DATASENSING
easing automation challenges

WEBSITE

SG4 Extended

TYPE 4 SAFETY LIGHT CURTAIN WITH ADVANCED FUNCTIONALITY



Type 4 Finger and hand resolution safety light curtain with possibility of configuration of advanced functions through pushbuttons or Graphic User Interface.

- No dead zone
- Pigtail cable with M12 connector
- Cascade connection of up to 3 units
- Up to 20 m operating range and 1800 m protected height
- Compact dimensions (35 x 41 mm section)
- Anti-interference coding
- Integrated Muting function
- Floating Blanking, Fixed Blanking and Reduced Resolution
- Configurable with: Pushbuttons for common configuration
- Graphic User Interface for complete parametrization
- Ethernet Interface for programming, monitoring and error logging

CODE DESCRIPTION

SG 4 - 14 - 030 - 00 - P

serie	**SG**	SG4 Extended
type	**4**	Type 4
resolution	**14**	Finger: 14 mm
	30	Hand: 30 mm
monitored height	**030**	300 mm
	045	450 mm
	...	
	180	1800 mm
output	**00**	
functionality	**P**	Advanced (Muting, Blanking, Programmable with GUI)

TECHNICAL SPECIFICATIONS

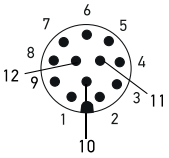
	SG4-14-***-00-P	SG4-30-***-00-P
	SAFETY TYPE 4	SAFETY TYPE 4
GENERAL DATA		
Operating principle	Emitter + Receiver	
Detection capability	14 mm	30 mm
MONITORED AREA		
Nominal sensing distance	0.2 ... 7 m	0.2 ... 20 m
Controlled height	300 ... 1800 mm	
EMISSION DATA		
Emission	Infrared LED (950nm)	
Effective beam angle	≤ ±2.5 °	
FUNCTIONS		
Available functions	Manual/Automatic Restart, EDM, L/T Muting, Partial Muting, Override, Blanking, Programmability	
Included accessories	Standard “L” Mounting Brackets: 4 pcs kit, Standard “L” Mounting Brackets: 6 pcs kit	
SAFETY PARAMETERS		
Type	4	
PI	e	
SIL	SIL 3 (IEC 61508)	
INPUT/OUTPUT		
Output type	2 x PNP (OSSD safety output) with EDM	
COMMUNICATION		
Network Interface	10/100 Mbit/s Ethernet	
ELECTRICAL DATA		
Supply voltage	24 Vdc ±20%	
Power consumption - Emitter	≤ 3 W	
Power consumption - Receiver	≤ 5 W without load	
Maximum DC load current	500 mA each output	
MECHANICAL DATA		
Dimensions	306.3 (3540.75) mm	
Material	Painted aluminum / PMMA / PBT Valox 508 / PC LEXAN	
Connections	M12-5 poles pig-tail (emitter) M12-12 poles + M12-5poles / M12-12 poles pig-tails (receiver)	
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 ... 50 °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	Finger prot. res. 14 programmable 14 mm	0.2 ... 7 m	300 mm	32	15 ms	**SG4-14-030-00-P** (957901240)
			450 mm	48	17 ms	**SG4-14-045-00-P** (957901250)
			600 mm	64	19 ms	**SG4-14-060-00-P** (957901260)
			750 mm	80	20 ms	**SG4-14-075-00-P** (957901270)
			900 mm	96	22 ms	**SG4-14-090-00-P** (957901280)
			1050 mm	112	24 ms	**SG4-14-105-00-P** (957901290)
			1200 mm	128	26 ms	**SG4-14-120-00-P** (957901300)
			1350 mm	144	27 ms	**SG4-14-135-00-P** (957901310)
			1500 mm	160	29 ms	**SG4-14-150-00-P** (957901320)
			1650 mm	176	31 ms	**SG4-14-165-00-P** (957901330)
			1800 mm	192	33 ms	**SG4-14-180-00-P** (957901340)
	Hand prot. res. 30 programmable 30 mm	0.2 ... 20 m	300 mm	16	13 ms	**SG4-30-030-00-P** (957901350)
			450 mm	24	14 ms	**SG4-30-045-00-P** (957901360)
			600 mm	32	15 ms	**SG4-30-060-00-P** (957901370)
			750 mm	40	16 ms	**SG4-30-075-00-P** (957901380)
			900 mm	48	17 ms	**SG4-30-090-00-P** (957901390)
			1050 mm	56	18 ms	**SG4-30-105-00-P** (957901400)
			1200 mm	64	19 ms	**SG4-30-120-00-P** (957901410)
			1350 mm	72		**SG4-30-135-00-P** (957901420)
			1500 mm	80	20 ms	**SG4-30-150-00-P** (957901430)
			1650 mm	88	21 ms	**SG4-30-165-00-P** (957901440)
			1800 mm	96		**SG4-30-180-00-P** (957901450)

E_SERIE_PLUGS

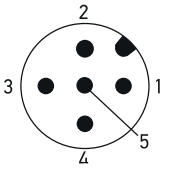
SG4-**-***-00-P (Receiver)



MALE
M12
12 pins Safety

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

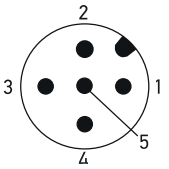
SG4-**-***-00-P (Receiver)



MALE
M12
5 pins Safety

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

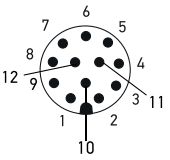
SG4-**-***-00-P (Emitter)



MALE
M12
5 pins Safety

1	Brown	24 Vdc
2	White	TEST
3	Blue	0 V
4	Black	EARTH
5	Gray	RANGE REDUCTION

SG4-**-***-00-P (Receiver)

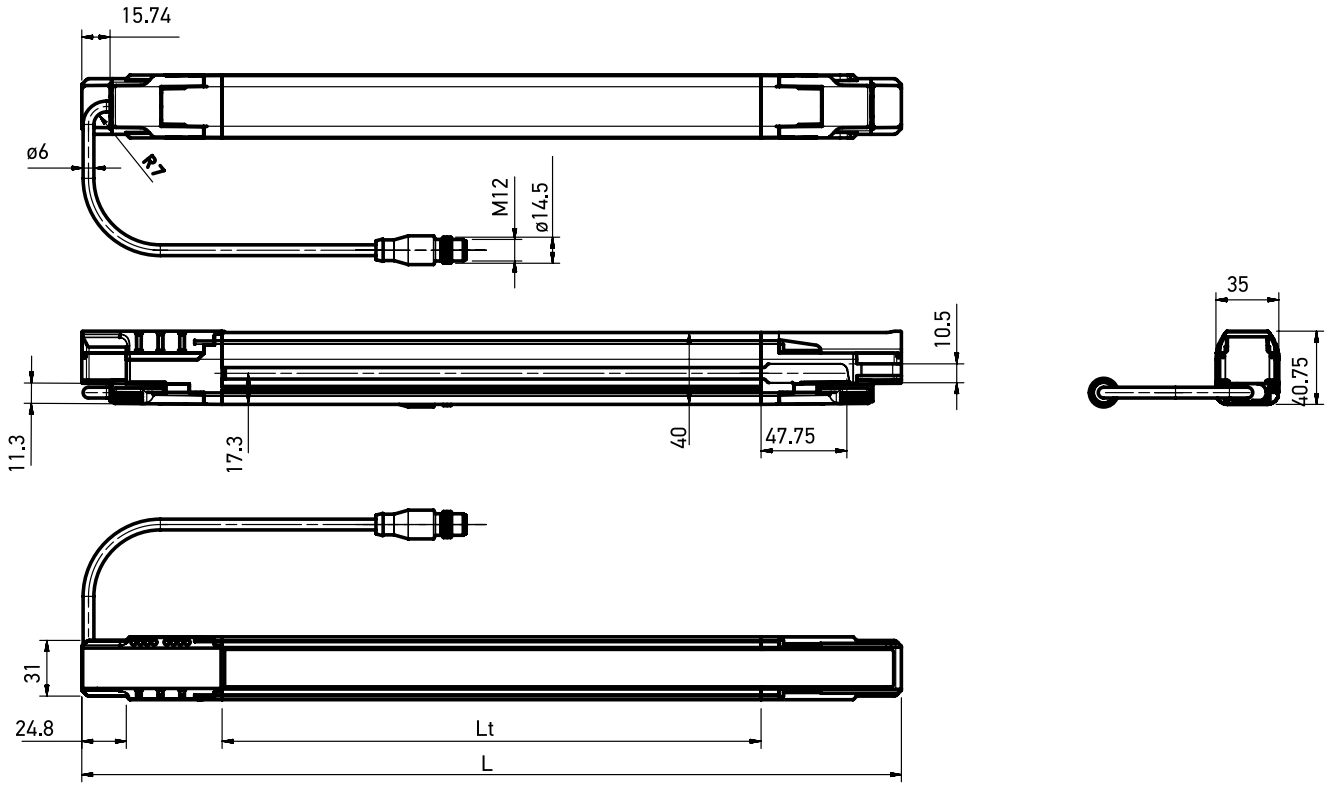


MALE
M12
12 pins Safety

1	Brown	24 Vdc
2	Blue	0 Vdc
3	White	RESET/RESTART/ALIGN
4	Green	TEACH IN
5	Pink	OSSD2
6	Yellow	EDM
7	Black	NOT USED
8	Gray	OSSD1
9	Red	TOLERANCE
10	Violet	LAMP OUTPUT
11	Gray/Pink	NOT USED
12	Red/Blue	EARTH

MECHANICAL DRAWINGS

SG4--***-00-P**



(mm)

Models	L (mm)	Lt (mm)
SG4-**-030-00-P	306.3	150
SG4-**-045-00-P	456.3	300
SG4-**-060-00-P	606.3	450
SG4-**-075-00-P	756.3	600
SG4-**-090-00-P	906.3	750
SG4-**-105-00-P	1056.3	900
SG4-**-120-00-P	1206.3	1050
SG4-**-135-00-P	1356.3	1200
SG4-**-150-00-P	1506.3	1350
SG4-**-165-00-P	1656.3	1500
SG4-**-180-00-P	1806.3	1650

ACCESSORIES TO BE ORDERED SEPARATELY

	Model	Description	Article code
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

ACCESSORIES TO BE ORDERED SEPARATELY

	Model	Description	Article code
Cables	CAB-ETH-M01	M12-RJ45 IP67 ethernet cable 1m	93A051346
	CS-G1-70-B-002	Pigtail cable for SG4 EXTENDED receiver blanking function M12 12p male connector 0.2m	95A252830
	CS-A1-03-U-03	Cable M12 5 poles axial female unshielded 3m UL 2464	95ASE1170
	CS-A1-03-U-50	Cable M12 5 poles axial female unshielded 50m UL 2464	95A252700
	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-A1-10-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-25	Cable M12 12 poles axial female unshielded 25m UL 2464	95A252760
	CS-A1-10-U-15	Cable M12 12 poles axial female unshielded 15m UL 2464	95A252750
	CS-A1-10-U-50	Cable M12 12 poles axial female unshielded 50m UL 2464	95A252770
	CS-F1-80-B-01	Cascade cable for SG4 EXTENDED 1m	95A252840
	CS-F1-80-B-005	Cascade cable for SG4 EXTENDED 0.5m	95A252850
	CS-F1-80-B-0005	Cascade cable for SG4 EXTENDED 0.05m	95A252860
	CAB-ETH-M03	M12-RJ45 IP67 ethernet cable 3m	93A051347
	CAB-ETH-M05	M12-RJ45 IP67 ethernet cable 5m	93A051348
Mounting brackets	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-K4OR	Orientable supports 4 pcs kit to be used with ST-KSTD	95ACC1680
	ST-K6OR	Orientable supports 6 pcs kit to be used with ST-KSTD	95ACC1690
	ST-KSTD	Metal angled brackets 4 pcs kit for SG/SH4	95ACC1670
	ST-K4AV	Anti vibration supports 4 pcs kit to be used with ST-KSTD	95ACC1700
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-SE	SG-PSB protective stand mounting kit for SG/SH4 4 brackets	95ASE1750
	ST-PS6-SG-SE	SG-PSB protective stand mounting kit for SG/SH4 6 brackets	95ASE1760
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	SE-SR2	Safety unit 3NO + 1NC outputs	95ACC6170
	CSME-03VU24-Y14	Forced guided relay interface 3NO + 1 NC	95ASE1270
Vertical supports	SE-S-800	Column for light curtains and floor stand h=800 mm	95ACC1730
	SE-S-1000	Column for light curtains and floor stand h=1000 mm	95ACC1740
	SE-S-1200	Column for light curtains and floor stand h=1200 mm	95ACC1750
	SE-S-1500	Column for light curtains and floor stand h=1500 mm	95ACC1760
	SE-S-1800	Column for light curtains and floor stand h=1800 mm	95ACC1770

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

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