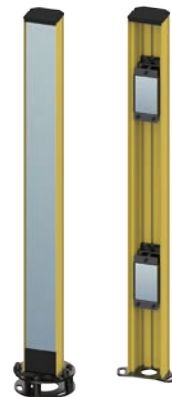
(for F3SG-SR
Safety Light Curtain)

F39-SML Available soon

Mirror Column

(for F3SG-PG
Safety Multi-Light Beam)

F39-PML Available soon



Laser Alignment Pointer

Easy beam adjustment with laser beam

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F39-PTG



Lamp

At-a-glance check of light curtain status

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F39-SGLP Available soon

Note: The Lamp does not support Bluetooth communication.



Spatter Protection Cover

Protection of optical surfaces
against spatter

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F39-HSG



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