

# SG2 BASE / SG2 EXTENDED SG4 BASE



*High reliability*  
*Easy installation and alignment*  
*Cost effective*

- Finger, hand, arm detection with basic functions
- 90 mm version for presence detection
- Up to 19 m operating distance
- Compact dimensions (32.3 x 36.9 mm section)
- Anti-interference coding
- IP65 Protection; IP69K with optional tube
- Unshielded cables
- Rotating and anti-vibration brackets



SAFETY

## APPLICATIONS

- Automatic machines: cutting, packaging, material handling and storing.
- Automatic and semi-automatic assembling lines;
- Milling, lathe and shearing machines
- Bending and metal-working machines



## INDUSTRIES

*Food & Beverage, Textile, Wood, Ceramic, Metal, Automotive, Electronics.*

	FINGER	HAND	ARM	BODY
TYPE 2		▪	▪	
TYPE 4	▪	▪		

# SG2-30-015-00-E

TYPE	
2	Type 2
4	Type 4

RESOLUTION	
14	Finger: 14 mm
30	Hand: 30 mm
50	Arm: 50 mm (only Type 2)
90	Arm: 90 mm (only Type 2)

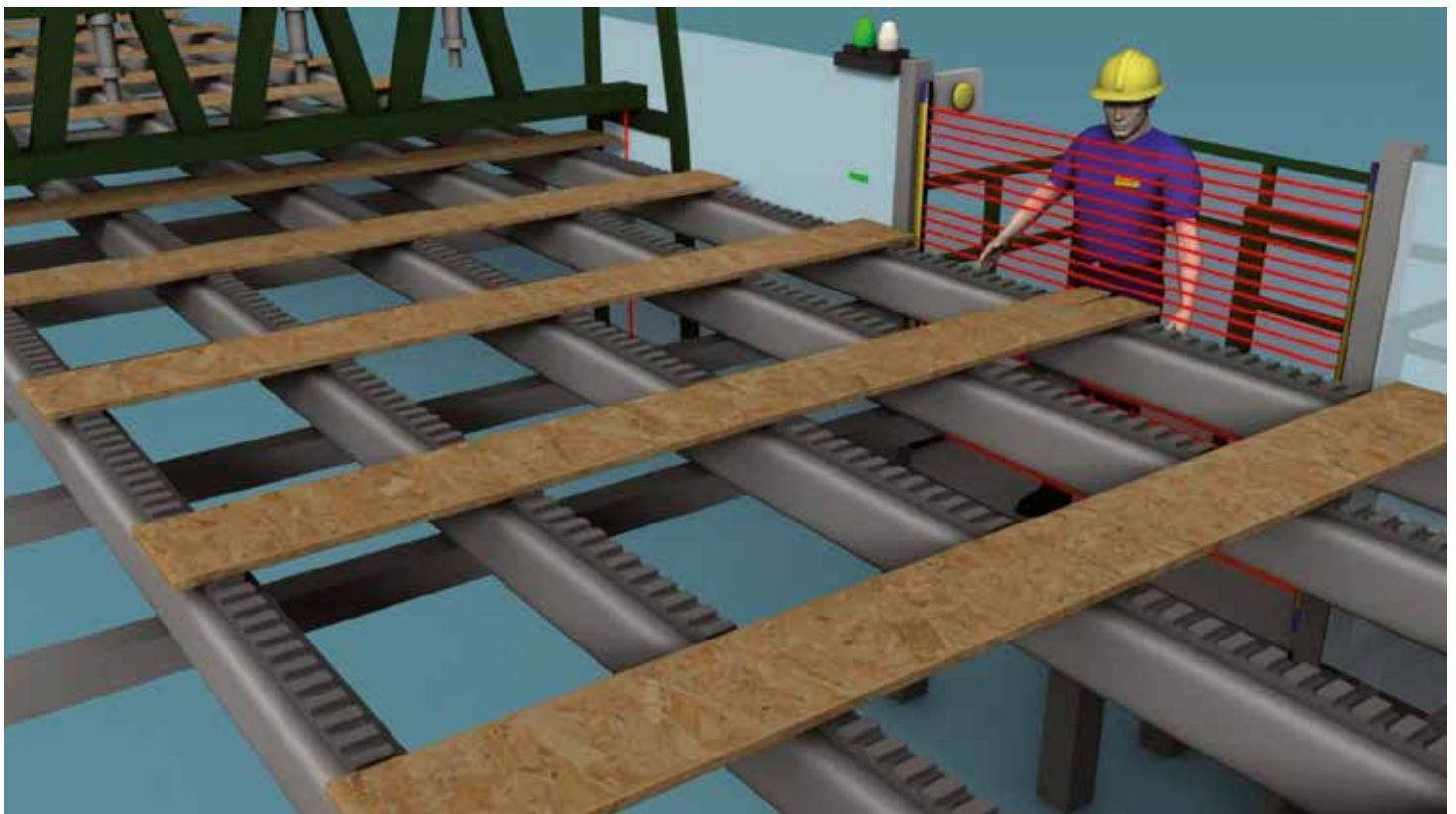
MONITORED HEIGHT	
15	150 mm
30	300 mm
...	...
180	1800mm

VERSION	
E	Type4, EDM, Coded
E-C	Type2, EDM, Coded
X	Basic Function

## TECHNICAL DATA

	SG2 BASE [SG2-xx-xxx-00-X]	SG2 EXTENDED [SG2-xx-xxx-00-E-C]	SG4 BASE [SG4-xx-xxx-00-X]	SG4 BASE [SG4-xx-xxx-00-E]
<b>GENERAL DATA</b>				
Type (EN61496-1)	2		4	
PL (EN ISO 13849-1)	c		e	
SIL (IEC 61508)	1		3	
Resolution	30 - 50 - 90 mm		14 - 30 mm	
Protected height	150 ...1800 mm (with 150 mm steps)			
Operating distance	0.2 ...19 m		0.2 ... 6 m (resolution 14 mm) 0.2 ...19 m (resolution 30 mm)	
<b>ELECTRICAL DATA</b>				
Power supply (Vdd)	24 Vdc ± 20			
Outputs	2 PNP			
Output current	0.5 A max / each output			
Capacitive load	2.2 uF @ 24Vdc max			
Response time*	8 ... 24 ms		9 ... 50 ms	
Cables length (for power supply)	50 m max			
<b>MECHANICAL AND ENVIRONMENTAL DATA</b>				
Operating temperature	-10 ...+55 °C		0 ...+55 °C	
Humidity	15 ... 95 % (no condensation)			
Mechanical protection	IP 65 (EN 60529)			
<b>FUNCTIONS</b>				
Test Input	On Receiver	On Emitter	N/A	On Emitter
Restart	Automatic	Manual / Automatic	Automatic	Manual / Automatic
EDM (External Device Monitoring)	N/A	On Receiver	N/A	On Receiver
Selectable Operating Distance	N/A	On Emitter	N/A	

\* Response time is depending on height, for detailed informations refer to the Manual of the light curtain.



## CONNECTION

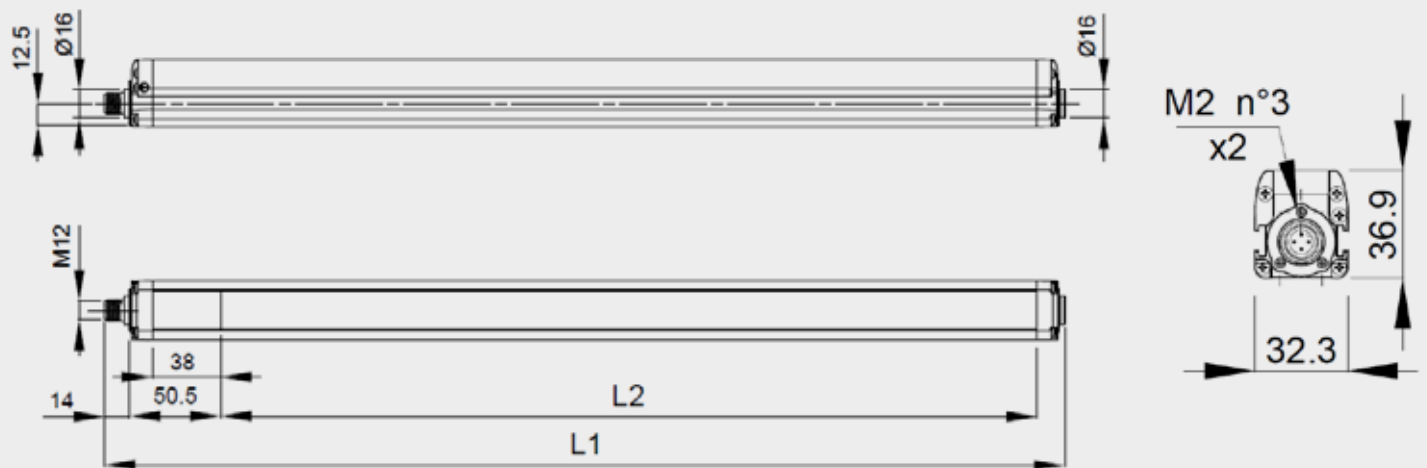
	SG2 BASE [ SG2-XX-XXX-00-X ]	SG4 BASE [ SG4-XX-XXX-00-X ]
EMITTER		
RECEIVER		
	SG2 EXTENDED [ SG2-XX-XXX-00-E-C ]	SG4 BASE [ SG4-XX-XXX-00-E ]
EMITTER		
RECEIVER		

### NOTES

To set manual restart, connect Pin 8 (MAN/AUTO) with Pin 6 (OSSD2)

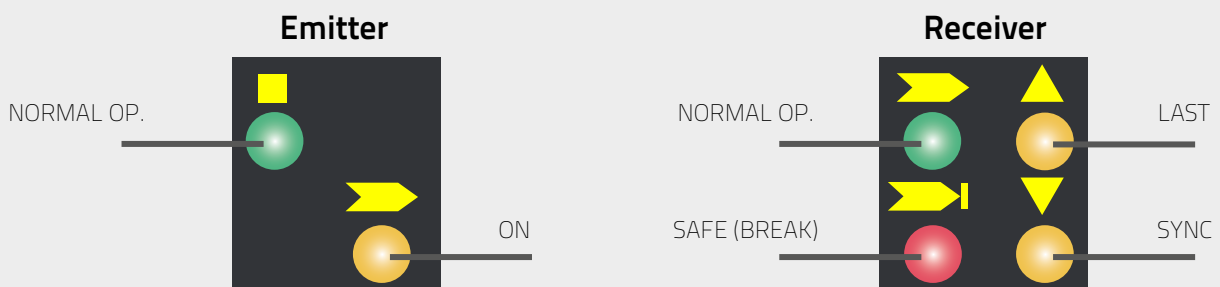
To deactivate EDM function, connect Rx Pin 3 to 24Vdc on Receiver

## DIMENSIONS



MODEL	L1 (MM)	L2 (MM)
SGx-yy-150-00-xxx	233.3	153.3
SGx-yy-030-00-xxx	383.2	303.2
SGx-yy-045-00-xxx	533.2	453.3
SGx-yy-060-00-xxx	683.2	603.2
SGx-yy-075-00-xxx	833.2	753.3
SGx-yy-090-00-xxx	983.2	903.2
SGx-yy-105-00-xxx	1133.2	1053.2
SGx-yy-120-00-xxx	1283.3	1203.3
SGx-yy-135-00-xxx	1433.2	1353.2
SGx-yy-150-00-xxx	1583.3	1503.3
SGx-yy-165-00-xxx	1733.3	1653.3
SGx-yy-180-00-xxx	1883.3	1803.3

## INDICATORS



## MODEL SELECTION AND ORDER INFORMATION

	SG2 BASE [ SG2-XX-XXX-00-X ]	ORDER CODE	SG2 EXTENDED [ SG2-XX-XXX-00-E-C ]	ORDER CODE	SG4-XX-XXX-00-X	ORDER CODE	SG4 BASE [ SG4-XX-XXX-00-E ]	ORDER CODE
FINGER PROTECTION	---	---	---	---	SG4-14-015-00-X	957901460	SG4-14-015-00-E	957901000
	---	---	---	---	SG4-14-030-00-X	957901470	SG4-14-030-00-E	957901010
	---	---	---	---	SG4-14-045-00-X	957901480	SG4-14-045-00-E	957901020
	---	---	---	---	SG4-14-060-00-X	957901490	SG4-14-060-00-E	957901030
	---	---	---	---	SG4-14-075-00-X	957901500	SG4-14-075-00-E	957901040
	---	---	---	---	SG4-14-090-00-X	957901510	SG4-14-090-00-E	957901050
	---	---	---	---	SG4-14-105-00-X	957901520	SG4-14-105-00-E	957901060
	---	---	---	---	SG4-14-120-00-X	957901530	SG4-14-120-00-E	957901070
	---	---	---	---	SG4-14-135-00-X	957901540	SG4-14-135-00-E	957901080
	---	---	---	---	SG4-14-150-00-X	957901550	SG4-14-150-00-E	957901090
	---	---	---	---	SG4-14-165-00-X	957901560	SG4-14-165-00-E	957901100
---	---	---	---	SG4-14-180-00-X	957901570	SG4-14-180-00-E	957901110	
HAND PROTECTION	SG2-30-015-00-X	957801000	SG2-30-015-00-E-C	957801340	SG4-30-015-00-X	957901690	SG4-30-015-00-E	957901120
	SG2-30-030-00-X	957801010	SG2-30-030-00-E-C	957801350	SG4-30-030-00-X	957901580	SG4-30-030-00-E	957901130
	SG2-30-045-00-X	957801020	SG2-30-045-00-E-C	957801360	SG4-30-045-00-X	957901590	SG4-30-045-00-E	957901140
	SG2-30-060-00-X	957801030	SG2-30-060-00-E-C	957801370	SG4-30-060-00-X	957901600	SG4-30-060-00-E	957901150
	SG2-30-075-00-X	957801040	SG2-30-075-00-E-C	957801380	SG4-30-075-00-X	957901610	SG4-30-075-00-E	957901160
	SG2-30-090-00-X	957801050	SG2-30-090-00-E-C	957801390	SG4-30-090-00-X	957901620	SG4-30-090-00-E	957901170
	SG2-30-105-00-X	957801060	SG2-30-105-00-E-C	957801400	SG4-30-105-00-X	957901630	SG4-30-105-00-E	957901180
	SG2-30-120-00-X	957801070	SG2-30-120-00-E-C	957801410	SG4-30-120-00-X	957901640	SG4-30-120-00-E	957901190
	SG2-30-135-00-X	957801080	SG2-30-135-00-E-C	957801420	SG4-30-135-00-X	957901650	SG4-30-135-00-E	957901200
	SG2-30-150-00-X	957801090	SG2-30-150-00-E-C	957801430	SG4-30-150-00-X	957901660	SG4-30-150-00-E	957901210
	SG2-30-165-00-X	957801100	SG2-30-165-00-E-C	957801440	SG4-30-165-00-X	957901670	SG4-30-165-00-E	957901220
SG2-30-180-00-X	957801110	SG2-30-180-00-E-C	957801450	SG4-30-180-00-X	957901680	SG4-30-180-00-E	957901230	
PRESENCE / ARM DETECTION	SG2-50-030-00-X	957801120	SG2-50-030-00-E-C	957801460	---	---	---	---
	SG2-50-045-00-X	957801130	SG2-50-045-00-E-C	957801470	---	---	---	---
	SG2-50-060-00-X	957801140	SG2-50-060-00-E-C	957801480	---	---	---	---
	SG2-50-075-00-X	957801150	SG2-50-075-00-E-C	957801490	---	---	---	---
	SG2-50-090-00-X	957801160	SG2-50-090-00-E-C	957801500	---	---	---	---
	SG2-50-105-00-X	957801170	SG2-50-105-00-E-C	957801510	---	---	---	---
	SG2-50-120-00-X	957801180	SG2-50-120-00-E-C	957801520	---	---	---	---
	SG2-50-135-00-X	957801190	SG2-50-135-00-E-C	957801530	---	---	---	---
	SG2-50-150-00-X	957801200	SG2-50-150-00-E-C	957801540	---	---	---	---
	SG2-50-165-00-X	957801210	SG2-50-165-00-E-C	957801550	---	---	---	---
	SG2-50-180-00-X	957801220	SG2-50-180-00-E-C	957801560	---	---	---	---
	SG2-90-030-00-X	957801230	SG2-90-030-00-E-C	957801570	---	---	---	---
	SG2-90-045-00-X	957801240	SG2-90-045-00-E-C	957801580	---	---	---	---
	SG2-90-060-00-X	957801250	SG2-90-060-00-E-C	957801590	---	---	---	---
	SG2-90-075-00-X	957801260	SG2-90-075-00-E-C	957801600	---	---	---	---
	SG2-90-090-00-X	957801270	SG2-90-090-00-E-C	957801610	---	---	---	---
	SG2-90-105-00-X	957801280	SG2-90-105-00-E-C	957801620	---	---	---	---
	SG2-90-120-00-X	957801290	SG2-90-120-00-E-C	957801630	---	---	---	---
	SG2-90-135-00-X	957801300	SG2-90-135-00-E-C	957801640	---	---	---	---
	SG2-90-150-00-X	957801310	SG2-90-150-00-E-C	957801650	---	---	---	---
SG2-90-165-00-X	957801320	SG2-90-165-00-E-C	957801660	---	---	---	---	
SG2-90-180-00-X	957801330	SG2-90-180-00-E-C	957801670	---	---	---	---	

## CABLES

	POLES	TRANSMITTER CABLE	LENGTH (M)	ORDER CODE
SG2 BASE [SG2-xx-xxx-00-X]	4	CS-A1-02-U-03	3	95ASE1120
		CS-A1-02-U-05	5	95ASE1130
		CS-A1-02-U-10	10	95ASE1140
		CS-A1-02-U-15	15	95ASE1150
SG2 EXTENDED [SG2-xx-xxx-00-E-C]	4			
SG4 BASE [SG4-xx-xxx-00-X] [SG4-xx-xxx-00-E]		CS-A1-02-U-25	25	95ASE1160
		RECEIVER CABLE	LENGTH (M)	ORDER CODE
SG4 BASE [SG4-xx-xxx-00-X]	4	CS-A1-02-U-03	3	95ASE1120
		CS-A1-02-U-05	5	95ASE1130
		CS-A1-02-U-10	10	95ASE1140
		CS-A1-02-U-15	15	95ASE1150
SG2 BASE [SG2-xx-xxx-00-X]	5	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
SG2 EXTENDED [SG2-xx-xxx-00-E-C] SG4 BASE [SG4-xx-xxx-00-E]	8	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

**NOTE**  
All cables have axial connectors

## ACCESSORIES

	SG2 BASE [ SG2-xx-xxx-00-X ]	SG2 EXTENDED [ SG2-xx-xxx-00-E-C ]	SG4 BASE [ SG4-xx-xxx-00-X ]	SG4 BASE [ SG4-xx-xxx-00-E ]
<b>BRACKETS</b>				
Standard angled brackets		ST-KSTD (outfit for SG2 Base and SG4 Base)		
Rotating brackets		ST-K4ROT (outfit for SG2 Extended)		
Antivibration support (4 pcs / 6 pcs)*			ST-K4AV ST-K6AV	
Plastic brackets (4 pcs / 6 pcs)*			ST-KP4MP ST-KP6MP	
<b>PROTECTION TUBES AND STANDS</b>				
IP67/IP69K Tubes			SG-IP69K series	
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	
<b>MIRRORS</b>				
Deviating Mirrors			SG-DM Series	
Deviating Mirrors mounting kit for SG-PSB			ST-PS-DM	
Mirror Mounting Bracket			ST-DM	
<b>SAFETY UNITS</b>				
Safety Unit			SE-SR2	
EDM Relay Box**	-----	CS ME-03VU24-Y14	-----	CS ME-03VU24-Y14
Safety control unit for single beams and SLC			SG-BWS-T4-MT	
<b>ALIGNMENT TOOL</b>				
LASER Pointer			SG-LP	

### NOTES

\* Use 6 brackets for light curtains with length  $\geq$  1200 mm

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

For accessories part number, please refer to **Safety Reference Guide**