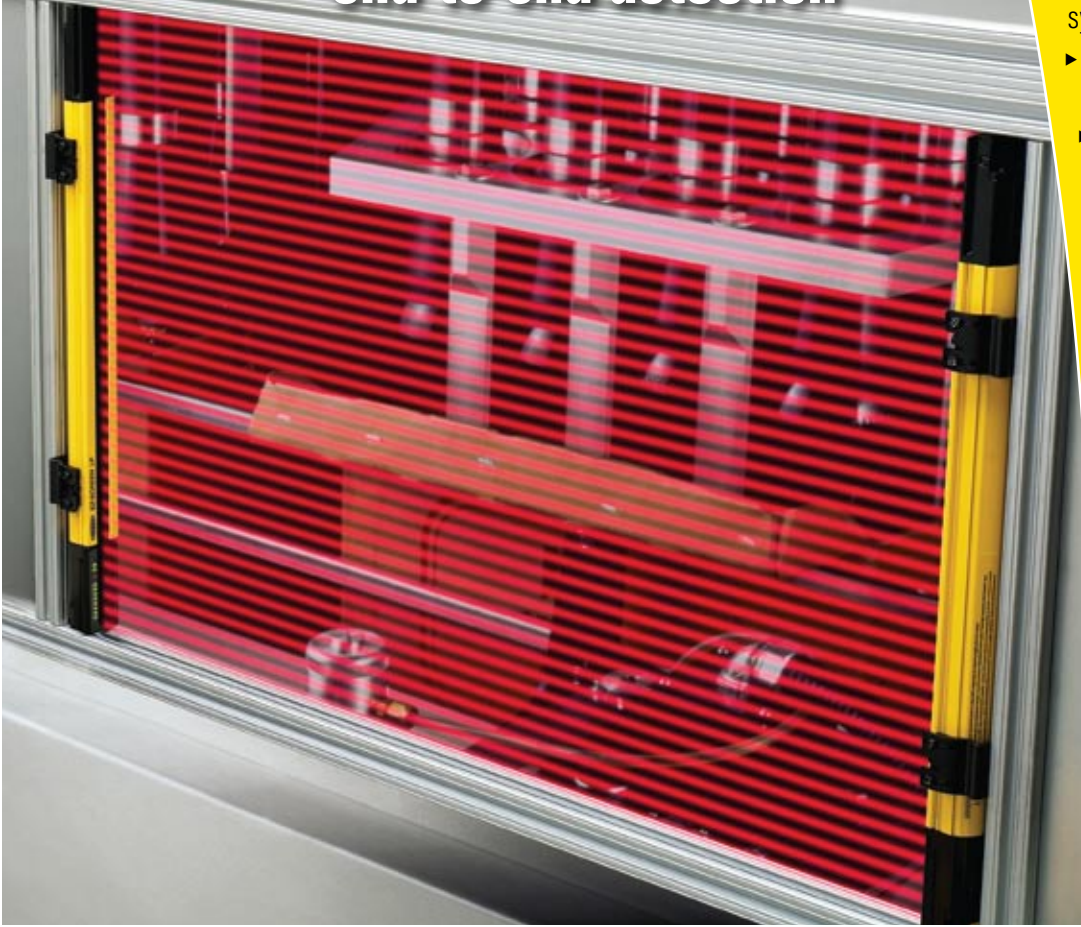


# EZ-SCREEN® LP

## 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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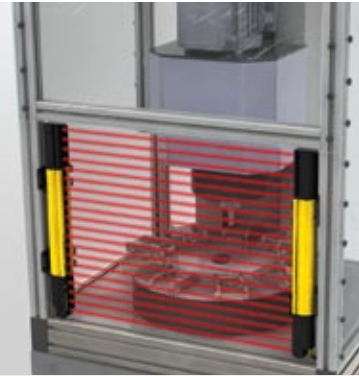
**1.888.373.6767**



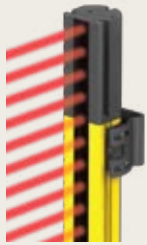
more sensors, more solutions

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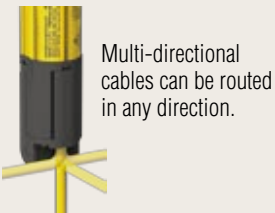
Space-saving design installs perfectly in machinery, eliminating protruding light screens.



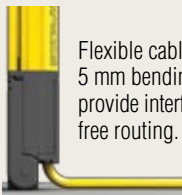
Included side brackets allow no dead zone with continuous sensing along entire length.



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<br>SLPC = Cascade LP | E = Emitter<br>R = Receiver<br>P = Pair | 14 = 14 mm<br>25 = 25 mm | 270 mm<br>410 mm<br>550 mm<br>690 mm<br>830 mm<br>970 mm<br>1110 mm<br>1250 mm<br>1390 mm<br>1530 mm<br>1670 mm<br>1810 mm | A = Anodized Aluminum<br>N = ESD-safe Nickel-plated<br>(Blank) = Standard Yellow | P8 = M12/Euro Pigtail QD<br>P88 = M12/Euro Pigtail QD (Pair)<br>(Blank) = Integral RD |

## Connections

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



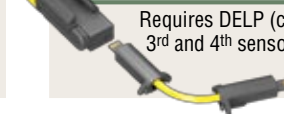
Order mating M12/Euro QD cordset separately: QDE, DEE2R or CSB; see page 4

### 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:

- Choose model, defined area and resolution (14 or 25 mm).
- Choose an Emitter (E), a Receiver (R) or a Pair (P).<sup>†</sup>
- 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**).<sup>††</sup>
  - N** for ESD-safe models with a nickel-plated housing and end caps (example, **SLPE25-270N**).<sup>††</sup>
- 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 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> sensors
- Choose an optional interfacing solution, such as an **IM-T-9A** or **-11A** interfacing model. See page 4.

<sup>†</sup> 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.

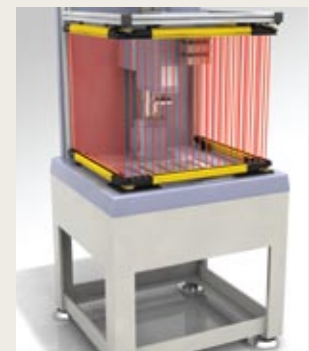
<sup>††</sup> Optional housings with Pigtail QD models have a black 300 mm PVC cable and QD overmold.



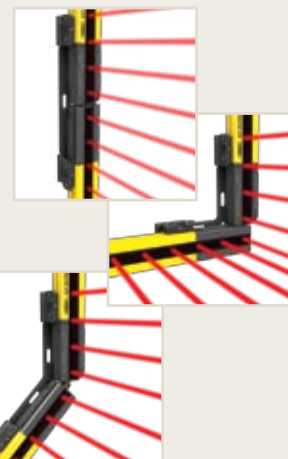
LEDs and 7-segment display indicate system status, alignment and blocked beams.



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



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 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   |
|---|---|---|---|--|
| <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   |                      |


## 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   |                      |

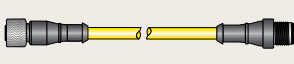
**Removable Disconnect Connector (Double-Ended):** Cascade cordset with removable disconnects for connection of 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> sensor in series

| 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   |                       |

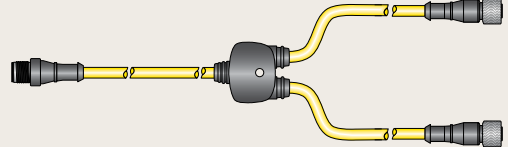
## 8-Pin M12/Euro QD with Flying Leads

| 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



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

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