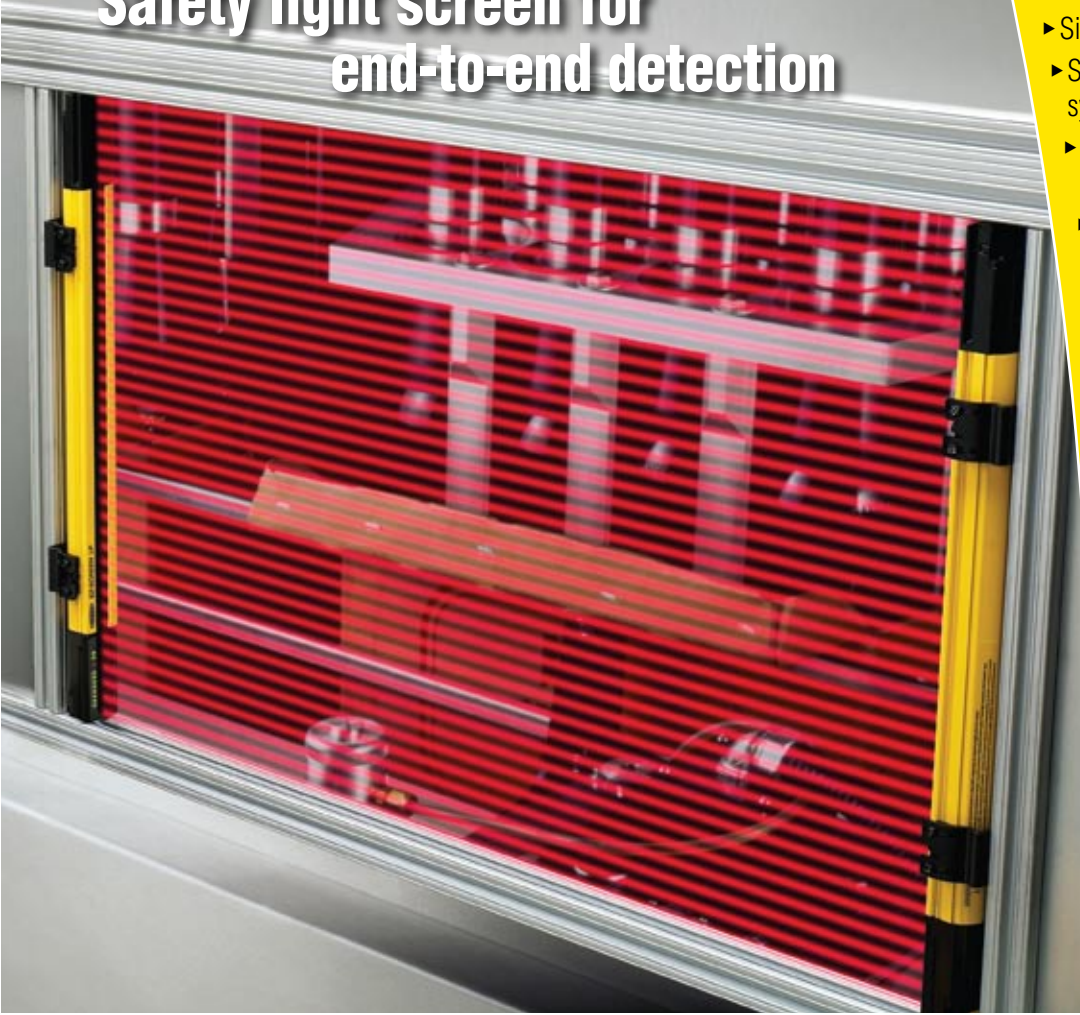


EZ-SCREEN® LP

Safety light screen for end-to-end detection



Compact design and flexible mounting options deliver an exact fit with no dead zone.

The EZ-SCREEN® line of robust safety light curtains now includes models for continuous detection along the entire light screen length. The space-saving, compact profile of the EZ-SCREEN LP is ideal for smaller machines, yet robust enough to meet the demands of large power presses. Plus, with several housing finishes, cascading and many mounting options, EZ-SCREEN LP provides a perfect fit for a wide range of safeguarding applications.

- ▶ Features compact 28 x 26 mm housing
- ▶ Positions first and last beam at the ends for continuous sensing
- ▶ Includes 14 or 25 mm resolution models
- ▶ Offers defined areas from 270 to 1810 mm with detection ranges up to 7 m
- ▶ Provides response times as fast as 8 milliseconds
- ▶ Identifies blocked beams using zone indicators
- ▶ Features 7-segment display with diagnostic information and number of blocked beams
- ▶ Presents system status and alignment using highly visible LEDs (bi-color)
- ▶ Includes models with nickel-plated housing for ESD-safe applications, clear anodized aluminum housing or "safety" yellow powder-coat housing

Low-profile design with proven EZ-SCREEN® performance

- ▶ Simple, two-piece integrated design
- ▶ Superior optical design for easy system alignment
- ▶ Convenient setup without a PC, disassembly or additional devices
- ▶ Easily configured Reduced Resolution and Fixed Blanking
- ▶ External Device Monitoring
- ▶ Exceeds OSHA/ANSI Control Reliability requirements, certified to cULus NIPF, and CE certified to Type 4, Category 4 PLe and SIL 3
- ▶ Two solid-state OSSD safety outputs; includes selectable trip/latch output
- ▶ User configurable Aux output
- ▶ Flexible wiring scheme for allowing "swapable" emitters and receivers



Flexible Cascading

- ▶ Allows four systems—of any length and resolution—to be connected in series, forming a single safety device
- ▶ Guards multiple sides of machine, such as L- or U-shaped configuration
- ▶ Provides continuous detection without overlapping light curtains or protruding cables



Mounting Versatility

- ▶ Space-saving design for a perfect fit
- ▶ Brackets included for end mounting or side mounting with no dead zone
- ▶ Brackets rotate for fine alignment
- ▶ Inline and L-brackets for mounting with no "gap" on 25 mm systems
- ▶ Optional brackets for mounting inside P1000 Unistrut® metal framing
- ▶ Multi-directional routing of cables for easy integration into machinery

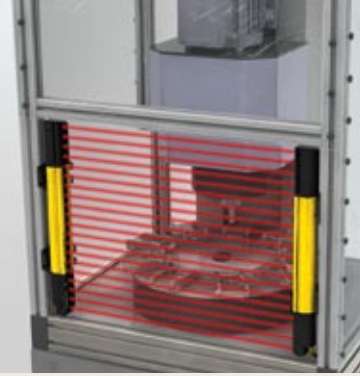
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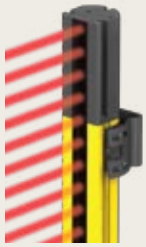


more sensors, more solutions

bannerengineering.com



Space-saving design installs perfectly in machinery, eliminating protruding light screens.



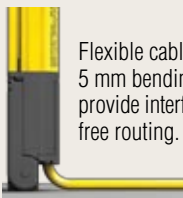
Included side brackets allow no dead zone with continuous sensing along entire length.



Included end brackets provide 360° mounting.



Multi-directional cables can be routed in any direction.



Flexible cables with a 5 mm bending radius provide interference-free routing.



Low-profile mounting saves valuable space.

EZ-SCREEN® LP System Model Guide

Model	Configuration	Resolution	Defined Area	Housing Option	Connection
SLP	E	25	410	A	P8
SLP = Standard LP SLPC = Cascade LP	E = Emitter R = Receiver P = Pair	14 = 14 mm 25 = 25 mm	270 mm 410 mm 550 mm 690 mm 830 mm 970 mm 1110 mm 1250 mm 1390 mm 1530 mm 1670 mm 1810 mm	A = Anodized Aluminum N = ESD-safe Nickel-plated (Blank) = Standard Yellow	P8 = M12/Euro Pigtail QD P88 = M12/Euro Pigtail QD (Pair) (Blank) = Integral RD

Connections

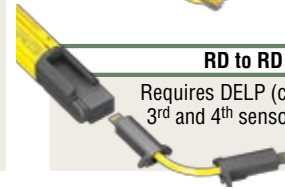
300 mm 8-pin M12/Euro Pigtail QD

Order mating M12/Euro QD cordset separately: QDE, DEE2R or CSB; see page 4



Integral Removable Disconnect (RD)

Order RDLP, DELPE or DELP separately; see page 4



RD to RD

Requires DELP (connection of 2nd, 3rd and 4th sensors in a cascade); see page 4

Standard EZ-SCREEN LP Models, 24V dc @ 210 mA

Defined Area	25 mm Resolution Models*			Connection	Response Time
	Emitter	Receiver	Pair		
270 mm	SLPE25-270P8	SLPR25-270P8	SLPP25-270P88	M12/Euro Pigtail QD	8 ms
	SLPE25-270	SLPR25-270	SLPP25-270	Integral RD	
410 mm	SLPE25-410P8	SLPR25-410P8	SLPP25-410P88	M12/Euro Pigtail QD	9.5 ms
	SLPE25-410	SLPR25-410	SLPP25-410	Integral RD	
550 mm	SLPE25-550P8	SLPR25-550P8	SLPP25-550P88	M12/Euro Pigtail QD	11 ms
	SLPE25-550	SLPR25-550	SLPP25-550	Integral RD	
690 mm	SLPE25-690P8	SLPR25-690P8	SLPP25-690P88	M12/Euro Pigtail QD	12.5 ms
	SLPE25-690	SLPR25-690	SLPP25-690	Integral RD	
830 mm	SLPE25-830P8	SLPR25-830P8	SLPP25-830P88	M12/Euro Pigtail QD	14 ms
	SLPE25-830	SLPR25-830	SLPP25-830	Integral RD	
970 mm	SLPE25-970P8	SLPR25-970P8	SLPP25-970P88	M12/Euro Pigtail QD	15.5 ms
	SLPE25-970	SLPR25-970	SLPP25-970	Integral RD	
1110 mm	SLPE25-1110P8	SLPR25-1110P8	SLPP25-1110P88	M12/Euro Pigtail QD	17 ms
	SLPE25-1110	SLPR25-1110	SLPP25-1110	Integral RD	
1250 mm	SLPE25-1250P8	SLPR25-1250P8	SLPP25-1250P88	M12/Euro Pigtail QD	18.5 ms
	SLPE25-1250	SLPR25-1250	SLPP25-1250	Integral RD	
1390 mm	SLPE25-1390P8	SLPR25-1390P8	SLPP25-1390P88	M12/Euro Pigtail QD	20 ms
	SLPE25-1390	SLPR25-1390	SLPP25-1390	Integral RD	
1530 mm	SLPE25-1530P8	SLPR25-1530P8	SLPP25-1530P88	M12/Euro Pigtail QD	21 ms
	SLPE25-1530	SLPR25-1530	SLPP25-1530	Integral RD	
1670 mm	SLPE25-1670P8	SLPR25-1670P8	SLPP25-1670P88	M12/Euro Pigtail QD	22.5 ms
	SLPE25-1670	SLPR25-1670	SLPP25-1670	Integral RD	
1810 mm	SLPE25-1810P8	SLPR25-1810P8	SLPP25-1810P88	M12/Euro Pigtail QD	24 ms
	SLPE25-1810	SLPR25-1810	SLPP25-1810	Integral RD	

* Only 25 mm resolution models are listed. For 14 mm resolution, replace 25 with 14 in model number (example, SLPE14-270P8). Only standard yellow housing models are listed. The 300 mm pigtail has yellow PVC cable with black PVC QD overmold.

Standard and Optional Brackets

LPA-MBK-11 (Standard)	LPA-MBK-12 (Standard)	LPA-MBK-20	LPA-MBK-22
<ul style="list-style-type: none"> End-cap bracket kit 360° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated; die-cast zinc plate Flanges can be mounted "In" or "Out" Includes 2 brackets and hardware 	<ul style="list-style-type: none"> Side-mount bracket kit +10°/-30° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated; die-cast zinc clamp Includes 1 bracket and hardware 	<ul style="list-style-type: none"> Universal adapter bracket for mounting to engineered/slotted aluminum framing (example, 80/20™, Bosch) Use with other LPA-MBK-xx brackets 12-ga (2.66 mm) steel, black zinc plated Includes 1 bracket and hardware 	<ul style="list-style-type: none"> End-cap bracket for mounting sensor inside Unistrut® metal framing Fits Unistrut® P1000 size (1 5/8"), with M6 or 1/4" channel nuts 14-ga. (1.9 mm) steel, black zinc plated; die-cast zinc clamp Includes 2 brackets and hardware

More information online at bannerengineering.com

To Order:

- Choose model, defined area and resolution (14 or 25 mm).
- Choose an Emitter (E), a Receiver (R) or a Pair (P).†
- Yellow housing is standard. To choose an optional housing, add an **A** or **N** prior to the connection designation:
 - A** for anodized aluminum (clear) finish with black end caps (example, **SLPE25-270A**).††
 - N** for ESD-safe models with a nickel-plated housing and end caps (example, **SLPE25-270N**).††
- Choose the connection: 300 mm M12/Euro Pigtail QD or integral Removable Disconnect (RD). See connections to left.
 - Choose one cordset for each sensor or two cordsets for a pair. See page 4:
 - M12/Euro Pigtail QD models** (example, **SLP.-270P8**) require mating 8-pin M12/Euro QD cordsets, such as:
 - QDE cordset with flying leads
 - DEE2R double-ended cordset
 - CSB series splitter cordset
 - Integral RD models** (example, **SLP.-270**) require mating cordsets, such as:
 - RDLP cordset with flying leads
 - DELPE double-ended cordset with M12/Euro QD (requires additional mating 8-pin M12/Euro QD cordsets)
 - DELP cordset in cascade applications for connection of 2nd, 3rd and 4th sensors
 - Choose an optional interfacing solution, such as an **IM-T-9A** or **-11A** interfacing model. See page 4.

† Kit options are available. See *EZ-SCREEN LP manual (p/n 140044)*, the *Banner Safety Catalog* or www.bannerengineering.com for complete information, a current listing of accessories and options for kitting components. Call factory with questions regarding accessories.

†† Optional housings with Pigtail QD models have a black 300 mm PVC cable and QD overmold.



LEDs and 7-segment display indicate system status, alignment and blocked beams.



Up to four units can be connected in series without protruding cables.

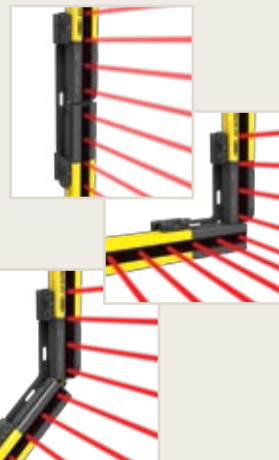
Cascade EZ-SCREEN® LP Models, 24V dc @ 210 mA

Defined Area	25 mm Resolution Models*			Connection	Response Time
	Emitter	Receiver	Pair		
410 mm	SLPCE25-410P8	SLPCR25-410P8	SLPCP25-410P88	M12/Euro Pigtail QD	9.5 ms
	SLPCE25-410	SLPCR25-410	SLPCP25-410	Integral RD	
550 mm	SLPCE25-550P8	SLPCR25-550P8	SLPCP25-550P88	M12/Euro Pigtail QD	11 ms
	SLPCE25-550	SLPCR25-550	SLPCP25-550	Integral RD	
690 mm	SLPCE25-690P8	SLPCR25-690P8	SLPCP25-690P88	M12/Euro Pigtail QD	12.5 ms
	SLPCE25-690	SLPCR25-690	SLPCP25-690	Integral RD	
830 mm	SLPCE25-830P8	SLPCR25-830P8	SLPCP25-830P88	M12/Euro Pigtail QD	14 ms
	SLPCE25-830	SLPCR25-830	SLPCP25-830	Integral RD	
970 mm	SLPCE25-970P8	SLPCR25-970P8	SLPCP25-970P88	M12/Euro Pigtail QD	15.5 ms
	SLPCE25-970	SLPCR25-970	SLPCP25-970	Integral RD	
1110 mm	SLPCE25-1110P8	SLPCR25-1110P8	SLPCP25-1110P88	M12/Euro Pigtail QD	17 ms
	SLPCE25-1110	SLPCR25-1110	SLPCP25-1110	Integral RD	
1250 mm	SLPCE25-1250P8	SLPCR25-1250P8	SLPCP25-1250P88	M12/Euro Pigtail QD	18.5 ms
	SLPCE25-1250	SLPCR25-1250	SLPCP25-1250	Integral RD	
1390 mm	SLPCE25-1390P8	SLPCR25-1390P8	SLPCP25-1390P88	M12/Euro Pigtail QD	20 ms
	SLPCE25-1390	SLPCR25-1390	SLPCP25-1390	Integral RD	
1530 mm	SLPCE25-1530P8	SLPCR25-1530P8	SLPCP25-1530P88	M12/Euro Pigtail QD	21 ms
	SLPCE25-1530	SLPCR25-1530	SLPCP25-1530	Integral RD	
1670 mm	SLPCE25-1670P8	SLPCR25-1670P8	SLPCP25-1670P88	M12/Euro Pigtail QD	22.5 ms
	SLPCE25-1670	SLPCR25-1670	SLPCP25-1670	Integral RD	
1810 mm	SLPCE25-1810P8	SLPCR25-1810P8	SLPCP25-1810P88	M12/Euro Pigtail QD	24 ms
	SLPCE25-1810	SLPCR25-1810	SLPCP25-1810	Integral RD	

* Only 25 mm resolution models are listed. For 14 mm resolution, replace 25 with 14 in model number (example, **SLPCE14-270P8**). Only standard yellow housing models are listed. The 300 mm pigtail has yellow PVC cable with black PVC QD overmold. 270 mm defined area is not available in cascade model. A standard **SLP.-270..** model can be used at the end of a cascade system.








Cascading models in L- or U-shaped configuration provide continuous sensing.



Fixed-angle brackets allow end-to-end, L- or U-shaped, and angled setup without overlapping and maintain 25 mm resolution.

Cascade Brackets

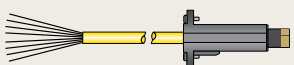
LPA-MBK-21	LPA-MBK-180	LPA-MBK-135	LPA-MBK-120	LPA-MBK-90
<ul style="list-style-type: none"> Pivoting L-bracket Adjustable 90° to 180° orientation +10°/-30° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated 	<ul style="list-style-type: none"> Inline bracket Fixed 180° orientation +10°/-30° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated 	<ul style="list-style-type: none"> Angled L-bracket Fixed 135° orientation +10°/-30° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated 	<ul style="list-style-type: none"> Angled L-bracket Fixed 120° orientation +10°/-30° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated 	<ul style="list-style-type: none"> Angled L-bracket Fixed 90° orientation +10°/-30° sensor rotation 14-ga. (1.9 mm) steel, black zinc plated 

Cascade brackets join two cascaded emitters or receivers. Each model number is one set of two brackets.


Cordsets

All standard cordsets are yellow PVC cable with black overmold. For black PVC cable and overmold, add suffix **B** to model number (example, **RDLP-815DB**).
Other cordset options available, see EZ-SCREEN LP manual (p/n 140044).

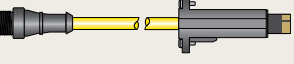
Removable Disconnect Connector with Flying Leads

Model	Length	Cable Type
 RDLP-815D	4.5 m	8-conductor (22-ga.)
RDLP-825D	8 m	
RDLP-850D	15 m	
RDLP-875D	23 m	
RDLP-8100D	30 m	


8-Pin M12/Euro QD with Flying Leads

Model	Length	Cable Type
 QDE-815D	4.5 m	8-conductor (22-ga.)
QDE-825D	8 m	
QDE-850D	15 m	
QDE-875D	23 m	
QDE-8100D	30 m	

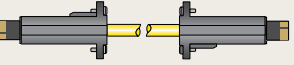
Removable Disconnect Connector with M12/Euro QD

Model	Length	Cable Type
 DELPE-81D	0.3 m	8-conductor (22-ga.)
DELPE-83D	1 m	
DELPE-88D	2.4 m	
DELPE-815D	4.6 m	
DELPE-825D	8 m	
DELPE-850D	15 m	
DELPE-875D	23 m	
DELPE-8100D	30 m	

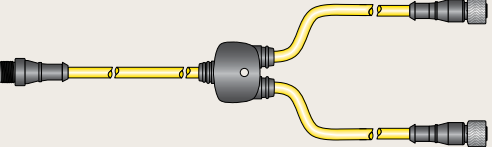
8-Pin M12/Euro QD (Double-Ended)

Model	Length	Cable Type
 DEE2R-81D	0.3 m	8-conductor (22-ga.)
DEE2R-83D	1 m	
DEE2R-88D	2.4 m	
DEE2R-815D	4.5 m	
DEE2R-825D	8 m	
DEE2R-850D	15 m	
DEE2R-875D	23 m	
DEE2R-8100D	30 m	

Removable Disconnect Connector (Double-Ended): Cascade cordset with removable disconnects for connection of 2nd, 3rd and 4th sensor in series

Model	Length	Cable Type
 DELP-110E	0.05 m	11-conductor (24-ga.)
DELP-111E	0.3 m	
DELP-113E	1 m	
DELP-118E	2.4 m	
DELP-1115E	4.5 m	
DELP-1125E	8 m	
DELP-1150E	15 m	
DELP-1175E	23 m	
DELP-11100E	30 m	

8-Pin M12/Euro QD Splitter

Model	Branches (Female)	Trunk (Male)	Cable Type
 CSB-M1281M1281	2 x 0.3 m	0.3 m	8-conductor (22-ga.)
CSB-M1288M1281		2.5 m	
CSB-M12815M1281		5 m	
CSB-M12825M1281		8 m	
CSB-UNT825M1281		8 m unterminated	



SC22-3 Safety Controller

Model*	Terminal	XM Card	Data Sheet
SC22-3-S	Screw	Yes	133487
SC22-3-C	Clamp		

*Other models are available (example, USB cable, XM programming, EtherNet IP, and Modbus TCP).



MMD Muting Modules

Model	Description	Data Sheet
MMD-TA-12B	2 NO redundant-output contacts (6 amp), plus 1 NC auxiliary	116390
MMD-TA-11B	2 PNP solid-state safety outputs (0.5 amp each)	



Interface Modules

Model	Description	Data Sheet
IM-T-9A	3 NO redundant-output contacts (6 amp)	62822
IM-T-11A	2 NO redundant-output contacts (6 amp), plus 1 NC auxiliary	



AC Interface Box

- Hard-wired AC Power, Output and EDM Connections
- 8-pin M12/Euro-style QD Emitter/Receiver Connection

Model	Outputs	EDM	Data Sheet
EZAC-R9-QE8	3 NO	Selectable 1- or 2-channel or no EDM	120321
EZAC-R11-QE8	1 NO & 1 NC		



Mechanically Linked Contactors

Model	Description	Data Sheet
11-BG00-31-D-024	3 NO, 1 NC (10 amp)	111881
BF1801L-024	3 NO, 1 NC (18 amp)	

Replacement Parts

Model	Description
LPA-TP-1	Terminator plug
DELPE-81D	Replacement pigtail for P8 models

EZ-SCREEN®: Best-in-Class, Two-Piece Safety Light Curtains

- Type 4 and Type 2 point-of-operation guarding
- Perimeter and access guards
- Single point for entry/exit
- Cascading models
- Easy setup, alignment and maintenance
- Unique mounting and retrofit options



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