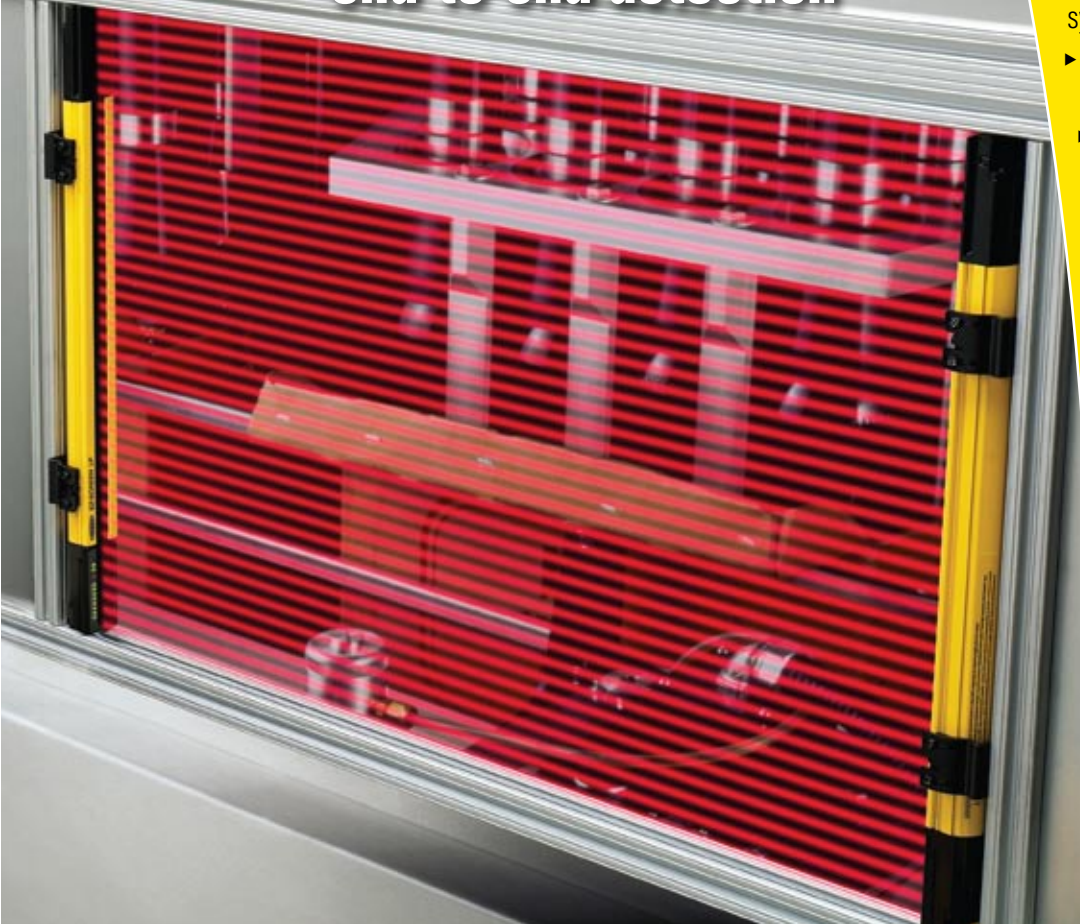


EZ-SCREEN® LP

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

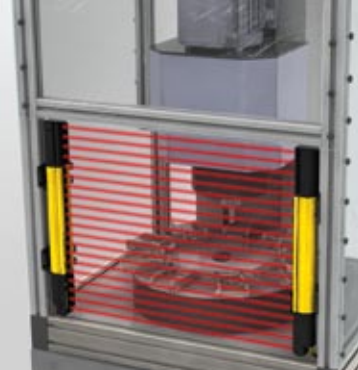
www.bannerengineering.com

1.888.373.6767

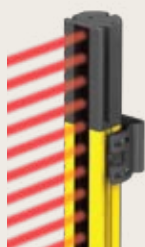


more sensors, more solutions

bannerengineering.com



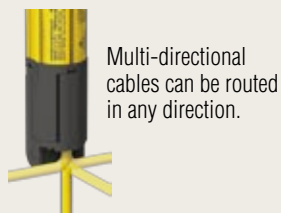
Space-saving design installs perfectly in machinery, eliminating protruding light screens.



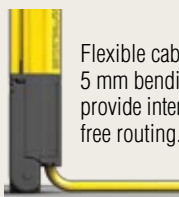
Included side brackets allow no dead zone with continuous sensing along entire length.



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	Config-uration	Reso-lution	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

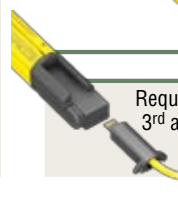
300 mm 8-pin M12/Euro Pigtail QD

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
- 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 	- 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 	- 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 	- 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:

- 1 Choose model, defined area and resolution (14 or 25 mm).
- 2 Choose an Emitter (E), a Receiver (R) or a Pair (P).[†]
- 3 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**).^{††}
- 4 Choose the connection: 300 mm M12/Euro Pigtail QD or integral Removable Disconnect (RD). See connections to left.
- 5 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
- 6 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.

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.

Cascade Brackets

LPA-MBK-21	LPA-MBK-180	LPA-MBK-135	LPA-MBK-120	LPA-MBK-90
• Pivoting L-bracket • Adjustable 90° to 180° orientation • +10°/-30° sensor rotation • 14-ga. (1.9 mm) steel, black zinc plated 	• Inline bracket • Fixed 180° orientation • +10°/-30° sensor rotation • 14-ga. (1.9 mm) steel, black zinc plated 	• Angled L-bracket • Fixed 135° orientation • +10°/-30° sensor rotation • 14-ga. (1.9 mm) steel, black zinc plated 	• Angled L-bracket • Fixed 120° orientation • +10°/-30° sensor rotation • 14-ga. (1.9 mm) steel, black zinc plated 	• 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.



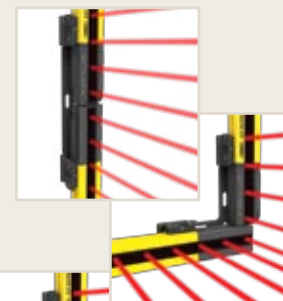
LEDs and 7-segment display indicate system status, alignment and blocked beams.



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



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.

Cordsets

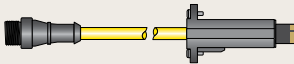
All standard cordsets are yellow PVC cable with black overmold. For black PVC cable and overmold, add suffix **B** to model number (example, **RDLP-815DB**).

Other cordset options available, see EZ-SCREEN LP manual (p/n 140044).

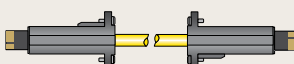
Removable Disconnect Connector with Flying Leads

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	

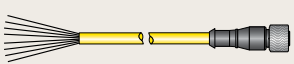
Removable Disconnect Connector with M12/Euro QD

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	

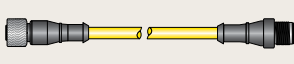
Removable Disconnect Connector (Double-Ended): Cascade cordset with removable disconnects for connection of 2nd, 3rd and 4th sensor in series

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 with Flying Leads

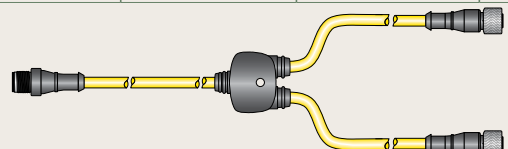
Model	Length	Cable Type
 QDE-815D	4.5 m	8-conductor (22-ga.)
QDE-825D	8 m	
QDE-850D	15 m	
QDE-875D	23 m	
QDE-8100D	30 m	

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	

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).

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)	



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)	

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



Banner Engineering Corp.

9714 Tenth Avenue North • Minneapolis, Minnesota 55441 • (763) 544-3164 • Fax: (763) 544-3213
Toll-free: 888-373-6767 • www.bannerengineering.com • Email: sensors@bannerengineering.com

P/N 142815

www.bannerengineering.com

BANNER®
more sensors, more solutions