

Safety Solutions



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BANNER[®]

more sensors, more solutions

Safety Solutions



Safety Light Screens

- EZ-SCREEN with small footprint and space saving design
- Standard or cascable versions
- Type 4 and Type 2 versions
- Versions with integrated muting available

Safety Controller

- Ideal to replace clusters of multiple safety relays
- Easy to configure, intuitive set-up software
- Pre-programmed logic blocks like muting, two hand control...
- Safety Controller Output Interface Module available



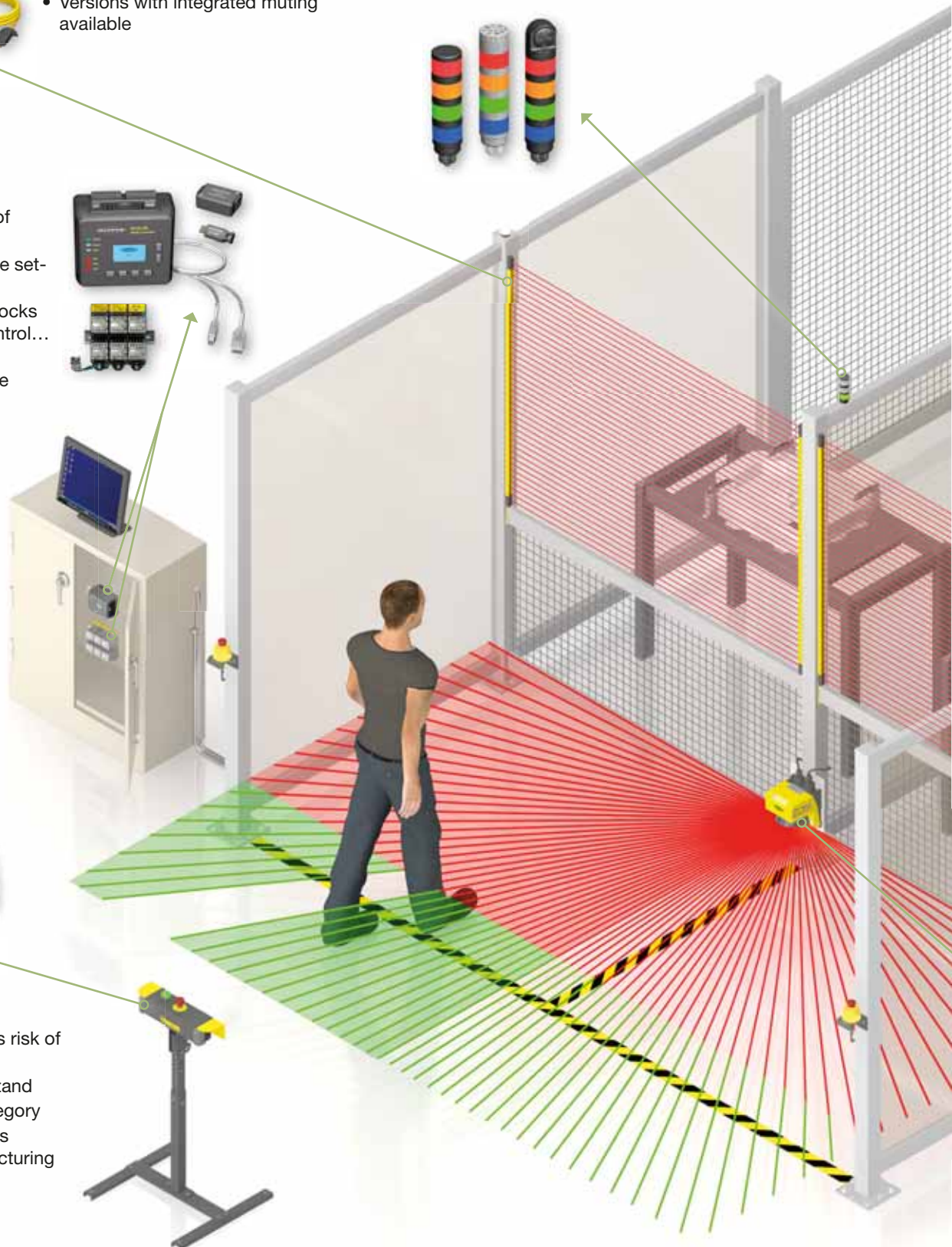
TL50 Tower Lights

- Self-contained tower light indicators use long-lasting LED technology, are simple to install, and provide highly visible operator guidance and equipment indication
- Available in high-intensity, sealed audible, and gray housing.



Two-Hand Control

- Ergonomic design, avoids risk of repetitive strain injury
- With or without run bar stand
- Meets highest safety category
- Add EZ-LIGHTS for status indication in lean manufacturing



...and much more...

- Accessories: brackets, stands, mirrors, lens shields, cables...

The Machine Safety Specialist



K50 EZ-LIGHT

- Compact, multi-colour indicators for lean manufacturing use solid-state switching technology to ensure a long service life



Emergency Stop & Stop Control

- 30 mm mounting base enables easy installation and hookup with no assembly, individual wiring or additional enclosure required
- Flush Mount E-stops are available in four model styles: standard actuator, illuminated standard actuator, lockable actuator, and an illuminated lockable actuator
- Metal or plastic E-stop button and rope pull emergency stop switches also available

Enabling Devices

- Provides safety function when user either squeezes or releases the handle grip switch
- Ergonomic design with a detented enable position



Safety Interlock Switches

- Right-hinge, left-hinge, and right-angle hinge models available; switches can also be converted to operate from the opposite side



Safety Scanner

- Two-dimensional laser scanner with easy-to-use software
- Programming of irregular shaped warning and detection zones
- 190° scanning angle with selectable resolutions (30 mm, 40 mm, 50 mm, 70 mm and 150 mm) and a 4 m or 6.25 m range



EZ-SCREEN Type 4



Type 4, Cat 4 PLe, SIL 3 – Finger, hand and ankle detection					
2 PNP Safety Outputs (OSSD) and 1 auxiliary output, 24 VDC power supply					
Dimensions		14 mm Resolution – Range 0.1 – 6 m 8-pin M12 QD		30 mm Resolution – Range 0.1 – 18 m 8-pin M12 QD	
Defined Area	Housing Length	Model Pair (E+R)	Response Time	Model Pair (E+R)	Response Time
150 mm	262 mm	SLSP14-150Q88	11 ms	SLSP30-150Q88	9 ms
300 mm	372 mm	SLSP14-300Q88	15 ms	SLSP30-300Q88	11 ms
450 mm	522 mm	SLSP14-450Q88	19 ms	SLSP30-450Q88	13 ms
600 mm	671 mm	SLSP14-600Q88	23 ms	SLSP30-600Q88	15 ms
750 mm	821 mm	SLSP14-750Q88	27 ms	SLSP30-750Q88	17 ms
900 mm	971 mm	SLSP14-900Q88	32 ms	SLSP30-900Q88	19 ms
1050 mm	1120 mm	SLSP14-1050Q88	36 ms	SLSP30-1050Q88	21 ms
1200 mm	1270 mm	SLSP14-1200Q88	40 ms	SLSP30-1200Q88	23 ms
1350 mm	1420 mm	SLSP14-1350Q88	43 ms	SLSP30-1350Q88	25 ms
1500 mm	1569 mm	SLSP14-1500Q88	48 ms	SLSP30-1500Q88	27 ms
1650 mm	1719 mm	SLSP14-1650Q88	52 ms	SLSP30-1650Q88	30 ms
1800 mm	1869 mm	SLSP14-1800Q88	56 ms	SLSP30-1800Q88	32 ms
1950 mm	2018 mm	/	/	SLSP30-1950Q88	34 ms
2100 mm	2168 mm	/	/	SLSP30-2100Q88	36 ms
2250 mm	2318 mm	/	/	SLSP30-2250Q88	38 ms
2400 mm	2468 mm	/	/	SLSP30-2400Q88	40 ms

Models with 300 mm M12 pigtail QD also available. Emitter models with TEST function also available.

Type 4 Cascadable



Dimensions		14 mm Resolution – Range 0.1 – 6 m 8-pin M12 QD		30 mm Resolution – Range 0.1 – 18 m 8-pin M12 QD	
Defined Area	Housing Length	Model Pair (E+R)	Response Time	Model Pair (E+R)	Response Time
300 mm	372 mm	SLSCP14-300Q88	15 ms	SLSCP30-300Q88	11 ms
450 mm	522 mm	SLSCP14-450Q88	19 ms	SLSCP30-450Q88	13 ms
600 mm	671 mm	SLSCP14-600Q88	23 ms	SLSCP30-600Q88	15 ms
750 mm	821 mm	SLSCP14-750Q88	27 ms	SLSCP30-750Q88	17 ms
900 mm	971 mm	SLSCP14-900Q88	32 ms	SLSCP30-900Q88	19 ms
1050 mm	1120 mm	SLSCP14-1050Q88	36 ms	SLSCP30-1050Q88	21 ms
1200 mm	1270 mm	SLSCP14-1200Q88	40 ms	SLSCP30-1200Q88	23 ms
1350 mm	1420 mm	SLSCP14-1350Q88	43 ms	SLSCP30-1350Q88	25 ms
1500 mm	1569 mm	SLSCP14-1500Q88	48 ms	SLSCP30-1500Q88	27 ms
1650 mm	1719 mm	SLSCP14-1650Q88	52 ms	SLSCP30-1650Q88	30 ms
1800 mm	1869 mm	SLSCP14-1800Q88	56 ms	SLSCP30-1800Q88	32 ms
1950 mm	2018 mm	/	/	SLSCP30-1950Q88	34 ms
2100 mm	2168 mm	/	/	SLSCP30-2100Q88	36 ms
2250 mm	2318 mm	/	/	SLSCP30-2250Q88	38 ms
2400 mm	2468 mm	/	/	SLSCP30-2400Q88	40 ms

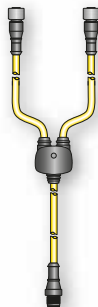
Cordsets



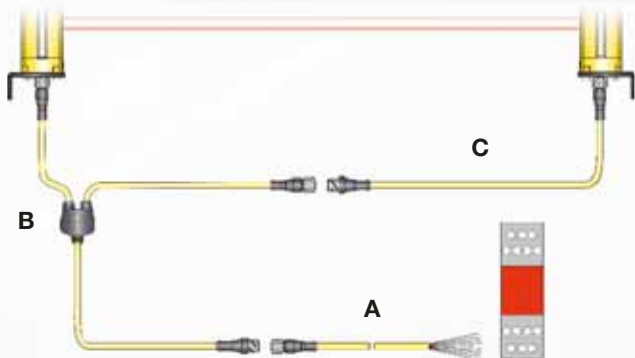
8-pin M12 QD (A)	
Length	Model
5 m	QDE-815D
8 m	QDE-825D
15 m	QDE-850D
23 m	QDE-875D
30 m	QDE-8100D



8-pin M12 QD – Double-Ended (C)	
Length	Model
0.3 m	DEE2R-81D
0.9 m	DEE2R-83D
2.4 m	DEE2R-88D
5 m	DEE2R-815D
8 m	DEE2R-825D
15 m	DEE2R-850D
23 m	DEE2R-875D
30 m	DEE2R-8100D



8-pin M12 QD Splitter (B)		
Length	8-pin	
No branches, no trunk	CSB-M1280M1280	
0.3 m	CSB-M1281M1281	
2.5 m	CSB-M1288M1281	
4.6 m	CSB-M12815M1281	
7.6 m	CSB-M12825M1281	
7.6 m	Flying leads	CSB-UNT825M1281



Other hookup schemes are possible: cordset A can be used individually for the E/R hookup, without splitter cables.

Interface Modules



Interface Modules, 24 VDC		
Model	Output	Output Rating
IM-T-9A	3 NO	6 A
IM-T-11A	2 NO/1 NC	6 A

Housing Finishes



Yellow Painted Aluminium



Clear Anodized Aluminium



Nickel-Plated ESD

Brackets

EZA-MBK-11*		EZA-MBK-12*
*Standard brackets included with emitter/receiver.		
Flanges in	Flanges out	
EZA-MBK-20		EZA-MBK-21**
Flanges in	Flanges out	**Cascadable models only.

EZ-SCREEN Low Profile (LP)



Type 4, Cat 4 PLe, SIL 3 – Point-of-operation					
2 PNP Safety Outputs (OSSD) and 1 auxiliary output, 24 VDC power supply					
Dimensions		14 mm Resolution – Range 0.1 – 7 m Integral Removable Disconnect (RD)		25 mm Resolution – Range 0.1 – 7 m Integral Removable Disconnect (RD)	
Defined Area	Housing Length	Model Pair (E+R)	Response Time	Model Pair (E+R)	Response Time
270 mm	270 mm	SLPP14-270	10.5 ms	SLPP25-270	8 ms
410 mm	410 mm	SLPP14-410	13.5 ms	SLPP25-410	9.5 ms
550 mm	549 mm	SLPP14-550	16.5 ms	SLPP25-550	11 ms
690 mm	689 mm	SLPP14-690	19.5 ms	SLPP25-690	12.5 ms
830 mm	829 mm	SLPP14-830	22.5 ms	SLPP25-830	14 ms
970 mm	969 mm	SLPP14-970	25.5 ms	SLPP25-970	15.5 ms
1110 mm	1108 mm	SLPP14-1110	28.5 ms	SLPP25-1110	17 ms
1250 mm	1248 mm	SLPP14-1250	31.5 ms	SLPP25-1250	18.5 ms
1390 mm	1388 mm	SLPP14-1390	34.5 ms	SLPP25-1390	20 ms
1530 mm	1528 mm	SLPP14-1530	37.5 ms	SLPP25-1530	21 ms
1670 mm	1667 mm	SLPP14-1670	40.5 ms	SLPP25-1670	22.5 ms
1810 mm	1807 mm	SLPP14-1810	43.5 ms	SLPP25-1810	24 ms

Models with 8-pin M12 pigtail QD also available (add **P88** behind the RD model pair number).
Pigtail models come with DELPE-81D cordset pre-installed.
For 8-pin M12 QD cordsets, splitter cordsets and double-ended cordsets, see page 5.

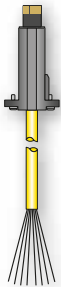
Low Profile Cascadable



Type 4, Cat 4 PLe, SIL 3 – Point-of-operation					
2 PNP Safety Outputs (OSSD) and 1 auxiliary output, 24 VDC power supply					
Dimensions		14 mm Resolution – Range 0.1 – 7 m Integral Removable Disconnect (RD)		25 mm Resolution – Range 0.1 – 7 m Integral Removable Disconnect (RD)	
Defined Area	Housing Length	Model Pair (E+R)	Response Time	Model Pair (E+R)	Response Time
410 mm	410 mm	SLPCP14-410	13.5 ms	SLPCP25-410	9.5 ms
550 mm	549 mm	SLPCP14-550	16.5 ms	SLPCP25-550	11 ms
690 mm	689 mm	SLPCP14-690	19.5 ms	SLPCP25-690	12.5 ms
830 mm	829 mm	SLPCP14-830	22.5 ms	SLPCP25-830	14 ms
970 mm	969 mm	SLPCP14-970	25.5 ms	SLPCP25-970	15.5 ms
1110 mm	1108 mm	SLPCP14-1110	28.5 ms	SLPCP25-1110	17 ms
1250 mm	1248 mm	SLPCP14-1250	31.5 ms	SLPCP25-1250	18.5 ms
1390 mm	1388 mm	SLPCP14-1390	34.5 ms	SLPCP25-1390	20 ms
1530 mm	1528 mm	SLPCP14-1530	37.5 ms	SLPCP25-1530	21 ms
1670 mm	1667 mm	SLPCP14-1670	40.5 ms	SLPCP25-1670	22.5 ms
1810 mm	1807 mm	SLPCP14-1810	43.5 ms	SLPCP25-1810	24 ms

Models with 8-pin M12 pigtail QD also available (add **P88** behind the RD model pair number).
Pigtail models come with DELPE-81D cordset pre-installed.
For 8-pin M12 QD cordsets, splitter cordsets and double-ended cordsets, see page 5.

Cordsets



8-wire RD (Removable disconnect)	
Length	Model
5 m	RDLP-815D
8 m	RDLP-825D
15 m	RDLP-850D
23 m	RDLP-875D
30 m	RDLP-8100D



8-pin RD (male) to M12 QD	
Length	Model
0.3 m	DELPE-81D
0.9 m	DELPE-83D
2.4 m	DELPE-88D
5 m	DELPE-815D
8 m	DELPE-825D
15 m	DELPE-850D
23 m	DELPE-875D
30 m	DELPE-8100D

For 8-pin M12 QD cordsets, splitter cordsets and double-ended cordsets, see page 5.

Interface Modules



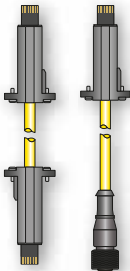
Interface Modules, 24 VDC		
Model	Output	Output Rating
IM-T-9A	3 NO	6 A
IM-T-11A	2 NO/1 NC	6 A

Brackets

LPA-MBK-11*		LPA-MBK-12*	LPA-MBK-20
Flanges in	Flanges out		

*Standard brackets included with emitter/receiver.

For Cascadables



Cascade		
Length	RD to RD	RD to M12 Female* QD
5 cm	DELP-110E	/
0.3 m	DELP-111E	DELPEF-81D
0.9 m	DELP-113E	DELPEF-83D
2.4 m	DELP-118E	DELFEF-88D
5 m	DELP-1115E	DELPEF-815D
8 m	DELP-1125E	/
15 m	DELP-1150E	/
23 m	DELP-1175E	/
30 m	DELP-11100E	/

*Can be used with DEE2R-8xxD.

For Cascadables

LPA-MBK-21	LPA-MBK-90	LPA-MBK-120
LPA-MBK-135	LPA-MBK-180	

Housing Finishes

Yellow Painted Aluminium	Clear Anodized Aluminium	Nickel-Plated ESD

EZ-SCREEN Low Profile with Muting (LPM)



Type 4, Cat 4 Ple, SIL 3 – Integral muting					
2 PNP Safety Outputs (OSSD), 2 muting inputs, additional inputs for configuration of the muting function, 1 auxiliary output, 24 VDC power supply					
Dimensions		14 mm Resolution – Range 0.1 – 7 m 12-pin M12 pigtail QD		25 mm Resolution – Range 0.1 – 7 m 12-pin M12 pigtail QD	
Defined Area	Housing Length	Model Pair (E+R)	Response Time	Model Pair (E+R)	Response Time
410 mm	410 mm	SLPMP14-410P128	13.5 ms	SLPMP25-410P128	9.5 ms
550 mm	549 mm	SLPMP14-550P128	16.5 ms	SLPMP25-550P128	11 ms
690 mm	689 mm	SLPMP14-690P128	19.5 ms	SLPMP25-690P128	12.5 ms
830 mm	829 mm	SLPMP14-830P128	22.5 ms	SLPMP25-830P128	14 ms
970 mm	969 mm	SLPMP14-970P128	25.5 ms	SLPMP25-970P128	15.5 ms
1110 mm	1108 mm	SLPMP14-1110P128	28.5 ms	SLPMP25-1100P128	17 ms
1250 mm	1248 mm	SLPMP14-1250P128	31.5 ms	SLPMP25-1250P128	18.5 ms
1390 mm	1388 mm	SLPMP14-1390P128	34.5 ms	SLPMP25-1390P128	20 ms
1530 mm	1528 mm	SLPMP14-1530P128	37.5 ms	SLPMP25-1530P128	21 ms
1670 mm	1667 mm	SLPMP14-1670P128	40.5 ms	SLPMP25-1670P128	22.5 ms
1810 mm	1807 mm	SLPMP14-1810P128	43.5 ms	SLPMP25-1810P128	24 ms

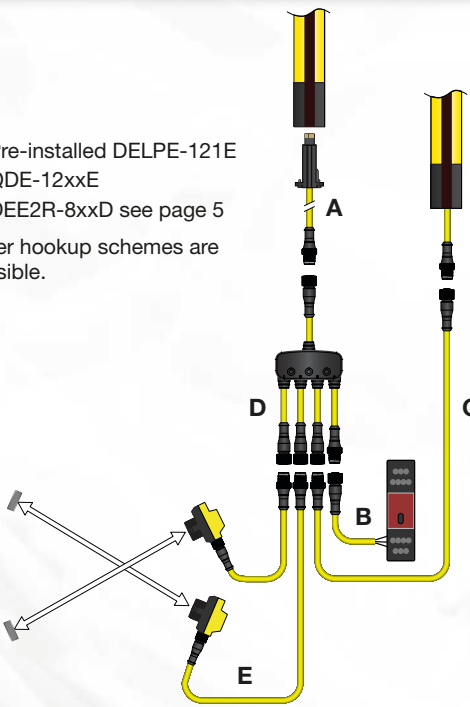
Models with integral Removable Disconnect (RD) also available.

Cordsets



Muting Splitter Cordsets (D)		
3-Branch		Sensor (PNP)
CSM3DO-M12121FM12121M		DO (pin 2)
CSM3LO-M12121FM12121M		LO (pin 4)
4-Branch (Emitter Hookup)		Sensor (PNP)
CSM4DO-M12121FM12121M		DO (pin 2)
CSM4LO-M12121FM12121M		LO (pin 4)
Muting Sensor Cordsets (E)		
Length	Model	
0.3 m	DEE2R-51D	
1 m	DEE2R-53D	
2.5 m	DEE2R-58D	
4.5 m	DEE2R-815D	

- A) Pre-installed DELPE-121E
B) QDE-12xxE
C) DEE2R-8xxD see page 5
Other hookup schemes are possible.



Muting Indicators



EZ-LIGHT Muting Indicators		
Model	Colours	
TL50WQ	1: White	
TL50GYRWQ	4: Green/Yellow/Red/White	
K50LGRW2PQ-18886	3: Green/Red/White	

Cordsets & brackets for EZ-LIGHT Muting Indicators		
Model	Description	LPA-MBK-15 bracket
DELPEF-40D	Single colour cordset, 5 cm	used with DELPEF-x0D
DELPEF-50D	Multi-colour cordset, 5 cm	

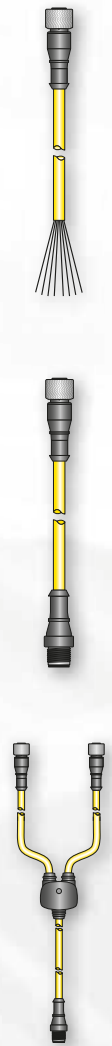


EZ-SCREEN Type 2



Type 2, Cat 2 PLd, SIL 2 – Hand and ankle detection suited to lower risk applications				
2 PNP Safety Outputs (OSSD), 24 VDC power supply				
30 mm Resolution – Range 15 m, 8-pin M12 QD, E+R pair listed				
Defined Area	Housing Length	Response Time	Automatic Restart – Trip	Manual Restart – Latch
150 mm	215 mm	11 ms	LS2TP30-150Q88	LS2LP30-150Q88
300 mm	365 mm	13 ms	LS2TP30-300Q88	LS2LP30-300Q88
450 mm	515 mm	14 ms	LS2TP30-450Q88	LS2LP30-450Q88
600 mm	665 mm	16 ms	LS2TP30-600Q88	LS2LP30-600Q88
750 mm	815 mm	17 ms	LS2TP30-750Q88	LS2LP30-750Q88
900 mm	964 mm	19 ms	LS2TP30-900Q88	LS2LP30-900Q88
1050 mm	1114 mm	21 ms	LS2TP30-1050Q88	LS2LP30-1050Q88
1200 mm	1264 mm	22 ms	LS2TP30-1200Q88	LS2LP30-1200Q88
1350 mm	1414 mm	24 ms	LS2TP30-1350Q88	LS2LP30-1350Q88
1500 mm	1563 mm	25 ms	LS2TP30-1500Q88	LS2LP30-1500Q88
1650 mm	1713 mm	27 ms	LS2TP30-1650Q88	LS2LP30-1650Q88
1800 mm	1863 mm	29 ms	LS2TP30-1800Q88	LS2LP30-1800Q88

Cordsets



8-pin M12 QD		
Length		Model
5 m		QDE-815D
8 m		QDE-825D
15 m		QDE-850D
23 m		QDE-875D
30 m		QDE-8100D
8-pin M12 QD – Double-Ended		
0.3 m		DEE2R-81D
0.9 m		DEE2R-83D
2.4 m		DEE2R-88D
5 m		DEE2R-815D
8 m		DEE2R-825D
15 m		DEE2R-850D
23 m		DEE2R-875D
30 m		DEE2R-8100D
8-pin M12 QD Splitter		
No branches, no trunk		CSB-M1280M1280
0.3 m		CSB-M1281M1281
2.5 m		CSB-M1288M1281
4.6 m		CSB-M12815M1281
7.6 m		CSB-M12825M1281
7.6 m	Flying leads	CSB-UNT825M1281

Brackets

USCMB-..		USMB-1*	
		*Standard bracket included with emitter/receiver.	
		Flanges in	Flanges out
USMB-6		USMB-8	
Flanges in	Flanges out		

AG4 Safety Laser Scanner



Type 3, Cat 3 PLD, SIL 2 – Stationary and mobile applications					
2 PNP Safety Outputs (OSSD), 2 PNP auxiliary outputs, 24 VDC power supply					
Model	Resolution	Protective Fields	Warning Field	Scanning Angle	Response Time
AG4-4E	30 mm	1.6 m	15 m (150 mm resolution)	190°	80 ms (default) adjustable to 640 ms
	40 mm	2.2 m			
	50 mm	2.8 m			
	70 mm	4.0 m			
	150 mm	4.0 m			
AG4-6E	30 mm	1.6 m	15 m (150 mm resolution)	190°	80 ms (default) adjustable to 640 ms
	40 mm	2.2 m			
	50 mm	2.8 m			
	70 mm	6.25 m			
	150 mm	6.25 m			
Includes scanner, plugs and CD with diagnostic and configuration software, cordset ordered separately.					

Cordsets



DB15 Machine Interface	
Length	Model
5.00 m	AG4-CPD15-5
10.0 m	AG4-CPD15-10
25.0 m	AG4-CPD15-25
50.0 m	AG4-CPD15-50

Interface Modules



Universal safety input, 24 VDC		
Model	Output	Output Rating
UM-FA-9A	3 NO	6 A
UM-FA-11A	2 NO/1 NC	7 A

Brackets



DB9 PC Communication	
Length	Model
3.00 m	AG4-PCD9-3
5.00 m	AG4-PCD9-5
10.0 m	AG4-PCD9-10
RS-232 Serial Protocol.	

AG4-MBK1	



DB9 to USB	
Length	Model
1.00 m	AG4-PCD9USB-1
Not recommended for use with AG4-PCD9-10.	

Test & Clone Box



Test & Clone Box - No Configuration
AG4-TB1

SC22-3/-3ESafety Controller



Cat 4 PLe, SIL 3 – Safety Controller					
22 input terminals for monitoring safe and non-safety devices, 3 redundant safety outputs (6 PNP – 3 pairs), 10 status outputs, programmable via PC with Ethernet/IP and Modbus/TCP communication, 24 VDC power supply					
Model	Terminal Type	USB Cable	Output Rating	Status Outputs	Communication Protocol
SC22-3-SU1	Screw	1.8 m	0.75 A each output	10 single PNP configurable	/
SC22-3-CU1	Clamp	1.8 m			
SC22-3-S	Screw	–			
SC22-3-C	Clamp	–			
SC22-3E-SU1	Screw	1.8 m	0.5 A each output	10 single PNP configurable plus 32 virtual	EtherNet/IP & Modbus TCP
SC22-3E-CU1	Clamp	1.8 m			
SC22-3E-S	Screw	–			
SC22-3E-C	Clamp	–			

XM card available for all models. **SU1** and **CU1** models have XM programming tool.



SC22-3 & SC22-3E Interface Modules				
24 VDC power supply (controller supplied)				
Model	Inputs (SC Outputs)	Safety Outputs	Output rating	Description
SC-IM9A	2 (SO1)	3 NO	10 A	For use with 1-dual channel SC22-3 safety output
SC-IM9B	4 (SO1 and SO2)	Total of 6 (3 NO per output)	10 A	For use with 2-dual channel SC22-3 safety outputs
SC-IM9C	6 (SO1, SO2 and SO3)	Total of 9 (3 NO per output)	10 A	For use with 3-dual channel SC22-3 safety outputs
IM-T-9A	2 (SOx)	3 NO	6 A	For use with 1-dual channel SC22-3 safety output
IM-T-11A	2 (SOx)	2NO/1NC	6 A	

External device monitoring (EDM) is required to be wired separately to the NC contacts to comply with ISO 13849-1.

Accessories

Safety Controller Accessories	
Model	Description
SC-XM1	External memory card (XM card)
SC-XM1-5	Bulk pack of 5 XM cards
SC-USB1	USB A/B cable 1.8 m
SC-XMP	XM card USB programming tool

Cordsets



Ethernet Communication		
Length	Shielded	Shielded Crossover
2 m	STP07	STPX07
8 m	STP25	STPX25
15 m	STP50	STPX50
23 m	STP75	STPX75

STB Self-Checking Touch Buttons



STB Self-Checking Touch Buttons				
Model	Connection	Upper Housing*	Output	Power Supply
STBVP6	2 m cable	Polysulfone	Solid-state 2 Complementary PNP (1 ON, 1 OFF)	10-30 VDC
STBVP6Q5	4-pin M12 QD			
STBVR81	2 m cable	Polysulfone	E/M Relay 2 Complementary SPST (1 NC, 1 NO)	20-30 VAC/DC
STBVR81Q6	5-pin M12 QD			
To comply to safety standards, STB buttons must be used with DUO-TOUCH SG Two-Hand control modules, SC22-3.. Safety Controller or Type IIIC Two-Hand system. *Models with polycarbonate upper housing also available.				

Brackets

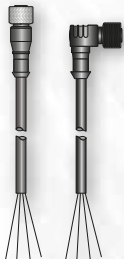
SMBAMS30P	SMBAMS30RA	SMB30SC

Run Bar



DUO-TOUCH Run Bar with STBVP6		
Ergonomic design for reduced wrist, hand and arm stress		
Model	Connection	E-Stop
STBVP6-RB2	Terminal strip	Not included
STBVP6-RB2Q8	8-pin 7/8 QD	Not included
STBVP6-RB2E02	Terminal strip	SSA-EBM-02L

Cordsets STBs



4-pin threaded M12 QD to flying leads		
Length	Straight	Right-Angle
2 m	MQDC-406	MQDC-406RA
5 m	MQDC-415	MQDC-415RA
9 m	MQDC-430	MQDC-430RA
15 m	MQDC-450	MQDC-450RA
5-pin threaded M12 QD to flying leads		
2 m	MQDC1-506	MQDC1-506RA
5 m	MQDC1-515	MQDC1-515RA
9 m	MQDC1-530	MQDC1-530RA

Cordsets Run Bar



8-pin 7/8 QD to flying leads	
Length	Model
4.5 m	QDS-815C
8 m	QDS-825C
15 m	QDS-850C
23 m	QDS-875C

Brackets & Stands

Brackets for Run Bars		
STBA-RB2-MB1	STBA-RB2-MB2	STBA-RB2-MB3

Telescoping stands for Run Bars	
STBA-RB2-S1	STBA-RB2-S2
Run Bars are sold separately.	

30 mm Mount E-Stop Buttons



30 mm Mount Electro-Mechanical E-Stop Push Button, IP65 rating			
Model	Connection	E-Stop Contacts	Illuminated Base
SSA-EB1P-02ECQ4	4-pin M12 QD	2 NC	/
SSA-EB1P-11ECQ4	4-pin M12 QD	1 NO/1 NC	/
SSA-EB1P-22ECQ8	8-pin M12 QD	2 NO/2 NC	/
SSA-EB1PLYR-12ECQ8	8-pin M12 QD	1 NO (PNP)/2 NC	Yellow & Red (Flashing/Solid)
SSA-EB1PLGR-12ECQ8	8-pin M12 QD	1 NO (PNP)/2 NC	Green & Red (Flashing/Solid)
SSA-EB1PLXR-12ECQ8	8-pin M12 QD	1 NO (PNP)/2 NC	Red (Flashing/Solid)
SSA-EB1PL-12ECQ8	8-pin M12 QD	1 NO (PNP)/2 NC	Red (Solid/Solid)

AB/Rockwell and Siemens Safety BUS node compatible models also available.

Flush Mount E-Stop Buttons



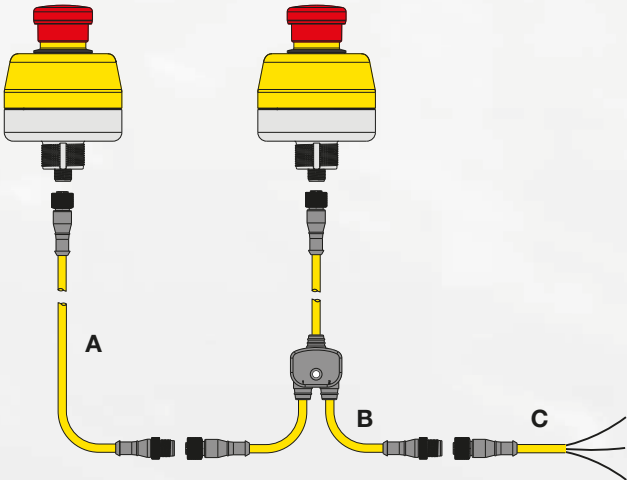
Flush Mount Electro-Mechanical E-Stop Push Button, IP65 rating			
Standard Actuator	Lockable Actuator	E-Stop Contacts	Connection
SSA-EB1P-02ED1Q4	SSA-EB1MP-02ED1Q4	2 NC	4-pin M12 QD
SSA-EB1P-11ED1Q4	SSA-EB1MP-11ED1Q4	1 NO/1 NC	4-pin M12 QD
SSA-EB1P-22ED1Q8	SSA-EB1MP-22ED1Q8	2 NO/2 NC	8-pin M12 QD
SSA-EB1PL2-12ED1Q8	SSA-EB1ML2P-12ED1Q8	1 NO/2 NC Illuminated button (Push ON)	8-pin M12 QD

Illuminated-base, with 1 NO (PNP)/2 NC E-Stop Contacts, IP65 rating, 8-pin M12 QD			
Standard Actuator	Lockable Actuator	Illuminated Base	
SSA-EB1PLXR-12ED1Q8	SSA-EB1MLXRP-12ED1Q8	OFF & RED (Flashing/Solid)	
SSA-EB1PLYR-12ED1Q8	SSA-EB1MLYRP-12ED1Q8	YELLOW & RED (Flashing/Solid)	
SSA-EB1PL-12ED1Q8	SSA-EB1MLP-12ED1Q8	OFF & RED (Solid/Solid)	
SSA-EB1PLGR-12ED1Q8	SSA-EB1MLGRP-12ED1Q8	GREEN & RED (Flashing/Solid)	

AB/Rockwell and Siemens Safety BUS node compatible models also available.

Cordsets

M12 QD			
Description	Pin	0.3 m length	2.5 m length
A) Double-ended M12	5-pin*	DEE2R-51D	DEE2R-58D
	8-pin	DEE2R-81D	DEE2R-88D
Description	Pin	Length	Model
B) Splitter 2 (F) M12 + 1 (M) M12	4-pin	0.3 m	CSS-M12F41M12M41M12F41
	8-pin		CSS-M12F81M12M81M12F81
	4-pin	2.5 m	CSS-M12F48M12M41M12F41
	8-pin		CSS-M12F88M12M81M12F81
Description	Pin	2 m length	4.5 m length
C) Single ended flying leads	4-pin	MQDC-406	MQDC-415
	8-pin	MQDC2S-806	MQDC2S-815



*Use also with 4-pin E-Stop buttons.
Other hookup schemes are possible. More lengths available.

2-Hand-Control Modules



DUO-TOUCH SG Two-Hand Control Modules			
2 NO Safety Outputs, 24 VAC/DC power supply, IP20 rating, meets Cat 4 and Type IIIC			
Model	Inputs	Output Rating	Terminals
AT-FM-10K	2 STB*	6 A	Removable
*May also use 2 mechanical push buttons, each with 1 NO and 1 NC contact.			

DUO-TOUCH SG Kits with STB Touch Buttons					
2 NO Safety Outputs, no auxiliary outputs, 24 VAC/DC power supply, meets Cat 4 and Type IIIC					
Kit	Module	IP Rating	STB Buttons (2 pieces)	IP Rating	Connection
ATK-VP6	AT-FM-10K	IP20	STBVP6	IP66	2 m cable
ATK-VP6Q5	AT-FM-10K	IP20	STBVP6Q5	IP66	4-pin M12 QD
Kit does not include run bar nor E-Stop module.					

E-Stop, Muting & Safe Speed Modules



E-Stop & Interlocked Guard Modules

- Monitors contact failure or wiring fault
- Self-monitors to eliminate risk if module fails
- Installs easily

Muting Modules

- Suspends safeguarding during hazard-free times in the machine's cycle
- Allows material to move into or from the process, without tripping the primary safeguard
- Monitors two or four hard-relay contact safety devices

Safe Speed Monitoring Modules

- Monitors two sensors with PNP outputs for rotation and linear movements
- Allows safety switches to release and safety gates to be opened when the speed drops below the dangerous level
- Suitable for Standstill /Under-speed and Over-speed detection with selectable RPM ranges



ED1G Enabling Devices



3-position switches for enabling and hold-to-run applications, IP65 rating				
Model	Contact Configuration	Momentary Push Button	ED9Z-GH1 Bracket	
ED1G-L21SM-1N	2 NO & 1 NC Aux	/		
ED1G-L21SMB-1N	2 NO & 1 NC Aux	1 NO		
ED1G-L20MB-1N	2 NO	2 NO		

Interlocking Switches



Magnet Style Switches

- Magnet switches for non-contact applications
- Compact, 3-piece non-contact system
- Sealed to resist water and dirt
- Designed to resist intentional defeat

Hinge Style Switches

- Load-bearing, lever and rotating hinge styles
- Adjustable range of operation
- One-piece switches

Compact Plastic Switches

- Designed to minimize tampering
- Five actuator types
- Actuator engagement from different locations



Compact Metal Switches

- Rigid and flexible in-line actuators
- Rotating actuator heads



Locking Style Switches

- Two options for locking mechanisms
- Two models for different voltages
- Rigid and flexible in-line actuators
- Rotating actuator heads





Sensors

- Presence/Absence Detection
- Foreground & Background Suppression
- GO/NO GO Inspection
- Gating and Triggering
- Parts Counting
- Level and Distance Measurement
- Positioning
- Contrast and Colour Sensing
- Vehicle Detection (Radar, Ultrasonic & Magnetic Technology)



Vision

- Vision Sensors with Onboard User Interface
- Pattern Recognition
- Traceability (Barcode, Datamatrix and Text Reading)
- OCR/OCV
- Complex Part Inspection
- Part Orientation
- Assembly Verification
- Colour Inspections



Wireless I/O

- Slip Ring Replacement
- Tank Farm Monitoring
- Livestock Environmental Monitoring
- Water and Wastewater Treatment
- HVAC Remote Monitoring
- Traffic Monitoring & Control
- Remote Sensing in Process Automation
- Cable Replacement
- ATEX Approved Solutions



Lighting & Indicators

- Bin & Part Picking
- Error/Mistake Proofing
- Pick-to-Light & Put-to-Light
- Operator Guidance
- Call for Parts
- Incorrect Pick Signal
- Remote Start/Stop Indication
- Work Station Lighting
- Mobile Equipment Work Lights
- Production Machine and Cabinet Lighting



Machine Safety

- Safety Light Screens
- Ergonomic Two-Hand Control Devices
- Safety Modules
- Emergency Stop Devices
- Safety Interlocking
- Laser Scanners for Safety Applications
- Programmable Safety Controllers
- Enabling Devices

Banner Engineering's Worldwide Presence

Headquarters USA

Banner Engineering
9714 10th Avenue North
Minneapolis, Minnesota 55441
USA
☎ +1 763 544 3164
Fax: +1 763 544 3213
sensors@bannerengineering.com
www.bannerengineering.com

China

Banner Engineering Int'l inc. (China) Shanghai Rep.
Xinlian Scientific Research Building:
Level 12, Building 2, 1535 Hongmei Road, Shanghai 200233
☎ +86 21 33 98 68 88
sensors@bannerengineering.com.cn
www.bannerengineering.com.cn

Japan

Banner Engineering Japan
Cent-Urban Building 305
3-23-15 Nishi-Nakajima
Yodogawa-Ku, Osaka 532-0011
☎ +81 6 6309 0411
mail@bannerengineering.co.jp
www.bannerengineering.co.jp

Taiwan

Banner Engineering Int'l Incorporated Taiwan Rep. Office
8F-2, No. 308, Sec. 1,
Neihu Rd. Taipei 114
☎ +886 2 8751 9966 #15
info@bannerengineering.com.tw
www.bannerengineering.com.tw

EU, Middle East, Africa

Banner Engineering EMEA
Park Lane, Culliganlaan 2F
1831 Diegem | Belgium
☎ +32 (2) 456 07 80
Fax +32 (2) 456 07 89
mail@bannerengineering.com
www.bannerengineering.com/eu

India

Banner Engineering India - Pune (HQ)
Office No. 1001, 10th Floor
Sai Capital, Opp. ICC
Senapati Bapat Road, Pune 411016
☎ +91 20 66405624
salesindia@bannerengineering.com
www.bannerengineering.co.in

Mexico

Banner Engineering de Mexico Edificio VAO
Av. David Alfaro Siqueiros No.103
Col. Valle Oriente C.P.66269
San Pedro Garza Garcia, Nuevo Leon
☎ 52-81-8363-2714
mexico@bannerengineering.com
www.bannerengineering.com.mx

Turkey

Banner Engineering Elk. San. Ve Tic. Ltd. Sti.
Barbaros Mah. Uphill Court Towers A
Blk D:49 34746 Atasehir Istanbul
☎ +90 216 688 8282
Fax: (+90) 216 688 8181
turkey@bannerengineering.com.tr
www.bannerengineering.com.tr



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