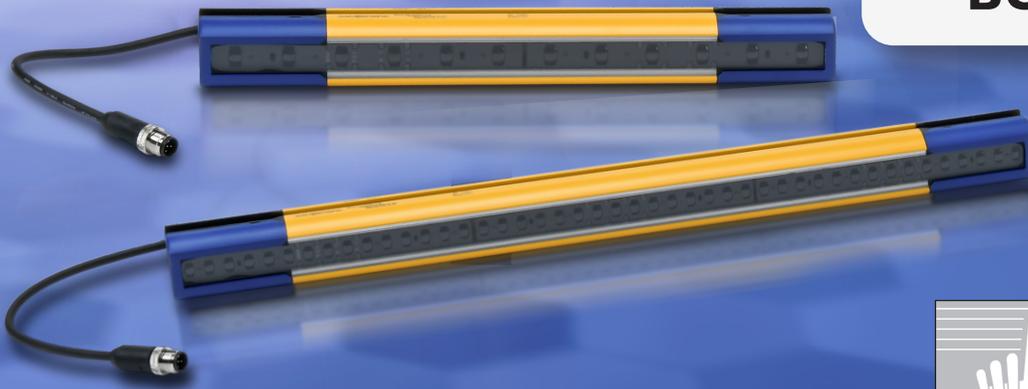# SAFETY LIGHT CURTAINS
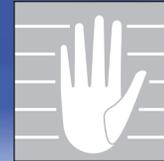## BUYING GUIDE

WHAT DO THEY DO?

Safety light curtains are electronic sensing devices designed to detect the presence of people or objects entering hazardous areas. They create an invisible "screen" of infrared light beams; when any beam is interrupted, the system sends a stop signal to prevent injury. This section provides an overview of their primary functions and explains how each component contributes to effective machine guarding.

Topics

» **What do they do?**
» **Applications**
» **How to Choose**
» **Environmental And Mechanical Considerations**
» **Selection Guide**
» **Product lineup**

Core Functions:

• **Hazard Detection:** Light curtains monitor the protected zone in real time. Obstructing one or more beams will signal that a person or object has entered a dangerous area, prompting the machinery to immediately go to the machine's safe state.

• **Access Control:** They help ensure that only safe entry into machine zones is allowed—often part of broader safeguarding approaches that include interlocks, fencing, or safe operating procedures.

• **Machine Control Integration:** Light curtains interface with safety controllers or safety relays to trigger safe stop commands and support restart-interlock functionality.

• **Productivity Support:** Unlike physical guards, light curtains allow for open, unobstructed access to work areas while still maintaining compliance with safety regulations.

Key Components:

• **Emitter and Receiver Units:** The emitter projects multiple infrared beams to the receiver across the protected opening. Together, they form the detection field that identifies intrusions. The receiver unit sends an OSSD signal, based on beam status, to the safety controller or safety relay.

• **Safety Controller / Relay:** This module monitors the OSSD signal from the light curtain and determines when to initiate an emergency stop or safe shutdown.

• **Status Indicators and Diagnostics:** LEDs, displays, and diagnostic outputs provide real-time information about alignment, contamination, beam blockage, and system faults

• **Mounting Hardware and Alignment Tools:** Adjustable brackets, mirrors, and alignment aids ensure the light curtain is installed correctly for maximum coverage and reliability.

• **Protective Columns:** These housings shield the light curtains from damage.

• **Muting Sensors and Logic Modules (when used):** Muting in machine safety is the temporary, automatic suspension of a safety function (like a light curtain or scanner) during normal operation, allowing materials to pass into a hazard zone without triggering a stop.

• **Cabling and Connectors:** Designed to withstand industrial conditions, these components deliver power and communication signals between the light curtain and controller.
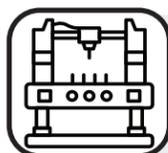
Safety light curtains protect people by detecting when hands, arms, or bodies enter hazardous areas where machines create pinch points, cutting hazards, or danger from moving parts. They provide a non-contact safeguarding method that stops machinery instantly when someone crosses the protective field. Light curtains are used anywhere frequent access is needed but fixed guards would slow production or reduce visibility.

Common applications include:

Automated Conveyor Transfers: Use short-range, high-resolution curtains like SH4-14, YBB-14, SG4-14, and YBES-14K4-series to guard nip points with conveyor-to-conveyor product transfer in a food-processing factory

CNC Machine Loading Stations: Choose wider-beam, longer-range models such as SG4-30, SH4-30, and YBB-30K4 series for CNC loading stations and press operations where hand intrusion is a risk.

Robot Cells: Deploy tall, long-range units like the YCA-50K4 and S/SMO/SMPO series to create perimeter protection around automated cells and conveyors where whole-body access must be prevented.

Injection Molding Machine Drop Areas: Use light curtains to protect operators as they remove molded parts from an IMM, ensuring the clamp cannot close when someone reaches into the mold area.

Punch Presses: The point of operation (the window where the operator places a part) is protected with a light curtain, ensuring the machine will enter a safe state if the area is disrupted during an operating cycle.
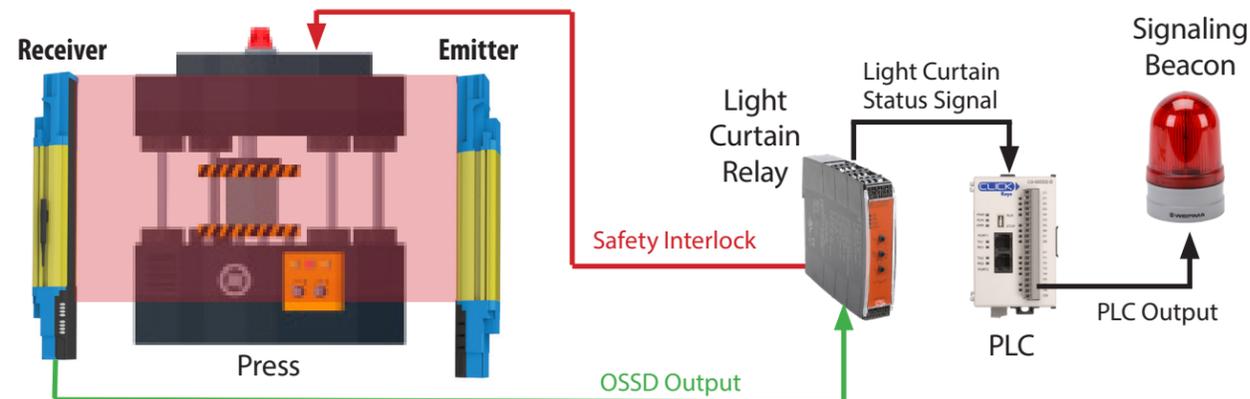
Bottling Lines: High-resolution light curtains protect the entrance to a shrink-wrapper fed from a bottling line. Since muting will be required, SG-L/T muting arms can be used with SG4 extended light curtains.

By aligning the protection field with task sequences, material flow, and operator ergonomics, light curtains provide reliable safety without slowing down the rhythm of production, making them easy to integrate into a wide variety of industrial workflows.
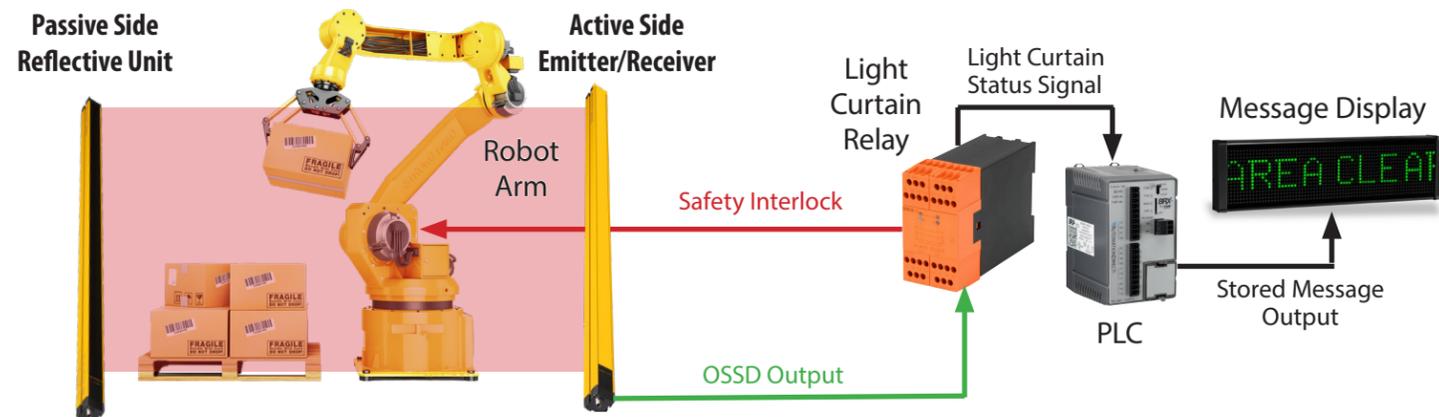
Hydraulic & Mechanical Press Operations
A stamping press producing automotive brackets uses light curtains to stop the press stroke if an operator's hand enters the die area during part loading/unloading.

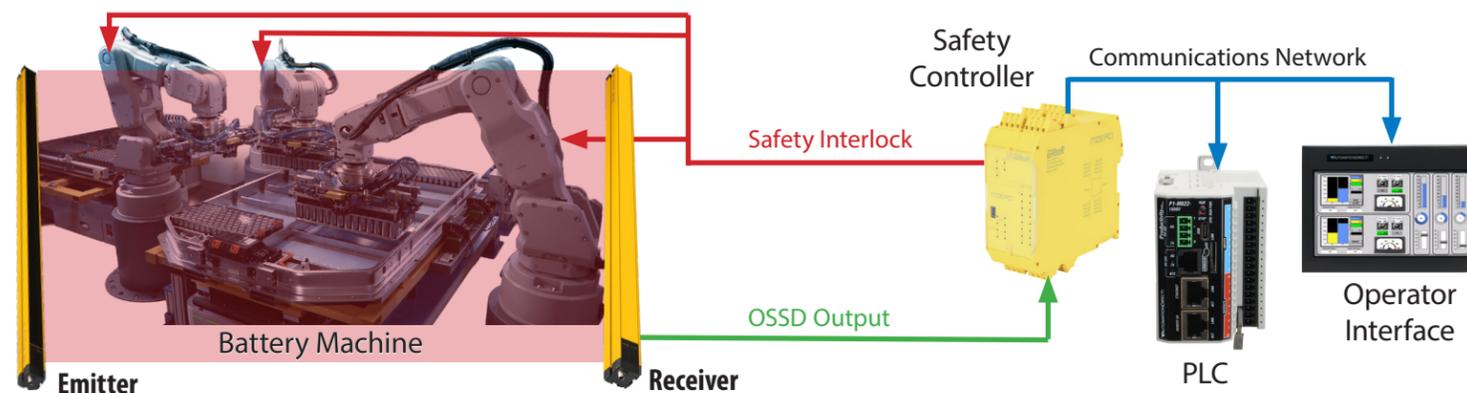### Robot Palletizing Cells
Light curtains are used at an end-of-line packaging cell where a robot stacks boxes onto pallets to prevent operators from walking unexpectedly into robot motion paths.

Battery Manufacturing Machines
Lithium-ion cell assembly and welding stations use light curtains to protect operators from laser welders, electrode stackers, and high-speed pick-and-place arms.

There are three main things to consider when choosing a safety light curtain after performing a safety risk assessment: detection capability, detection zone height, and minimum installation distance.

Detection capability (or resolution): The minimum diameter that an opaque object must have in order to obscure at least one of the beams that constitute the detection zone and to actuate the sensing device. The resolution is related to the part of the body to be protected.

• R = 14 mm finger protection
• R = 30 mm hand protection
• R = 300-400 mm body access protection

Protection height: The height of the detection zone protected by the safety light curtain.

Minimum Installation Distance: To ensure maximum protection, the light curtain must be installed at least a calculated distance away from the point of hazards. This spacing is essential—it guarantees that operators cannot reach the hazardous zone before the machine has come to a complete stop, as controlled by the Safety Control System.

According to EN ISO 13855, determining this distance isn't guesswork. It's a calculated value based on four key factors:

• Response time of the ESPE
  (Electro-Sensitive Protective Equipment)
• Machine stopping time
• ESPE resolution
• Approach speed of the person or object

The safety distance, S, measured in millimeters, is defined by the formula:

$$S = (K \times T) + C + Z$$
Where:

• K = approach speed of body parts (2,000 mm/s for hands/arms or 1,600 mm/s for walking)
• T = total system stopping time (seconds)
• C = additional intrusion distance based on ESPE resolution
• Z = extra safety margin for added protection

Other Considerations:

Muting Needs: Use muting arms and sensors where material must pass through the beam; confirm muting logic and alignment capabilities.

Mounting Space: Verify installation envelope and use mirrors when straight-line mounting is impractical.

Environmental Rating: Match IP ratings to washdown, dust, or outdoor exposures to ensure reliable operation (more on next page).

Certification Check: Confirm devices meet PL r or required SIL performance and have relevant third-party certification.

Integration and Wiring: Verify output type, wiring methods, and safety controller compatibility for diagnostic and restart logic.

Redundancy and Diagnostics: Prefer models with built-in diagnostics, redundant channels, and simple fault reporting to reduce downtime.

Match protection level, stopping distance, and environmental ratings to the application for a compliant, maintainable solution. Consult product datasheets and AutomationDirect support when configuration or certification questions remain.

Be sure to follow all applicable standards in addition to the laws from your local authority having jurisdiction (AHJ).

When choosing protective devices for demanding industrial environments, it's essential to evaluate the conditions they'll face throughout their service life. The following factors help ensure long-term reliability, reduced downtime, and consistent detection performance.

1. Ingress Protection (IP Rating): Always confirm the device's IP rating to ensure it can withstand dust, water, or high-pressure washdown. In dusty fabrication areas or food and beverage washdown zones, proper IP protection prevents contaminants from entering the housing and affecting internal electronics. Selecting the right IP rating upfront dramatically extends device life and reduces maintenance cycles.

2. Operating temperature range: Review both the continuous operating and storage temperature specifications. Exposure to extreme heat or cold can cause sensor drift, latency, or outright electronics failure. Verifying these limits helps ensure consistent performance in applications such as outdoor installations, freezers, ovens, or high-temperature forming processes.

3. Humidity and condensation: Understand the device's humidity tolerance and consider how condensation forms when temperatures fluctuate. Moisture inside the housing can lead to corrosion or intermittent detection issues. Evaluating dew point behavior and sealing quality helps prevent long-term reliability problems.

4. Shock resistance: In areas near presses, stamping equipment, conveyors, or heavy machinery, devices are exposed to repeated shock and vibration. Check the manufacturer's shock and vibration specifications to avoid false trips, mechanical fatigue, or sensor misalignment.

5. Corrosion and material finish: Corrosion-resistant finishes protect optical windows, hardware, and mounting brackets, preserving system integrity and minimizing unscheduled maintenance.

6. Mechanical impact rating: Accidental impacts from carts, pallets, tools, or forklift activity are common. Reviewing a device's impact resistance rating ensures the housing and optics remain intact. In high-traffic areas, consider adding protective columns or guards to further reduce risk.

7. Maintenance accessibility: Harsh environments may require more frequent cleaning of lenses or protective covers. Choose designs that allow quick access to optical surfaces without compromising IP seals.

8. Accessory compatibility: Ensure that any accessories—such as mirrors, protective columns, or muting arms—do not compromise the device's sealing, create unwanted vibration paths, or introduce alignment challenges. Accessories should match the environmental ratings of the core device to maintain full system protection.

FINGER PROTECTION

Model	Resolution	Protective Height	Operating Range	Features	Safety Level	IP Rating	Muting	Starting Price
DATASENSING SH4-14 Basic	14 mm	300-1200 mm	0.2-10 m	No dead zone and compact housing for easy installation in tight areas	Type 4 / PLe / SIL3	IP65/IP67	No	$679.00
DATASENSING SH4-14 Standard	14 mm	300-1200 mm	0.2-10 m	Manual/auto restart for selectable configuration; alignment mode speeds up installation	Type 4 / PLe / SIL3	IP65/IP67	No	$733.00
DATALOGIC SG4-14 Base	14 mm	150–900 mm	0.2–6 m	Selectable EDM & restart for increased application flexibility	Type 4 / PLe / SIL3	IP65	No	$561.00
DATALOGIC SG4-14 Advanced	14 mm	300-900 mm	0.2–7 m	Muting/blanking allows for product to pass through protected zone; cascading allows multiple pairs to operate as one unit	Type 4 / PLe / SIL3	IP65	Yes	$978.00
CONTRINEX YBB (finger)	14 mm	137–1040 mm	0.25–3.5 m	Alignment indicators allow for easy installation; dual PNP outputs allow more options for connectivity	Type 4 / PLe / SIL3	IP65	No	$500.00
CONTRINEX YBES Slim (finger)	14 mm	170-1290 mm	0.4–5 m	Bluetooth for configuration connectivity; coding to prevent crosstalk with adjacent light curtains	Type 4 / PLe / SIL3	IP65	No	$503.00

HAND PROTECTION

Model	Resolution	Protective Height	Operating Range	Features	Safety Level	IP Rating	Muting	Starting Price
DATASENSING SH4-30 Basic	30 mm	300-1800 mm	0.2-20 m	No dead zone and compact housing for easy installation in tight areas	Type 4 / PLe / SIL3	IP65/IP67	No	$613.00
DATASENSING SH4-30 Standard	30 mm	300-1800 mm	0.2-20 m	Manual/auto restart for selectable configuration; alignment mode speeds up installation	Type 4 / PLe / SIL3	IP65/IP67	No	$663.00
DATALOGIC SG4-30 Base	30 mm	300-1800 mm	0.2-19 m	Selectable EDM & restart for increased application flexibility	Type 4 / PLe / SIL3	IP65	No	$665.00
DATALOGIC SG4-30 Advanced	30 mm	300-1800 mm	0.2-20 m	Muting/blanking allows for product to pass through protected zone; cascading allows multiple pairs to operate as one unit	Type 4 / PLe / SIL3	IP65	Yes	$897.00
CONTRINEX YBB (hand)	30 mm	274-1822 mm	0.25–12 m	Alignment indicators allow for easy installation; dual PNP outputs allow more options for connectivity	Type 4 / PLe / SIL3	IP65	No	$482.00
CONTRINEX YBES Slim (hand)	30 mm	170-1610 mm	0.25–5 m	Bluetooth for configuration connectivity; coding to prevent crosstalk with adjacent light curtains	Type 4 / PLe / SIL3	IP65	No	$516.00

BODY PROTECTION

Model	Resolution	Protective Height	Operating Range	Features	Safety Level	IP Rating	Muting	Starting Price
DATASENSING SH4 Body-Protection	300–400 mm	800-1200 mm	0.5-70 m	Long-range perimeter guarding supports longest operating range	Type 4 / PLe / SIL3	IP65/IP67	No	$654.00
CONTRINEX YCA-50	300–400 mm	832-1232 mm	1–50 m	Alignment indicators allow for easy installation; dual PNP outputs allow more options for connectivity	Type 4 / PLe / SIL3	IP65/IP67	No	$956.00
ReeR Safegate SMO/SMPO (Muting)	300–400 mm	810–910 mm	0–12 m	Integrated muting logic eliminates for additional controls; LED indicators for troubleshooting diagnostics	Type 4 / PLe / SIL3	IP65/IP67	Yes	$1,157.00
ReeR Safegate S-3B/S-4B (Non-muting)	300–400 mm	810–910 mm	0–12 m	Manual/auto restart to allow for greater wiring flexibility; LED display for troubleshooting diagnostics	Type 4 / PLe / SIL3	IP65/IP67	No	$1,152.00
ReeR Safegate TRX	300–400 mm	810–910 mm	0–8 m	Retroreflective,with the need to only wire one side; SMO/SMPO-TRX support muting	Type 4 / PLe / SIL3	IP65/IP67	Yes/No	$1,112.00

DATASENSING   CONTRINEX   ReeR   DATALOGIC THE VISION IS YOURS

Protect dangerous machine access points with safety light curtains

Safety light curtains deliver reliable protection across finger safe, hand safe, body safe, and perimeter guarding applications. From compact, no dead zone models for high precision machinery to long-range muting curtains for automated logistics, this lineup provides scalable safety that aligns with modern automation demands. All series feature rugged housings, high safety certifications (Type 4 / PLe / SIL3), and user-friendly installation options to support safe, productive, and compliant machine operation.

AutomationDirect offers one of the industry's most complete portfolios of PLCs, VFDs, and industrial controls. Our safety products can be seamlessly interfaced to these devices for a complete control system.

SAFETY LIGHT CURTAINS

DATASENSING SH4 SERIES
SH4-14 BASIC (FINGER PROTECTION)
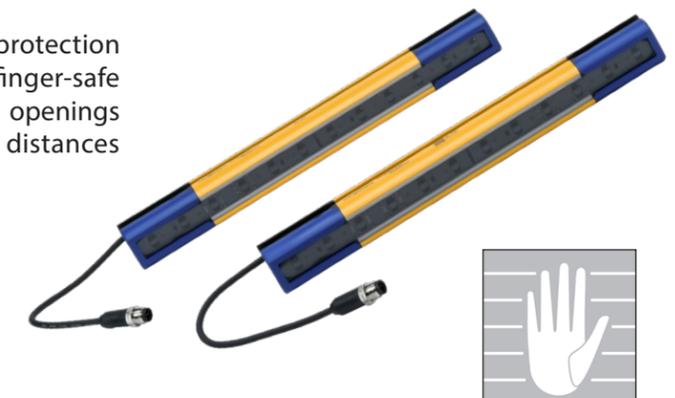#### STARTING AT $679.00 (SH4-14-0300-B-5)

SH4-14 Basic light curtains deliver compact, high-precision finger protection with no dead zone and reliable Type 4/PLe/SIL3 safety. Their slim housing, easy installation, and robust IP65/IP67 construction make them ideal for tight, high-accuracy work areas needing dependable intrusion detection up to 10 meters.
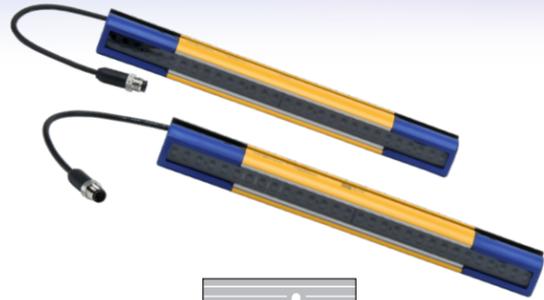
- No dead zone ensures full protective coverage
- Compact 35×40 mm housing simplifies machine integration
- Up to 10 m sensing range for flexible layouts
- Type 4, PLe, SIL3 certification for high-risk applications
- Automatic restart for simplified operation
- IP65/IP67 seals protect against dust and liquid ingress

DATASENSING SH4 SERIES
SH4-30 BASIC (HAND PROTECTION)
STARTING AT $613.00 (SH4-30-0300-B-5)

SH4-30 Basic light curtains offer robust, long-range hand protection with no dead zone and the same rugged profile as the finger-safe versions. They provide dependable guarding across tall or wide openings with protective heights up to 1800 mm and operating distances up to 20 m.

- No dead zone for complete vertical coverage
- Extended 20 m range supports large equipment
- Protective heights up to 1800 mm
- Robust 35×40 mm housing ensures durability
- Type 4, PLe, SIL3 safety ratings
- Automatic restart simplifies resets

DATASENSING SH4 SERIES
SH4-14 STANDARD (FINGER PROTECTION)
STARTING AT $733.00 (SH4-14-0300-S-8)

SH4-14 Standard models elevate finger-safe protection with advanced control features including manual/auto restart, reset input, EDM, and alignment mode. They maintain a compact form, high safety ratings, and excellent environmental resistance, ideal for demanding automated processes requiring diagnostics and control flexibility.
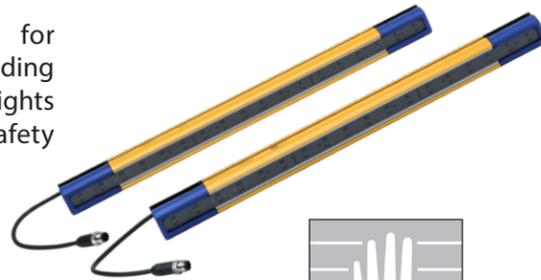
- Manual/auto restart increases control safety
- Reset input enhances operator oversight
- EDM supports safe actuator monitoring
- Alignment mode reduces setup time
- Type 4, PLe, SIL3 certified
- Rugged IP65/IP67 rating

DATASENSING SH4 SERIES
SH4-30 STANDARD (HAND PROTECTION)
STARTING AT $663.00 (SH4-30-0300-S-8)

SH4-30 Standard delivers dependable hand protection for medium-to-large machines, combining advanced diagnostics—including EDM, restart control, and alignment mode—with tall protective heights and 20 m range. These curtains offer robust adaptability, safety compliance, and easy commissioning.

- EDM ensures safe downstream relays
- Manual/auto restart improves operational control
- Wide protective height range (300–1800 mm)
- Long 20 m detection distance
- Alignment mode simplifies installation
- Type 4/PLe/SIL3 safety

DATASENSING SH4 SERIES
SH4 BODY-PROTECTION MODELS
STARTING AT $654.00 (SH4-3-0800-S-8)

SH4 body-protection curtains offer wide-beam guarding with long-distance coverage up to 70 m, making them ideal for perimeter or full-body hazard zones. With advanced restart and monitoring functions plus rugged housings, they ensure reliable safeguarding in large automation environments.
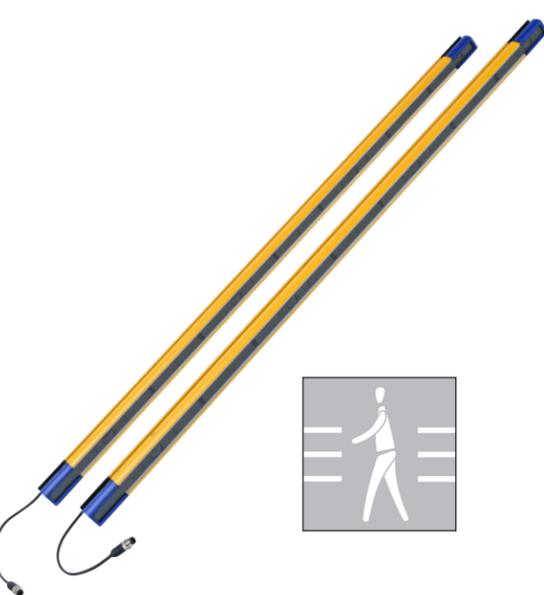
- Long-range performance up to 70 m
- 300–400 mm resolution for body detection
- EDM and restart control built-in
- IP65/IP67 mechanical protection
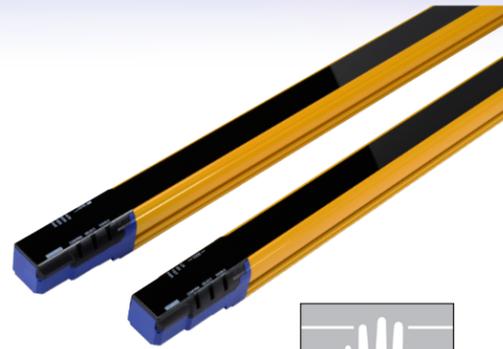- Suitable for wide-area perimeter guarding
- Type 4, PLe, SIL3

DATALOGIC SG4 SERIES
SG4-14 BASIC (FINGER PROTECTION)
STARTING AT $561.00 (SG4-14-015-OO-E)

The SG4-14 Base series provides reliable, economical finger-safe protection with selectable EDM and restart options. Its slim housing, robust IP65 environmental rating, and high safety certifications allow effortless integration into compact machinery requiring precise sensing and dependable intrusion detection.

- Protective heights 150–900 mm
- 0.2–6 m operating range
- Selectable EDM and restart
- Type 4, PLe safety compliance
- Slim 32×37 mm profile

DATALOGIC SG4 SERIES
SG4-30 BASIC (HAND PROTECTION)
STARTING AT $665.00 (SG4-30-030-OO-E)

SG4-30 Base curtains expand safety to larger machine openings with long protective heights and an extended 19 m reach. With configurable restart and EDM plus rugged construction, they deliver dependable safety at an accessible price point for general industrial environments.

- Protective heights 300–1800 mm
- Up to 19 m operating distance
- Selectable EDM and restart modes
- Type 4, PLe safety level
- Designed for mid- to large-scale machinery

DATALOGIC SG4 SERIES
SG4-14 ADVANCED (FINGER PROTECTION)
STARTING AT $978.00 (SG4-14-030-OO-P)

The SG4-14 Advanced series combines precision finger protection with powerful programmable functions like muting, blanking, coding, and cascading. With zero dead zone and GUI-based configuration, it supports complex safety scenarios in dynamic automation processes.

- Integrated muting and blanking capabilities
- 0.2–7 m operating range
- Zero dead zone for seamless coverage
- Cascade-ready for multi-side guarding
- GUI or push-button configuration
- Type 4, PLe, SIL3 safety rating

DATALOGIC SG4 SERIES
SG4-30 ADVANCED (HAND PROTECTION)
STARTING AT $897.00 (SG4-30-030-OO-P)

SG4-30 Advanced light curtains deliver high-flexibility hand protection with long ranges, muting and blanking intelligence, and cascading support. Perfect for material handling and automated flow systems, they offer advanced programmability and robust industrial reliability.

- Protective heights to 1800 mm
- Long-range performance up to 20 m
- Integrated muting/blanking functions
- Cascade-capable designs
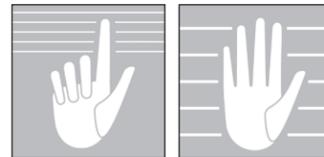- Type 4, PLe, SIL3 certifications

CONTRINEX YBES EXTENDED SLIM SERIES
(FINGER & HAND PREOTECTION)
STARTING AT $503.00 (YBES-14K4-0170-P012)

The YBES Extended Slim series offers no-blind-zone protection, Bluetooth wireless configuration, and advanced coding, EDM, and restart functions. Their ultra-slim housings and high-end safety ratings make them ideal for modern automated systems requiring flexible, intelligent safeguarding.

- No blind zone for maximum usable coverage
- Bluetooth wireless setup and diagnostics
- Beam coding and EDM functions
- Protective heights up to 1290 mm (14 mm) / 1610 mm (30 mm)
- Operating range: 0.4–5 m (14 mm), 0.25-5 m (30mm)
- Type 4, PLe, SIL3 safety integrity

CONTRINEX YBB SERIES (FINGER & HAND PROTECTION)
STARTING AT $500.00 (YBB-14K4-0150-G012)

YBB curtains deliver rugged, high-accuracy finger and hand protection with excellent alignment feedback and IP65/IP67 durability. With included brackets and test rods, they provide ready-to-install safeguarding for industrial environments requiring strong reliability and straightforward integration.

- Protective heights: 137–1040 mm (14 mm), 274–1822 mm (30 mm)
- Operating range: 0.25–3.5 m (14 mm), 0.25-12 m (30mm)
- Dual PNP OSSDs with short-circuit protection
- Helpful alignment indicators
- IP65/IP67 rated for harsh environments
- Kits include mounting brackets and test rods

REER SAFEGATE MUTING SERIES
SMO/SMPO (BODY-PROTECTION)
STARTING AT $1,157.00 (SMO-3B)

ReeR Safegate SMO/SMPO curtains deliver advanced, integrated muting for high-risk access-control applications such as palletizing, automated logistics, and conveyor systems. With hardware or software configuration, bright muting indicators, and scalable one-way or two-way muting options, Safegate ensures flexible, high-integrity protection with seamless muting integration.

- Integrated muting logic built directly into the curtain
- 810-910 mm protective height
- 0-12 m operating distance
- SMPO versions allow full software configuration via USB
- Bright status and muting LED indicators improve visibility
- Available in sender/receiver or active/passive TRX pairs
- Type 4 / SIL3 / PLe certified for demanding safety levels
- Multiple muting patterns: crossed, parallel, one-way, two-way

CONTRINEX YCA-50 SERIES (BODY-PROTECTION)
STARTING AT $956.00 (YCA-50K4-3400-G012)

YCA-50 light curtains provide long-range, wide-beam access control for perimeter and area protection needs. With configurable sensing ranges up to 50 m and rugged IP65/IP67 construction, they excel in large-scale applications requiring reliable personnel-entry monitoring.

- Protective heights from 832-1232 mm
- Configurable 1–50 m range
- Dual PNP outputs for simple integration
- Includes mounting hardware and test rod
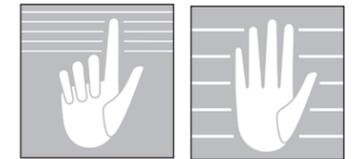- Type 4, PLe safety certification

REER SAFEGATE NON-MUTING SERIES
S-3B/S-4B (BODY-PROTECTION)
STARTING AT $1,152.00 (S-3B)

ReeR S-Series curtains provide reliable, straightforward access guarding without muting. With built-in manual/auto restart, LED status display, and optional retro-reflective TRX versions, these Type 4 light curtains offer robust, cost-effective perimeter protection for machines needing dependable body-safety detection without muting complexity.

- 810-910 mm protective height
- 0-12 m operating distance
- Built-in manual/automatic restart selection
- LED status display for clear diagnostics
- Available in TRX retro-reflective variants (one-sided wiring)
- Type 4, SIL3, PLe safety compliance
- Dual static PNP outputs support most safety relays

REER SAFEGATE TRX SMO-TRX / SMPO-TRX / S-TRX (BODY-PROTECTION)
STARTING AT $1,112.00 (S-3B-TRX)

TRX editions use passive retro-reflective technology to eliminate the need for two powered sides, reducing wiring and installation time. Ideal for long runs or constrained mounting, TRX models maintain all Safegate functional and safety features while increasing design flexibility and reducing installation cost.

- Only one powered side required (active/passive)
- Reduces wiring significantly in large or remote guarding zones
- 810-910 mm protective height
- 0-8 m operating distance
- Maintains full Type 4, SIL3, PLe safety performance
- Supports full muting logic for SMPO/SMO-TRX
- Easy retrofitting where second side power isn't feasible

CONTRINEX MIRROR COLUMNS
STARTING AT $560.00 (YXC-1185-M23)

Contrinex mirror columns expand safeguarding coverage by redirecting safety beams for multi-sided protection. Their durable housings, multiple height options, and included mounting hardware provide long-range optical reliability. Designed for environments requiring full perimeter monitoring while minimizing operating distance loss and maintaining beam accuracy.

- Enable multi-sided safeguarding of danger zones
- Only 10% reduction in operating distance for mirrors
- Wide range of mirror heights (90–1832 mm, depending on the model)
- Multiple housing lengths (1185–2216 mm) fit diverse layouts
- Mounting hardware included for all mirror column models
- Compatible with YBB/YCA curtains across several height

MIRRORS & PROTECTIVE COLUMNS

CONTRINEX PROTECTIVE COLUMNS
STARTING AT $519.00 (YXC-0985-F00)

Contrinex protective columns provide rugged, impact-resistant shielding for safety light curtains, ensuring stability in demanding industrial environments. Their reinforced aluminum housings, precise alignment features, and full mounting hardware enhance uptime by preventing beam obstruction or misalignment. Ideal for facilities requiring durable, long-life protection for YBB and YCA curtain systems.

- Solid aluminum profiles protect light curtains from impact and vibration
- Automatically rebounds after shock to maintain alignment
- Available in multiple housing heights (965–2020 mm) for varied machine sizes
- Mounting hardware included for rapid, stable installation
- Compatible with YBB/YCA curtain families across a wide height range
- Robust base plates support radial and vertical alignment

REER PROTECTIVE COLUMNS
STARTING AT $276.00 (FMC-SGB3)

ReeR protective columns provide sturdy mechanical shielding for Safegate light curtains, preserving alignment and optical function in high-impact environments. Available in multiple housing heights, they integrate easily with SMO, SMPO, and S series curtains. Their strong construction reduces downtime by preventing damage to emitter and receiver units.

- Protective housings (1200 mm and 1330 mm options) shield curtains from impacts
- Compatible with multiple Safegate variants: SMO, SMPO, S series
- Requires dedicated column bases for stable mounting (FMC CB/CBL)
- Prevents misalignment of curtain optics in harsh applications
- Offers long-term protection of safety devices against environmental wear

REER MIRROR COLUMNS
STARTING AT $326.00 (FMC-S3)

ReeR mirror columns extend Safegate light curtain coverage by redirecting beams around multiple sides of machinery. Available in single mirror or multi mirror designs, they support flexible perimeter layouts while maintaining consistent optical performance. Ideal for reducing required curtain pairs and simplifying large area safeguarding.

- Single mirror and multi mirror options (1, 3, or 4 mirrors) support varied layouts
- Housing heights include 1200 mm and 1330 mm for system flexibility
- Compatible with SMO, SMPO, and S series light curtains
- Improves perimeter safeguarding with fewer curtain pairs required
- Requires column bases for optimized mechanical stability
- Mirrors sized from 1198 mm to arrays of 150 mm segments for tailored coverage

FREE Technical Support · Located in USA

TOP RATED ★★★★★ BY CUSTOMERS

FREE Shipping - Orders over $49 · 2-day Shipping

FREE Downloadable Software · for many products · see website for details

45-day Money-Back Guarantee · 45 day

MUTING ARMS & MUTING SENSORS

REER MUTING ARMS
STARTING AT $372.00 (MA-L2X)

ReeR MA series muting arms deliver pre-wired, ready-to-install sender/receiver or active/passive beam solutions for Safegate systems. With one-way or two-way crossed or parallel beam versions and working ranges up to 3.5 meters, they support highly configurable muting layouts for demanding industrial flows.

- Available in crossed or parallel beam configurations for one-way or two-way muting
- Working ranges from 1–3.5 m, depending on the model
- Active/passive or sender/receiver design options
- Pre-configured and pre-wired for simplified installation
- Compatible with SMO, SMPO, and TRX Safegate light curtains

REER MUTING SENSORS (PHOTOCELLS)
STARTING AT $142.00 (M-TRX-A)

ReeR M5 and TRX muting photocells provide high-accuracy detection for muting sequences using 1 or 5 beam emitter/receiver configurations. With ranges up to 3.5 meters and wide ambient light immunity, they reliably detect irregular objects and support complex muting logic in Safegate installations. Reflectors ensure correct optical behavior for muting sensors

- M5 models use five beams for detecting irregular shapes
- TRX versions offer single-beam reflective operation with up to 5 m range
- High ambient light immunity (>10,000 lx)
- Fast response times (<10 ms for M5)
- Reflectors (C3F10, C3F8, CD8) optimize TRX photocell performance
- Compatible with all SMO/SMPO/TRX Safegate muting assemblies

DATALOGIC MUTING ARMS
STARTING AT $437.00 (SG-L-ARMS)

Datalogic SG-L and SG-T muting arms within L and T muting assemblies deliver reliable unidirectional and bidirectional muting for SG4 P safety light curtains. With operating distances up to 3 meters and included matched cables, these arms support effective detection of objects as small as 16.5 cm, ensuring smooth material flow without interrupting machine safety.

- L-type and T-type arm pairs provide unidirectional or bidirectional muting options
- Compatible with SG4 P light curtain series for seamless integration
- Detects objects down to 16.5 cm in length
- Operating distance up to 3 meters supports varied conveyor layouts
- Includes required cables for rapid installation (CS R1 75 B 002 + CV L1 02 B 007 or CV Y1 02 B 007)
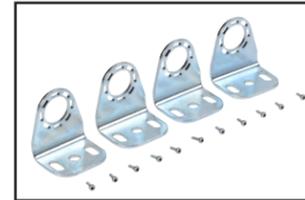
SAFETY LIGHT CURTAIN ACCESSORIES

A full assortment of safety light curtain accessories is available to assist with installation, adjustment, configuration, and testing.

Alignment Tools
For assistance with installation and alignment.

Communication Cables
Including M12 to RJ45 Ethernet cables and USB programming cables.

Mounting Brackets/ Hardware
Supporting various mounting orientations.

Ethernet Dongles
Easily add Ethernet connections to light curtains.

Connection Cables
For all connection requirements including signal, control, and power.