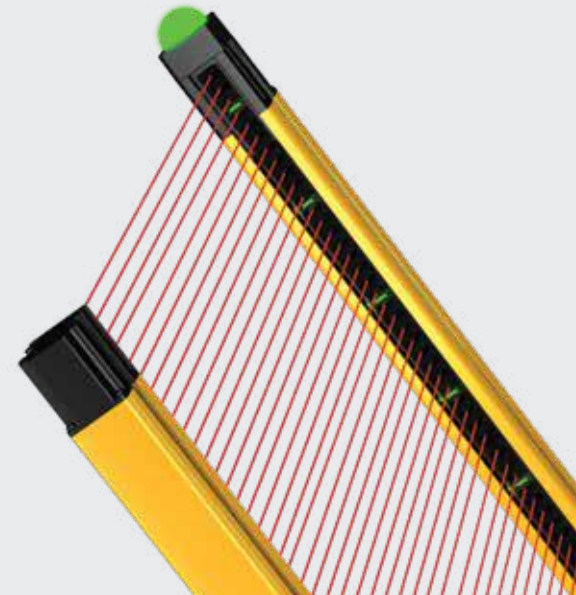


LS Series

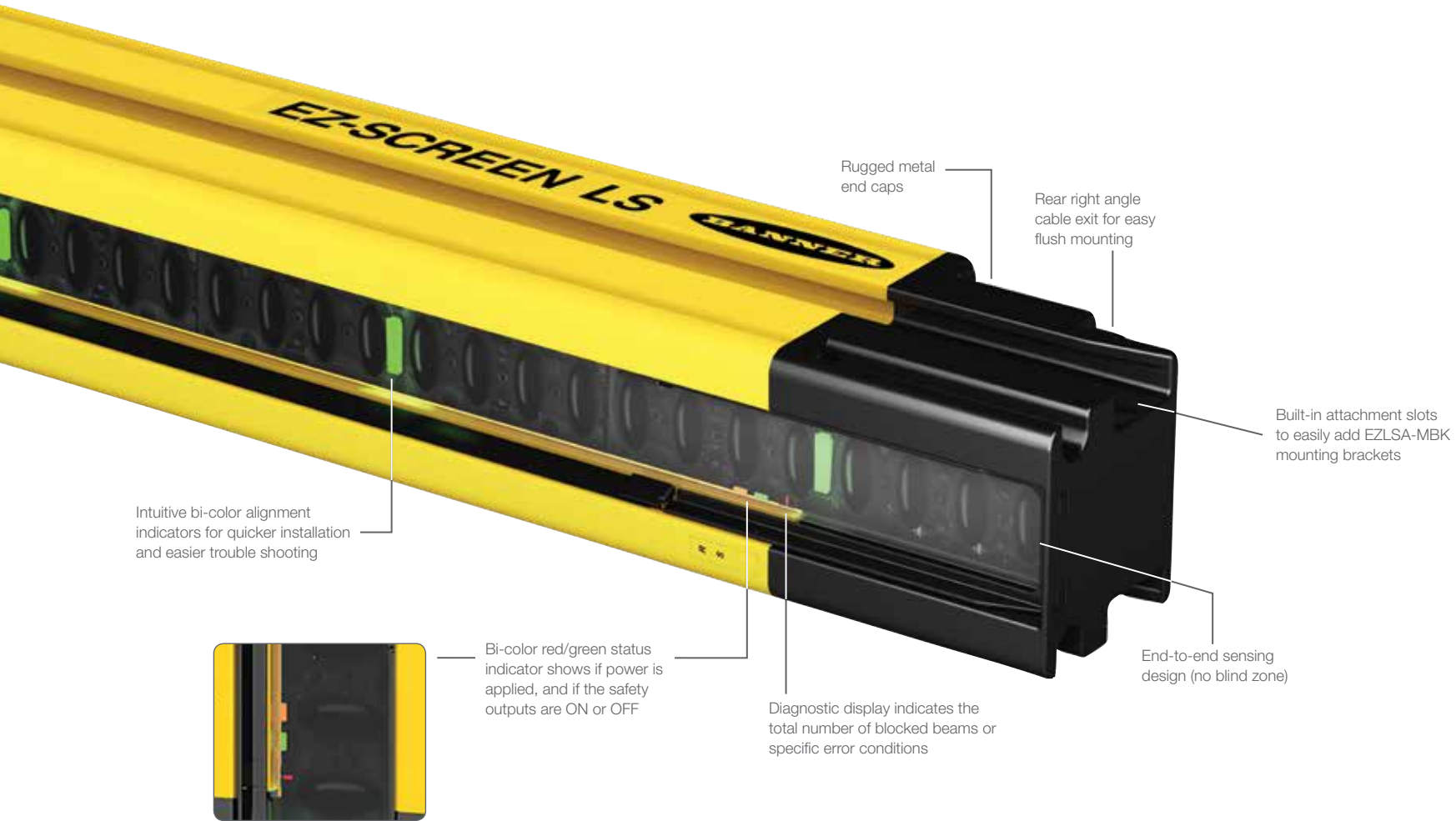


Safety Light Screen

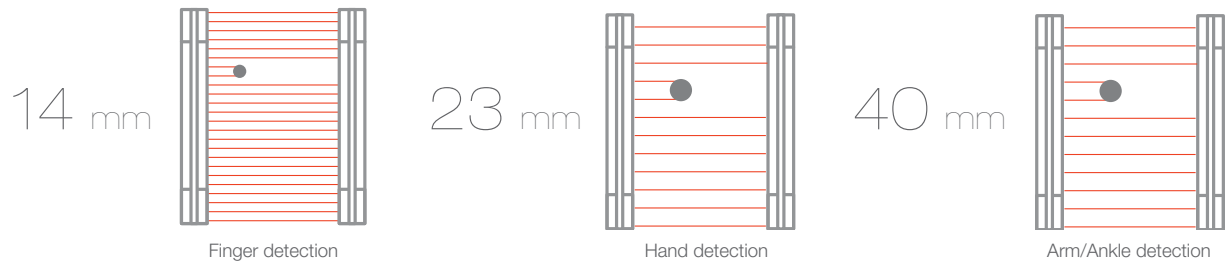
- Quick, easy configuration—no DIP switches or software to configure
- End-to-end sensing
- Heavy-duty aluminum housing and recessed window to avoid damage in harsh environments
- Highly visible alignment and diagnostic indicators
- Available in 14, 23 and 40 mm resolution stand alone and cascade models
- Basic models with limited options offer additional value for simple applications
- IP69K Hygienic models available for washdown environments

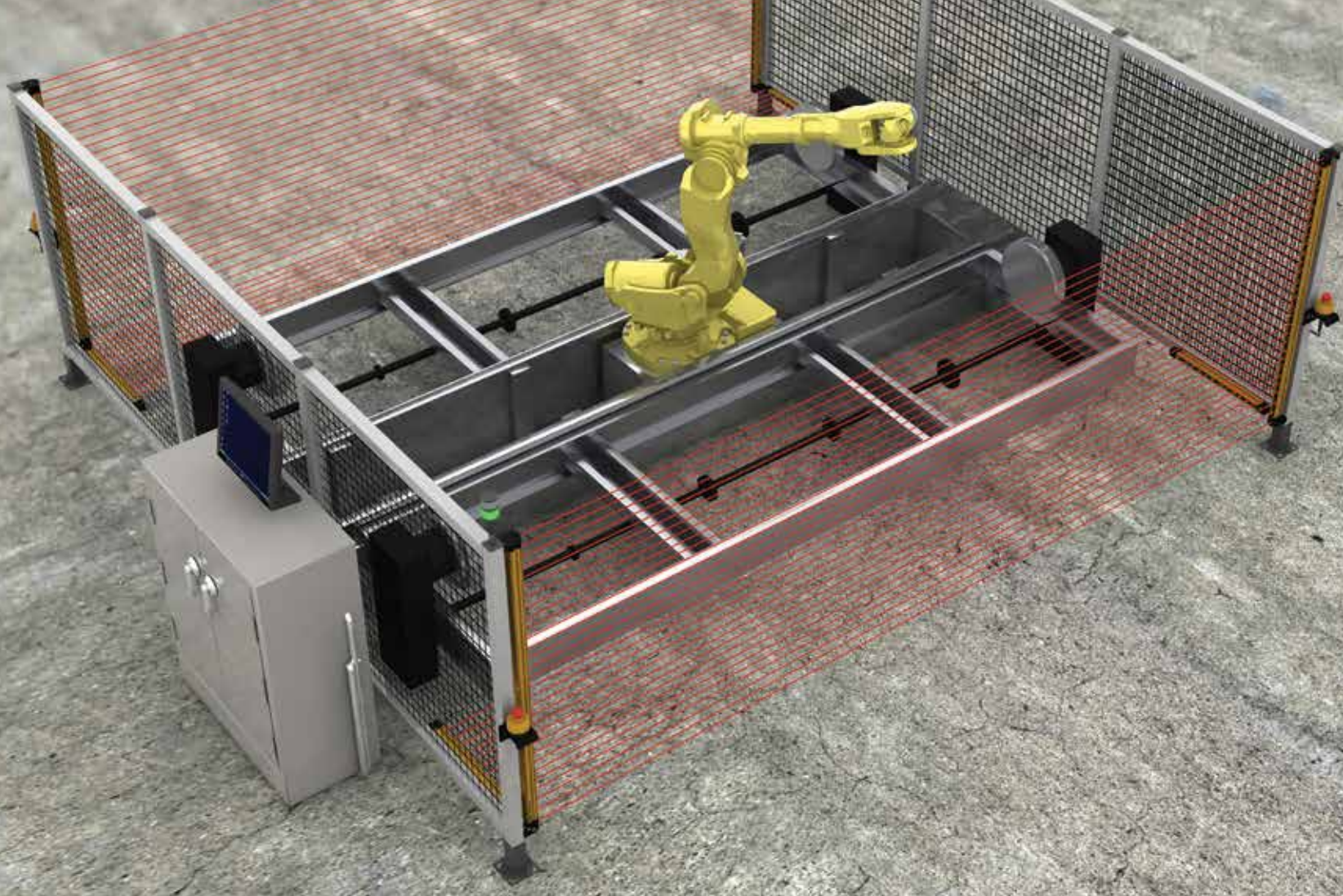


Heavy-Duty LS Series Safety Light Screen



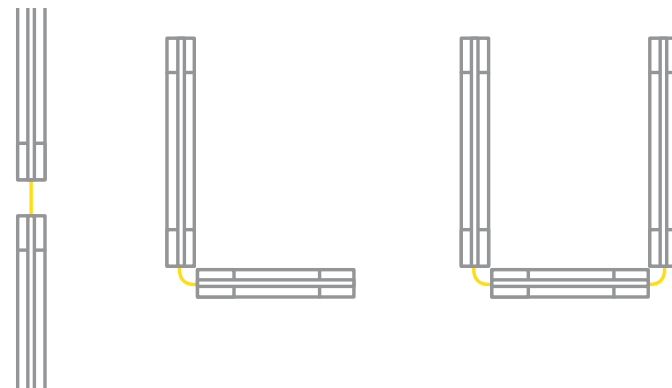
Available in Three Resolutions





Cascade Capable

- Cascade light screens provide multi-sided protection in areas where increased access is required.
- Connect up to four pairs of EZ-SCREEN® LS Safety Light Screens
- Connect pairs of different resolutions or lengths
- Built-in automatic cascade configuration
- Each additional pair adds only 2 ms to system response time
- Scan code automatically alternates from one pair to the next



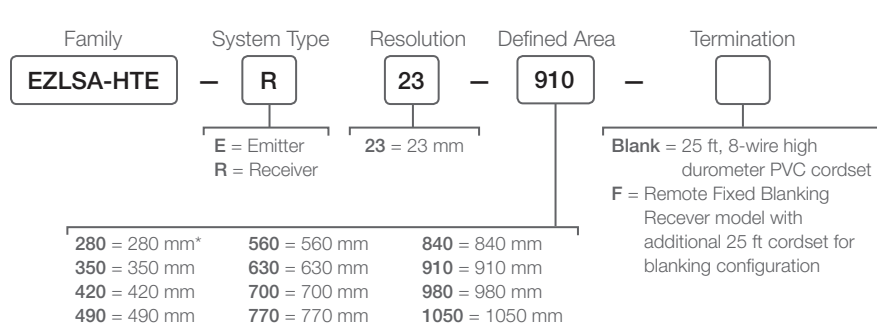
IP69K Hygienic Option

- 8.4 meter range
- 23 mm resolution
- Twelve defined areas available from 280 to 1050 mm
- IP69K Washdown-rated with easy-to-clean hygienic design
- Chemical Resistant—316 Stainless Steel and Food Grade Polycarbonate
- Hydrophobic Vent allows air to pass but not fluid – prevents condensation by allowing pressure to adjust
- Remote Fixed Blanking optional models to ignore stationary objects
- 25', 8-wire high durometer PVC cordset
- Stainless steel brackets ordered separately (see page 7)

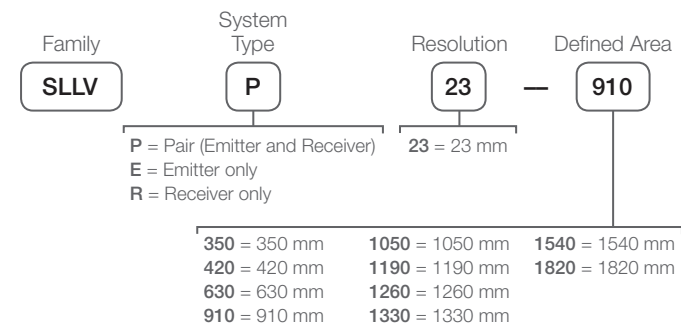


LS Basic

- 8 meter range
- 23 mm resolution
- Ten defined areas available from 350 to 1820 mm
- External Device Monitoring, Auxiliary Fault Output and Scan Code Select included (8-Pin Connectors)
- M12 Pigtail (see below) and brackets (see page 7) ordered separately



* Not available with remote fixed blanking option



M12 Pigtail
Euro-Style Quick Disconnect to LS Custom Male Straight Connector

DELSE-51D (5-pin)
0.3 m (1 ft)

DELSE-81D (8-pin)
0.3 m (1 ft)

Connection Options

8-Pin



RD Cordsets

RDLS-815D
4.6 m (15.1')
RDLS-825D
8 m (26.2')
RDLS-850D
15.3 m (50.2')



8-Pin M12/ Euro-Style

QDE-815D
4.5 m (15')
QDE-825D
7.6 m (25')
QDE-850D
15.2 m (50')

QDE-875D
22.8 m (75')
QDE-8100D
30.4 m (100')



8-Pin Male M12 to Dual 8-Pin Female M12 Euro-Style Splitter

CSB-M1280M1280
No trunk/ no branches
CSB-M1281M1281
0.3 m (1') trunk/2 x 0.3 m (1') branches
CSB-M1288M1281
2.44 m (8') trunk/2 x 0.3 m (1') branches

8-Pin M12/Euro-Style Double-Ended

DEE2R-81D
0.3 m (1')

DEE2R-83D
0.9 m (3')

DEE2R-88D
2.5 m (8')

DEE2R-812D
3.6 m (12')

DEE2R-815D
4.6 m (15')

DEE2R-825D
7.6 m (25')

DEE2R-830D
9.1 m (30')

DEE2R-850D
15.2 m (50')

DEE2R-875D
22.9 m (75')

DEE2R-8100D
30.5 m (100')

5-Pin



RD Cordsets

RDLS-515D
4.6 m (15.1')



5-Pin M12/ Euro-Style

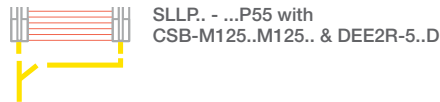
QDE-515D
4.5 m (15')

QDE-525D
7.6 m (25')

QDE-550D
15.2 m (50')

QDE-575D
22.8 m (75')

QDE-5100D
30.4 m (100')



5-Pin Male M12 to Dual 5-Pin Female M12 Euro-Style Splitter

CSB-M1250M1250
No trunk/ no branches
CSB-M1251M1251
0.3 m (1') trunk/2 x 0.3 m (1') branches
CSB-M1258M1251
2.44 m (8') trunk/2 x 0.3 m (1') branches

5-Pin M12/Euro-Style Double-Ended

DEE2R-51D
0.3 m (1')

DEE2R-53D
0.9 m (3')

DEE2R-58D
2.5 m (8')

DEE2R-512D
3.6 m (12')

DEE2R-515D
4.6 m (15')

DEE2R-525D
7.6 m (25')

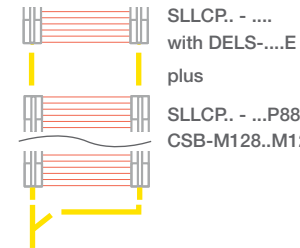
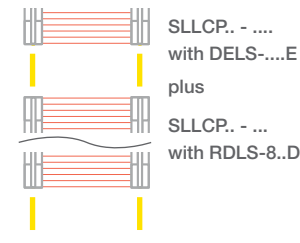
DEE2R-530D
9.1 m (30')

DEE2R-550D
15.2 m (50')

DEE2R-575D
22.9 m (75')

DEE2R-5100D
30.5 m (100')

Cascade



Double-Ended RD to RD Cordsets

DELS-110E
0.05 m (0.2')

DELS-111E
0.3 m (1')

DELS-113E
1 m (3.3')

DELS-118E
2.5 m (8.2')

DELS-1115E
4.6 m (15.1')

DELS-1125E
8 m (26.2')

DELS-1150E
15.3 m (50.2')

Interface Options

Safety Controllers



XS26-2
XS26-2d
XS26-2e
XS26-2de

Expandable safety controller supports up to eight I/O modules and programs easily using icon-based software



SC26-2
SC26-2d
SC26-2e
SC26-2de

Flexible, efficient safety controller has small footprint and programs easily using icon-based software* to match XS description



SC10-2roe

Replace the functionality of two safety relay modules with one cost-effective device featuring an intuitive user interface and advanced diagnostics

Safety Modules



SR-IM-9A
SR-IM-11A

Provides isolated safety output contacts for a primary safety device for the LS with solid-state (OSSD) outputs and external device monitoring (EDM) capability



UM-FA-9A
UM-FA-11A

Monitors solid-state PNP OSSD safety outputs for LS and LS basic models, and provides latching (manual reset) function for applications requiring a reset



MMD-TA-11B
MMD-TA-12B

Muting modules suspend safeguarding during non-hazardous portion of the machine cycle

Contactors



11-BG00-31-D-024
BF1801L024

Two contactors are required for higher levels of safety performance and requires monitoring by External Device Monitoring (EDM) function.

Fixed Blanking Remote Key Switch



EZA-RBK-1

Used to configure fixed blanking remotely when connected to a cascade receiver using DELSEF-81D cable. Also use with DEE2R-8..D cordset to provide extension as needed.

Accessories



EZLSA-MBK-11*
End mount steel bracket with 360° rotation in 23° increments (two supplied with each sensor)



EZLSA-MBK-12*
Center mount steel bracket with +/- 15 degree rotation (one supplied with each sensor ≥ 980 mm)



EZLSA-MBK-HTE-2
Hygienic stainless steel bracket with 360 degree rotation for IP69K enclosure models (two brackets per optional kit)



K30LGRXPQ
requires 4-pin QD



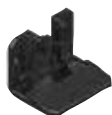
K50LGRXPQ
requires 4-pin QD



TL50GRQ
requires 4-pin QD



EZLSA-K30LGR (Green/Red)
EZLSA-K30LXR (Red)
Connects directly to SLLCR... cascade receiver



EZLSA-MBK-16
Side mount die-cast bracket with +15° and -20° rotation (one bracket per optional kit)



EZLSA-MBK-20
8-ga. black cold-rolled steel (optional end-mount bracket for slotted aluminum framing)



EZLSA-MBK-HTE-1
Stamped stainless steel bracket with 360 degree rotation for IP69K enclosure models (two brackets per optional kit)

RD to M12/ Euro-Style Cordsets

Connects indicators/remote fixed blanking key switch to a cascade receiver



4-Pin (use with Indicators)

DELSEF-40D
0.07 m (0.2')
DELSEF-41D
0.3 m (1')

DELSEF-43D
1 m (3.3')
DELSEF-48D
2.5 m (8.2')

DELSEF-415D
4.6 m (15.1')

8-Pin (use with EZA-RBK-1)

DELSEF-81D
0.3 m (1')

* Not included with the LS Basic or IP69K Hygienic models. Must be purchased separately.

Mute Arm Kits

- Pre-assembled for plug-and-play connection
- Adjusts easily for line changes
- Cables, mute lights and hardware accessories available

L-Configuration

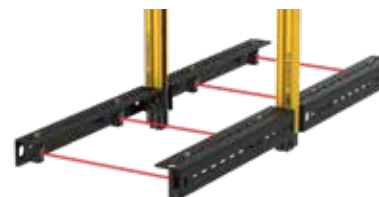


SGSA-ML-L-LPQ20

includes 2 mute arms, 2 SGSA-Q20PLPQ5 mute sensors, and 2 retroreflectors

SGSA-ML-R-LPQ20

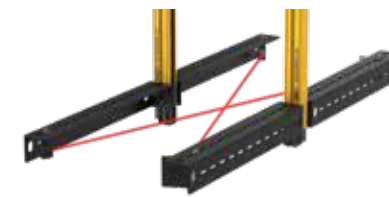
T-Configuration



SGSA-MT-LPQ20

includes 4 mute arms, 4 SGSA-Q20PLPQ5 mute sensors, and 4 retroreflectors

X-Configuration



SGSA-MX-LPQ20

includes 4 mute arms, 2 SGSA-Q20PLPQ5 mute sensors, and 2 retroreflectors

Box or Pallet Muting

Mute Arm Kit	Enter/Exit Direction	Width & Shape	Position on Conveyor
L-Configuration	One-way (exit)	Varying	Varying
X- Configuration	Bi-Directional	Consistent	Consistent
T-Configuration	Bi-Directional	Varying	Varying

For a list of required products and the steps necessary to create a muting solution for your Safety Light Screen, see datasheet 206632.

Specifications

Operating Range

LS: 0.1 to 12 m (4 in to 39 ft)
 LS Basic: 0.1 to 8 m (4 in to 26 ft)
 IP69K Hygienic: 8.4m (4 in to 27.6 ft)

Resolution

LS: 14 mm, 23 mm, or 40 mm, depending on model
 LS Basic, IP69K Hygienic: 23 mm

Output

Two redundant solid-state outputs (OSSD)
 24 V dc, 0.5 A max. per OSSD

Environmental Rating

LS, LS Basic: IEC IP65/IEC IP67
 IP69K Hygienic: IP69K

Operating Conditions

-20 °C to +55 °C (-4 °F to +131 °F)
 95% maximum relative humidity (non-condensing)

Supply Voltage at the Device

24 V dc ±15% (use a SELV-rated power supply according to EN IEC 60950)

Short Circuit Protection

All inputs and outputs are protected from short circuits to +24 V dc or dc common

Electrical Safety Class

III (per IEC 61140: 1997)

Safety Rating

Type 4 per IEC 61496-1, -2
 Category 4 PL e per EN ISO13849-1
 SIL3 per IEC 61508; SIL CL3 per IEC 62061

Dimensions (mm)

LS and LS Basic: 36 W x 45 D
 IP69K Hygienic: ø 63.5 mm
 Height varies by model

Certifications

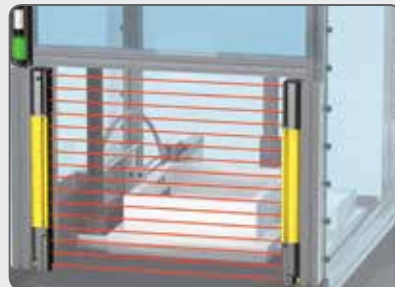


Banner offers intuitive, easy-to-use safety light curtains for a wide variety of safety applications



HEAVY-DUTY TYPE 4

Robust safety light curtains for harsh industrial environments.



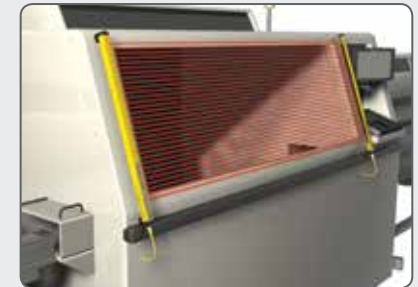
COMPACT TYPE 4

Compact safety light curtains for safety in tight spaces.



PERIMETER GUARDING TYPE 4

One to four beam safety light devices.



TYPE 2

Cost-effective safety light curtain for lower risk applications.



185184 Rev. C

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