DATASENSING
easing automation challenges

WEBSITE

SG Body Reflector Base / Muting

RETROREFLECTIVE TYPE 4 SAFETY LIGHT GRID FOR BODY DETECTION



Sturdy safety light curtain for body protection with only one active side. Access control is eased by integrated muting and override functions. Integrated muting lamp.

- One active and one passive unit to reduce wiring and installation costs
- Robust housing for harsh environments
- Easy installation and alignment
- Reflective muting arms included in L and T muting version
- All advanced features associated to muting function
- 2, 3, 4 beams for body protection
- Controlled heights 500, 800, 900 and 1200 mm
- Up to 8 m operating distance
- Simple configuration through DIP switches
- Integrated muting lamp (muting models)
- Anti-interference coding
- External muting enable signal
- Edged or triggered muting dependent override

SAFETY TYPE 4

CODE DESCRIPTION

SG 4 - RB 3 T - 080 - 00 - W

serie	**SG**	SG Body reflector base/muting
type	**4**	Type 4
active/passive unit	**RB**	Active Unit
	RDB	Passive Unit
beams and range	**2**	2 beams
	3	3 beams
	4	4 beams
muting arms		Linear version-no muting arms included
	L	L muting arms included
	T	T muting arms included
monitored height	**050**	500 mm (2 beams)
	080	800 mm (3 beams)
	090	900 mm (4 beams)
	120	1200 mm (4 beams)
version	**E**	Base: without integrated muting function
	W	Muting: with integrated muting function
	N	SG4-N Body Reflector Muting: muting function with single main connector

TECHNICAL SPECIFICATIONS

	SG4-RB2-***-00-*	SG4-RB2L/T-***-00 -W	SG4-RB3-***-00-*	SG4-RB3L/T-***-00 -W
		SAFETY TYPE 4		
GENERAL DATA				
Operating principle	Transceiver (Active side)			
Detection capability	500 mm		400 mm	
MONITORED AREA				
Nominal sensing distance	0.5 ... 8 m	0.5 ... 3 m	0.5 ... 8 m	0.5 ... 3 m
Controlled height	500 mm		800 mm	
EMISSION DATA				
Emission	Infrared LED (950nm)			
Effective beam angle	≤ ±2.5 °			
FUNCTIONS				
Available functions	Manual/Automatic Restart, EDM, Active Unit (SG4-RB*-***-00-E), Manual/ Automatic Restart, EDM, L/T Muting, Override (SG4-RB*-***-00-N), Manual/ Automatic Restart, EDM, Muting, Override, Muting Enable, Muting Filter (SG4-RB*-***-00-W)	Manual/Automatic Restart, EDM, Muting, Override, Muting Enable, Muting Filter (SG4-RB*-***-00-W)	Manual/Automatic Restart, EDM, Active Unit (SG4-RB*-***-00-E), Manual/ Automatic Restart, EDM, L/T Muting, Override (SG4-RB*-***-00-N), Manual/ Automatic Restart, EDM, Muting, Override, Muting Enable, Muting Filter (SG4-RB*-***-00-W)	Manual/Automatic Restart, EDM, Muting, Override, Muting Enable, Muting Filter (SG4-RB*-***-00-W)
Included accessories		Active sensor single arm SG-AS-ARM for L muting (SG4-RB*L-***-00-W), Two active sensor single arms SG-AS-ARM for T muting (SG4-RB*T-***-00-W)		Active sensor single arm SG-AS-ARM for L muting (SG4-RB*L-***-00-W), Two active sensor single arms SG-AS-ARM for T muting (SG4-RB*T-***-00-W)
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 - Receiver	≤ 6.5 W without load			
Maximum DC load current	500 mA each output			
MECHANICAL DATA				
Dimensions	52 x 56.9 x (606.35) mm		52 x 56.9 x (906.35) mm	
Material	Painted aluminum / PMMA / PBT Valox 508			
Connections	M12-12 poles + M12-5 poles (Active Unit) (SG4-RB**-***-00-W), M12-8 poles (Active Unit) (SG4-RB*-***-00-E/N)	M12-12 poles + M12-5 poles (Active Unit) (SG4-RB**-***-00-W)	M12-12 poles + M12-5 poles (Active Unit) (SG4-RB**-***-00-W), M12-8 poles (Active Unit) (SG4-RB*-***-00-E/N)	M12-12 poles + M12-5 poles (Active Unit) (SG4-RB**-***-00-W)
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-RB4-090-00-*	SG4-RB4-120-00-*
	SAFETY TYPE 4	
GENERAL DATA		
Operating principle	Transceiver (Active side)	
Detection capability	300 mm	
MONITORED AREA		
Nominal sensing distance	0.5 ... 6.5 m	0.5 ... 8 m
Controlled height	900 mm	1200 mm
EMISSION DATA		
Emission	Infrared LED (950nm)	
Effective beam angle	≤ ±2.5 °	
FUNCTIONS		
Available functions	Manual/Automatic Restart, EDM, Active Unit (SG4-RB*-***-00-E), Manual/Automatic Restart, EDM, L/T Muting, Override (SG4-RB*-***-00-N), Manual/Automatic Restart, EDM, Muting, Override, Muting Enable, Muting Filter (SG4-RB*-***-00-W)	
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 - Receiver	≤ 6.5 W without load	
Maximum DC load current	500 mA each output	
MECHANICAL DATA		
Dimensions	52 x 56.9 x (1006.35) mm	52 x 56.9 x (1306.35 ... 1309.35) mm
Material	Painted aluminum / PMMA / PBT Valox 508	
Connections	M12-12 poles + M12-5 poles (Active Unit) (SG4-RB**-***-00-W), M12-8 poles (Active Unit) (SG4-RB*-***-00-E/N)	
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

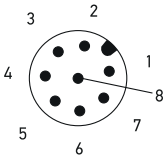
	SG4-RDB2*	SG4-RDB3*	SG4-RDB4-090	SG4-RDB4-120
		SAFETY TYPE 4		
GENERAL DATA				
Operating principle	Passive side			
Detection capability	500 mm	400 mm	300 mm	
MONITORED AREA				
Controlled height	500 mm	800 mm	900 mm	1200 mm
EMISSION DATA				
Effective beam angle	≤ ±2.5 °			
FUNCTIONS				
Available functions	Passive Unit			
Included accessories	Passive sensor single arm SG-PR-ARM for L muting (SG4-RDB*L), Two Passive sensor single arms SG-PR-ARM for T muting (SG4-RDB*T)			
SAFETY PARAMETERS				
Type	4			
Supply voltage				
MECHANICAL DATA				
Dimensions	52 x 56.9 x (580.5) mm	52 x 56.9 x (880.5) mm	52 x 56.9 x (980.5) mm	52 x 56.9 x (1280.5) mm
Material	Painted aluminum / PMMA / PBT Valox 508			
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
4	Body protection 2 beams 500 mm	0.5 ... 8 m	500 mm	2	11 ms	**SG4-RB2-050-OO-E** (957951000)
	Body protection 2 beams with muting 500 mm					**SG4-RB2-050-OO-N** (957951220)
						SG4-RB2-050-OO-W (957951030)
		0.5 ... 3 m				**SG4-RB2L-050-OO-W** (957951060)
						SG4-RB2T-050-OO-W (957951080)
	Body protection 3 beams 400 mm	0.5 ... 8 m	800 mm	3	12 ms	**SG4-RB3-080-OO-E** (957951010)
	Body protection 3 beams with muting 400 mm					**SG4-RB3-080-OO-N** (957951230)
						SG4-RB3-080-OO-W (957951040)
		0.5 ... 3 m				**SG4-RB3L-080-OO-W** (957951070)
						SG4-RB3T-080-OO-W (957951090)
	Body protection 4 beams 300 mm	0.5 ... 6.5 m	900 mm	4		**SG4-RB4-090-OO-E** (957951190)
	Body protection 4 beams with muting 300 mm					**SG4-RB4-090-OO-N** (957951240)
						SG4-RB4-090-OO-W (957951180)
	Body protection 4 beams 300 mm	0.5 ... 8 m	1200 mm			**SG4-RB4-120-OO-E** (957951020)
	Body protection 4 beams with muting 300 mm					**SG4-RB4-120-OO-N** (957951250)
						SG4-RB4-120-OO-W (957951050)
	Body protection 2 beams 500 mm		500 mm	2		**SG4-RDB2** (957951100)
						SG4-RDB2L (957951130)
						SG4-RDB2T (957951150)
	Body protection 3 beams 400 mm		800 mm	3		**SG4-RDB3** (957951110)
						SG4-RDB3L (957951140)
						SG4-RDB3T (957951160)
	Body protection 4 beams 300 mm		900 mm	4		**SG4-RDB4-090** (957951170)
			1200 mm			**SG4-RDB4-120** (957951120)

CONNECTIONS

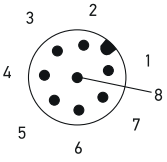
SG4-RB*-***-00-N (Receiver)



MALE
M12
8 pins Safety

1	White	RESTART/RESET/EDM/ OVERRIDE
2	Brown	24 Vdc
3	Green	MUTING1
4	Yellow	MUTING2
5	Grey	OSSD1
6	Pink	OSSD2
7	Blue	0 Vdc
8	Red	MUTING LAMP

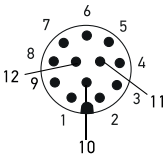
SG4-RB*-***-00-E (Receiver)



MALE
M12
8 pins Safety

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

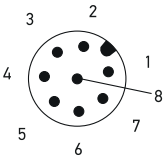
SG4-RB**-***-00-W (Receiver)



MALE
M12
12 pins Safety

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

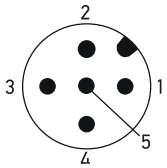
SG4-RB**-***-00-E (Receiver)



MALE
M12
8 pins Safety

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

SG4-RB**-***-00-W (Receiver)

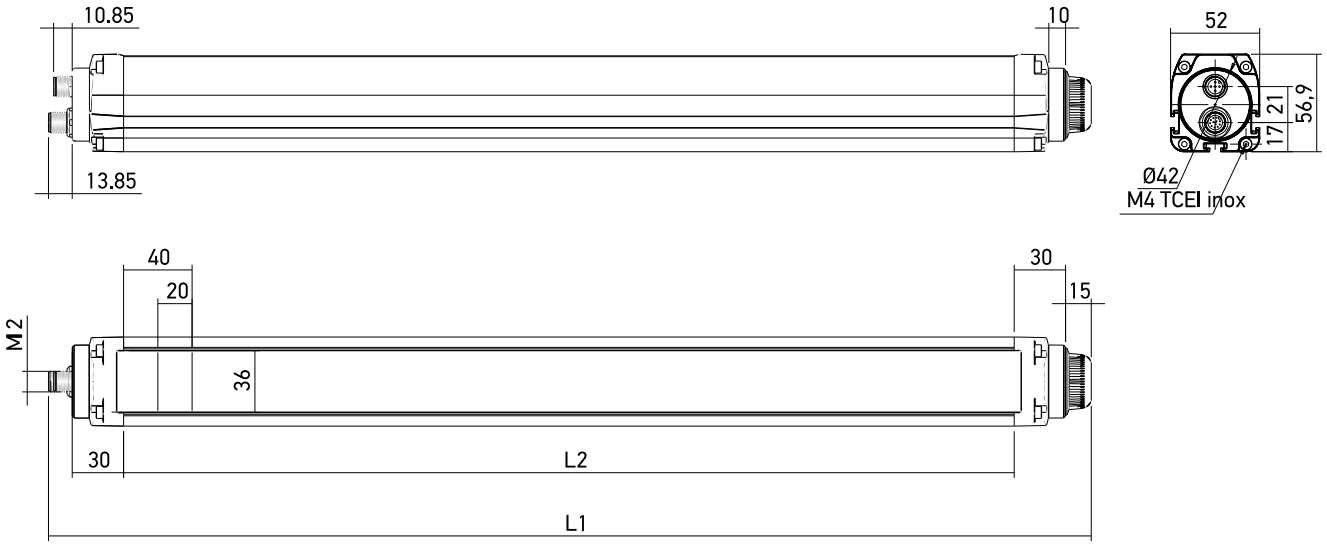


MALE
M12
5 pins Safety

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

MECHANICAL DRAWINGS

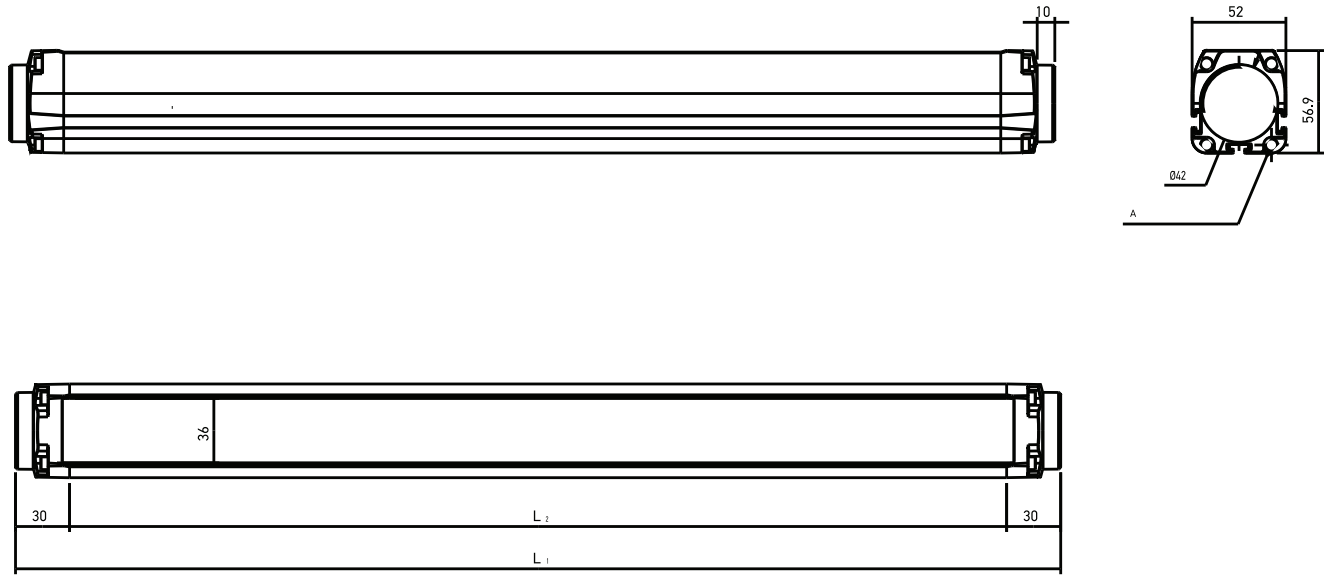
SG4-B*-***/SG4-RB* SG BODY REFLECTOR / MUTING active



(mm)

Models	H (mm)	L1 (mm)	L2 (mm)
SG4-B2-050/SG4-RB2	500	609.35	520.5
SG4-B3-080/SG4-RB3	800	909.35	820.5
SG4-B4-090/SG4-RB4	900	1009.35	920.5
SG4-B4-120/SG4-RB4	1200	1309.35	1220.5

SG4-RDB*

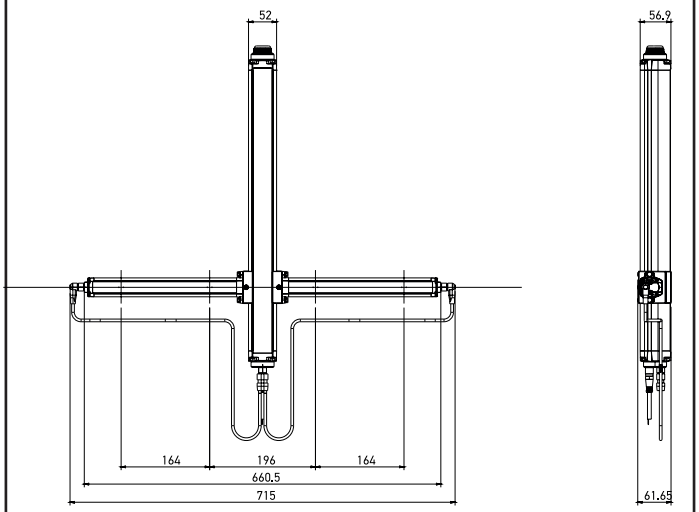


(mm)

Models	H (mm)	L1 (mm)	L2 (mm)	A
SG4-RDB2	500	580.5	520.5	M4 TCEI inox
SG4-RDB3	800	880.5	820.5	
SG4-RDB4-090	900	980.5	920.5	
SG4-RDB4-120	1200	1280.5	1220.5	

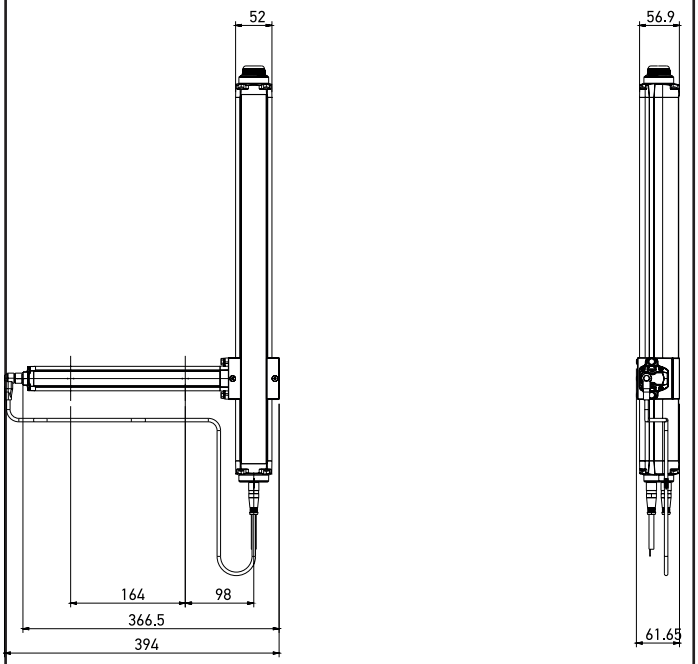
MECHANICAL DRAWINGS

SG4-B*-***/SG4-RB* SG BODY REFLECTOR BASE WITH T MUTING ARMS - ACTIVE SIDE



(mm)

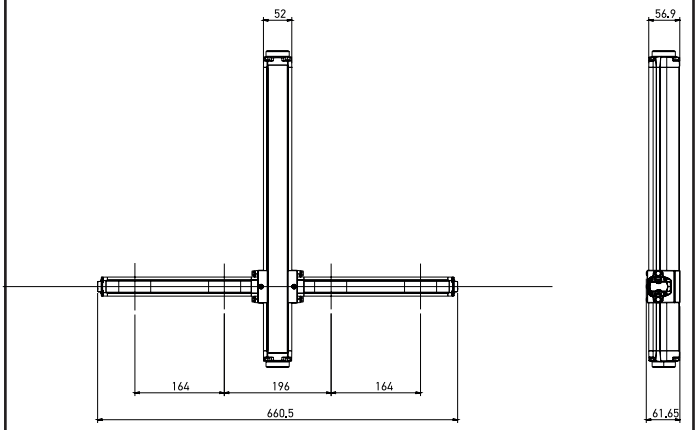
SG4-B*-***/SG4-RB* SG BODY REFLECTOR BASE WITH L MUTING ARMS - ACTIVE SIDE



(mm)

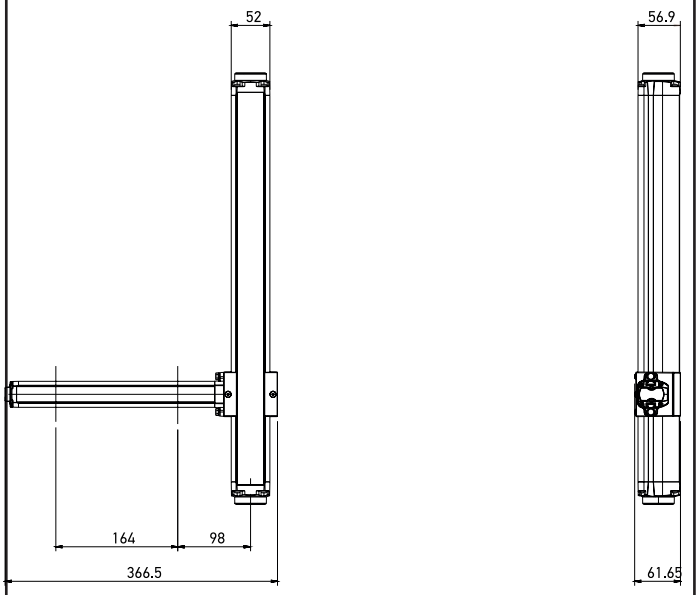
MECHANICAL DRAWINGS

SG4-RDB* SG BODY REFLECTOR BASE WITH T MUTING ARMS - PASSIVE SIDE SG BODY REFLECTOR BASE WITH T MUTING ARMS - PASSIVE SIDE



(mm)

SG4-RDB* SG BODY REFLECTOR BASE WITH L MUTING ARMS - PASSIVE SIDE SG BODY REFLECTOR BASE WITH L MUTING ARMS - PASSIVE SIDE



(mm)

ACCESSORIES TO BE ORDERED SEPARATELY

	Model	Description	Article code
Cables	CS-A1-03-U-25	Cable M12 5 poles axial female unshielded 25m UL 2464	95ASE1210
	CS-A1-06-U-50	Cable M12 8 poles axial female unshielded 50m UL 2464	95A252710
	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-A1-06-U-15	Cable M12 8 poles axial female unshielded 15m UL 2464	95ASE1250
	CS-A1-06-U-25	Cable M12 8 poles axial female unshielded 25m UL 2464	95ASE1260
	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
	CS-A1-03-U-50	Cable M12 5 poles axial female unshielded 50m UL 2464	95A252700
	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
Laser pointers	SG-LP	Laser pointer for SG light curtains	95ASE5590
Mounting brackets	ST-K4ROT-SG BODY BIG	Metal top-bottom rotative brackets 4 pcs kit for SG BODY BIG	95ASE1960
	ST-K4STD-SG	Metal angled brackets 4 pcs kit for SG BODY BIG	95ASE1950
	ST-K4REAR-SG	Metal rear brackets 4 pcs kit for SG BODY BIG	95ASE1970
	ST-K4ROT-SG	Metal top-bottom rotative brackets 4 pcs kit for SG BODY COMPACT	95ASE2040
	ST-K4AV	Anti vibration supports 4 pcs kit to be used with ST-KSTD	95ACC1700
	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-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-P	Plate with springs for protective stands SG-PSB and SG-PSM	95ASE2290
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 control units	SG-BWS-T4-MT	Safety control unit for S5 SL5 S300 safety sensors pl=e double muting 4 beams	957051010
Safety units	CSME-03VU24-Y14	Forced guided relay interface 3NO + 1 NC	95ASE1270
	SE-SR2	Safety unit 3NO + 1NC outputs	95ACC6170

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

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