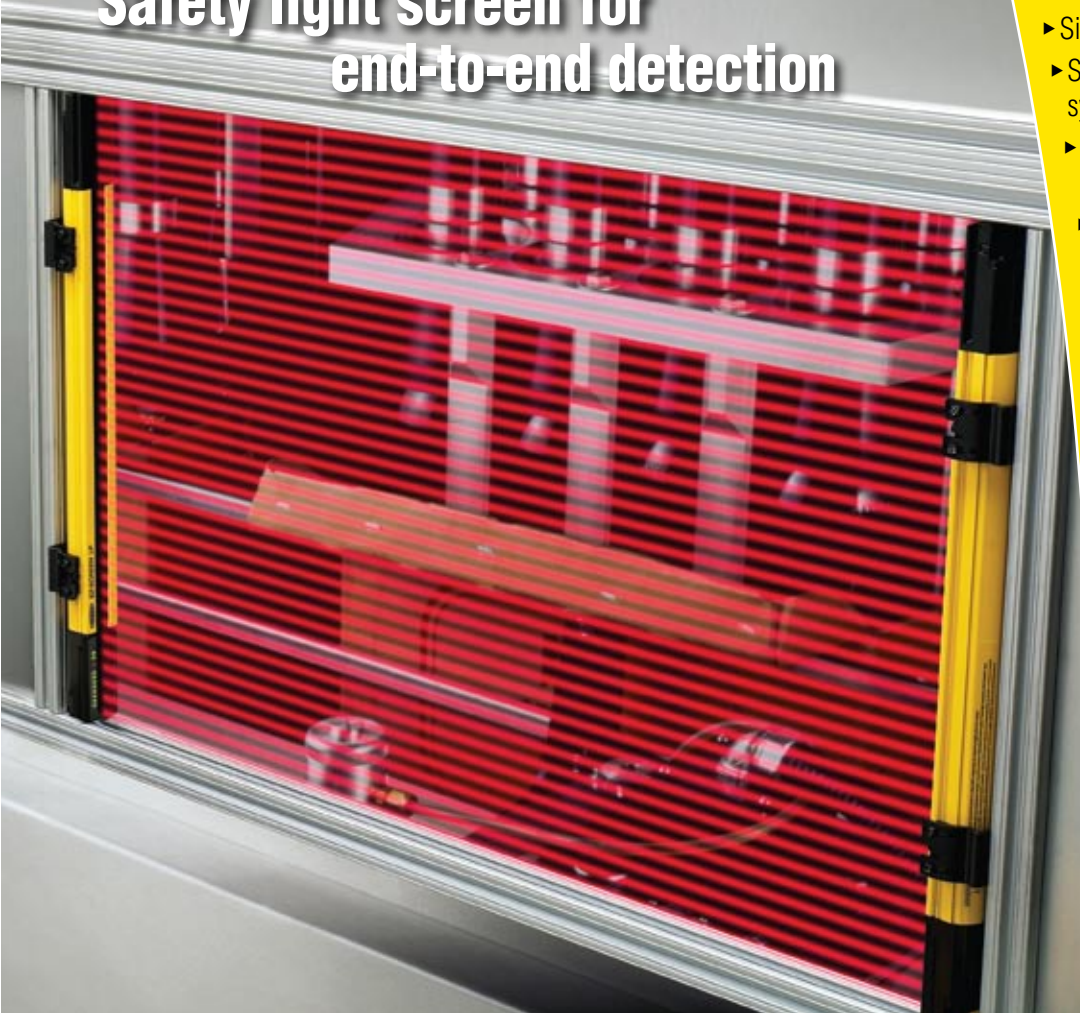


# EZ-SCREEN® LP

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

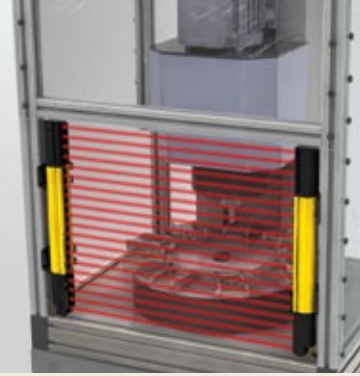
[www.bannerengineering.com](http://www.bannerengineering.com)

1.888.373.6767

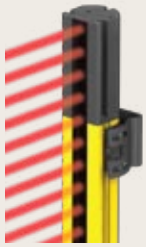
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**BANNER®**

more sensors, more solutions



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



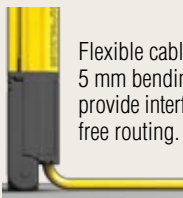
Included side brackets allow no dead zone with continuous sensing along entire length.



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
<b>SLP</b>	<b>E</b>	<b>25</b>	<b>410</b>	<b>A</b>	<b>P8</b>
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

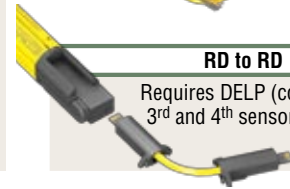
### 300 mm 8-pin M12/Euro Pigtail QD

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 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> 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"> <li>End-cap bracket kit</li> <li>360° sensor rotation</li> <li>14-ga. (1.9 mm) steel, black zinc plated; die-cast zinc plate</li> <li>Flanges can be mounted "In" or "Out"</li> <li>Includes 2 brackets and hardware</li> </ul>	<ul style="list-style-type: none"> <li>Side-mount bracket kit</li> <li>+10°/-30° sensor rotation</li> <li>14-ga. (1.9 mm) steel, black zinc plated; die-cast zinc clamp</li> <li>Includes 1 bracket and hardware</li> </ul>	<ul style="list-style-type: none"> <li>Universal adapter bracket for mounting to engineered/slotted aluminum framing (example, 80/20™, Bosch)</li> <li>Use with other LPA-MBK-xx brackets</li> <li>12-ga (2.66 mm) steel, black zinc plated</li> <li>Includes 1 bracket and hardware</li> </ul>	<ul style="list-style-type: none"> <li>End-cap bracket for mounting sensor inside Unistrut® metal framing</li> <li>Fits Unistrut® P1000 size (1 5/8"), with M6 or 1/4" channel nuts</li> <li>14-ga. (1.9 mm) steel, black zinc plated; die-cast zinc clamp</li> <li>Includes 2 brackets and hardware</li> </ul>

More information online at [bannerengineering.com](http://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 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> 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](http://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.

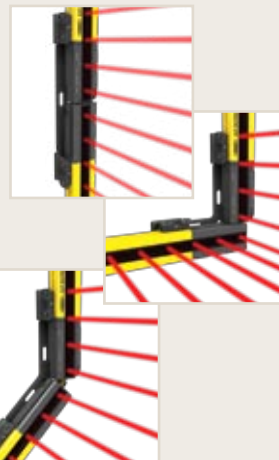
## Cascade EZ-SCREEN® LP Models, 24V dc @ 210 mA

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

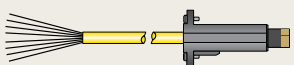
LPA-MBK-21	LPA-MBK-180	LPA-MBK-135	LPA-MBK-120	LPA-MBK-90
<ul style="list-style-type: none"> <li>• Pivoting L-bracket</li> <li>• Adjustable 90° to 180° orientation</li> <li>• +10°/-30° sensor rotation</li> <li>• 14-ga. (1.9 mm) steel, black zinc plated</li> </ul> 	<ul style="list-style-type: none"> 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

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).

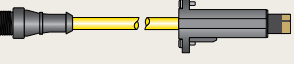
## Removable Disconnect Connector with Flying Leads

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	

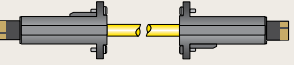
## Removable Disconnect Connector with M12/Euro QD

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	

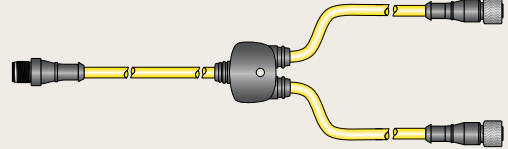
## 8-Pin M12/Euro QD (Double-Ended)

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 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> 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



Banner Engineering Corp.

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P/N 142815

