SG2 MUTING
SG4 EXTENDED

State-of-the-art technology and versatility

Easily adaptable to the machine structure

Maximum application flexibility with configurable advanced functions

Complete diagnostic and monitoring online

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

APPLICATIONS

- Automatic machines Robots
- Automatic assembling lines
- Palletizers and Depalletizers

INDUSTRIES

- Food & Beverage
- Metalworking
- Automotive
- Wood
- Ceramics

	FINGER	HAND	ARM	BODY
Type 2		x		
Type 4	x	x		

SG4-14-030-00-P

TYPE	
2	Type 2
4	Type 4

MONITORED HEIGHT	
030	300 mm
045	450 mm
...	
180	1800 mm

RESOLUTION	
14	Finger: 14 mm (only Type 4)
30	Hand: 30 mm

VERSION	
W	Basic Configuration Mode
P	Cascadable Advanced Configuration Mode Programmable with GUI
N	SG4-N: muting function with single main connector

TECHNICAL DATA

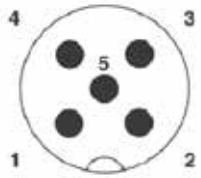
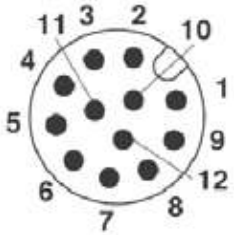
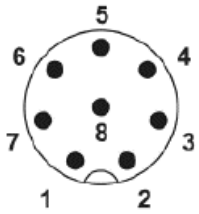
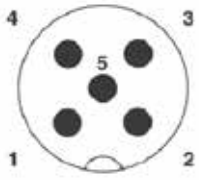
	SG2 MUTING [SG2-30-xxx-00-W]	SG4 EXTENDED [SG4-xx-xxx-00-P]	SG4-N [SG4-xx-xxx-00-N]
GENERAL DATA			
Type (EN61496-1-2)	2	4	
PL (EN ISO 13849-1)	c	e	
SIL (IEC 61508)	1	3	
Resolution	30 mm	14, 30 mm	
Protected height	300 ... 1800 mm (with 150 mm steps)		
Operating distance	0.2 ... 20 m	0.2 ... 7 m (14 mm resolution) 0.2 ... 20 m (30 mm resolution)	
Dead Zone	No dead zone		
Cascade connection	---	Up to 3 units	---
ELECTRICAL DATA			
Power supply (Vdd)	24 Vdc ± 20		
Outputs	2 PNP, with short circuit protection 2 PNP		
Output current	0.5 A max/each output		
Capacitive load	2.2 uF @ 24Vdc max		
Response time	13 ... 22 ms depending on model *	13 ... 33 ms depending on model *	15 ... 33 ms depending on model *
Cables length (for power supply)	50 m max		
MECHANICAL AND ENVIRONMENTAL DATA			
Operating temperature	0 ...+50 °C		
Humidity	15 ... 95 % (no condensation)		
Mechanical protection	IP 65 (EN 60529)		
Housing Material	Painted aluminium, Polycarbonate, PBT		
Window material	PMMA		
FUNCTIONS			
	Test input		
	Manual/Automatic Restart		
	External Device Monitoring (EDM)		
	Anti-interference coding		
	Range reduction		
	T Muting/L Muting		
	---	Partial Muting	
	---	Filter on muting signals	
	Muting dependent Override		
	Floating Blanking		---
	Fixed Blanking		---
Max. Number of Blanking Areas	2	5	---
	---	Reduced Resolution	---

NOTES

* The response time depends on model; when a cascaded system is used, depends also on the number of units connected.
For detailed informations refer to related Product Datasheet or Manual.

1) The use of any type of blanking is not compatible with the use of Muting and Muting dependent Override.
2) In order to use Muting or Blanking with SG4 EXTENDED, the correct pigtail cable must be used (see accessories table)

CONNECTIONS

	SG2 MUTING [SG2-30-XXX-00-W]	SG4 EXTENDED [SG4-XX-XXX-00-P] CONFIGURATION FOR MUTING	SG4 EXTENDED [SG4-XX-XXX-00-P] CONFIGURATION FOR BLANKING	SG4-N [SG4-XX-XXX-00-N]
PIGTAIL CABLE FOR EMITTER*	CS-G1-50-B-002 (Order Number 95A252820)			
EMITTER	M12, 5 poles, male 1 = brown = 24Vdc; 2 = white = TEST; 3 = blue = 0V; 4 = black = EARTH; 5 = grey = RANGE REDUCTION.  			
PIGTAIL CABLE FOR RECEIVER [A]	CS -R1-75-B-002 (Order Number 95A252810)		CS -G1-70-B-002 (Order Number 95A252830)	CS -G1-60-B-002 (Order Number 95A252910)
RECEIVER MAIN CONNECTOR	M12, 12 poles, male 1 = brown = 24Vdc 2 = blue = 0V 3 = white = RESET/RESTART/ALIGN 4 = green = OVERRIDE1 5 = pink = OSSD2 6 = yellow = EDM 7 = black = MUTING DISABLE 8 = grey = OSSD1 9 = red = OVERRIDE2 10 = violet = MUTING LAMP 11 = grey-pink = OVERRIDE STATUS 12 = red-blue = EARTH  		M12, 12 poles, male 1 = brown = 24Vdc 2 = blue = 0V 3 = white = RESET/RESTART/ALIGN 4 = green = TEACH IN 5 = pink = OSSD2 6 = yellow = EDM 8 = grey = OSSD1 9 = red = TOLERANCE 10 = violet = LAMP 12 = red-blue = EARTH	M12, 8 poles, male 1 = white = RESTART/RESET/EDM/ OVERRIDE 2 = brown = +24Vdc 3 = green = MUTING1 4 = yellow = MUTING2 5 = grey = OSSD1 6 = pink = OSSD2 7 = blue = 0Vdc 8 = red = MUTING LAMP 
RECEIVER SECONDARY CONNECTOR	---	M12, 5 poles, male 1 = brown = 24Vdc 2 = white = MUTING2 3 = blue = 0V 4 = black = MUTING1		---
	---	 		---

[A] IMPORTANT NOTES

1) The light curtain SG4 EXTENDED and SG2 MUTING are sold without pigtail cables : they must be ordered separately for Transmitter and Receiver : see the cable order codes table for further informations.
SG4-N are sold with pigtail cables included.

ACCESSORIES

	SG2 MUTING [SG2-30-XXX-00-W]	SG4 EXTENDED [SG4-XX-XXX-00-P]	SG4-N [SG4-XX-XXX-00-N]
BRACKETS			
Standard angled brackets (included)	ST-KSTD		
Antivibration support (4 pcs/6 pcs) *	ST-K4AV ST-K6AV		
Plastic brackets (4 pcs/6 pcs) *	ST-KP4MP ST-KP6MP		
Orientable brackets (4 pcs/6 pcs) *	ST-K4OR ST-K6OR		
STANDS			
Protective Stands	SG-PSB series		
Stand Plate for SG-PSB	SG-P		
Protective Stands Mounting Brackets (4 pcs/6 pcs) *	ST-PS4-SG-SE ST-PS6-SG-SE		
Floor columns	SE-S Series		
MIRRORS			
Deviating Mirrors	SG-DM Series		
Deviating Mirrors mounting kit for SG-PSB	ST-PS-DM		
Mirror Mounting Bracket	ST-DM		
SAFETY UNITS			
Safety Unit	SE-SR2		
EDM Relay Box **	CS ME-03VU24-Y14		
Safety control unit for single beams and SLC	SG-BWS-T4-MT		
ALIGNMENT TOOL			
LASER Pointer	SG-LP		
COMMUNICATION TOOLS			
Ethernet Adaptor (Dongle)	---	SG4-DONGLE	---
Ethernet Cable	---	CAB-ETH-M01	---
CONFIGURATION SOFTWARE			
Monitoring and Programming Software ***	SG EXTENDED Graphic User Interface ***		
MUTING ACCESSORIES			
External muting lamps	LMS series		

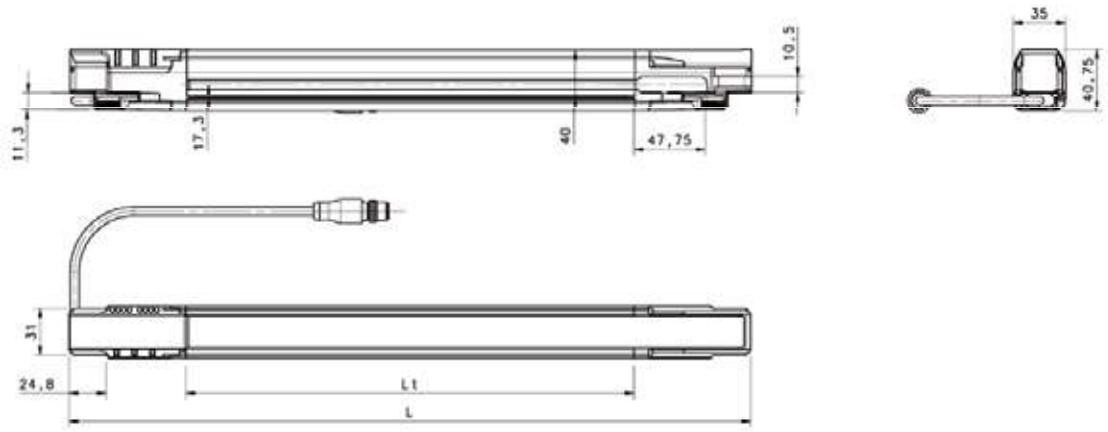
NOTES

* Use 6 brackets for light curtains with length ≥ 1200 mm

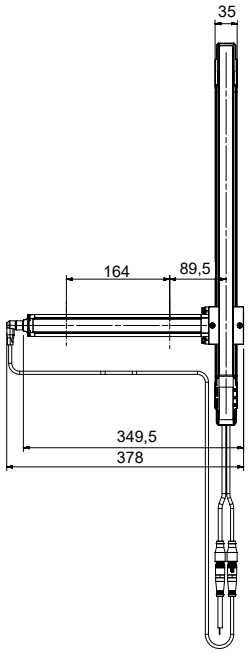
** When using EDM Relay Box, connect EDM input, and be sure EDM function is active on the safety light curtain

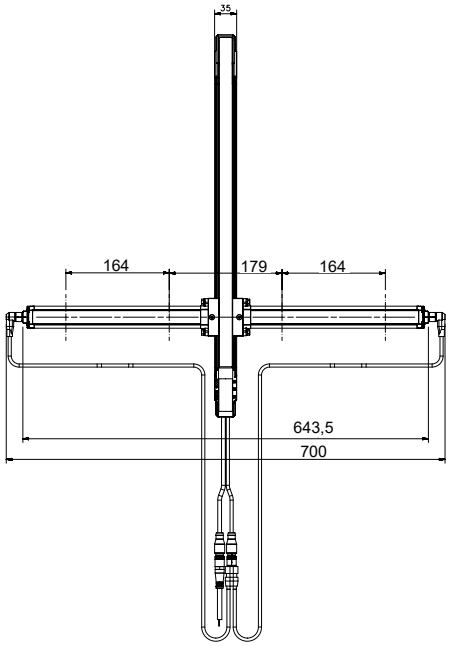
*** SG EXTENDED GUI is available from DATALOGIC website

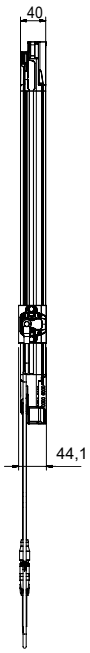
DIMENSIONS



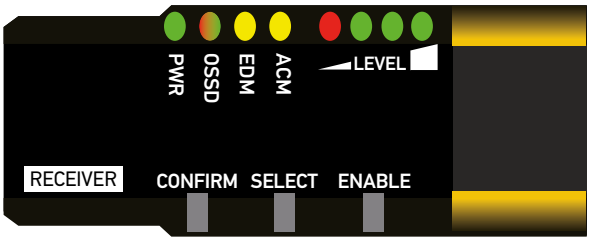
SG2 MUTING	SG4 EXTENDED	SG4-N	Lt (mm)	L (mm)
SG2-xx-030-00-W	SG4-xx-030-00-P	SG4-xx-030-00-N	150	306,3
SG2-xx-045-00-W	SG4-xx-045-00-P	SG4-xx-045-00-N	300	456,3
SG2-xx-060-00-W	SG4-xx-060-00-P	SG4-xx-060-00-N	450	606,3
SG2-xx-075-00-W	SG4-xx-075-00-P	SG4-xx-075-00-N	600	756,3
SG2-xx-090-00-W	SG4-xx-090-00-P	SG4-xx-090-00-N	750	906,3
SG2-xx-105-00-W	SG4-xx-105-00-P	SG4-xx-105-00-N	900	1056,3
SG2-xx-120-00-W	SG4-xx-120-00-P	SG4-xx-120-00-N	1050	1206,3
SG2-xx-135-00-W	SG4-xx-135-00-P	SG4-xx-135-00-N	1200	1356,3
SG2-xx-150-00-W	SG4-xx-150-00-P	SG4-xx-150-00-N	1350	1506,3
SG2-xx-165-00-W	SG4-xx-165-00-P	SG4-xx-165-00-N	1500	1656,3
SG2-xx-180-00-W	SG4-xx-180-00-P	SG4-xx-180-00-N	1650	1806,3

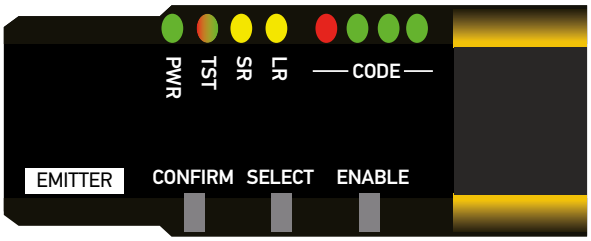






INDICATORS





AVAILABLE MODELS AND ORDER CODES

	SG2 MUTING [SG2-30-XXX-00-W]	ORDER NUMBER	SG4 EXTENDED [SG4-XX-XXX-00-P]	ORDER NUMBER	SG4-N [SG4-XX-XXX-00-N]	ORDER NUMBER
FINGER PROTECTION	---		SG4-14-030-00-P	957901240	SG4-14-030-00-N	957902350
	---		SG4-14-045-00-P	957901250	SG4-14-045-00-N	957902360
	---		SG4-14-060-00-P	957901260	SG4-14-060-00-N	957902370
	---		SG4-14-075-00-P	957901270	SG4-14-075-00-N	957902380
	---		SG4-14-090-00-P	957901280	SG4-14-090-00-N	957902390
	---		SG4-14-105-00-P	957901290	SG4-14-105-00-N	957902400
	---		SG4-14-120-00-P	957901300	SG4-14-120-00-N	957902410
	---		SG4-14-135-00-P	957901310	SG4-14-135-00-N	957902420
	---		SG4-14-150-00-P	957901320	SG4-14-150-00-N	957902430
	---		SG4-14-165-00-P	957901330	SG4-14-165-00-N	957902440
	---		SG4-14-180-00-P	957901340	SG4-14-180-00-N	957902450
HAND PROTECTION	SG2-30-030-00-W	957801700	SG4-30-030-00-P	957901350	SG4-30-030-00-N	957902460
	SG2-30-045-00-W	957801710	SG4-30-045-00-P	957901360	SG4-30-045-00-N	957902470
	SG2-30-060-00-W	957801720	SG4-30-060-00-P	957901370	SG4-30-060-00-N	957902480
	SG2-30-075-00-W	957801730	SG4-30-075-00-P	957901380	SG4-30-075-00-N	957902490
	SG2-30-090-00-W	957801740	SG4-30-090-00-P	957901390	SG4-30-090-00-N	957902500
	SG2-30-105-00-W	957801750	SG4-30-105-00-P	957901400	SG4-30-105-00-N	957902510
	SG2-30-120-00-W	957801760	SG4-30-120-00-P	957901410	SG4-30-120-00-N	957902520
	SG2-30-135-00-W	957801770	SG4-30-135-00-P	957901420	SG4-30-135-00-N	957902530
	SG2-30-150-00-W	957801780	SG4-30-150-00-P	957901430	SG4-30-150-00-N	957902540
	SG2-30-165-00-W	957801790	SG4-30-165-00-P	957901440	SG4-30-165-00-N	957902550
	SG2-30-180-00-W	957801800	SG4-30-180-00-P	957901450	SG4-30-180-00-N	957902560
NOTES						

* The light curtain SG4 EXTENDED and SG2 MUTING are sold without pigtail cables : they must be ordered separately for Transmitter and Receiver.
In case of SG4 EXTENDED, the choice of the Receiver pigtail determines in Muting configuration or Blanking configuration.
For cascade configurations, other cables are avilable to connect the cascaded units: refer to accessories table.

CABLE ORDER CODES

PIGTAIL CABLES/INTERFACE SELECTION TABLE				
		PIGTAIL CABLE/INTERFACE	LENGTH (m)	ORDER CODE
SG2 MUTING [SG2-30-XXX-00-W]	TRANSMITTER	CS-G1-50-B-002	0.2	95A252820
	RECEIVER	CS-R1-75-B-002	0.2	95A252810
SG4 EXTENDED [SG4-XX-XXX-00-P]	TRANSMITTER	CS-G1-50-B-002	0.2	95A252820
	RECEIVER	BLANKING CONFIGURATION		
		CS-G1-70-B-002	0.2	95A252830
		MUTING CONFIGURATION		
		CS-R1-75-B-002	0.2	95A252810
		DONGLE		
		SG4-DONGLE	---	95ASE2080

NOTES

1) The light curtain is sold without pigtail cables: they must be ordered separately for Transmitter and Receiver.

2) For SG4 EXTENDED, the pigtail cable used determines if the light curtain will work in Muting configuration or in Blanking configuration. If, in place of the pigtail cable, the Dongle is used for receiver, the light curtain can work in both configurations. When muting and blanking are not needed, Dongle or pigtail cable CS-G1-70-B-002 are suggested

3) If SG4 EXTENDED receiver is connected to the programming and monitoring interface (DONGLE), the pigtail cable for Receiver isn't needed.

4) In order to install SG4 EXTENDED or SG2 MUTING in place of SE series safety light curtains, without changing any wiring, it can be used the cable CS-G1-60-B-002 (order n. 95A252910) for receiver. All functions of SE will be available, except Override.

CS-G1-50-B-002

CS-G1-70-B-002

CS-R1-75-B-002

CABLES SELECTION TABLE			
	TRANSMITTER/RECEIVER SECONDARY CONNECTOR	LENGTH (m)	ORDER CODE
	CS-A1-03-U-03	3	95ASE1170
	CS-A1-03-U-05	5	95ASE1180
	CS-A1-03-U-10	10	95ASE1190
	CS-A1-03-U-15	15	95ASE1200
	CS-A1-03-U-25	25	95ASE1210
	CS-A1-03-U-50	50	95A252700
	RECEIVER MAIN CONNECTOR	LENGTH (m)	ORDER CODE
SG2 MUTING [SG2-30-XXX-00-W] SG4 EXTENDED [SG4-XX-XXX-00-P]	CS-A1-10-U-03	3	95A252720
	CS-A1-10-U-05	5	95A252730
	CS-A1-10-U-10	10	95A252740
	CS-A1-10-U-15	15	95A252750
	CS-A1-10-U-25	25	95A252760
	CS-A1-10-U-50	50	95A252770
SG4-N [SG4-XX-XXX-00-N]	CS-A1-06-U-03	3	95ASE1220
	CS-A1-06-U-05	5	95ASE1230
	CS-A1-06-U-10	10	95ASE1240
	CS-A1-06-U-15	15	95ASE1250
	CS-A1-06-U-25	25	95ASE1260
	CS-A1-06-U-50	50	95A252710

CASCADE CABLES		
MODEL	LENGTH (m)	ORDER CODE
CS-F1-80-B-01	1	95A252840
CS-F1-80-B-005	0.5	95A252850
CS-F1-80-B-0005	0.05	95A252860

ETHERNET CABLES		
MODEL	LENGTH (m)	ORDER CODE
CAB-ETH-M01 M12-IP67	1	93A051346
CAB-ETH-M03 M12-IP67	3	93A051347
CAB-ETH-M05 M12-IP67	5	93A051348

Rev. 07, 05/2020

The company endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use, the company can guarantee only the data indicated in the instruction manual supplied with the products.

COLTERLEC™

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