

Datasensing Safety Light Curtains Basic Models, Finger Protection



Safety light curtain with 14mm resolution

Features

- Includes both sender and receiver
- Integrated light curtain for finger protection
- No dead zone
- Operating distance up to 10m [32.8 ft]
- Protected heights ranging from 300 to 1200 mm [11.8 to 47.2 in]
- Compact 35 x 40 mm [1.4 x 1.6 in] profile
- Automatic restart
- IP65/IP67 rated
- Type 4, PLe, SIL3
- UL, CE, and TUV Certification

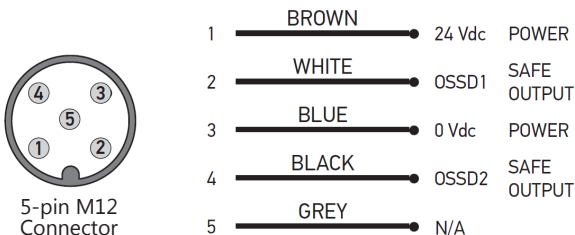


Datasensing Safety Light Curtains SH4 Basic Models Selection Chart

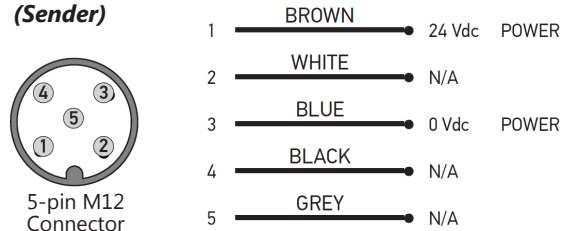
Part Number	Price	Protected Height	Overall Height	Number of Beams	Response Time (ms)	Drawing
<u>SH4-14-0300-B-5</u>	\$667.00	300 mm [11.8 in]	309 mm [12.2 in]	30	9	<u>PDF</u>
<u>SH4-14-0450-B-5</u>	\$836.00	450 mm [17.7 in]	459 mm [18.1 in]	45	10	<u>PDF</u>
<u>SH4-14-0600-B-5</u>	\$1,048.00	600 mm [23.6 in]	609 mm [24 in]	60	12	<u>PDF</u>
<u>SH4-14-0750-B-5</u>	\$1,226.00	750 mm [29.5 in]	759 mm [29.9 in]	75	13	<u>PDF</u>
<u>SH4-14-0900-B-5</u>	\$1,430.00	900 mm [35.4 in]	909 mm [35.8 in]	90	15	<u>PDF</u>
<u>SH4-14-1050-B-5</u>	\$1,610.00	1050 mm [41.3 in]	1059 mm [41.7 in]	105	16	<u>PDF</u>
<u>SH4-14-1200-B-5</u>	\$1,792.00	1200 mm [47.2 in]	1209 mm [47.6 in]	120	18	<u>PDF</u>

Connections

Receiver



Transmitter (Sender)



Pin	Description	Cable Color
1	+24VDC	Brown
2	OSSD 1 (Output Signal Switching Device)	White
3	0VDC	Blue
4	OSSD 1 (Output Signal Switching Device)	Black
5	Communications (not used with these models)	Grey

Pin	Description	Cable Color
1	+24VDC	Brown
2	Not used	White
3	0VDC	Blue
4	Not used	Black
5	Not used	Grey

Note: Cable color represents standard industrial pinout. Confirm the specific color and pinout during installation.

Datasensing Safety Light Curtains Basic Models



SH4-14 and SH4-30 Basic Models		
Model	SH4-14 Basic Models (Finger Protection)	SH4-30 Basic Models (Hand Protection)
Electrical Data		
Supply Voltage	24VDC ± 20%	
Current Consumption (Sender)	3.5 W maximum	
Current Consumption (Receiver)	5.5 W maximum (without load)	
OSSD Outputs	2, with short-circuit protection	
Short Circuit Protection	Self-resetting	
Output Current	0.25 amps max on each output 0.5 A max total outputs	
Output Voltage – ON status:	1V minimum	
Output Voltage – OFF status:	0.2 V maximum	
Leakage Current	< 1mA	
Capacitive Load	1 uF @ 24VDC	
Safety Category	Type 4 (IEC 61496-1) / PL _e (EN ISO13849-1) / SIL 3 (IEC 61508)	
Auxiliary Functions	Automatic restart	
Electrical Protection	Class III	
Electrical Connections	M12 5-pole for transmitter	
	M12 5-pole for receiver	
Cable Length (for supply power)	30m [98ft] maximum	
Optical Data		
Light Emission	Infrared LED (850nm wavelength)	
Resolution	Finger 14mm [0.55 in]	Hand 30mm [1.18 in]
Operating Distance	0.2 - 10 m [0.7 - 32.8 ft]	0.2 - 20 m [0.7 - 65.6 ft]
Aperture Angle (EAA)	< ± 2.5° maximum @ 3m [3.8 ft]	
Mechanical and Environmental Data		
Operating Temperature	-30 to 55°C [-22 to 131°F]	
Storage Temperature	-30 to 70°C [-22 to 158°F]	
Temperature Class	T6	
Humidity	15 - 95% (non-condensing)	
Mechanical Protection	IP65/IP67 (EN 60529)	
Vibration Resistance	10mm/3g with a frequency of 5 to 150 Hz	
Housing Material	Painted aluminum (yellow RAL 1003)	
Window Material	MAKROLON AR 7099 clear PC	
Cap Material	PBT (polybutylene terephthalate)	
Weight	1.4 Kg/m [0.94 lb/ft] (single bar weight)	
Agency Approvals	UL, CE, TUV	

Datasensing Safety Light Curtains Accessories



SH-LP



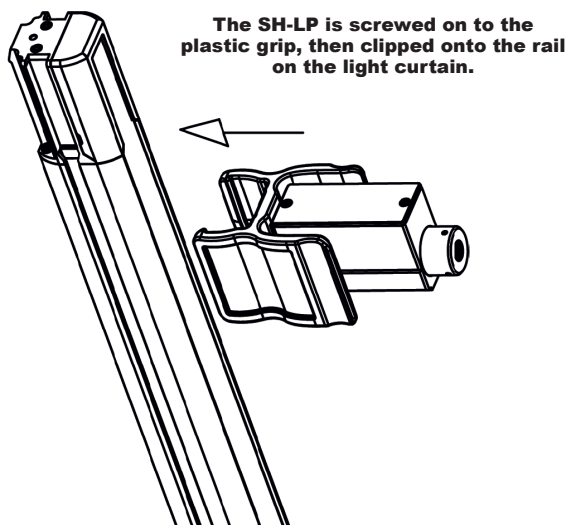
SH-PLUG-5



SH-PLUG-8

Datasensing Safety Light Curtains Accessories			
Part Number	Price	Description	Use With
<u>SH-LP</u>	\$264.00	Laser alignment tool for class 2 laser, range up to 50 meters, 1 AAA battery included	SH4 series light curtain models
<u>SH-PLUG-5</u>	\$53.00	Replacement cable, 5-pin M12 quick disconnect	SH4 Basic Models transmitter SH4 Basic Models receiver SH4 Standard Models transmitter
<u>SH-PLUG-8</u>	\$85.00	Replacement cable, 8-pin M12 quick disconnect	SH4 Standard Models receiver

Installing the SH-LP



Datalogic Safety Light Curtains

Accessories

Mounting Brackets

Datalogic Safety Light Curtains Mounting Brackets Selection Guide

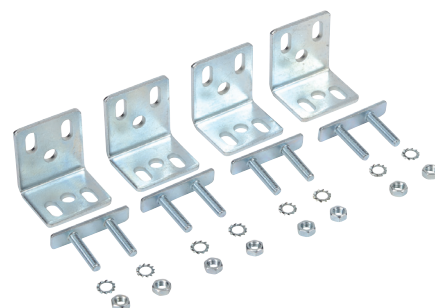
Part Number	Price	Mounting Bracket Type	For Use With	Qty Per Package	Drawing
<u>ST-K4ROT</u>	\$20.00	Rotational	SG4 Base Series (-E) light curtains	4	<u>PDF</u>
<u>ST-K4ROT-SH</u>	\$66.00	Rotational	All SH4 Series light curtains	4	<u>PDF</u>
<u>ST-KSTD</u>	\$10.00	Standard	All SG4 and SH4 Series light curtains	4	<u>PDF</u>
<u>ST-K4OR</u>	\$47.00	Lateral orientable	All SG4 and SH4 Series light curtains	4	<u>PDF</u>
<u>ST-K4AV</u>	\$20.00	Anti-vibration	All SG4 and SH4 Series light curtains	4	<u>PDF</u>



[ST-K4ROT](#)



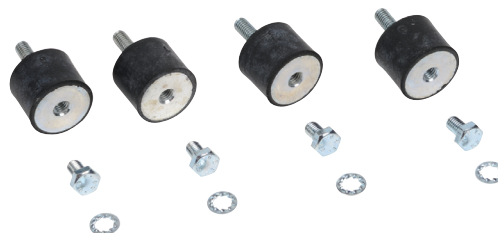
[ST-K4ROT-SH](#)



[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>	\$23.50	Test rod for 14mm resolution finger detection light curtains, plastic, 14mm diameter
<u>TP-30</u>	\$25.50	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.