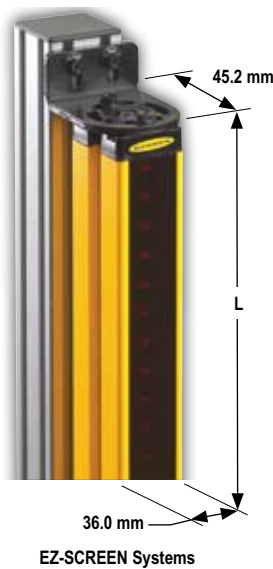


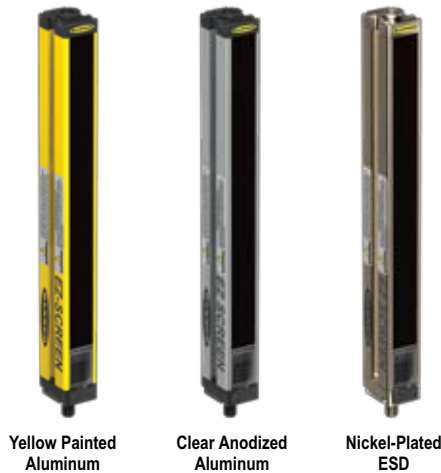
EZ-SCREEN®

Type 4 Point-of-Operation

- Available in 14 mm resolution for finger, hand and ankle detection or 30 mm resolution for hand and ankle detection
- Operates in ranges from 0.1 to 6 m (14 mm models) and 0.1 to 18 m (30 mm models)
- Offers fixed or 2-beam reduced resolution (floating blanking) to ignore tooling or constant inflow of materials
- Displays operating status, configuration error codes, and blocked beams
- User-configurable trip or latch outputs, Scan Code 1 or 2 and Aux output
- Exceeds OSHA/ANSI Control Reliability requirements, certified to cULus NIPF, and CE certified to Type 4, Cat 4 PLe, and SIL 3
- Provides external device monitoring (EDM)
- Resists impact, twisting and abusive environments with a durable aluminum housing and metal endcaps
- Available with standard yellow, clear anodized aluminum housing or nickel-plated ESD-safe housing for protection against electrostatic discharges (other color options available)
- Offers optional cascading to create up to a four sensor system that issues a single stop command
- Offers optional lens shields and enclosures for added durability



Some of the Available Finishes



- Photoelectrics Sensors
- Fiber Optic Sensors
- Special Purpose Sensors
- Measurement & Inspection Sensors
- Vision
- Wireless
- Lighting & Indicators
- Safety Light Screens**
- Safety Laser Scanners
- Fiber Optic Safety Systems
- Safety Controllers & Modules
- Safety Two-Hand Control Modules
- Safety Interlock Switches
- Emergency Stop & Stop Control

ACCESSORIES

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EZ-SCREEN

- TYPE 4 14 or 30 mm
- TYPE 4 LOW PROFILE 14 or 25 mm
- TYPE 2 30 mm
- GRIDS & POINTS
- PICO-GUARD

EZ-SCREEN® Systems, 14 mm Resolution–0.1 to 6 m Range, 24V dc

Defined Area	M12/Euro Connection	Housing Length (L)	Response Time	# of Beams	Output	Models*		
						Emitter	Receiver	Pair†
150 mm	8-pin QD	262 mm	11 ms	20	2 PNP OSSD (Trip/Latch selectable)	SLSE14-150Q8	SLSR14-150Q8	SLSP14-150Q88
	8-pin Pigtail QD					SLSE14-150P8	SLSR14-150P8	SLSP14-150P88
300 mm	8-pin QD	372 mm	15 ms	SLSE14-300Q8		SLSR14-300Q8	SLSP14-300Q88	
	8-pin Pigtail QD			SLSE14-300P8		SLSR14-300P8	SLSP14-300P88	
450 mm	8-pin QD	522 mm	19 ms	SLSE14-450Q8		SLSR14-450Q8	SLSP14-450Q88	
	8-pin Pigtail QD			SLSE14-450P8		SLSR14-450P8	SLSP14-450P88	
600 mm	8-pin QD	671 mm	23 ms	SLSE14-600Q8		SLSR14-600Q8	SLSP14-600Q88	
	8-pin Pigtail QD			SLSE14-600P8		SLSR14-600P8	SLSP14-600P88	
750 mm	8-pin QD	821 mm	27 ms	SLSE14-750Q8		SLSR14-750Q8	SLSP14-750Q88	
	8-pin Pigtail QD			SLSE14-750P8		SLSR14-750P8	SLSP14-750P88	
900 mm	8-pin QD	971 mm	32 ms	SLSE14-900Q8		SLSR14-900Q8	SLSP14-900Q88	
	8-pin Pigtail QD			SLSE14-900P8		SLSR14-900P8	SLSP14-900P88	
1050 mm	8-pin QD	1120 mm	36 ms	SLSE14-1050Q8		SLSR14-1050Q8	SLSP14-1050Q88	
	8-pin Pigtail QD			SLSE14-1050P8		SLSR14-1050P8	SLSP14-1050P88	
1200 mm	8-pin QD	1270 mm	40 ms	SLSE14-1200Q8		SLSR14-1200Q8	SLSP14-1200Q88	
	8-pin Pigtail QD			SLSE14-1200P8		SLSR14-1200P8	SLSP14-1200P88	
1350 mm	8-pin QD	1420 mm	43 ms	SLSE14-1350Q8		SLSR14-1350Q8	SLSP14-1350Q88	
	8-pin Pigtail QD			SLSE14-1350P8		SLSR14-1350P8	SLSP14-1350P88	
1500 mm	8-pin QD	1569 mm	48 ms	SLSE14-1500Q8		SLSR14-1500Q8	SLSP14-1500Q88	
	8-pin Pigtail QD			SLSE14-1500P8		SLSR14-1500P8	SLSP14-1500P88	
1650 mm	8-pin QD	1719 mm	52 ms	SLSE14-1650Q8	SLSR14-1650Q8	SLSP14-1650Q88		
	8-pin Pigtail QD			SLSE14-1650P8	SLSR14-1650P8	SLSP14-1650P88		
1800 mm	8-pin QD	1869 mm	56 ms	SLSE14-1800Q8	SLSR14-1800Q8	SLSP14-1800Q88		
	8-pin Pigtail QD			SLSE14-1800P8	SLSR14-1800P8	SLSP14-1800P88		

EZ-SCREEN® Systems, 30 mm Resolution–0.1 to 18 m Range, 24V dc

Defined Area	M12/Euro Connection	Housing Length (L)	Response Time	# of Beams	Output	Models*		
						Emitter	Receiver	Pair†
150 mm	8-pin QD	262 mm	9 ms	10	2 PNP OSSD (Trip/Latch selectable)	SLSE30-150Q8	SLSR30-150Q8	SLSP30-150Q88
	8-pin Pigtail QD					SLSE30-150P8	SLSR30-150P8	SLSP30-150P88
300 mm	8-pin QD	372 mm	11 ms	SLSE30-300Q8		SLSR30-300Q8	SLSP30-300Q88	
	8-pin Pigtail QD			SLSE30-300P8		SLSR30-300P8	SLSP30-300P88	
450 mm	8-pin QD	522 mm	13 ms	SLSE30-450Q8		SLSR30-450Q8	SLSP30-450Q88	
	8-pin Pigtail QD			SLSE30-450P8		SLSR30-450P8	SLSP30-450P88	
600 mm	8-pin QD	671 mm	15 ms	SLSE30-600Q8		SLSR30-600Q8	SLSP30-600Q88	
	8-pin Pigtail QD			SLSE30-600P8		SLSR30-600P8	SLSP30-600P88	
750 mm	8-pin QD	821 mm	17 ms	SLSE30-750Q8		SLSR30-750Q8	SLSP30-750Q88	
	8-pin Pigtail QD			SLSE30-750P8		SLSR30-750P8	SLSP30-750P88	
900 mm	8-pin QD	971 mm	19 ms	SLSE30-900Q8		SLSR30-900Q8	SLSP30-900Q88	
	8-pin Pigtail QD			SLSE30-900P8		SLSR30-900P8	SLSP30-900P88	

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page

QD models: A model with a QD requires a mating cordset (see page 480).

For an emitter with TEST function, replace **Q8** with **Q5** on emitter model numbers (example, **SLSE14-150Q5**) and **Q88** with **Q85** on pair model numbers (example, **SLSP14-150Q85**).

For a 300 mm M12/Euro pigtail QD, replace **Q** with **P** in model numbers (example, **SLSP14-150P88**).

For a 5-pin 300 mm M12/Euro pigtail QD with No EDM or TEST functions, replace **Q8** with **P5NT** on emitter or receiver (example, **SLSE14-150P5NT**) and **Q88** with **P55NT** on pair model numbers (example, **SLSP14-150P55NT**).

For a 4-pin 300 mm M12/Euro pigtail QD with no EDM or TEST functions (GND/PE via mounting), replace **Q8** with **P4NT** or **Q88** with **P44NT** (example, **SLSP14-150P44NT**).

* **ESD-safe models:** Add **N** to the model number, prior to the QD option designation (example, **SLSE14-150NQ8**). ESD-safe models are not available with the pigtail QD option.

Optional housing finishes:

Prior to the QD designation in the model number, add **A** for a clear (brushed) anodized aluminum finish, black endcaps (example, **SLSE14-150AQ8**);

S for a nickel-plated (silver) finish, black endcaps (example, **SLSE14-150SQ8**), **B** for a black painted finish, black endcaps (example, **SLSE14-150BQ8**);

W for a white painted finish, black endcaps (example, **SLSE14-150WQ8**) or **SO** for a safety orange painted finish, black endcaps (example, **SLSE14-150SOQ8**).

† A pair includes an emitter and receiver (example, **SLSP14-150Q88**). Emitters (example, **SLSE14-150Q8**) and receivers (example, **SLSR14-150Q8**) are also sold separately.

EZ-SCREEN® Systems, 30 mm Resolution–0.1 to 18 m Range, 24V dc (cont'd)

Defined Area	M12/Euro Connection	Housing Length (L)	Response Time	# of Beams	Output	Models*		
						Emitter	Receiver	Pair†
1050 mm	8-pin QD	1120 mm	21 ms	70	2 PNP OSSD (Trip/Latch selectable)	SLSE30-1050Q8	SLSR30-1050Q8	SLSP30-1050Q88
	8-pin Pigtail QD					SLSE30-1050P8	SLSR30-1050P8	SLSP30-1050P88
1200 mm	8-pin QD	1270 mm	23 ms	80		SLSE30-1200Q8	SLSR30-1200Q8	SLSP30-1200Q88
	8-pin Pigtail QD					SLSE30-1200P8	SLSR30-1200P8	SLSP30-1200P88
1350 mm	8-pin QD	1420 mm	25 ms	90		SLSE30-1350Q8	SLSR30-1350Q8	SLSP30-1350Q88
	8-pin Pigtail QD					SLSE30-1350P8	SLSR30-1350P8	SLSP30-1350P88
1500 mm	8-pin QD	1569 mm	27 ms	100		SLSE30-1500Q8	SLSR30-1500Q8	SLSP30-1500Q88
	8-pin Pigtail QD					SLSE30-1500P8	SLSR30-1500P8	SLSP30-1500P88
1650 mm	8-pin QD	1719 mm	30 ms	110		SLSE30-1650Q8	SLSR30-1650Q8	SLSP30-1650Q88
	8-pin Pigtail QD					SLSE30-1650P8	SLSR30-1650P8	SLSP30-1650P88
1800 mm	8-pin QD	1869 mm	32 ms	120		SLSE30-1800Q8	SLSR30-1800Q8	SLSP30-1800Q88
	8-pin Pigtail QD					SLSE30-1800P8	SLSR30-1800P8	SLSP30-1800P88
1950 mm	8-pin QD	2018 mm	34 ms	130		SLSE30-1950Q8	SLSR30-1950Q8	SLSP30-1950Q88
	8-pin Pigtail QD					SLSE30-1950P8	SLSR30-1950P8	SLSP30-1950P88
2100 mm	8-pin QD	2168 mm	36 ms	140		SLSE30-2100Q8	SLSR30-2100Q8	SLSP30-2100Q88
	8-pin Pigtail QD					SLSE30-2100P8	SLSR30-2100P8	SLSP30-2100P88
2250 mm	8-pin QD	2318 mm	38 ms	150		SLSE30-2250Q8	SLSR30-2250Q8	SLSP30-2250Q88
	8-pin Pigtail QD					SLSE30-2250P8	SLSR30-2250P8	SLSP30-2250P88
2400 mm	8-pin QD	2468 mm	40 ms	160		SLSE30-2400Q8	SLSR30-2400Q8	SLSP30-2400Q88
	8-pin Pigtail QD					SLSE30-2400P8	SLSR30-2400P8	SLSP30-2400P88

Photoelectrics Sensors
Fiber Optic Sensors
Special Purpose Sensors
Measurement & Inspection Sensors
Vision
Wireless
Lighting & Indicators
Safety Light Screens
Safety Laser Scanners
Fiber Optic Safety Systems
Safety Controllers & Modules
Safety Two-Hand Control Modules
Safety Interlock Switches
Emergency Stop & Stop Control

ACCESSORIES
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EZ-SCREEN® Cascade Systems, 14 mm Resolution–0.1 to 6 m Range, 24V dc

Defined Area	M12/Euro Connection	Housing Length (L)	Response Time**	# of Beams	Output	Models*		
						Emitter	Receiver	Pair†
300 mm	8-pin QD	372 mm	15 ms	40	2 PNP OSSD (Trip/Latch selectable)	SLSCE14-300Q8	SLSCR14-300Q8	SLSCP14-300Q88
	8-pin Pigtail QD					SLSCE14-300P8	SLSCR14-300P8	SLSCP14-300P88
450 mm	8-pin QD	522 mm	19 ms	60		SLSCE14-450Q8	SLSCR14-450Q8	SLSCP14-450Q88
	8-pin Pigtail QD					SLSCE14-450P8	SLSCR14-450P8	SLSCP14-450P88
600 mm	8-pin QD	671 mm	23 ms	80		SLSCE14-600Q8	SLSCR14-600Q8	SLSCP14-600Q88
	8-pin Pigtail QD					SLSCE14-600P8	SLSCR14-600P8	SLSCP14-600P88
750 mm	8-pin QD	821 mm	27 ms	100		SLSCE14-750Q8	SLSCR14-750Q8	SLSCP14-750Q88
	8-pin Pigtail QD					SLSCE14-750P8	SLSCR14-750P8	SLSCP14-750P88
900 mm	8-pin QD	971 mm	32 ms	120		SLSCE14-900Q8	SLSCR14-900Q8	SLSCP14-900Q88
	8-pin Pigtail QD					SLSCE14-900P8	SLSCR14-900P8	SLSCP14-900P88
1050 mm	8-pin QD	1120 mm	36 ms	140		SLSCE14-1050Q8	SLSCR14-1050Q8	SLSCP14-1050Q88
	8-pin Pigtail QD					SLSCE14-1050P8	SLSCR14-1050P8	SLSCP14-1050P88
1200 mm	8-pin QD	1270 mm	40 ms	160		SLSCE14-1200Q8	SLSCR14-1200Q8	SLSCP14-1200Q88
	8-pin Pigtail QD					SLSCE14-1200P8	SLSCR14-1200P8	SLSCP14-1200P88
1350 mm	8-pin QD	1420 mm	43 ms	180		SLSCE14-1350Q8	SLSCR14-1350Q8	SLSCP14-1350Q88
	8-pin Pigtail QD					SLSCE14-1350P8	SLSCR14-1350P8	SLSCP14-1350P88

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EZ-SCREEN
TYPE 4
14 or 30 mm
TYPE 4
LOW PROFILE
14 or 25 mm
TYPE 2
30 mm
GRIDS & POINTS
PICO-GUARD

QD models: A model with a QD requires a mating cordset (see page 480).

For an emitter with TEST function, replace **Q8** with **Q5** on emitter model numbers (example, **SLSE30-1050Q5**) and **Q88** with **Q85** on pair model numbers (example, **SLSP30-1050Q85**).
For a 300 mm Euro pigtail QD, replace **Q** with **P** in model numbers (example, **SLSP30-1050P88**).
For a 5-pin 300 mm Euro pigtail QD with No EDM or TEST, replace **Q8** with **P5NT** on emitter or receiver (example, **SLSE30-1050P5NT**) and **Q88** with **P55NT** on pair models (example, **SLSP30-1050P55NT**).
For a 4-pin 300 mm M12/Euro pigtail QD with no EDM or TEST functions (GND/PE via mounting), replace **Q8** with **P4NT** or **Q88** with **P44NT** (example, **SLSP30-1050P44NT**).

* **ESD-safe models:** Add **N** to the model number, prior to the QD option designation (example, **SLSE30-1050NQ8**). ESD-safe models are not available with the pigtail QD option.

Optional housing finishes:

Prior to the QD designation in the model number, add **A** for a clear (brushed) anodized aluminum finish, black endcaps (example, **SLSE30-1050AQ8**);

S for a nickel-plated (silver) finish, black endcaps (example, **SLSE30-1050SQ8**), **B** for a black painted finish, black endcaps (example, **SLSE30-1050BQ8**);

W for a white painted finish, black endcaps (example, **SLSE30-1050WQ8**) or **SO** for a safety orange painted finish, black endcaps (example, **SLSE30-1050SOQ8**).

** **Cascading system response time:** To the response time of the slowest pair, add 2 ms for each additional pair.

Example: slowest pair's response time is 15 ms, and the system has three additional pairs (four pairs total), so the system maximum response time is 15 ms + 6 ms (3 pairs x 2 ms) = 21 ms.

† A pair includes an emitter and receiver (example, **SLSP30-1050Q88**). Emitters (example, **SLSE30-1050Q8**) and receivers (example, **SLSR30-1050Q8**) are also sold separately.

EZ-SCREEN® Cascade Systems, 14 mm Resolution–0.1 to 6 m Range, 24V dc (cont'd)

Defined Area	M12/Euro Connection	Housing Length (L)	Response Time**	# of Beams	Output	Models*		
						Emitter	Receiver	Pair†
1500 mm	8-pin QD	1569 mm	48 ms	200	2 PNP OSSD (Trip/Latch selectable)	SLSCE14-1500Q8	SLSCR14-1500Q8	SLSCP14-1500Q88
	8-pin Pigtail QD					SLSCE14-1500P8	SLSCR14-1500P8	SLSCP14-1500P88
1650 mm	8-pin QD	1719 mm	52 ms	220		SLSCE14-1650Q8	SLSCR14-1650Q8	SLSCP14-1650Q88
	8-pin Pigtail QD					SLSCE14-1650P8	SLSCR14-1650P8	SLSCP14-1650P88
1800 mm	8-pin QD	1869 mm	56 ms	240		SLSCE14-1800Q8	SLSCR14-1800Q8	SLSCP14-1800Q88
	8-pin Pigtail QD					SLSCE14-1800P8	SLSCR14-1800P8	SLSCP14-1800P88

EZ-SCREEN® Cascade Systems, 30 mm Resolution–0.1 to 18 m Range, 24V dc

Defined Area	M12/Euro Connection	Housing Length (L)	Response Time**	# of Beams	Output	Models*		
						Emitter	Receiver	Pair†
300 mm	8-pin QD	372 mm	11 ms	20	2 PNP OSSD (Trip/Latch selectable)	SLSCE30-300Q8	SLSCR30-300Q8	SLSCP30-300Q88
	8-pin Pigtail QD					SLSCE30-300P8	SLSCR30-300P8	SLSCP30-300P88
450 mm	8-pin QD	522 mm	13 ms	30		SLSCE30-450Q8	SLSCR30-450Q8	SLSCP30-450Q88
	8-pin Pigtail QD					SLSCE30-450P8	SLSCR30-450P8	SLSCP30-450P88
600 mm	8-pin QD	671 mm	15 ms	40		SLSCE30-600Q8	SLSCR30-600Q8	SLSCP30-600Q88
	8-pin Pigtail QD					SLSCE30-600P8	SLSCR30-600P8	SLSCP30-600P88
750 mm	8-pin QD	821 mm	17 ms	50		SLSCE30-750Q8	SLSCR30-750Q8	SLSCP30-750Q88
	8-pin Pigtail QD					SLSCE30-750P8	SLSCR30-750P8	SLSCP30-750P88
900 mm	8-pin QD	971 mm	19 ms	60		SLSCE30-900Q8	SLSCR30-900Q8	SLSCP30-900Q88
	8-pin Pigtail QD					SLSCE30-900P8	SLSCR30-900P8	SLSCP30-900P88
1050 mm	8-pin QD	1120 mm	21 ms	70		SLSCE30-1050Q8	SLSCR30-1050Q8	SLSCP30-1050Q88
	8-pin Pigtail QD					SLSCE30-1050P8	SLSCR30-1050P8	SLSCP30-1050P88
1200 mm	8-pin QD	1270 mm	23 ms	80		SLSCE30-1200Q8	SLSCR30-1200Q8	SLSCP30-1200Q88
	8-pin Pigtail QD					SLSCE30-1200P8	SLSCR30-1200P8	SLSCP30-1200P88
1350 mm	8-pin QD	1420 mm	25 ms	90		SLSCE30-1350Q8	SLSCR30-1350Q8	SLSCP30-1350Q88
	8-pin Pigtail QD					SLSCE30-1350P8	SLSCR30-1350P8	SLSCP30-1350P88
1500 mm	8-pin QD	1569 mm	27 ms	100		SLSCE30-1500Q8	SLSCR30-1500Q8	SLSCP30-1500Q88
	8-pin Pigtail QD					SLSCE30-1500P8	SLSCR30-1500P8	SLSCP30-1500P88
1650 mm	8-pin QD	1719 mm	30 ms	110		SLSCE30-1650Q8	SLSCR30-1650Q8	SLSCP30-1650Q88
	8-pin Pigtail QD					SLSCE30-1650P8	SLSCR30-1650P8	SLSCP30-1650P88
1800 mm	8-pin QD	1869 mm	32 ms	120		SLSCE30-1800Q8	SLSCR30-1800Q8	SLSCP30-1800Q88
	8-pin Pigtail QD					SLSCE30-1800P8	SLSCR30-1800P8	SLSCP30-1800P88
1950 mm	8-pin QD	2018 mm	34 ms	130		SLSCE30-1950Q8	SLSCR30-1950Q8	SLSCP30-1950Q88
	8-pin Pigtail QD					SLSCE30-1950P8	SLSCR30-1950P8	SLSCP30-1950P88
2100 mm	8-pin QD	2168 mm	36 ms	140	SLSCE30-2100Q8	SLSCR30-2100Q8	SLSCP30-2100Q88	
	8-pin Pigtail QD				SLSCE30-2100P8	SLSCR30-2100P8	SLSCP30-2100P88	
2250 mm	8-pin QD	2318 mm	38 ms	150	SLSCE30-2250Q8	SLSCR30-2250Q8	SLSCP30-2250Q88	
	8-pin Pigtail QD				SLSCE30-2250P8	SLSCR30-2250P8	SLSCP30-2250P88	
2400 mm	8-pin QD	2468 mm	40 ms	160	SLSCE30-2400Q8	SLSCR30-2400Q8	SLSCP30-2400Q88	
	8-pin Pigtail QD				SLSCE30-2400P8	SLSCR30-2400P8	SLSCP30-2400P88	

QD models: A model with a QD requires a mating cordset (see page 480).

For an emitter with TEST function, replace Q8 with Q5 on emitter model numbers (example, SLSCE14-1500Q5) and Q88 with Q85 on pair model numbers (example, SLSCP14-1500Q85).

For a 300 mm Euro pigtail QD, replace Q with P in model numbers (example, SLSCP30-300P88).

For a 5-pin 300 mm M12/Euro pigtail QD with No EDM or TEST, replace Q8 with P5NT on emitter or receiver (example, SLSCE14-1050P5NT), and Q88 with P55NT on pair model number (example, SLSCP14-1050P55NT).

For a 4-pin 300 mm M12/Euro pigtail QD with no EDM or TEST functions (GND/PE via mounting), replace Q8 with P4NT or Q88 with P44NT (example, SLSP14-1050P44NT).

* **ESD-safe models:** Add N to the model number, prior to the QD option designation (example, SLSCE14-1500NQ8). ESD-safe models are not available with the pigtail QD option.

Optional housing finishes: Prior to the QD designation in the model number, add A for a clear (brushed) anodized aluminum finish, black endcaps (example, SLSCE14-1500AQ8);

S for a nickel-plated (silver) finish, black endcaps (example, SLSCE14-1500SQ8), B for a black painted finish, black endcaps (example, SLSCE14-1500BQ8),

W for a white painted finish, black endcaps (example, SLSCE14-1500WQ8) or SO for a safety orange painted finish, black endcaps (example, SLSCE14-1500SOQ8).

** **Cascading system response time:** To the response time of the slowest pair, add 2 ms for each additional pair. Example: slowest pair's response time is 15 ms, and the system has three additional pairs (four pairs total), so the system maximum response time is 15 ms + 6 ms (3 pairs x 2 ms) = 21 ms.

† A pair includes an emitter and receiver (example, SLSCP30-300Q88). Emitters (example, SLSCE30-300Q8) and receivers (example, SLSCR30-300Q8) are also sold separately.

EZ-SCREEN® 14 & 30 mm Resolution Kits



You can purchase a kit that contains an emitter and receiver of equal length and resolution; brackets; and optional interfacing solution and quick-disconnect cordsets. Detailed information about individual kit components is as follows.

• Emitter and Receivers	Page 474
• Interfacing Options	501
• Cordsets	480
• Brackets	480

To Order:

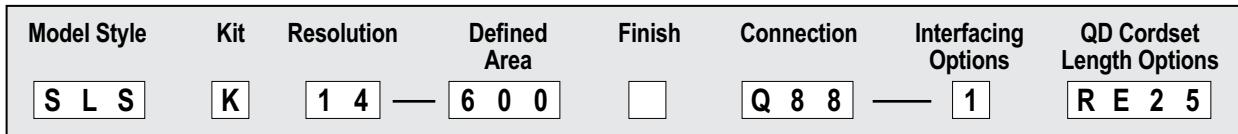
1. Choose model, resolution and defined area.
2. Yellow housing is standard. To choose an optional housing, add designation listed below prior to the connection.
3. Choose the connection: Integral M12/Euro-Style QD with or without TEST, or 300 mm M12/Euro-Style pigtail with or without TEST.
4. Choose an optional interfacing solution, such as an **IM-T-9A** or **-11** interfacing model.
5. Choose one cordset for each sensor or two cordsets for a pair.
 - M12/Euro QD models** (example, **SLSK30-150Q88**) require mating M12/Euro QD cordsets, such as:
 - QDE cordset with flying leads
 - DEE2R double-ended cordset
 - CSB series splitter cordset

See www.bannerengineering.com for complete information and a current listing of accessories and options for kitting components. Call factory with questions regarding accessories. 1-888-373-6767.

- Photoelectrics
- Sensors
- Fiber Optic Sensors
- Special Purpose Sensors
- Measurement & Inspection Sensors
- Vision
- Wireless
- Lighting & Indicators
- Safety Light Screens**
- Safety Laser Scanners
- Fiber Optic Safety Systems
- Safety Controllers & Modules
- Safety Two-Hand Control Modules
- Safety Interlock Switches
- Emergency Stop & Stop Control

ACCESSORIES
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Kit Model Key



Model Style

SLS = Safety Light Screen
SLSC = Cascading Safety Light Screen

Kit

K = Kit

SLS Resolution

14 = 14 mm
30 = 30 mm

Sensor Finish

Blank = Yellow powder coat
N = Nickel plated ESD
A = Clear Anodized Aluminum
S = Nickel-plated (silver)
B = Black powder coat
W = White powder coat

Defined Area

150 mm*
300 mm
450 mm
600 mm
750 mm
900 mm
1050 mm
1200 mm
1350 mm
1500 mm
1650 mm
1800 mm
1950 mm†
2100 mm†
2250 mm†
2400 mm†

Receiver & Emitter QD Options

Q85 = Receiver with integral 8-pin M12/Euro QD Emitter with integral 5-pin M12/Euro QD with Test
Q88 = Receiver with integral 8-pin M12/Euro QD Emitter with integral 8-pin M12/Euro QD
P88 = Receiver with 8-pin M12/Euro pigtail QD Emitter with 8-pin M12/Euro pigtail QD
P55NT = Receiver with 5-pin M12/Euro pigtail QD (No EDM) Emitter with 5-pin M12/Euro pigtail QD (No Test)
P44NT = Receiver with 4-pin M12/Euro pigtail QD (No EDM) Emitter with 4-pin M12/Euro pigtail QD (No Test) (GND/PE via mounting)

QD Cordset Length Examples

RE15 = 4.5 m, 2 each
RE25 = 7.6 m, 2 each
R15E25 = 4.5 m (Receiver) & 7.6 m (Emitter)
R25E15 = 7.6 m (Receiver) & 4.5 m (Emitter)
DD1 = 0.3 DEE2R-81D, 2 each
C1D15 = CSB-M1281M1281 (Receiver) DEE2R-815D (8-pin Emitter)
C8D25 = CSB-M1288M1281 (SLS Receiver) DEE2R-825D (8-pin Emitter)
CU25D25 = CSB-UNT825M1281 (SLS Receiver) DEE2R-825D (8-pin Emitter)

Interfacing Options

1 = IM-T-9A Interface Module, 1 each (3 NO)
2 = IM-T-11A Interface Module, 1 each (2 NO/ 1 NC)
3 = 11-BG00-31-D-024 Contactors (10A), 2 each
4 = BF1801L-024 Contactors (18A), 2 each
5 = EZAC-R9-QE8 = AC Interface Box (3 NO), 1 each
6 = EZAC-R11-QE8 = AC Interface Box (2 NO/1 NC), 1 each

* 150 mm not available in cascade models
† Longer lengths not available in 14 mm resolution models.



NOTE: See notes under model number tables. Not all combinations are listed.
Contact Banner Engineering Corp. for additional information and/or verification of valid kit model numbers.

- EZ-SCREEN**
- TYPE 4
14 or 30 mm
- TYPE 4
LOW PROFILE
14 or 25 mm
- TYPE 2
30 mm
- GRIDS & POINTS
- PICO-GUARD

EZ-SCREEN® 14 & 30 mm Resolution Specifications

Supply Voltage at the Device	24V dc $\pm 15\%$ (use a SELV-rated supply according to EN IEC60950) (The external voltage supply must be capable of buffering brief mains interruptions of 20 ms, as specified in EN/IEC 60204-1.)										
Residual Ripple	$\pm 10\%$ maximum										
Supply Current	Emitter: 100 mA max. Receiver: 275 mA max., exclusive of OSSD1 and OSSD2 loads (up to an additional 0.5A each) and AUX output load (up to 75 mA)										
Response Time	9 to 56 milliseconds (see model number tables) Cascade Safety Stop Interface (CSSI): 40 milliseconds max.										
Remote Test Input (Optional – available only on model SLSE...Q5 emitters)	Test Mode is activated either by applying a low signal (less than 3V dc) to emitter TEST #1 terminal for a minimum of 50 milliseconds, or by opening a switch connected between TEST #1 and TEST #2 for a minimum of 50 milliseconds. Beam scanning stops to simulate a blocked condition. A high signal at TEST #1 deactivates Test Mode. High signal: 10 to 30V dc Low signal: 0 to 3V dc Input current: 35 mA inrush, 10 mA max.										
Wavelength of Emitter Elements	Infrared LEDs, 950 nm at peak emission										
Recovery Time–Blocked to clear (OSSDs turn ON; varies with total number of sensing beams and whether Sync beam is blocked)	<table border="1"> <thead> <tr> <th></th> <th>Beam 1 (Sync Beam)</th> <th>All Other Beams</th> </tr> </thead> <tbody> <tr> <td>14 mm Models</td> <td>109 to 800 ms</td> <td>33 to 220 ms</td> </tr> <tr> <td>30 mm Models</td> <td>81 to 495 ms</td> <td>25 to 152 ms</td> </tr> </tbody> </table>			Beam 1 (Sync Beam)	All Other Beams	14 mm Models	109 to 800 ms	33 to 220 ms	30 mm Models	81 to 495 ms	25 to 152 ms
	Beam 1 (Sync Beam)	All Other Beams									
14 mm Models	109 to 800 ms	33 to 220 ms									
30 mm Models	81 to 495 ms	25 to 152 ms									
EDM Input	+24V dc signals from external device contacts can be monitored (one-channel, two-channel or no monitoring) via EDM1 and EDM2 terminals in the receiver. High signal: 10 to 30V dc at 30 mA typical Low signal: 0 to 3V dc										
Reset Input	The Reset input must be high for 0.25 to 2 seconds and then low to reset the receiver. High signal: 10 to 30V dc at 30 mA typical Low signal: 0 to 3V dc Closed switch time: 0.25 to 2 sec										
Safety Outputs (OSSDs)	Two redundant solid-state 24V dc, 0.5 A max. sourcing OSSD (Output Signal Switching Device) safety outputs. (Use optional interface modules for ac or larger dc loads.) Capable of the Banner "Safety Handshake". ON-State voltage: $\geq V_{in}-1.5V$ dc OFF-State voltage: 1.2V dc max. (0-1.2V dc) Max. load capacitance: 1.0 μ F Max. load inductance: 10 H Leakage current: 0.50 mA maximum Cable resistance: 10 Ω maximum OSSD test pulse width: 100 to 300 microseconds OSSD test pulse period: 10 to 27 milliseconds (varies with number of beams) Switching current: 0-0.5 A										
Auxiliary (Aux.) Output Switching Capacity	Current-sourcing (PNP) solid-state output, 24V dc at 75mA max that follow the safety outputs (lockout function optional)										
Controls and Adjustments	Emitter: Scan Code selection: 2-position switch (code 1 or 2). Factory default position is code 1. Receiver: Scan Code selection: 2-position switch (code 1 or 2). Factory default position is code 1. Trip/Latch Output selection: Redundant switches. Factory default position is T (Trip). EDM/MPCE monitor selection: 2-position switch selects between 1- or 2-channel monitoring. Factory default position is 2. Reduced Resolution (2-beam Floating Blanking): Redundant switches. Factory default is OFF.										
Short Circuit Protection	All inputs and outputs are protected from short circuits to +24V dc or dc common.										
Electrical Safety Class (IEC 61140)	III										
Operating Range	14 mm models: 0.1 m to 6 m 30 mm models: 0.1 m to 18 m Range decreases with use of mirrors and/or lens shields: Lens shields – approximately 10% less range per shield. Glass-surface mirrors – approximately 8% less range per mirror. See Accessory section for more information on a specific mirror, page 726.										
Ambient Light Immunity	> 10,000 lux at 5° angle of incidence										
Strobe Light Immunity	Totally immune to one Federal Signal Corp. "Fireball" model FB2PST strobe										
Effective Aperture Angle (EAA)	Meets Type 4 requirements per IEC 61496-2, $\pm 2.5^\circ$ @ 3 m										
Enclosure	Materials: Extruded aluminum housing with yellow polyester powder (optional black or white or nickel-plated silver finish) and well-sealed, rugged die-cast zinc end caps, acrylic lens cover, copolyester access cover. Endcaps on silver models are also nickel-plated. Rating: IP65										

EZ-SCREEN® 14 & 30 mm Resolution Specifications (cont'd)

Operating Conditions	Temperature: 0° to +55° C Relative humidity: 95% (non-condensing)
Status Indicators	Emitter: One Bi-color (Red/Green) Status Indicator – indicates operating mode, Lockout or power OFF condition 7-segment Diagnostic Indicator (1 digit) – indicates proper operation, scan code or error code Receiver: Yellow Reset Indicator – indicates whether system is ready for operation or requires a reset Bi-Color (Red/Green) Status Indicator – indicates general system and output status Bi-Color (Red/Green) Zone Status Indicators – indicates condition (clear or blocked beam) of a defined group of beams 7-Segment Diagnostic Indicator (3-digit) – indicates proper operation, scan code or error code, total number of blocked beams
Mounting Hardware	Emitter and receiver each are supplied with a pair of swivel end-mounting brackets. Models longer than 900 mm also include a swivel center-mount bracket. Mounting brackets are 8-gauge cold-rolled steel, black zinc finish.
Shock and Vibration	EZ-SCREEN components have passed vibration and shock tests according to IEC 61496-1. This includes vibration (10 cycles) of 10-55 Hz at 0.35 mm single amplitude (0.70 mm peak-to-peak) and shock of 10 g for 16 milliseconds (6,000 cycles).
Design Standards	Designed to comply with Type 4 per IEC 61496; Category 4 PLe per EN ISO 13849-1; SIL 3 per IEC 61508, SIL CL 3 per IEC 62061; Type 4 per UL 61496-1/2
Certifications	 
Wiring Diagrams	WD001, WD003, WD004, WD005, WD006, WD007, WD013, WD014, WD015, WD016, WD017, WD018, WD019 (pp. 776-786)

- Photoelectrics Sensors
- Fiber Optic Sensors
- Special Purpose Sensors
- Measurement & Inspection Sensors
- Vision
- Wireless
- Lighting & Indicators
- Safety Light Screens**
- Safety Laser Scanners
- Fiber Optic Safety Systems
- Safety Controllers & Modules
- Safety Two-Hand Control Modules
- Safety Interlock Switches
- Emergency Stop & Stop Control

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Cordsets

Euro QD		
See page 690		
Length	8-Pin	5-Pin
4.57 m	QDE-815D	QDE-515D
7.62 m	QDE-825D	QDE-525D
15.3 m	QDE-850D	QDE-550D
22.9 m	QDE-875D	QDE-575D
30.5 m	QDE-8100D	QDE-5100D



Euro QD–Double-Ended		
See page 691		
Length	8-Pin*	5-Pin
0.31 m	DEE2R-81D	DEE2R-51D
0.91 m	DEE2R-83D	DEE2R-53D
2.44 m	DEE2R-88D	DEE2R-58D
4.57 m	DEE2R-815D	DEE2R-515D
7.62 m	DEE2R-825D	DEE2R-525D
15.2 m	DEE2R-850D	DEE2R-550D
22.9 m	DEE2R-875D	DEE2R-575D
30.5 m	DEE2R-8100D	DEE2R-5100D



Euro QD Splitter	
See page 693	
Length	8-Pin
0 m	CSB-M1280M1280
0.30 m	CSB-M1281M1281
2.50 m	CSB-M1288M1281
4.60 m	CSB-M12815M1281
7.60 m	CSB-M12825M1281
7.60 m	CSB-UNT825M1281


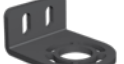




Additional cordsets and information available. See page 679.

NOTE: See page 501 for interfacing solutions. Additional accessories are listed on page 619.

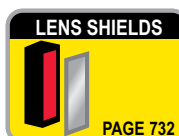
* For connection to safety BUS gateway/node a "smart" self-monitored safety module, safety controller or safety PLC see page 691.

Brackets

14 & 30 mm		14 & 30mm Cascade	
			
pg. 629	pg. 629	pg. 629	pg. 630
EZA-MBK-12*	EZA-MBK-11*	EZA-MBK-20	EZA-MBK-21

Additional brackets and information available. See page 620.

* Standard brackets included with emitter/receiver.



Replacement Parts

Model	Description
EZA-ADE-1	Copolyester access cover with label for 14 or 30 mm resolution emitters
EZA-ADE-2	Copolyester access cover with inverted label for 14 or 30 mm resolution emitters
EZA-ADR-1	Copolyester access cover with label for 14 or 30 mm resolution receiver
EZA-ADR-2	Copolyester access cover with inverted label for 14 or 30 mm resolution receiver
EZA-MBK-12	Center bracket kit (includes 1 bracket and hardware to mount to MSA Series stands) for 14 or 30 mm resolution EZ-SCREEN
EZA-MBK-11	Standard bracket kit with hardware (includes 2 end brackets and hardware to mount to MSA Series stands) for 14 or 30 mm resolution EZ-SCREEN
EZA-TP-1	Access cover security plate (includes 2 screws, wrench) for 14 or 30 mm resolution EZ-SCREEN
EZA-RR-1	External normally open reset switch with 8-pin/M12 Euro-style QD
MGA-K-1	Replacement key for switch MGA-KS0-1
MGA-KS0-1	Panel-mount keyed normally open reset switch
SMA-MBK-1	SSM Series Mirror Bracket Kit
STP-13	14 mm test piece (14 mm resolution systems)
STP-14	30 mm test piece (14 mm resolution systems with 2-beam Reduced Resolution and for 30 mm resolution systems)
STP-15	60 mm test piece (30 mm resolution systems with 2-beam Reduced Resolution)

Note: See Installation manual p/n 112852 for complete list of replacement parts and accessories.