



SG BODY BIG BASE / MUTING ROBUST TYPE 2 AND TYPE 4 SAFETY LIGHT GRID FOR BODY AND ARM DETECTION



Safety light curtain with robust 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



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	
version	E	Base: without muting function
	W-C	Muting: with integrated muting function



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	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 (500) mm	52 x 56.9 x (800) mm	52 x 56.9 x (900) mm	52 x 56.9 x (1200) 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 (500) mm	52 x 56.9 x (800) mm	52 x 56.9 x (900) mm	52 x 56.9 x (1200) 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							

AVAILABLE MODELS

SG4-40-***-00-E



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	$\leq \pm 2.5^\circ$

FUNCTIONS

Available functions	Manual/Automatic Restart, EDM (SG*-B*-***-00-E)
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SAFETY PARAMETERS

Type	4
PL	e
SIL	SIL 3 (IEC 61508)

INPUT/OUTPUT

Output type	2 x PNP (OSSD safety output) with EDM
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ELECTRICAL DATA

Supply voltage	24 Vdc $\pm 20\%$
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 μ F

MECHANICAL DATA

Dimensions	52 x 56.9 x (600 ... 1200) 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, 1 octave/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 max	Model
2	Body protection 2 beams 500 mm	0.5 ... 60 m	500 mm	2	12 ms	SG2-B2-050-00-E (957851240)
	Body protection 2 beams muting 500 mm					SG2-B2-050-00-W-C (957851320)
	Body protection 3 beams 400 mm		800 mm	3	13 ms	SG2-B3-080-00-E (957851250)
	Body protection 3 beams muting 400 mm					SG2-B3-080-00-W-C (957851330)
	Body protection 4 beams 300 mm		900 mm	4	14 ms	SG2-B4-090-00-E (957851260)
	Body protection 4 beams muting 300 mm					SG2-B4-090-00-W-C (957851340)
	Body protection 4 beams 300 mm		1200 mm			SG2-B4-120-00-E (957851270)
	Body protection 4 beams muting 300 mm					SG2-B4-120-00-W-C (957851350)
4	Body protection 2 beams 500 mm	0.5 ... 60 m	500 mm	2	12 ms	SG4-B2-050-00-E (957851280)
	Body protection 2 beams muting 500 mm					SG4-BLR2-050-00-W-C (957851360)
						SG4-BSR2-050-00-W-C (957851400)
	Body protection 3 beams 400 mm		800 mm	3	13 ms	SG4-B3-080-00-E (957851290)
	Body protection 3 beams muting 400 mm					SG4-BLR3-080-00-W-C (957851370)
						SG4-BSR3-080-00-W-C (957851410)
	Body protection 4 beams 300 mm		900 mm	4	14 ms	SG4-B4-090-00-E (957851300)
	Body protection 4 beams muting 300 mm					SG4-BLR4-090-00-W-C (957851380)
						SG4-BSR4-090-00-W-C (957851420)
	Body protection 4 beams 300 mm		1200 mm			SG4-B4-120-00-E (957851310)
	Body protection 4 beams muting 300 mm					SG4-BLR4-120-00-W-C (957851390)
						SG4-BSR4-120-00-W-C (957851430)
	Arm protection res. 40 mm	6 ... 60 m	600 mm	33	21 ms	SG4-40-060-00-E (957851570)
			900 mm	48	24 ms	SG4-40-090-00-E (957851580)
			1200 mm	63	27 ms	SG4-40-120-00-E (957851590)

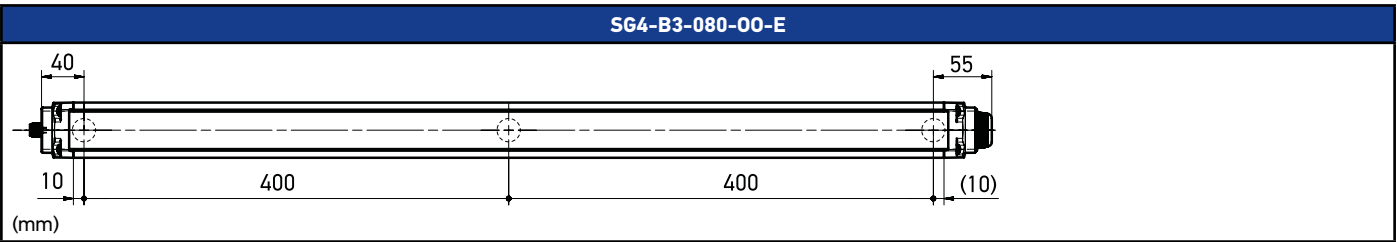
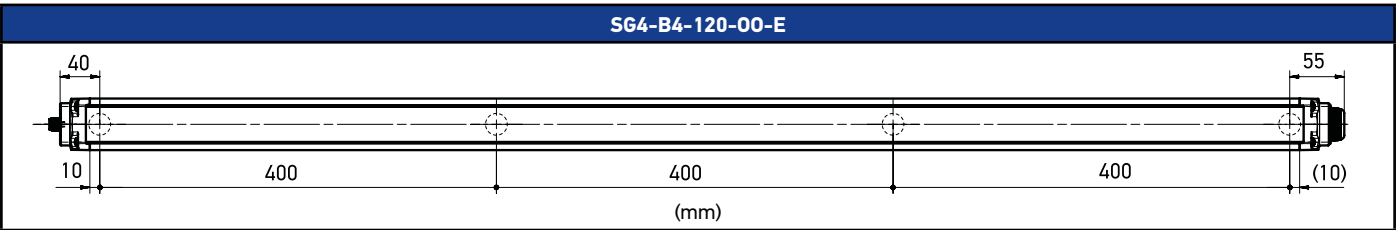
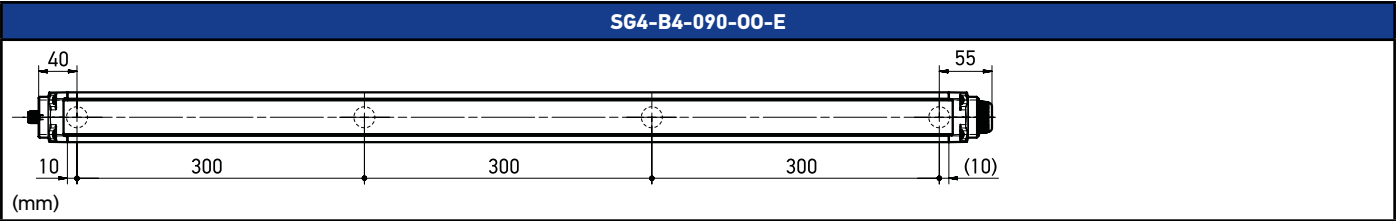
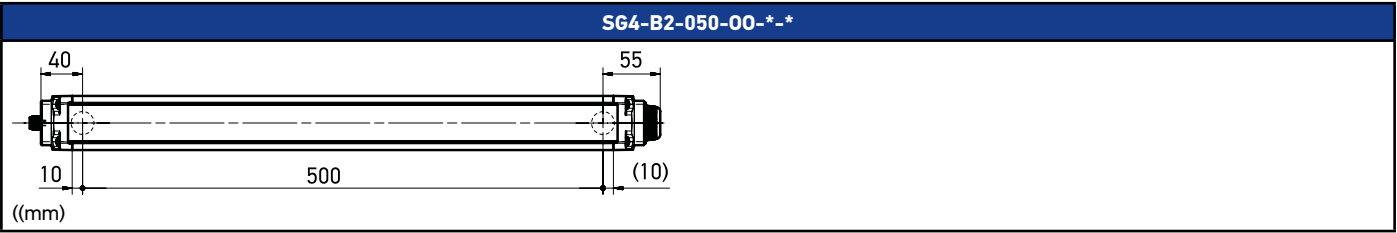
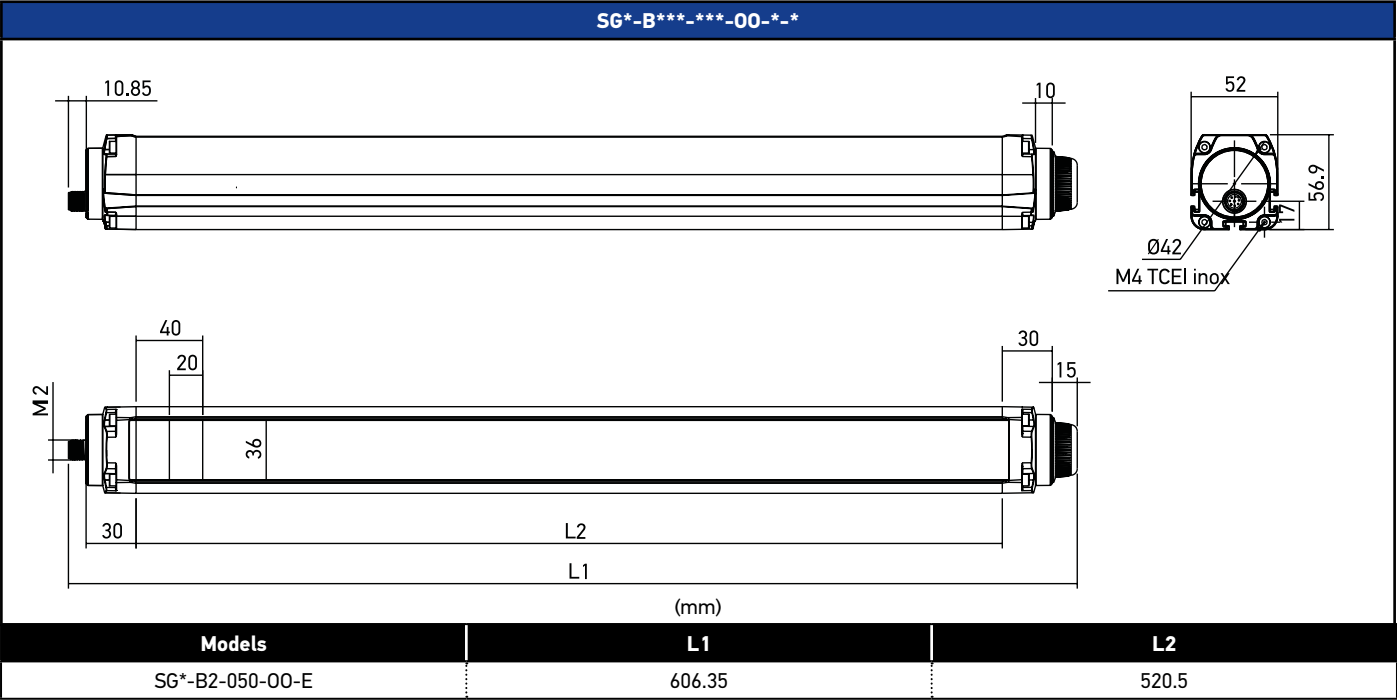
SG*_**_***-00-E (Receiver)		
	1	White RESTART/RESET/RESTART MODE
	2	Brown 24Vdc
	3	Green EDM ENABLE
	4	Yellow EDM
	5	Grey OSSD1
	6	Pink OSSD2
	7	Blue 0Vdc
	8	Red EARTH
MALE M12 8 pins		

SG*_****_***-00-W-C (Receiver)		
	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
MALE M12 12 pins		

SG*_****_***-00-W-C (Emitter)		
	1	Brown 24 Vdc
	2	White TEST
	3	Blue 0 V
	4	Black EARTH
	5	Gray NOT USED
MALE M12 5 pins		

SG*_****_***-00-W-C (Receiver)		
	1	Brown 24 Vdc
	2	White MUTING2
	3	Blue 0 V
	4	Black MUTING1
	5	Gray NOT USED
MALE M12 5 pins		

SG*_****_***-00-W-C (Receiver)		
	1	Brown 24 Vdc
	2	White NOT USED
	3	Blue 0 V
	4	Black NOT USED
	5	Gray NOT USED
MALE M12 5 pins		



	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-A1-03-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-A1-03-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-A1-06-U-10	Cable M12 8 poles axial female unshielded 10m UL 2464	95ASE1240
	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-A1-10-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
Control units	CSME-03VU24-Y14	Forced guided relay interface 3NO + 1 NC	95ASE1270
	SE-SR2	Safety unit 3NO + 1NC outputs	95ACC6170
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
Mounting brackets	ST-K4ROT-SG BODY BIG	Metal top-bottom rotative brackets 4 pcs kit for SG BODY BIG	95ASE1960
	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
Muting lamps	LMS	Muting lamp	95ASE1830
	LMS-1	Modular muting lamp	95ACC1990
	LMS-2	Muting lamp horizontal fixing	95ACC2000
	LMS-3	Muting lamp vertical fixing	95ACC2010
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-DM	Deviating mirrors SG-DM mounting kit on SE-S columns	95ASE1940
	ST-PS-DM	SG-PSB protective stand mounting kit for mirror SG-DM 2 nuts	95ASE1770



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