

# Datalogic Safety Light Curtains

Specification	SG4-14 Base Series	SG4-30 Base Series	SG4-14 Advanced Series	SG4-30 Advanced Series
<b>Description</b>	<i>Finger Protection, 14mm resolution</i>	<i>Hand Protection, 30mm resolution</i>	<i>Finger Protection, 14mm resolution</i>	<i>Hand Protection, 30mm resolution</i>
<b>Protected Height</b>	150 to 900mm (5.91 to 35.43 in)	300 to 1800mm (11.81 to 70.81 in)	300 to 750mm (11.81 to 29.52 in) (No Dead Zone)	300 to 1800mm (11.81 to 70.87 in) (No Dead Zone)
<b>Safety Level</b>	Cat.4, PLe (EN/ISO 13849-1) Type 4 (IEC 61496-1/2)	Cat.4, PLe (EN/ISO 13849-1) Type 4 (IEC 61496-1/2)	Cat.4, PLe (EN/ISO 13849-1) Type 4 (IEC 61496-1/2)	Cat.4, PLe (EN/ISO 13849-1) Type 4 (IEC 61496-1/2)
<b>Operating Range</b>	0.2 to 6m (0.66 to 19.68 ft)	0.2 to 19m (0.66 to 63.34 ft)	0.2 to 4m (0.66 to 13.12 ft) 0.2 to 7m (0.66 to 22.97 ft) (Selectable)	0.2 to 12m (0.66 to 39.32 ft) 0.2 to 20m (0.66 to 65.62 ft) (Selectable)
<b>Output State</b>	N.C.	N.C.	N.C.	N.C.
<b>Logic Output</b>	Dual PNP outputs, short-circuit protected	Dual PNP outputs, short-circuit protected	Dual PNP / NPN configurable outputs short-circuit protected	Dual PNP / NPN configurable outputs short-circuit protected
<b>Connection Type</b>	Sender: 4-pole, M12 connector Receiver: 8-pole, M12 connector	Sender: 4-pole, M12 connector Receiver: 8-pole, M12 connector	Sender: M12 5-pole connector Receiver: M12 12 poles + M12 5 poles for muting applications M12 12 poles for blanking applications	Sender: M12 5-pole connector Receiver: M12 12 poles + M12 5 poles for muting applications M12 12 poles for blanking applications
<b>Supply Voltage</b>	24VDC $\pm$ 20%	24VDC $\pm$ 20%	24VDC $\pm$ 20%	24VDC $\pm$ 20%
<b>Rating</b>	IEC IP65	IEC IP65	IEC IP65	IEC IP65



# Datalogic Safety Light Curtains

## Base Series, Hand-safe



### Safety light curtain with 30mm resolution

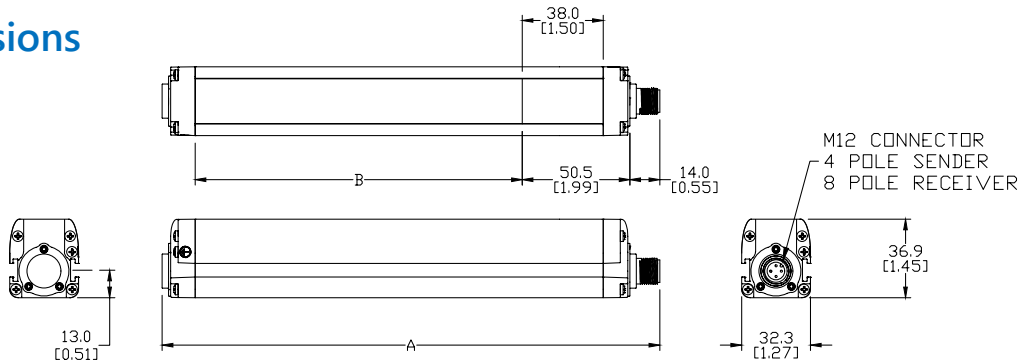
- Includes both sender and receiver
- Integrated light curtain for hand protection
- Operating distance up to 19m
- Protected heights ranging from 300 to 1800 mm (11.81 to 70.87 in)
- Selectable EDM (external device monitoring)
- Selectable manual / automatic restart
- IP65 rated
- Type 4, PLe, SIL3
- UL, CE, TUV and RoHS compliant

### SG4-30 Base Series with EDM Selection Table

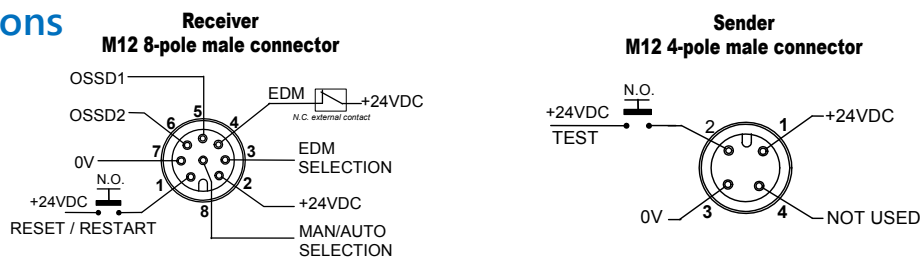
Part Number	Price	Protected Height B mm[in]	Total Height A mm[in]	Number of Beams	Response Time [ms]	Approximate Product Weight per Unit - kg [lb]
<a href="#"><u>SG4-30-030-OO-E</u></a>	\$718.00	300 [11.81]	383.2 [15.09]	16	11	2.10 [4.63]
<a href="#"><u>SG4-30-045-OO-E</u></a>	\$857.00	450 [17.72]	533.2 [20.99]	24	13	2.60 [5.73]
<a href="#"><u>SG4-30-060-OO-E</u></a>	\$993.00	600 [23.62]	683.2 [26.90]	32	14	3.00 [6.61]
<a href="#"><u>SG4-30-075-OO-E</u></a>	\$1,104.00	750 [29.53]	833.2 [32.80]	40	16	4.00 [8.82]
<a href="#"><u>SG4-30-090-OO-E</u></a>	\$1,218.00	900 [35.43]	983.2 [38.71]	48	18	4.30 [9.48]
<a href="#"><u>SG4-30-105-OO-E</u></a>	\$1,360.00	1050 [41.34]	1133.2 [44.61]	56	19	5.00 [11.02]
<a href="#"><u>SG4-30-120-OO-E</u></a>	\$1,452.00	1200 [47.24]	1283.3 [50.52]	64	21	5.40 [11.91]
<a href="#"><u>SG4-30-135-OO-E</u></a>	\$1,599.00	1350 [53.15]	1433.2 [56.43]	72	23	6.20 [13.67]
<a href="#"><u>SG4-30-150-OO-E</u></a>	\$1,736.00	1500 [59.05]	1583.3 [62.33]	80	25	7.00 [15.43]
<a href="#"><u>SG4-30-165-OO-E</u></a>	\$1,892.00	1650 [64.96]	1733.3 [68.24]	88	26	7.50 [16.54]
<a href="#"><u>SG4-30-180-OO-E</u></a>	\$2,055.00	1800 [70.87]	1883.3 [74.15]	96	28	8.00 [17.64]

### Dimensions

mm [in]



### Connections



Assignment	Function	Pins on Sender
		<b>M12</b>
<b>Reset / Restart</b>	Automatic / Manual reset / Restart	1
<b>Supply Voltage</b>	+24VDC	2
<b>EDM</b>	EDM Activation	3
<b>EDM</b>	EDM	4
<b>Output</b>	OSSD1 (Output Single Switching Device)	5
<b>Output</b>	OSSD2 (Output Single Switching Device)	6
<b>0V</b>	0V	7
<b>Reset Selection</b>	Select Automatic / Manual reset	8

Assignment	Function	Pins on Sender
		<b>M12</b>
<b>Supply Voltage</b>	+24VDC	1
<b>Test</b>	Test	2
<b>0V</b>	0V	3
<b>N/A</b>	Not Used	4

Note: Confirm the specific color to each pinout based on the cable used during installation.

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## Base Series

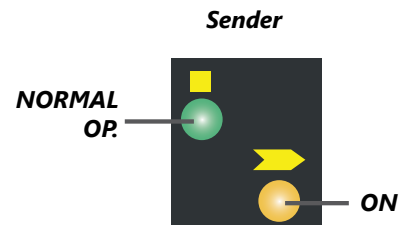
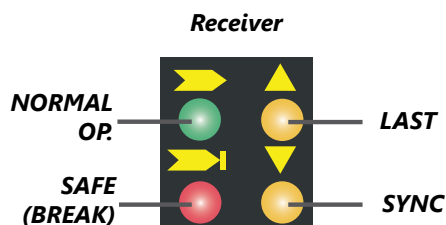


### SG4-14 and SG4-30 Base Series with EDM Specifications

Model	SG4-14 Base Series (finger protection)	SG4-30 Base Series (hand protection)
Electrical Data		
Supply Voltage	24VDC ± 20%	
Current Consumption (Sender)	2.5 W maximum	
Current Consumption (Receiver)	3.5 W maximum (without load)	
OSSD Outputs	2 PNP	
Short Circuit Protection	1.4 A maximum	
Output Current	0.5 amps maximum on each output	
Output Voltage – ON status:	Vdd-1V minimum	
Output Voltage – OFF status:	0.2 V maximum	
Leakage Current	< 1mA	
Compacitive Load	2.2 uF @ 24VDC (if a longer cable must be used, verify that the capacitive load specifications are respected)	
Protected Height	150 - 900 mm (5.91 - 35.43 in)	300 - 1800 mm (11.81 - 70.87 in)
Safety Category	Type 4, IEC 61496-1	
Auxiliary Functions	Reset / Test	
	Selectable Manual / Automatic Reset	
	Selectable EDM	
Electrical Protection	Class I / Class III	
Electrical Connections	M12 4-pole for sender	
	M12 8-pole for receiver	
Cable Length (for supply power)	50m (164ft) maximum (if a longer cable must be used, verify that the capacitive load specifications are respected)	
Optical Data		
Light Emission	Infared LED (950nm)	
Resolution	14mm	30mm
Operating Distance	0.2 - 6 m	0.2 - 19 m
Aperature Angle (EAA)	±2.5° maximum	
Ambient Light Rejection	IEC 61496-2	
Mechanical and Environmental Data		
Operating Temperature	0 to 55°C (32 to 131°F)	
Storage Temperature	-25 to 70°C (-13 to 158°F)	
Temperature Class	T6	
Humidity	15 - 95% (non-condensing)	
Mechanical Protection	IP65 (EN 60529)	
Vibrations	Width 0.35 mm	
	Frequency 10 - 55 Hz 20 sweep per axis	
	1 octave / min (EN 60068-2-6)	
Housing Material	Painted aluminum (yellow RAL 1003) front screen	
Protective Shield Material	PMMA (Polymethylmethacrylate [acrylic])	
Cap Material	PC MAKROLON	
Weight	1.3 Kg / m	
Agency Approvals	UL E226479, CE, TUV, RoHS	

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at [www.AutomationDirect.com](http://www.AutomationDirect.com)

## Status Indicators



# Datalogic Safety Light Curtains

## Accessories

### Mounting Brackets

**Datalogic Safety Light Curtains Mounting Brackets Selection Guide**

Part Number	Price	Mounting Bracket Type	For Use With	Qty Per Package	Drawing
<a href="#"><u>ST-K4ROT</u></a>	\$22.00	Rotational	SG4 Base Series (-E) light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-K4ROT-SH</u></a>	\$73.00	Rotational	All SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-KSTD</u></a>	\$11.00	Standard	All SG4 and SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-K4OR</u></a>	\$52.00	Lateral orientable	All SG4 and SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-K4AV</u></a>	\$22.00	Anti-vibration	All SG4 and SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>



[ST-K4ROT](#)



[ST-K4ROT-SH](#)



[ST-KSTD](#)



[ST-K4OR](#)



[ST-K4AV](#)

# Datalogic Safety Light Curtains

## Accessories



### Test Pieces

TP-14 and TP-30 test pieces are used to verify if the resolution of safety light curtains is maintained inside the entire detection field. TP-14 has a diameter of 14mm [0.55 in] and TP-30 has a diameter of 30mm [1.18 in]. Both models have an overall length of 300mm [11.81 in].

Safety Light Curtains Test Pieces		
Part Number	Price	Description
<u>TP-14</u>	\$26.00	Test rod for 14mm resolution finger detection light curtains, plastic, 14mm diameter
<u>TP-30</u>	\$28.00	Test rod for 30mm resolution hand detection light curtains, plastic, 30mm diameter



TP-14



TP-30

# Safety Products



*Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.*

*AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.*