DATASENSING
easing automation challenges

WEBSITE

SG Body
Big Base / Muting
ROBUST TYPE 2 AND TYPE 4 SAFETY LIGHT GRID FOR BODY AND ARM DETECTION



Safety light curtain with robuts housing and long operating range, ideal for harsh environments and perimeter control. Access control is eased by integrated muting and override functions. Integrated muting lamp.

- Robust housing for harsh environments
- Long operating range for perimeter control
- Rapid solution for access control with muting
- Easy installation and alignment

- 2, 3, 4 beams for body protection
- 40 mm resolution for arm protection and presence detection
- Controlled heights 500, 800, 900 and 1200 mm
- Long operating distance: up to 60 m
- Simple configuration through DIP switches
- Integrated muting lamp (only muting models)
- Anti-interference coding
- External muting enable signal
- Edged or triggered muting dependent override

SAFETY TYPE 2 SAFETY TYPE 4

CODE DESCRIPTION

SG 2 - B2 - 050 - 00 - E

serie	**SG**	SG Body Big Base / Muting
type	**2**	Type 2
	4	Type 4
beams and range	**B2**	2 beams
	B3	3 beams
	B4	4 beams
	BSR2	2 Beams Short Range (only type 4)
	BSR3	3 Beams Short Range (only type 4)
	BSR4	4 Beams Short Range (only type 4)
	BLR2	2 Beams Long Range (only type 4)
	BLR3	3 Beams Long Range (only type 4)
	BLR4	4 Beams Long Range (only type 4)
monitored height	**050**	500 mm (2 beams)
	080	800 mm (3 beams)
	090	900 mm (4 beams)
	120	1200 mm (4 beams)
output	**00**	
functionality	**E**	Standard (auto/manual restart, EDM)
	W-C	Integrated muting, DIP switches configuration

TECHNICAL SPECIFICATIONS

	SG2-B2-***-00-*	SG2-B3-***-00-*	SG2-B4-090-00-*	SG2-B4-120-00-*
		SAFETY TYPE 2		
GENERAL DATA				
Operating principle	Emitter + Receiver			
Detection capability	500 mm	400 mm	300 mm	
MONITORED AREA				
Nominal sensing distance	0.5 ... 60 m			
Controlled height	500 mm	800 mm	900 mm	1200 mm
EMISSION DATA				
Emission	Infrared LED (950nm)			
Effective beam angle	≤ ±5 °			
FUNCTIONS				
Available functions	Manual/Automatic Restart, EDM (SG*-B*-***-00-E), Manual/Automatic Restart, EDM, L/T Muting, Override, Muting Enable, Muting Filter, Anti-Interference Coding (SG*-B***-***-00-W-C)			
SAFETY PARAMETERS				
Type	2			
Pl	c, e			
SIL	SIL 3 (IEC 61508)			
INPUT/OUTPUT				
Output type	2 x PNP (OSSD safety output) with EDM			
ELECTRICAL DATA				
Supply voltage	24 Vdc ±20%			
Power consumption - Emitter	≤ 2.5 W			
Power consumption - Receiver	≤ 4 W without load			
Maximum DC load current	500 mA each output			
Capacitive load tolerated	≥ 2.2 µF			
MECHANICAL DATA				
Dimensions	52 x 56.9 x (606.35 ... 609.35) mm	52 x 56.9 x (906.35 ... 909.35) mm	52 x 56.9 x (1006.35 ... 1009.35) mm	52 x 56.9 x (1306.35 ... 1309.35) mm
Material	Painted aluminum / PMMA / PBT Valox 508			
Connections	M12-5 poles (emitter) M12-8 poles (receiver) (SG*-**-***-00-E), M12-5 poles + M12-5 poles (emitter) M12-12 poles + M12-5 poles (receiver) (SG*-B***-***-00-W-C)			
Length of cables (Power)	≤ 70 m			
CERTIFICATIONS				
Shocks	16 ms (10 G) 1,000 shocks per axis (EN 60068-2-29)			
Vibrations	Width 0.35 mm, frequency 10 ... 55Hz; 20 sweep per axis, 1octave/min (EN 60068-2-6)			
Electromagnetic compatibility	IEC EN 60947-5-2			
ENVIRONMENTAL DATA				
Operating Temperature	0 ... 55 °C			
Storage temperature max.	-25 ... 70 °C			
Mechanical Protection	IP65			
Humidity	15 ... 95 % no condensation			
Ambient light immunity	According to IEC 61496-2			

TECHNICAL SPECIFICATIONS

	SG4-B2-***-00-*	SG4-B3-***-00-*	SG4-B4-090-00-*	SG4-B4-120-00-*
		SAFETY TYPE 4		
GENERAL DATA				
Operating principle	Emitter + Receiver			
Detection capability	500 mm	400 mm	300 mm	
MONITORED AREA				
Nominal sensing distance	0.5 ... 60 m			
Controlled height	500 mm	800 mm	900 mm	1200 mm
EMISSION DATA				
Emission	Infrared LED (950nm)			
Effective beam angle	≤ ±2.5 °			
FUNCTIONS				
Available functions	Manual/Automatic Restart, EDM (SG*-B*-***-00-E), Manual/Automatic Restart, EDM, L/T Muting, Override, Muting Enable, Muting Filter, Anti-Interference Coding (SG*-B***-***-00-W-C)			
SAFETY PARAMETERS				
Type	4			
Pl	e			
SIL	SIL 3 (IEC 61508)			
INPUT/OUTPUT				
Output type	2 x PNP (OSSD safety output) with EDM			
ELECTRICAL DATA				
Supply voltage	24 Vdc ±20%			
Power consumption - Emitter	≤ 2.5 W			
Power consumption - Receiver	≤ 4 W without load			
Maximum DC load current	500 mA each output			
Capacitive load tolerated	≥ 2.2 µF			
MECHANICAL DATA				
Dimensions	52 x 56.9 x (606.35 ... 609.35) mm	52 x 56.9 x (906.35 ... 909.35) mm	52 x 56.9 x (1006.35 ... 1009.35) mm	52 x 56.9 x (1306.35 ... 1309.35) mm
Material	Painted aluminum / PMMA / PBT Valox 508			
Connections	M12-5 poles (emitter) M12-8 poles (receiver) (SG*-**-***-00-E), M12-5 poles + M12-5 poles (emitter) M12-12 poles + M12-5 poles (receiver) (SG*-B***-***-00-W-C)			
Length of cables (Power)	≤ 70 m			
CERTIFICATIONS				
Shocks	16 ms (10 G) 1,000 shocks per axis (EN 60068-2-29)			
Vibrations	Width 0.35 mm, frequency 10 ... 55Hz; 20 sweep per axis, 1octave/min (EN 60068-2-6)			
Electromagnetic compatibility	IEC EN 60947-5-2			
ENVIRONMENTAL DATA				
Operating Temperature	0 ... 55 °C			
Storage temperature max.	-25 ... 70 °C			
Mechanical Protection	IP65			
Humidity	15 ... 95 % no condensation			
Ambient light immunity	According to IEC 61496-2			

TECHNICAL SPECIFICATIONS

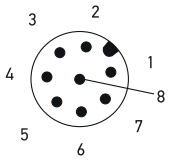
	SG4-40-***-00-E
	SAFETY TYPE 4
GENERAL DATA	
Operating principle	Emitter + Receiver
Detection capability	40 mm
MONITORED AREA	
Nominal sensing distance	6 ... 60 m
Controlled height	600 ... 1200 mm
EMISSION DATA	
Emission	Infrared LED (950nm)
Effective beam angle	≤ ±2.5 °
FUNCTIONS	
Available functions	Manual/Automatic Restart, EDM (SG*-B*-***-00-E)
SAFETY PARAMETERS	
Type	4
Pl	e
SIL	SIL 3 (IEC 61508)
INPUT/OUTPUT	
Output type	2 x PNP (OSSD safety output) with EDM
ELECTRICAL DATA	
Supply voltage	24 Vdc ±20%
Power consumption - Emitter	≤ 2.5 W
Power consumption - Receiver	≤ 4 W without load
Maximum DC load current	500 mA each output
Capacitive load tolerated	≥ 2.2 µF
MECHANICAL DATA	
Dimensions	52 x 56.9 x (783.35 ... 1383.35) mm
Material	Painted aluminum / PMMA / PBT Valox 508
Connections	M12-5 poles (emitter) M12-8 poles (receiver) (SG*-**-***-00-E)
Length of cables (Power)	≤ 50 m
CERTIFICATIONS	
Shocks	16 ms (10 G) 1,000 shocks per axis (EN 60068-2-29)
Vibrations	Width 0.35 mm, frequency 10 ... 55Hz; 20 sweep per axis, 1octave/min (EN 60068-2-6)
Electromagnetic compatibility	IEC EN 60947-5-2
ENVIRONMENTAL DATA	
Operating Temperature	0 ... 55 °C
Storage temperature max.	-25 ... 70 °C
Mechanical Protection	IP65
Humidity	15 ... 95 % no condensation
Ambient light immunity	According to IEC 61496-2

AVAILABLE MODELS

Type	Detection capability	Nominal sensing distance	Controlled height	Beams number	Response time	Model
2	Body protection 2 beams 500 mm	0.5 ... 60 m	500 mm	2	12 ms	**SG2-B2-050-OO-E** (957851240)
	Body protection 2 beams muting 500 mm					**SG2-B2-050-OO-W-C** (957851320)
	Body protection 3 beams 400 mm		800 mm	3	13 ms	**SG2-B3-080-OO-E** (957851250)
	Body protection 3 beams muting 400 mm					**SG2-B3-080-OO-W-C** (957851330)
	Body protection 4 beams 300 mm		900 mm	4	14 ms	**SG2-B4-090-OO-E** (957851260)
	Body protection 4 beams muting 300 mm					**SG2-B4-090-OO-W-C** (957851340)
	Body protection 4 beams 300 mm		1200 mm			**SG2-B4-120-OO-E** (957851270)
	Body protection 4 beams muting 300 mm					**SG2-B4-120-OO-W-C** (957851350)
4	Body protection 2 beams muting 500 mm		500 mm	2	12 ms	**SG4-BLR2-050-OO-W-C** (957851360)
	Body protection 2 beams 500 mm					**SG4-B2-050-OO-E** (957851280)
	Body protection 2 beams muting 500 mm					**SG4-BSR2-050-OO-W-C** (957851400)
	Arm protection res. 40 40 mm	6 ... 60 m	600 mm	33	21 ms	**SG4-40-060-OO-E** (957851570)
	Body protection 3 beams 400 mm	0.5 ... 60 m	800 mm	3	13 ms	**SG4-B3-080-OO-E** (957851290)
	Body protection 3 beams muting 400 mm					**SG4-BLR3-080-OO-W-C** (957851370)
						SG4-BSR3-080-OO-W-C (957851410)
	Body protection 4 beams muting 300 mm		900 mm	4	14 ms	**SG4-BSR4-090-OO-W-C** (957851420)
	Arm protection res. 40 40 mm	6 ... 60 m		48	24 ms	**SG4-40-090-OO-E** (957851580)
	Body protection 4 beams 300 mm	0.5 ... 60 m		4	14 ms	**SG4-B4-090-OO-E** (957851300)
	Body protection 4 beams muting 300 mm					**SG4-BLR4-090-OO-W-C** (957851380)
	Arm protection res. 40 40 mm	6 ... 60 m	1200 mm	63	27 ms	**SG4-40-120-OO-E** (957851590)
	Body protection 4 beams 300 mm	0.5 ... 60 m		4	14 ms	**SG4-B4-120-OO-E** (957851310)
	Body protection 4 beams muting 300 mm					**SG4-BLR4-120-OO-W-C** (957851390)
						SG4-BSR4-120-OO-W-C (957851430)

CONNECTIONS

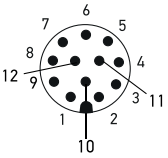
SG*-**-***-00-E (Receiver)



MALE
M12
8 pins

1	White	RESTART/RESET/RESTART MODE
2	Brown	24Vdc
3	Green	EDM ENABLE
4	Yellow	EDM
5	Grey	OSSD1
6	Pink	OSSD2
7	Blue	0Vdc
8	Red	EARTH

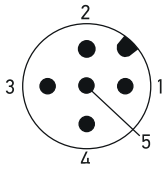
SG*-****-***-00-W-C (Receiver)



MALE
M12
12 pins

1	Brown	24 Vdc
2	Blue	0 Vdc
3	White	RESET/RESTART/RE-START MODE
4	Green	OVERRIDE1
5	Pink	OSSD2
6	Yellow	EDM
7	Black	MUTING ENABLE
8	Gray	OSSD1
9	Red	OVERRIDE2
10	Violet	LAMP OUTPUT
11	Gray /Pink	OVERRIDE STATUS
12	Red/ Blue	EARTH

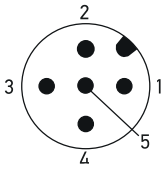
SG*-****-***-00-W-C (Emitter)



MALE
M12
5 pins

1	Brown	24 Vdc
2	White	TEST
3	Blue	0 V
4	Black	EARTH
5	Gray	NOT USED

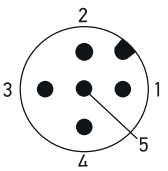
SG*-****-***-00-W-C (Receiver)



MALE
M12
5 pins

1	Brown	24 Vdc
2	White	MUTING2
3	Blue	0 V
4	Black	MUTING1
5	Gray	NOT USED

SG*-****-***-00-W-C (Receiver)

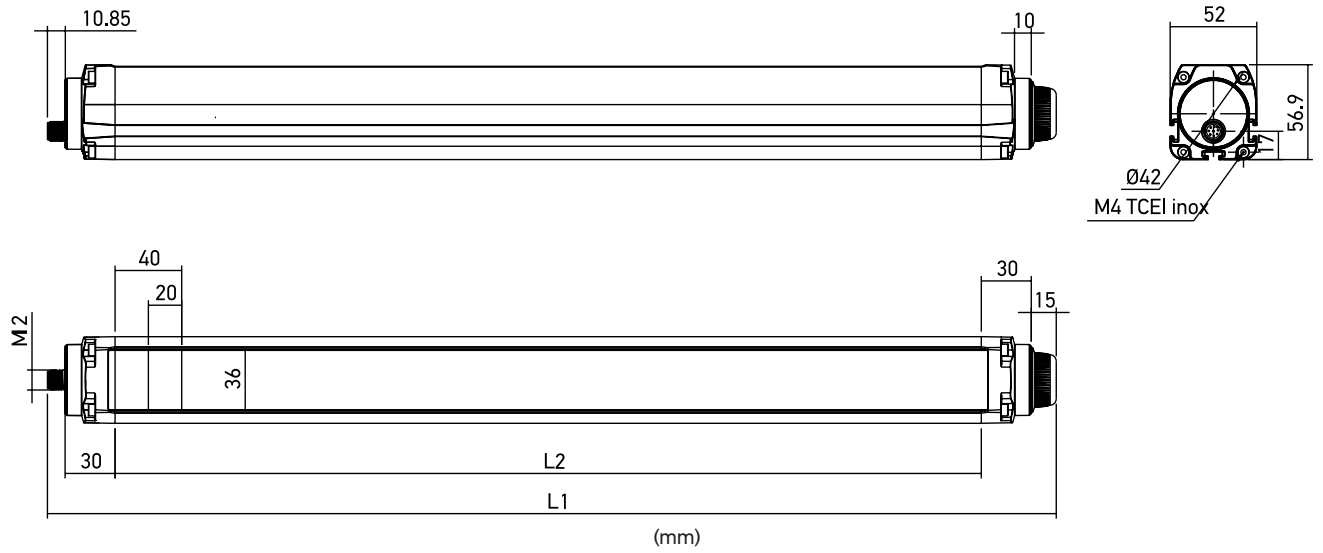


MALE
M12
5 pins

1	Brown	24 Vdc
2	White	NOT USED
3	Blue	0 V
4	Black	NOT USED
5	Gray	NOT USED

MECHANICAL DRAWINGS

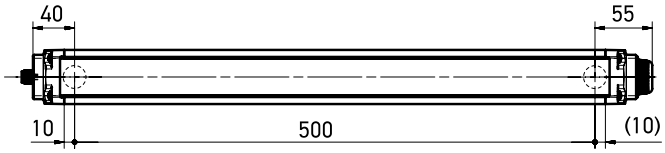
SG*-B***-***-00-*-*



(mm)

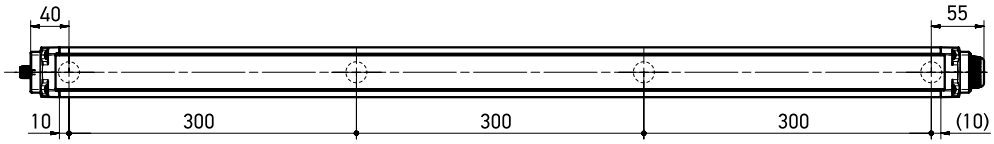
Models	L1	L2
SG*-B2-050-00-E	606.35	520.5

SG4-B2-050-00-*-*



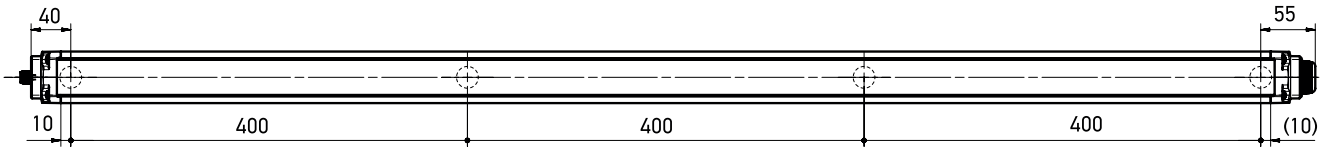
((mm)

SG4-B4-090-00-E



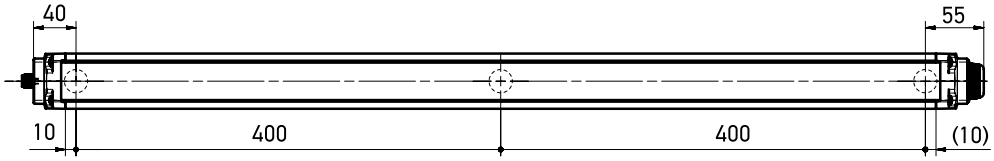
(mm)

SG4-B4-120-00-E



(mm)

SG4-B3-080-00-E



(mm)

ACCESSORIES TO BE ORDERED SEPARATELY

	Model	Description	Article code
Cables	CS-A1-03-U-03	Cable M12 5 poles axial female unshielded 3m UL 2464	95ASE1170
	CS-A1-03-U-05	Cable M12 5 poles axial female unshielded 5m UL 2464	95ASE1180
	CS-A1-06-U-03	Cable M12 8 poles axial female unshielded 3m UL 2464	95ASE1220
	CS-A1-06-U-05	Cable M12 8 poles axial female unshielded 5m UL 2464	95ASE1230
	CS-A1-06-U-10	Cable M12 8 poles axial female unshielded 10m UL 2464	95ASE1240
	CS-A1-03-U-25	Cable M12 5 poles axial female unshielded 25m UL 2464	95ASE1210
	CS-A1-03-U-50	Cable M12 5 poles axial female unshielded 50m UL 2464	95A252700
	CS-A1-03-U-10	Cable M12 5 poles axial female unshielded 10m UL 2464	95ASE1190
	CS-A1-03-U-15	Cable M12 5 poles axial female unshielded 15m UL 2464	95ASE1200
	CS-A1-10-U-03	Cable M12 12 poles axial female unshielded 3m UL 2464	95A252720
	CS-A1-10-U-05	Cable M12 12 poles axial female unshielded 5m UL 2464	95A252730
	CS-A1-10-U-10	Cable M12 12 poles axial female unshielded 10m UL 2464	95A252740
	CS-A1-10-U-15	Cable M12 12 poles axial female unshielded 15m UL 2464	95A252750
	CS-A1-10-U-25	Cable M12 12 poles axial female unshielded 25m UL 2464	95A252760
	CS-A1-10-U-50	Cable M12 12 poles axial female unshielded 50m UL 2464	95A252770
Connection boxes	SG-SRT-1	Muting connection box with forcibly guided relays 2NO start pushbutton override key selector	95ASE2050
	SG-SRT-2	Muting connection box with forcibly guided relays 2NO start pushbutton override key selector muting lamp	95ASE2060
Laser pointers	SG-LP	Laser pointer for SG light curtains	95ASE5590
Mirrors	SG-DM-150	Deviating mirror for light curtains h=150mm	95ASE1670
	SG-DM-600	Deviating mirror for light curtains h=600mm	95ASE1680
	SG-DM-900	Deviating mirror for light curtains h=900mm	95ASE1690
	SG-DM-1200	Deviating mirror for light curtains h=1200mm	95ASE1700
	SG-DM-1650	Deviating mirror for light curtains h=1650mm	95ASE1710
	SG-DM-1900	Deviating mirror for light curtains h=1900mm	95ASE1720
Mirrors brackets	ST-PS-DM	SG-PSB protective stand mounting kit for mirror SG-DM 2 nuts	95ASE1770
	ST-DM	Deviating mirrors SG-DM mounting kit on SE-S columns	95ASE1940
Mounting brackets	ST-K4AV	Anti vibration supports 4 pcs kit to be used with ST-KSTD	95ACC1700
	ST-K4AV (30 pcs)	Anti vibration supports Box 30 x 4 pcs	95ASE2770
	ST-K6AV	Anti vibration supports 6 pcs kit to be used with ST-KSTD	95ACC1710
	ST-KP4MP	Plastic angled brackets 4 pcs kit	95ASE1100
	ST-KP6MP	Plastic angled brackets 6 pcs kit	95ASE1110
	ST-K4ROT-SG BODY BIG	Metal top-bottom rotative brackets 4 pcs kit for SG BODY BIG	95ASE1960
Muting lamps	LMS-1	Modular muting lamp	95ACC1990
	LMS-2	Muting lamp horizontal fixing	95ACC2000
	LMS-3	Muting lamp vertical fixing	95ACC2010
	LMS	Muting lamp	95ASE1830
Protective stands	SG-PSB-600	Protective stand for light curtains h=600mm	95ASE2240
	SG-PSB-1000	Protective stand for light curtains h=1000mm	95ASE2250
	SG-PSB-1200	Protective stand for light curtains h=1200mm	95ASE2260
	SG-PSB-1650	Protective stand for light curtains h=1650mm	95ASE2270
	SG-PSB-1900	Protective stand for light curtains h=1900mm	95ASE2280
	SG-PSM-2-500	Protective stand with 2 adjustable mirrors h=500mm	95ASE2300
	SG-PSM-3-800	Protective stand with 3 adjustable mirrors h=800mm	95ASE2310
	SG-PSM-4-900	Protective stand with 4 adjustable mirrors h=900mm	95ASE2320
	SG-PSM-4-1200	Protective stand with 4 adjustable mirrors h=1200mm	95ASE2330
Protective stands brackets kit	ST-PS4-SG BODY	SG-PSB Protective stand mounting kit for SG BODY BIG 4 brackets	95ASE1730
	ST-PS6-SG BODY	SG-PSB protective stand mounting kit for SG BODY BIG 6 brackets	95ASE1740
Safety units	SE-SR2	Safety unit 3NO + 1NC outputs	95ACC6170
	CSME-03VU24-Y14	Forced guided relay interface 3NO + 1 NC	95ASE1270

NOTE : When using CS-ME, connect EDM input, and be sure EDM function is active on the safety light curtain.

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