# OMRON

# Safety Light Curtain series F3SG-SR
## Redefines safety at manufacturing sites

Broadest product line up for the most flexible machine design

High robustness for operation in harsh environments

Quick installation and diagnostics by area beam and status indicators

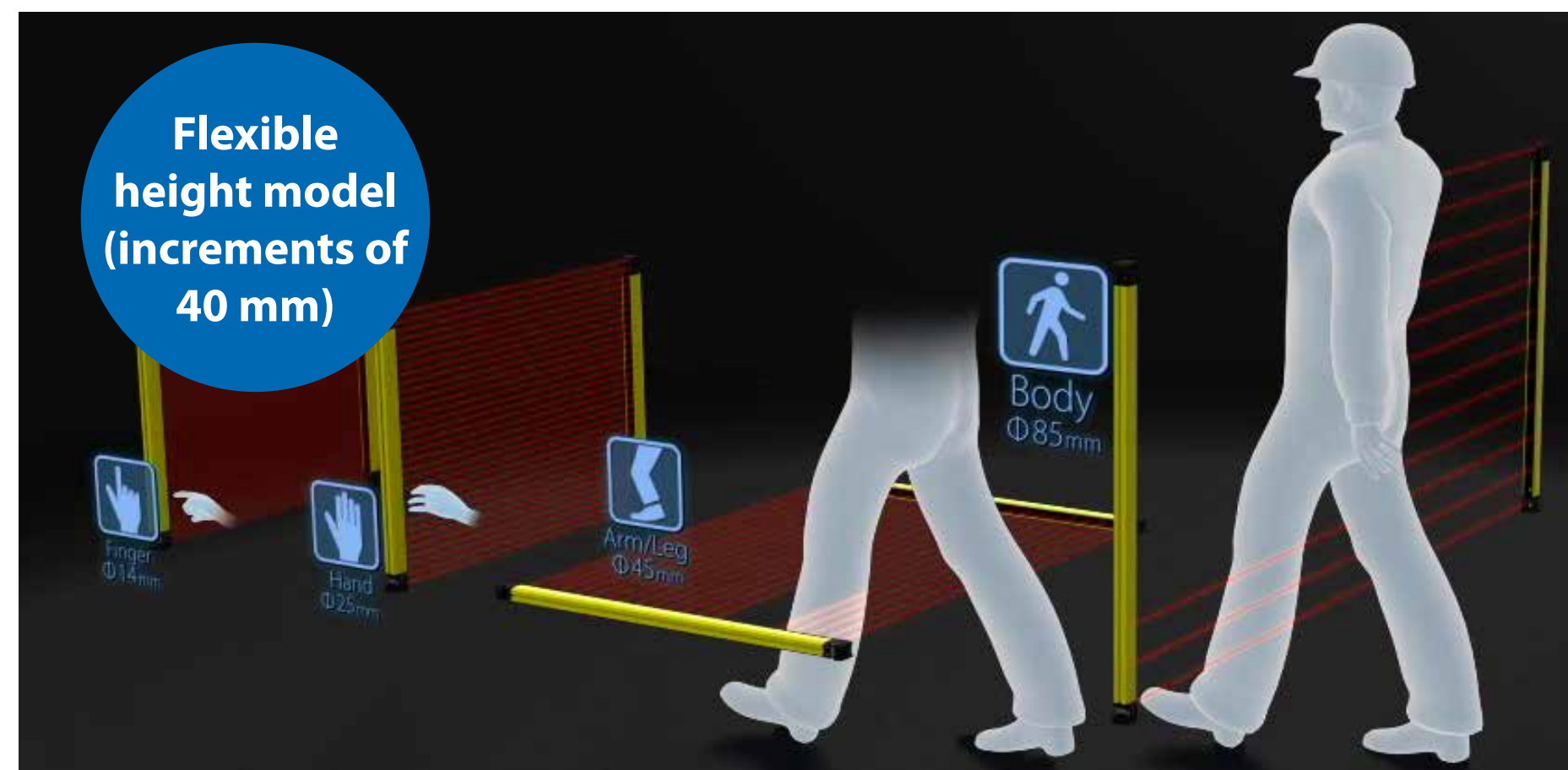Accessories to reduce wiring time and installation cost

Easy configuration and monitoring by using the Intelligent Tap device

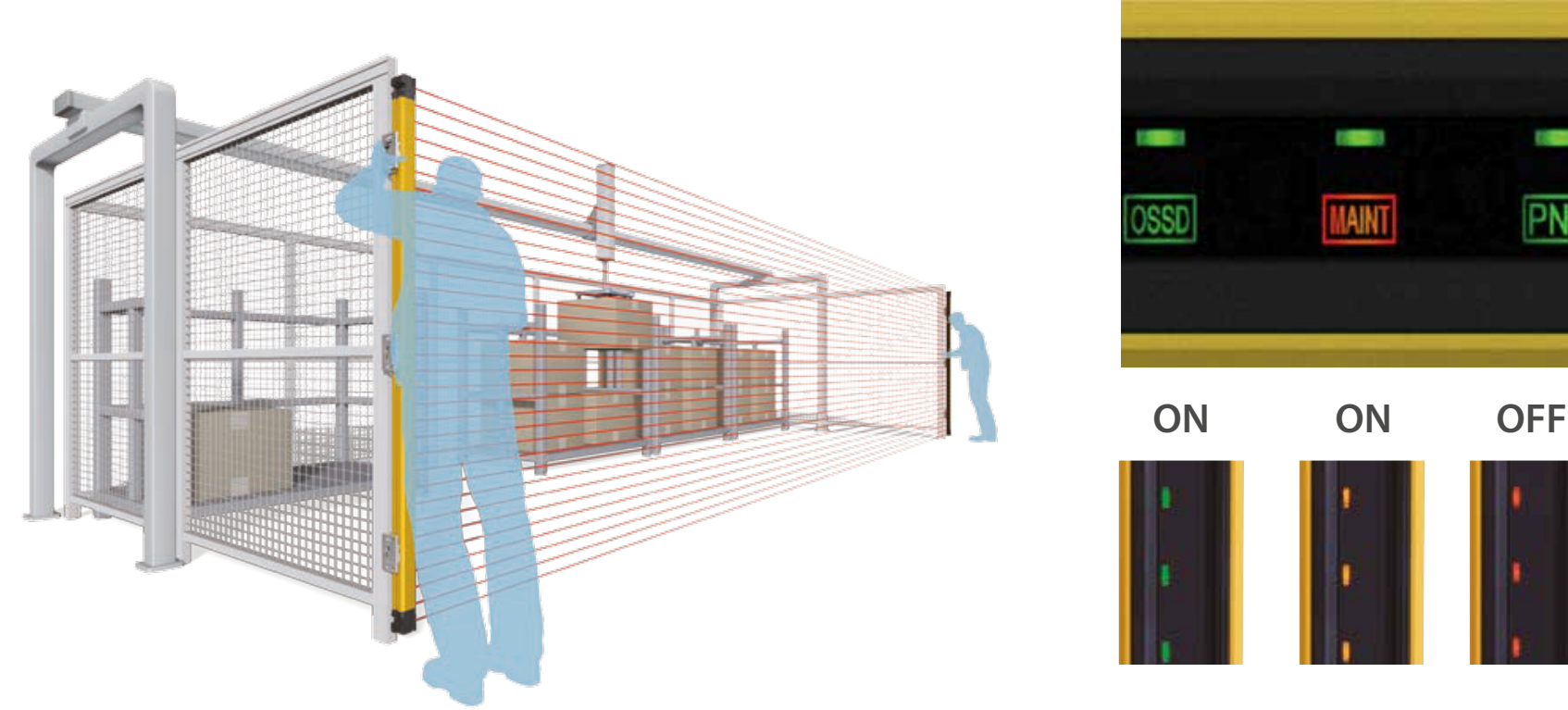Fully safety protection without blind areas on both sides

# Product Highlights

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## Increased design flexibility

Flexible height model (increments of 40 mm)

Adaptable for a wide variety of applications (finger, hand, arm/leg and body) and protective heights

## Quick installation and diagnostics

Area Beam Indicator (ABI) facilitates the fine adjustment of beams for long-distance sensing. Status indicators help to determine the optimal replacement timing

## Easy configuration and monitoring

Plug & Work for quick replacement

Remote configuration and monitoring via Bluetooth®. Operating data collection to prevent unplanned stoppages through IO link communication

## High robustness

Water Resistance IP69K
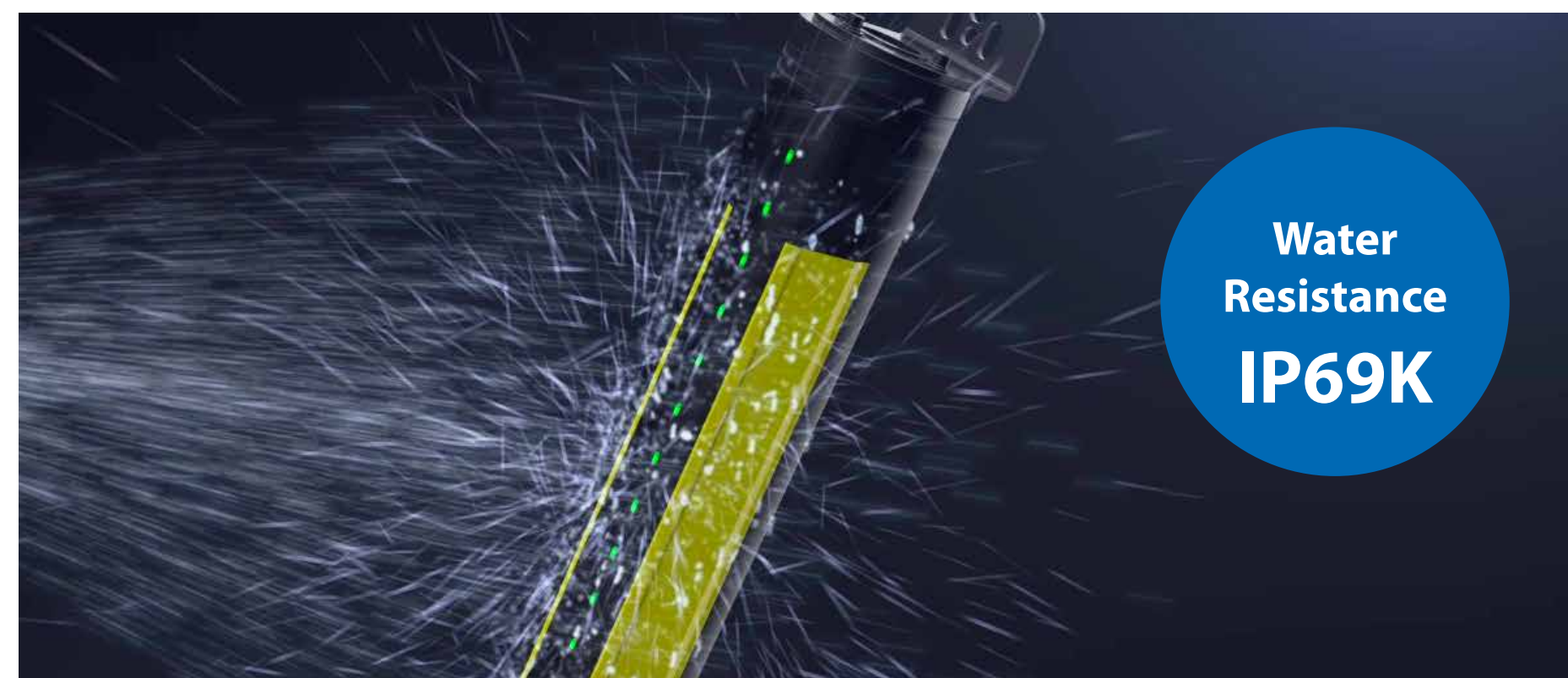
Tightly sealed and rugged structure improves environmental resistance: Operating temp. down to -30°C Oil, resistance (IP67G) and washable model (IP69K)

## Wiring cost and time reduction

Emitter   Receiver

Up to 100 m

13-pair terminals

8-pair terminals
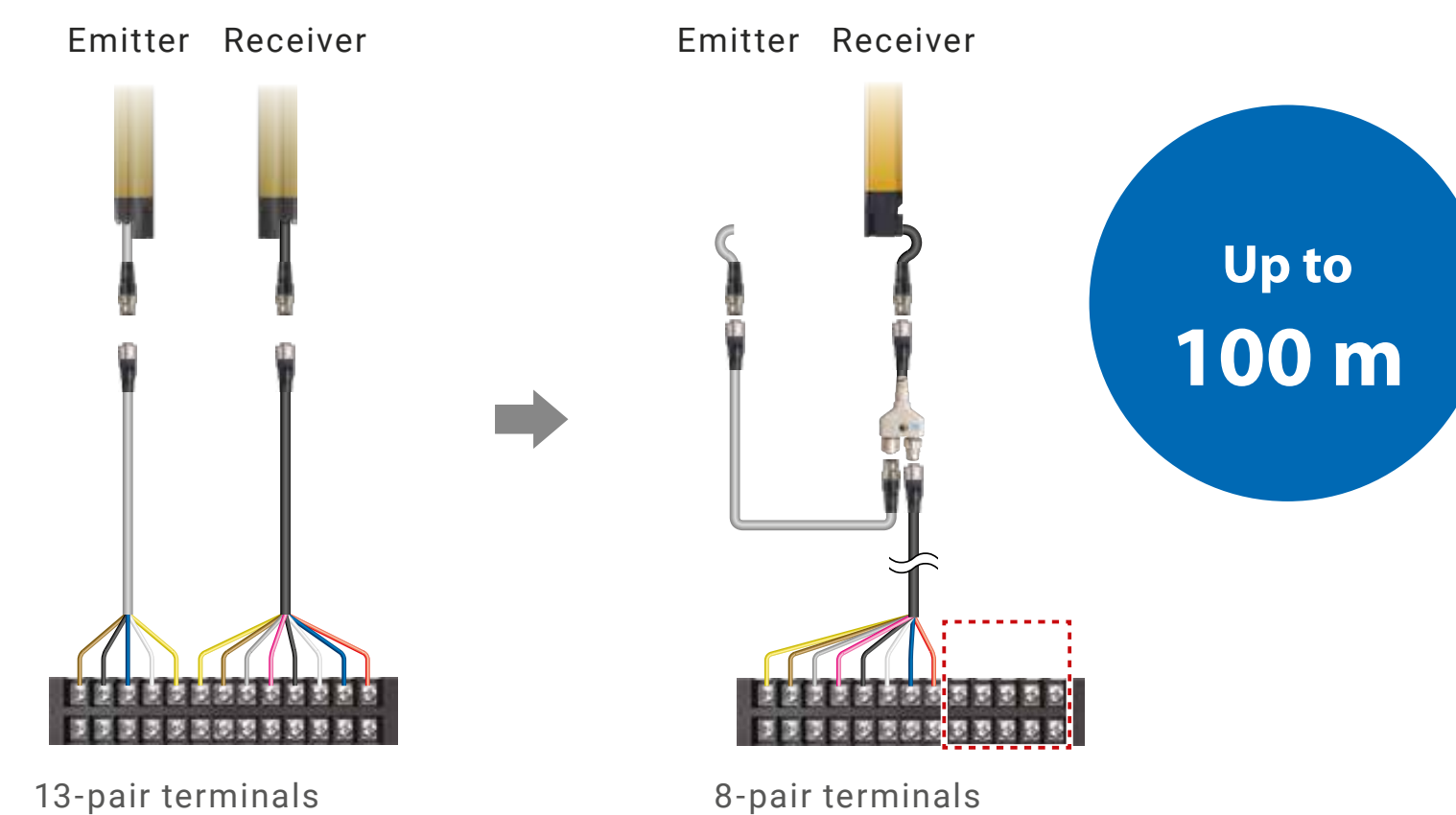
A wide variety of accessories to simplify wiring, reduce installation work and save space on the control panel
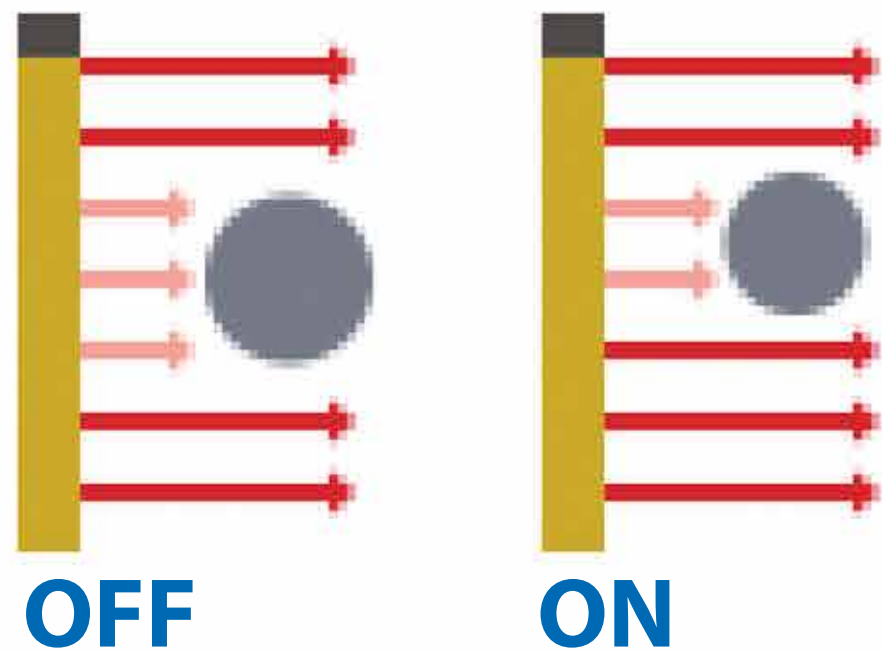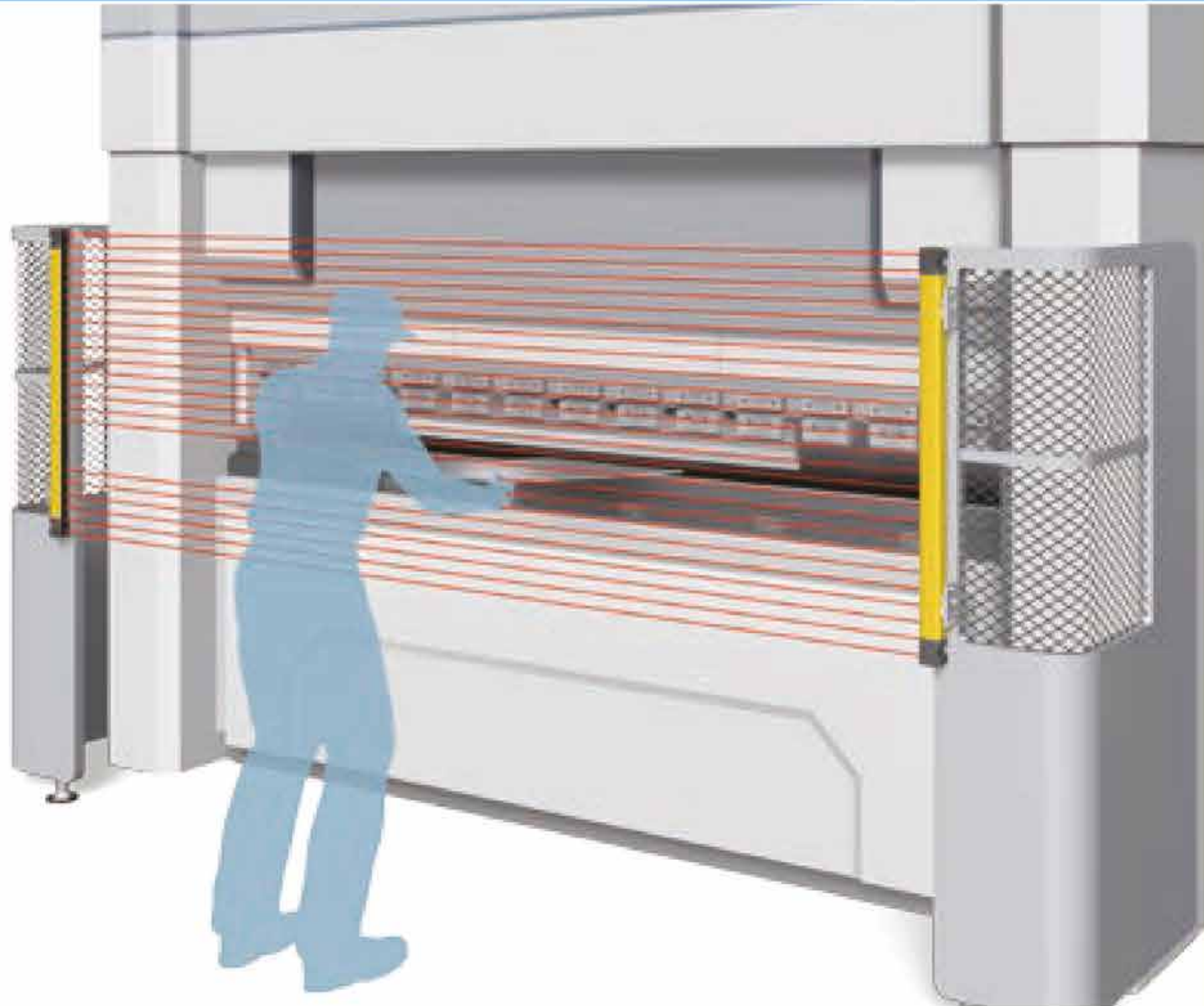
## Protection without dead space
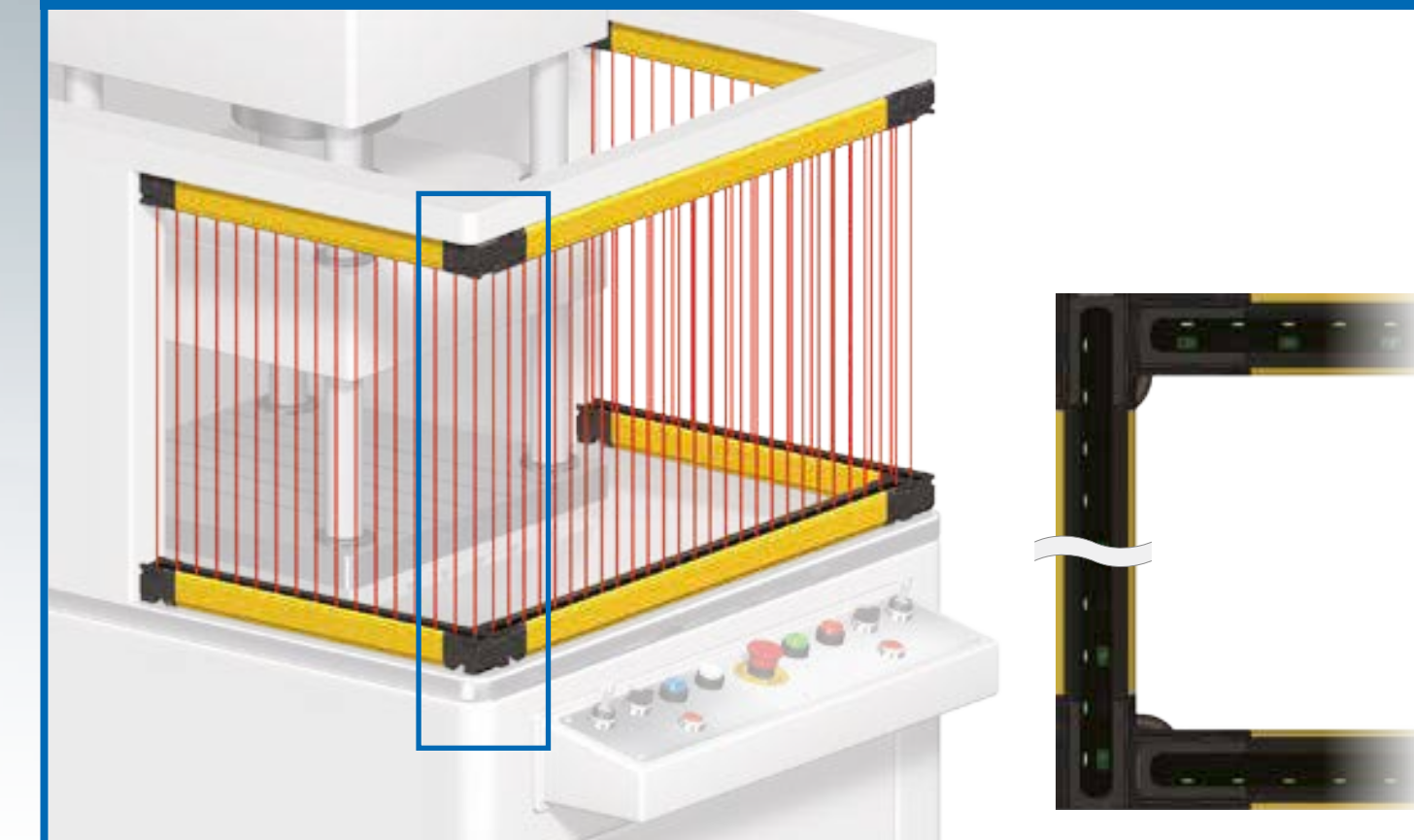
Hand protection model detects a hand anywhere on the safety area even with series-connected or U-shape connected

# Additional Features

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## Reduced Resolution function to improve operator's efficiency

**OFF**    **ON**

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. Safety distance is maintained as the response time remains the same.

## Pre-reset function to prevent from dangerous restart
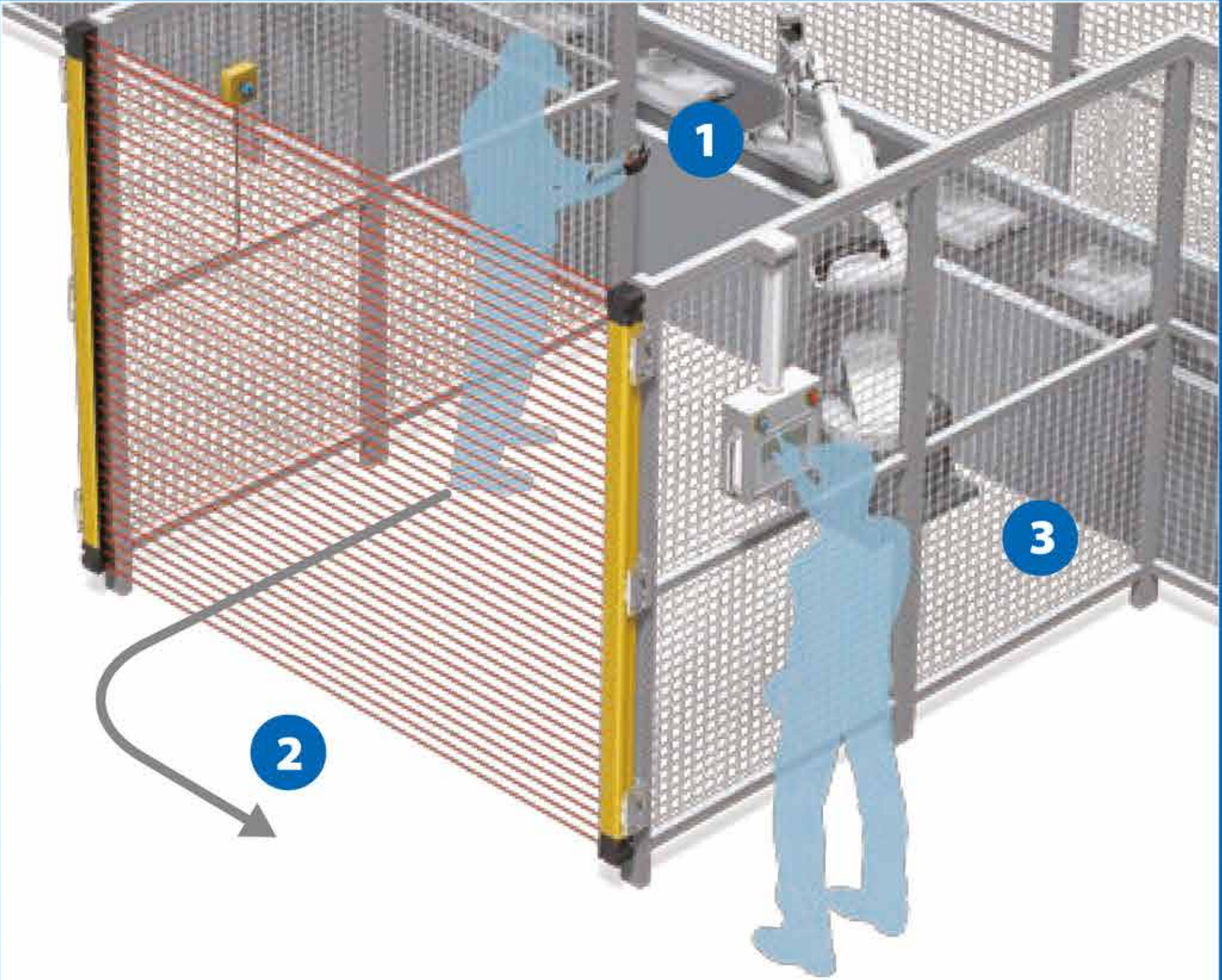
It prevents the restart of equipment while an unseen worker is still inside the hazardous zone.
The equipment cannot be restarted until the pre-reset switch (1) of the light curtain is pressed, operator gets out of the hazardous zone (2) and the light curtain is reset (3).
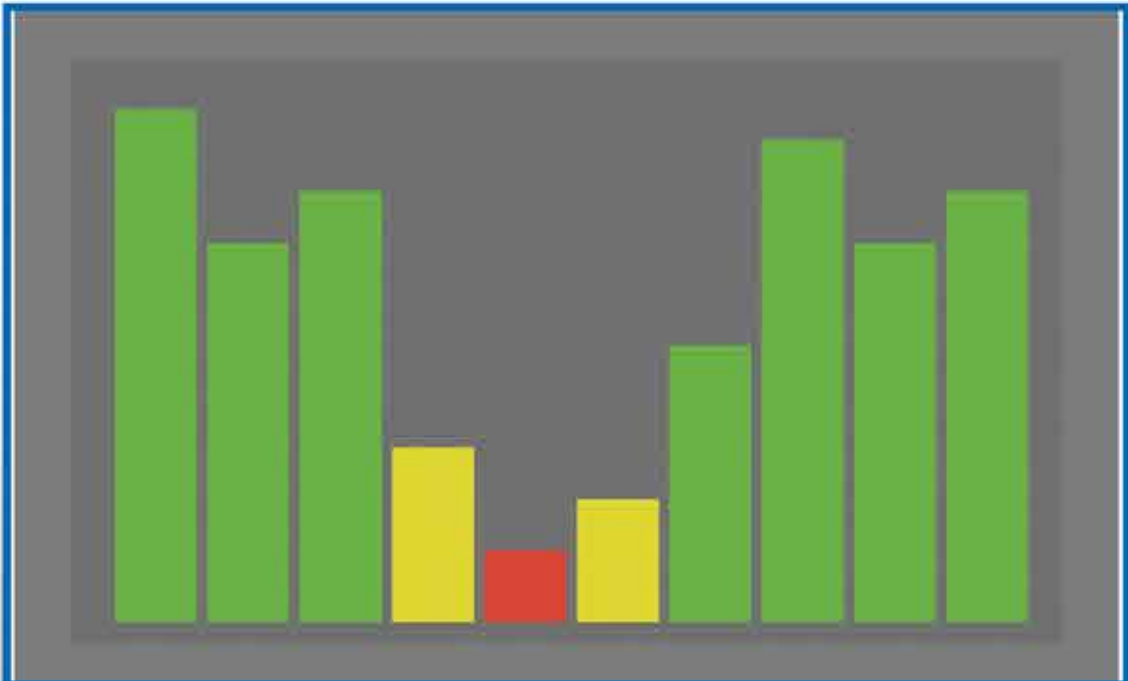
## Easy configuration setting and monitoring via PC software SD Manager 3

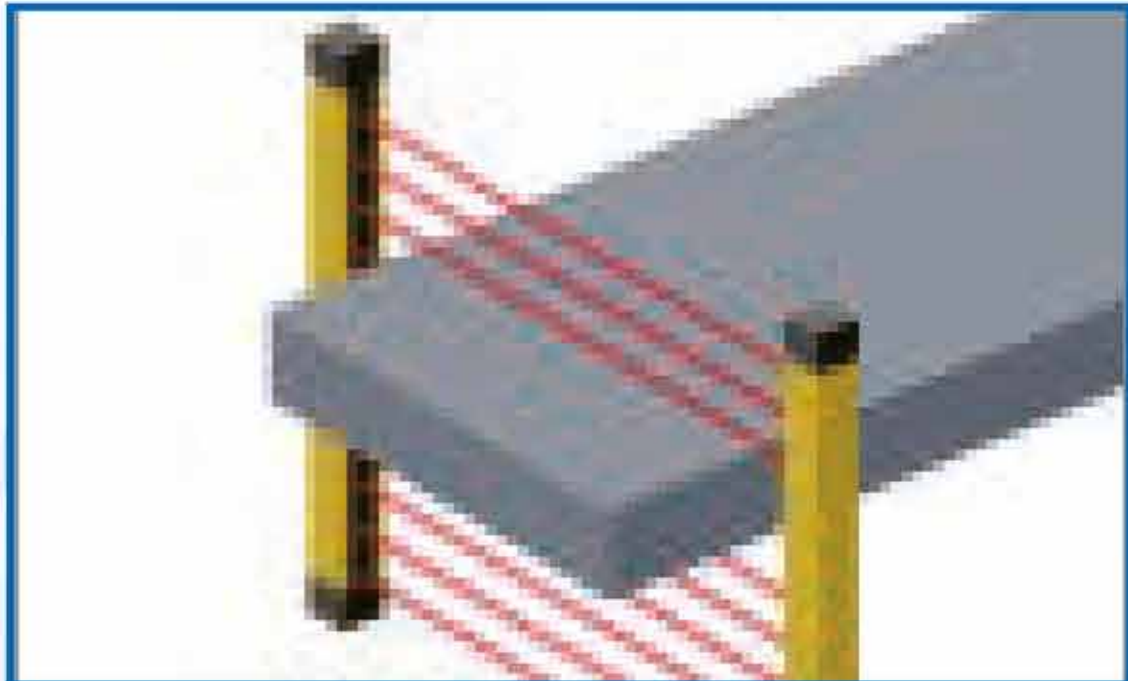The configuration tool allows you to easily monitor status and make settings without using a safety controller.

# Built-in standard safety functions
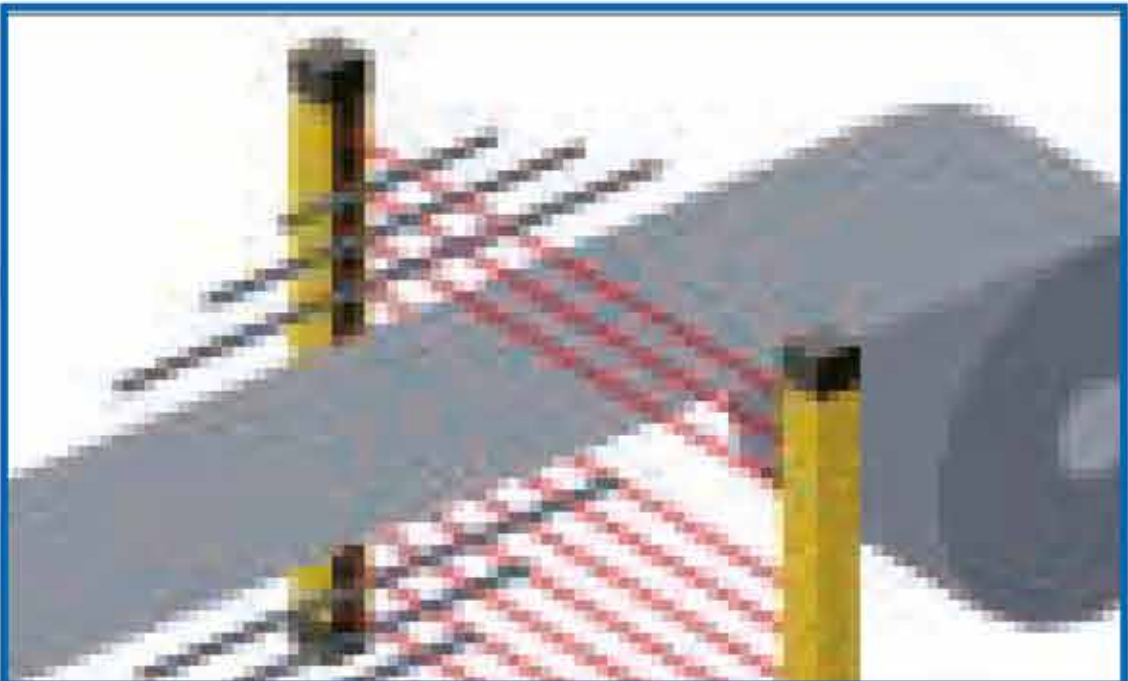
**OMRON**

## Monitoring
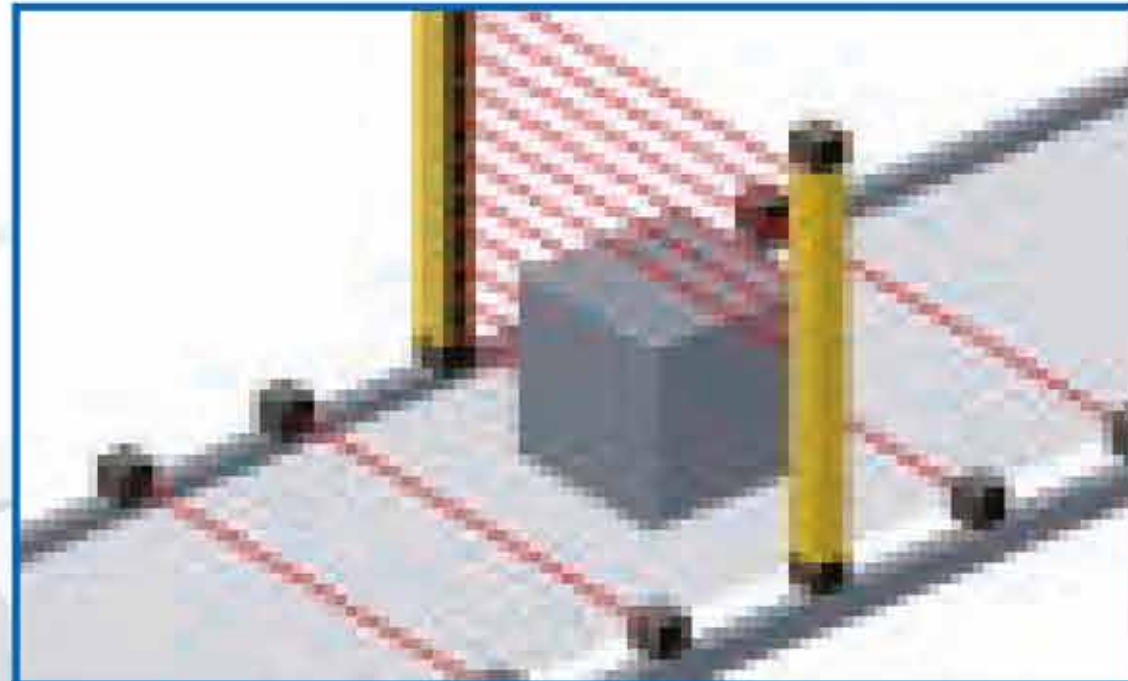


Incident / Ambient
Light Level Information

## Safety function setting



Fixed Blanking
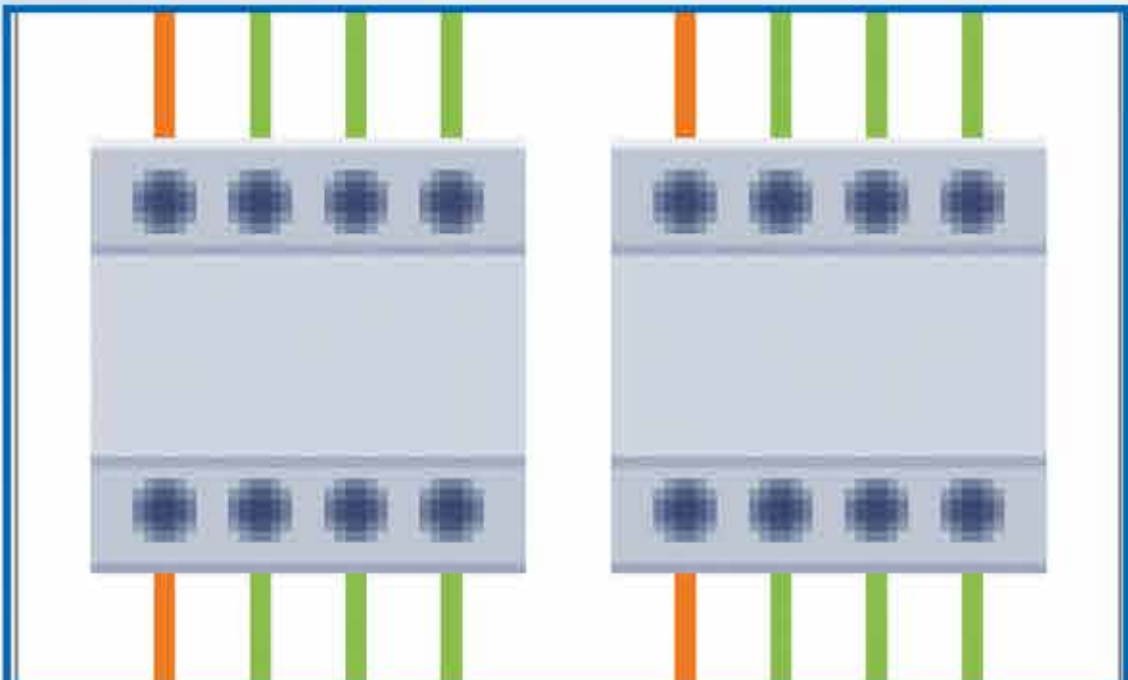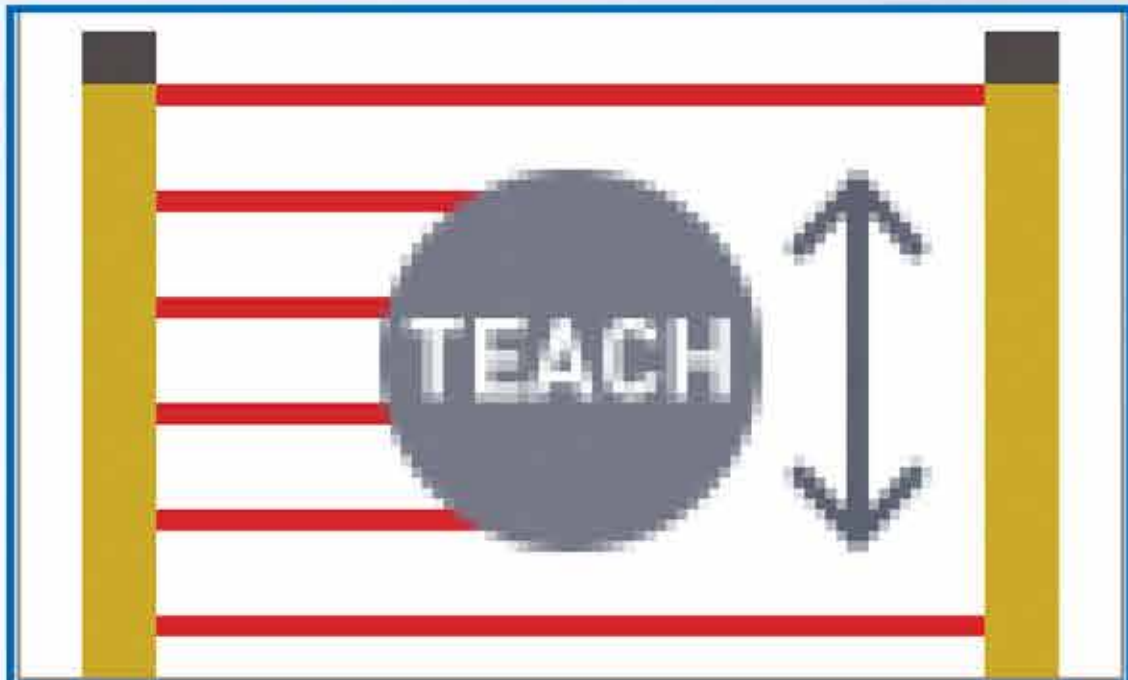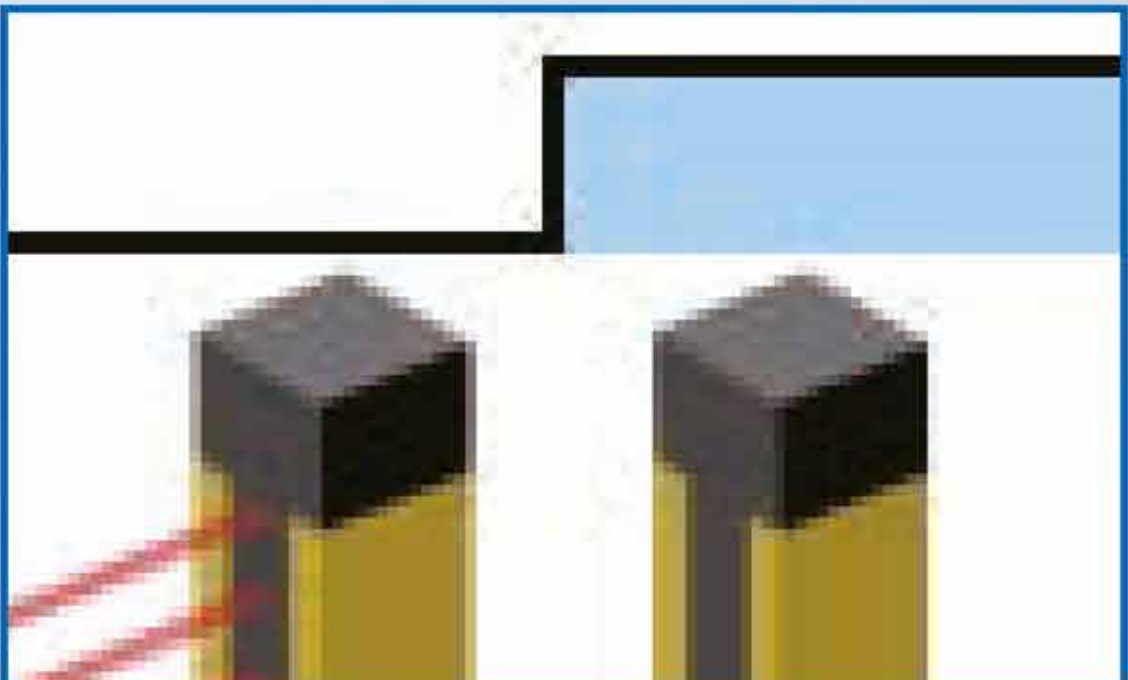


Floating Blanking



Muting /Override



Warning Zone

## I/O setting



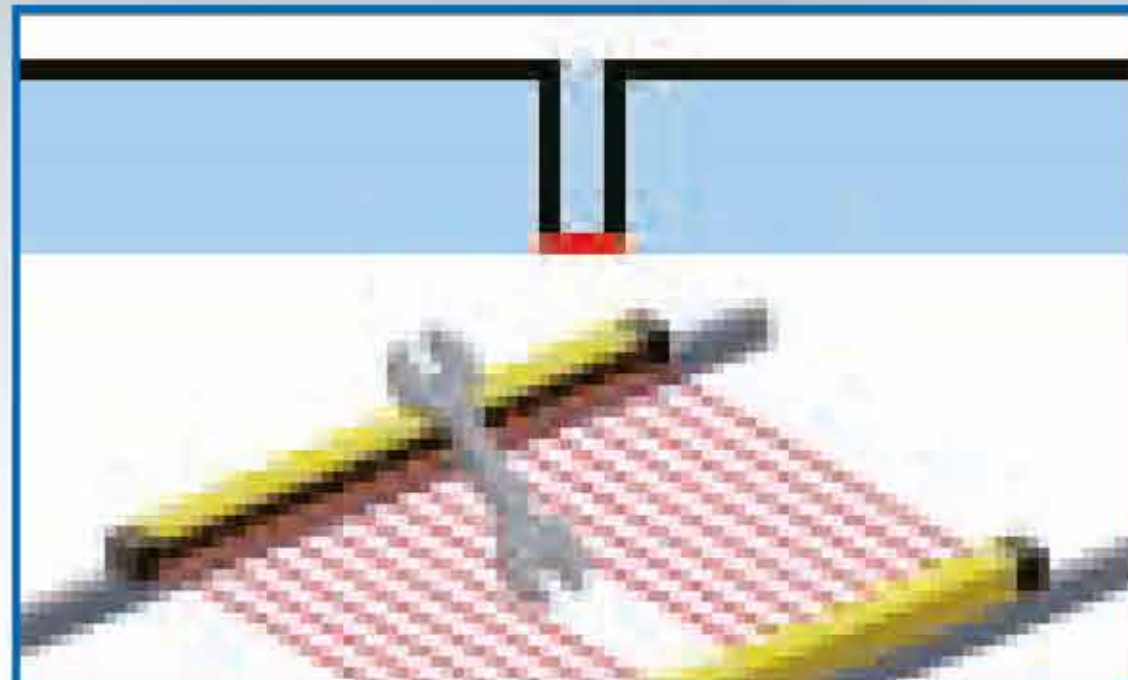Interlock / External Device
Monitoring



TEACH

Teach-in Input



External Test Input

## Operation state change



Response Time Adjustment



SHORT

LONG

Operating Range Selection

# Application Areas

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## Automotive

Water/oil resistance
**IP67G**

Spatter Protection Cover
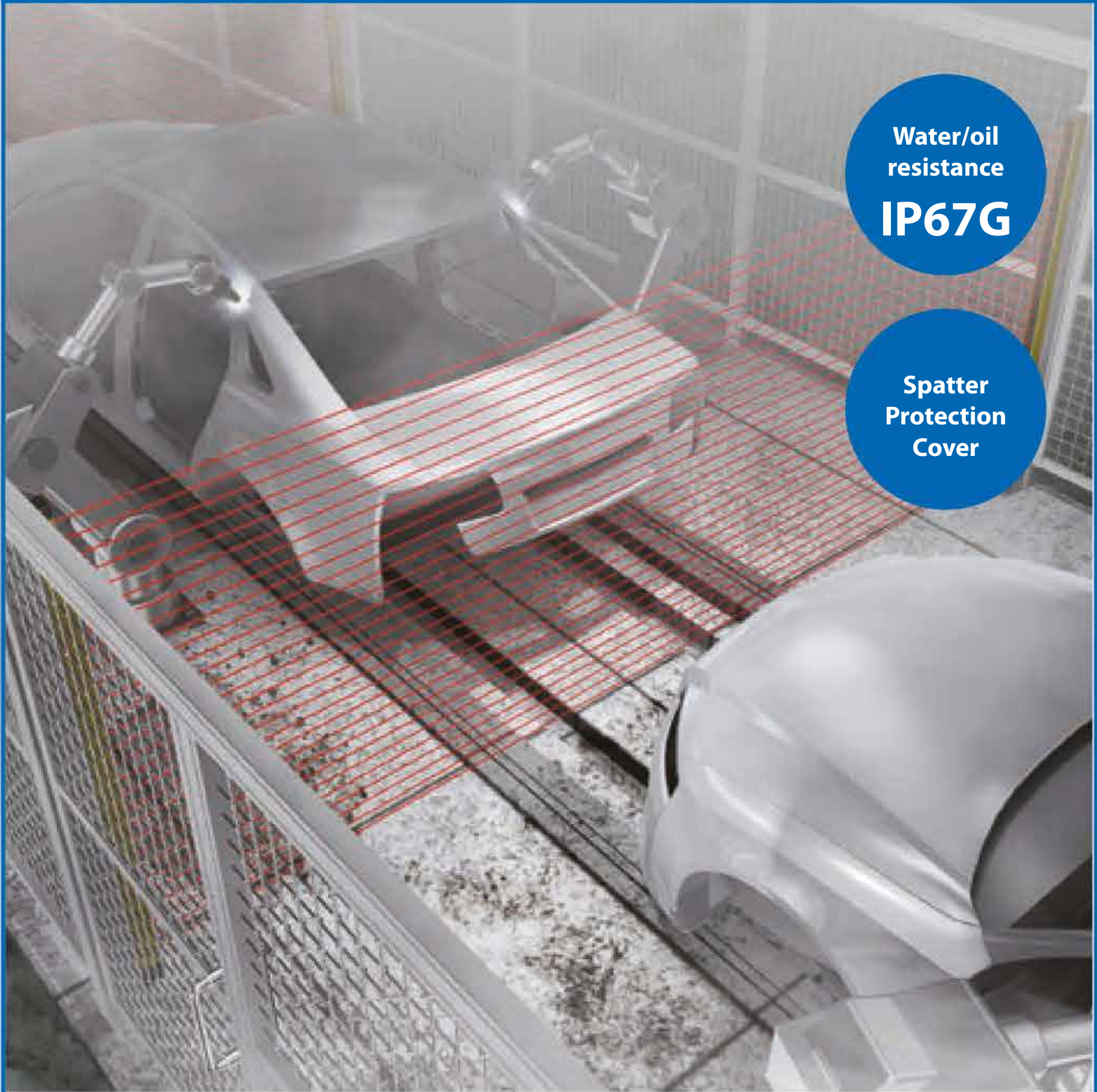
Operation safeguarding and access protection for:
• Welding robots
• Paint shop (outside the shop by windows)
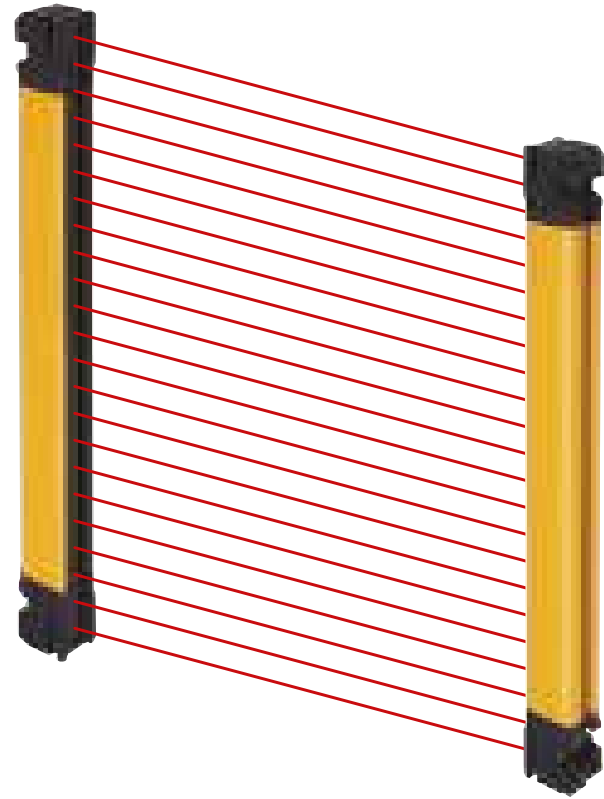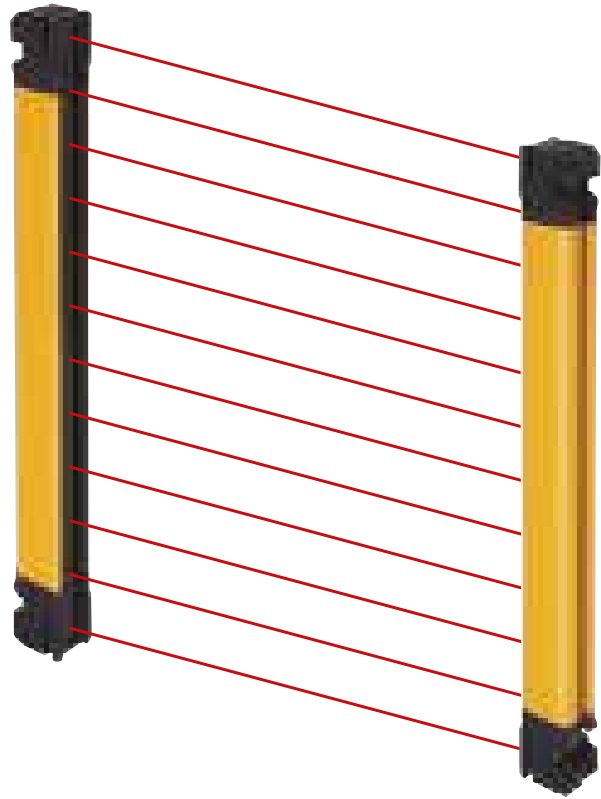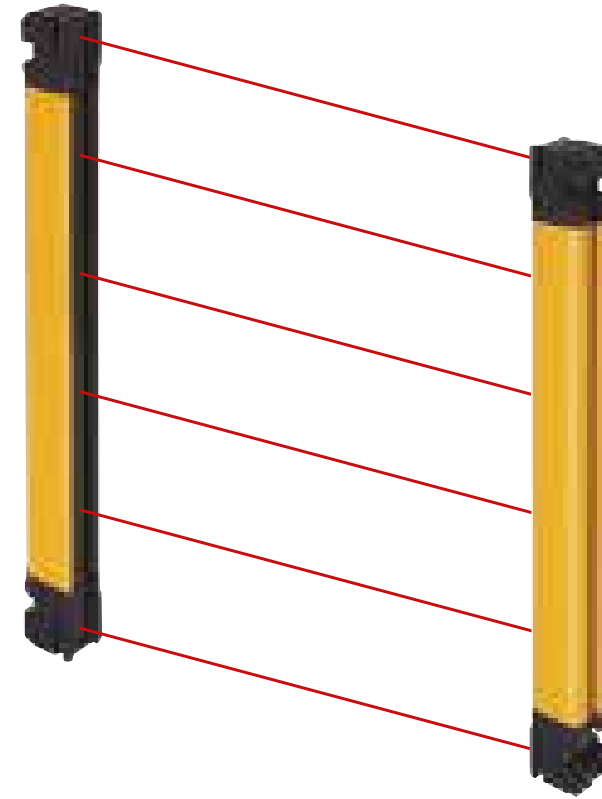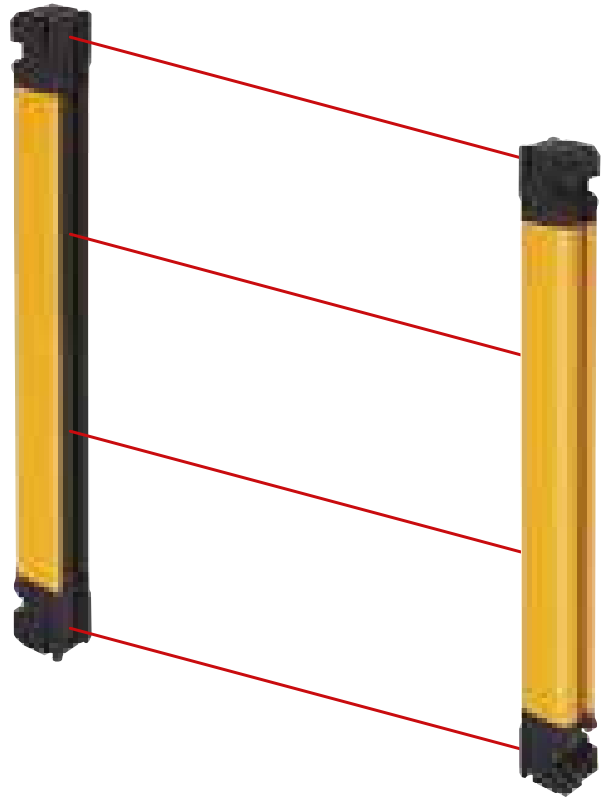• Final assembly line

## Food & Commodity

Water resistance
**IP69K**

Use in temperatures down to
**-30ºC**

Operation safeguarding and access protection for:
• Continuous handling equipment
• Filling and capping line
• Automatic palletizing machines

## Metal working

Water/oil resistance
**IP67G**

Mutual interference prevention up to 3 sets

Operation safeguarding and access protection for:
• Machine Mechanical tools
• Hydraulic and presses
• Metal Processing equipment

# Portfolio

| Series | | | Advanced/Standart | | | |
|---|---|---|---|---|---|---|
| | | |  |  |  |  |
| **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. |
| | | 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 | | | |

# Accessories

| Accessories | | | | |
|---|---|---|---|---|
| Configuration and communication | Intelligent Tap | | Bluetooth communication unit | |
| Mounting brackets | Side-Mount brackets | | Adjustable Top/BottomBracket | |
| Muting system | Muting Sensor ArmMounter | | Muting SensorConnection Box | |
| Reducing wiring system | Y-Joint Plug/Socketconnector | | Reset switchconnector | |
| Signaling | Lamp | | Laser alignmentpointer | |
| Protection | IP69K washable model | | Spatter protection cover | |