

# Datasensing Safety Light Curtains Accessories



**SH-LP**



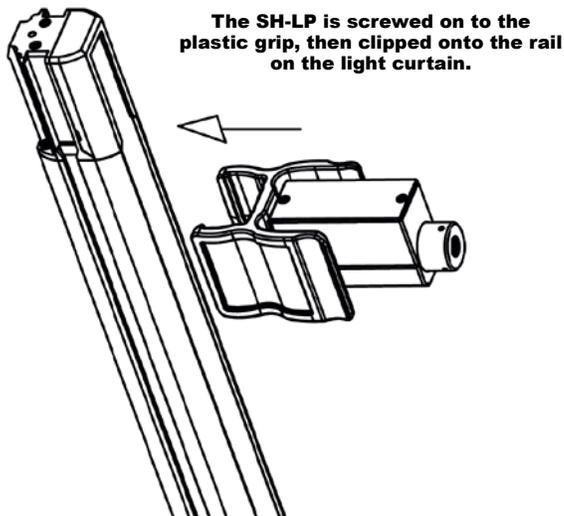
**SH-PLUG-5**



**SH-PLUG-8**

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

## Installing the SH-LP



# Datalogic Safety Light Curtains

## Accessories

### Mounting Brackets

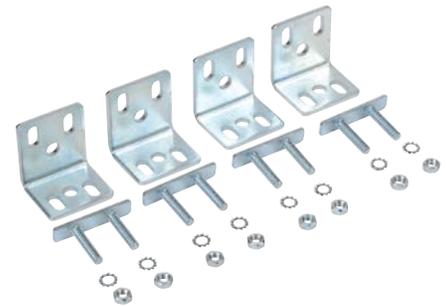
Datalogic Safety Light Curtains Mounting Brackets Selection Guide					
Part Number	Price	Mounting Bracket Type	For Use With	Qty Per Package	Drawing
<a href="#"><u>ST-K4ROT</u></a>	\$20.00	Rotational	SG4 Base Series (-E) light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-K4ROT-SH</u></a>	\$66.00	Rotational	All SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-KSTD</u></a>	\$10.00	Standard	All SG4 and SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-K4OR</u></a>	\$47.00	Lateral orientable	All SG4 and SH4 Series light curtains	4	<a href="#"><u>PDF</u></a>
<a href="#"><u>ST-K4AV</u></a>	\$20.00	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
<b>TP-14</b>	\$23.50	Test rod for 14mm resolution finger detection light curtains, plastic, 14mm diameter
<b>TP-30</b>	\$25.50	Test rod for 30mm resolution hand detection light curtains, plastic, 30mm diameter



**TP-14**



**TP-30**

# Datasensing Safety Light Curtains Basic Models, Finger Protection



## Safety light curtain with 14mm resolution

### Features

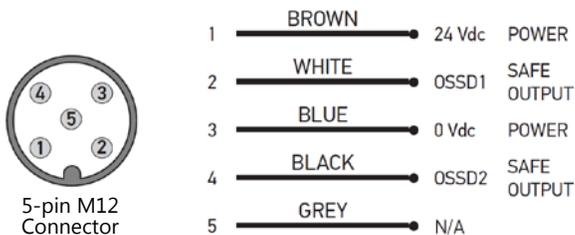
- Includes both sender and receiver
- Integrated light curtain for finger protection
- No dead zone
- Operating distance up to 10m [32.8 ft]
- Protected heights ranging from 300 to 1200 mm [11.8 to 47.2 in]
- Compact 35 x 40 mm [1.4 x 1.6 in] profile
- Automatic restart
- IP65/IP67 rated
- Type 4, PLe,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



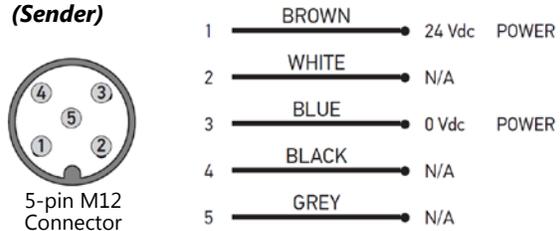
Datasensing Safety Light Curtains SH4 Basic Models Selection Chart						
Part Number	Price	Protected Height	Overall Height	Number of Beams	Response Time (ms)	Drawing
<a href="#">SH4-14-0300-B-5</a>	\$667.00	300 mm [11.8 in]	309 mm [12.2 in]	30	9	<a href="#">PDF</a>
<a href="#">SH4-14-0450-B-5</a>	\$836.00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

## 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, Hand Protection



## Safety light curtain with 30mm resolution

### Features

- Includes both sender and receiver
- Integrated light curtain for hand protection
- No dead zone
- Operating distance up to 20m [65.6 ft]
- Protected heights ranging from 300 to 1800 mm [11.8 to 70.9 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
<a href="#">SH4-30-0300-B-5</a>	\$602.00	300 mm [11.8 in]	309 mm [12.2 in]	12	7	<a href="#">PDF</a>
<a href="#">SH4-30-0450-B-5</a>	\$726.00	450 mm [17.7 in]	459 mm [18.1 in]	18	8	<a href="#">PDF</a>
<a href="#">SH4-30-0600-B-5</a>	\$849.00	600 mm [23.6 in]	609 mm [24 in]	24	9	<a href="#">PDF</a>
<a href="#">SH4-30-0750-B-5</a>	\$899.00	750 mm [29.5 in]	759 mm [29.9 in]	30	9	<a href="#">PDF</a>
<a href="#">SH4-30-0900-B-5</a>	\$1,014.00	900 mm [35.4 in]	909 mm [35.8 in]	36	10	<a href="#">PDF</a>
<a href="#">SH4-30-1050-B-5</a>	\$1,128.00	1050 mm [41.3 in]	1059 mm [41.7 in]	42	11	<a href="#">PDF</a>
<a href="#">SH4-30-1200-B-5</a>	\$1,245.00	1200 mm [47.2 in]	1209 mm [47.6 in]	48	12	<a href="#">PDF</a>
<a href="#">SH4-30-1350-B-5</a>	\$1,359.00	1350 mm [53.1 in]	1359 mm [53.5 in]	54	12	<a href="#">PDF</a>
<a href="#">SH4-30-1500-B-5</a>	\$1,475.00	1500 mm [59.1 in]	1509 mm [59.4 in]	60	13	<a href="#">PDF</a>
<a href="#">SH4-30-1650-B-5</a>	\$1,589.00	1650 mm [65 in]	1659 mm [65.3 in]	66	14	<a href="#">PDF</a>
<a href="#">SH4-30-1800-B-5</a>	\$1,705.00	1800 mm [70.9 in]	1809 mm [71.2 in]	72	14	<a href="#">PDF</a>

## Connections

### Receiver



5-pin M12 Connector

1	BROWN	24 Vdc	POWER
2	WHITE	OSSD1	SAFE OUTPUT
3	BLUE	0 Vdc	POWER
4	BLACK	OSSD2	SAFE OUTPUT
5	GREY	N/A	

### Transmitter (Sender)



5-pin M12 Connector

1	BROWN	24 Vdc	POWER
2	WHITE	N/A	
3	BLUE	0 Vdc	POWER
4	BLACK	N/A	
5	GREY	N/A	

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



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

# Datasensing Safety Light Curtains Standard 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
- Manual/automatic restart
- Reset input
- External device monitoring (EDM)
- Alignment mode
- IP65/IP67 rated
- Type 4, PLe, SIL3
- UL, CE and TUV certification



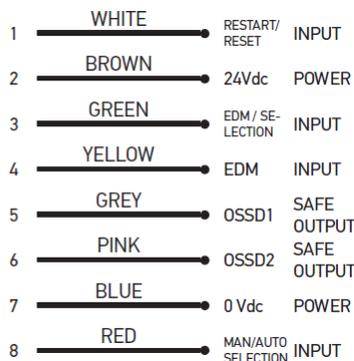
Datasensing Safety Light Curtains SH4 Standard Models Selection Chart						
Part Number	Price	Protected Height	Overall Height	Number of Beams	Response Time (ms)	Drawing
<a href="#">SH4-14-0300-S-8</a>	\$720.00	300mm [11.8 in]	309mm [12.2 in]	30	9	<a href="#">PDF</a>
<a href="#">SH4-14-0450-S-8</a>	\$903.00	450mm [17.7 in]	459mm [18.1 in]	45	10	<a href="#">PDF</a>
<a href="#">SH4-14-0600-S-8</a>	\$1,142.00	600mm [23.6 in]	609mm [24 in]	60	12	<a href="#">PDF</a>
<a href="#">SH4-14-0750-S-8</a>	\$1,336.00	750mm [29.5 in]	759mm [29.9 in]	75	13	<a href="#">PDF</a>
<a href="#">SH4-14-0900-S-8</a>	\$1,573.00	900mm [35.4 in]	909mm [35.8 in]	90	15	<a href="#">PDF</a>
<a href="#">SH4-14-1050-S-8</a>	\$1,771.00	1050mm [41.3 in]	1059mm [41.7 in]	105	16	<a href="#">PDF</a>
<a href="#">SH4-14-1200-S-8</a>	\$1,971.00	1200mm [47.2 in]	1209mm [47.6 in]	120	18	<a href="#">PDF</a>

## Connections

### Receiver



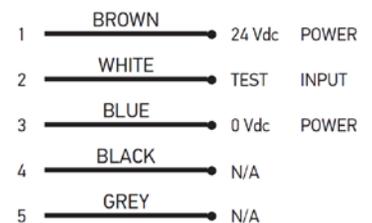
8-pin M12 Connector



### Transmitter (Sender)



5-pin M12 Connector



Pin	Description	292 Cable	295 Cable	Pin on Receiver
1	Restart/Reset	White	Brown	1
2	+24VDC	Brown	White	2
3	EDM selection	Green	Blue	3
4	EDM signal	Yellow	Black	4
5	OSSD 1 (Output Signal Switching Device)	Grey	Grey	5
6	OSSD 2 (Output Signal Switching Device)	Pink	Pink	6
7	0VDC	Blue	Violet	7
8	Manual/Auto reset function	Red	Orange	8

Pin	Description	Wire Color	Pin on Receiver
1	+24VDC	Brown	1
2	TEST signal	White	2
3	0VDC	Blue	3
4	Not used	Black	4
5	Not used	Grey	5

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

# Datasensing Safety Light Curtains Standard Models, Hand Protection



## Safety light curtain with 30mm resolution

### Features

- Includes both sender and receiver
- Integrated light curtain for hand protection
- No dead zone
- Operating distance up to 20m [65.6 ft]
- Protected heights ranging from 300 to 1800 mm [11.8 to 70.9 in]
- Compact 35 x 40 mm [1.4 x 1.6 in] profile
- Manual/automatic restart

- Reset input
- External device monitoring (EDM)
- Alignment mode
- IP65/IP67 rated
- Type 4, PLe, SIL3
- UL, CE and TUV certification



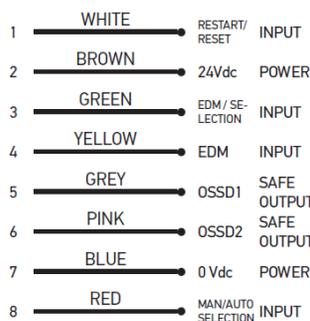
Datasensing Safety Light Curtains SH4 Standard Models Selection Chart						
Part Number	Price	Protected Height	Overall Height	Number of Beams	Response Time (ms)	Drawing
<a href="#">SH4-30-0300-S-8</a>	\$651.00	300mm [11.8 in]	309mm [12.2 in]	12	7	<a href="#">PDF</a>
<a href="#">SH4-30-0450-S-8</a>	\$794.00	450mm [17.7 in]	459mm [18.1 in]	18	8	<a href="#">PDF</a>
<a href="#">SH4-30-0600-S-8</a>	\$942.00	600mm [23.6 in]	609mm [24 in]	24	9	<a href="#">PDF</a>
<a href="#">SH4-30-0750-S-8</a>	\$1,042.00	750mm [29.5 in]	759mm [29.9 in]	30	9	<a href="#">PDF</a>
<a href="#">SH4-30-0900-S-8</a>	\$1,160.00	900mm [35.4 in]	909mm [35.8 in]	36	10	<a href="#">PDF</a>
<a href="#">SH4-30-1050-S-8</a>	\$1,298.00	1050mm [41.3 in]	1059mm [41.7 in]	42	11	<a href="#">PDF</a>
<a href="#">SH4-30-1200-S-8</a>	\$1,443.00	1200mm [47.2 in]	1209mm [47.6 in]	48	12	<a href="#">PDF</a>
<a href="#">SH4-30-1350-S-8</a>	\$1,575.00	1350mm [53.1 in]	1359mm [53.5 in]	54	12	<a href="#">PDF</a>
<a href="#">SH4-30-1500-S-8</a>	\$1,706.00	1500mm [59.1 in]	1509mm [59.4 in]	60	13	<a href="#">PDF</a>
<a href="#">SH4-30-1650-S-8</a>	\$1,830.00	1650mm [65 in]	1659mm [65.3 in]	66	14	<a href="#">PDF</a>
<a href="#">SH4-30-1800-S-8</a>	\$1,958.00	1800mm [70.9 in]	1809mm [71.2 in]	72	14	<a href="#">PDF</a>

## Connections

### Receiver



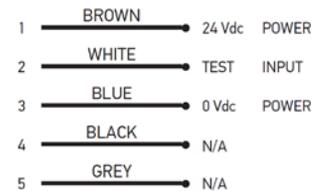
8-pin M12 Connector



### Transmitter (Sender)



5-pin M12 Connector



Pin	Description	292 Cable	295 Cable	Pin on Receiver
1	Restart/Reset	White	Brown	1
2	+24VDC	Brown	White	2
3	EDM selection	Green	Blue	3
4	EDM signal	Yellow	Black	4
5	OSSD 1 (Output Signal Switching Device)	Grey	Grey	5
6	OSSD 2 (Output Signal Switching Device)	Pink	Pink	6
7	0VDC	Blue	Violet	7
8	Manual/Auto reset function	Red	Orange	8

Pin	Description	Wire Color	Pin on Receiver
1	+24VDC	Brown	1
2	TEST signal	White	2
3	0VDC	Blue	3
4	Not used	Black	4
5	Not used	Grey	5

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

# Datasensing Safety Light Curtains Standard Models, Body Protection



## Features

- Includes both sender and receiver
- Integrated light curtain for body protection (300mm or 400mm resolution, depending on model)
- Operating distance up to 70m [229.6 ft]
- Compact 35 x 40 mm [1.4 x 1.6 in] profile
- Manual/automatic restart
- Reset input
- External device monitoring (EDM)
- Alignment mode
- IP65/IP67 rated
- Type 4, PLe, SIL3
- UL, CE and TUV certification



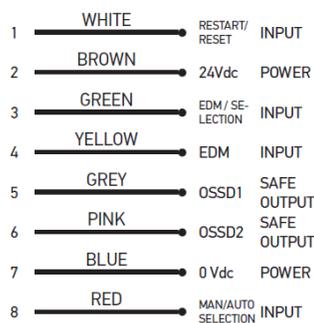
Datasensing Safety Light Curtains SH4 Body Protection Standard Models Selection Chart							
Part Number	Price	Protected Height	Overall Height	Number of Beams	Resolution (mm [in])	Response Time (ms)	Drawing
<a href="#">SH4-3-0800-S-8</a>	\$642.00	800mm [31.5 in]	974mm [38.3 in]	3	400 [15.75]	15	<a href="#">PDF</a>
<a href="#">SH4-4-0900-S-8</a>	\$685.00	900mm [35.4 in]	1074mm [42.3 in]	4	300 [11.81]	15	<a href="#">PDF</a>
<a href="#">SH4-4-1200-S-8</a>	\$774.00	1200mm [47.2 in]	1374mm [54.1 in]	4	400 [15.75]	15	<a href="#">PDF</a>

## Connections

### Receiver



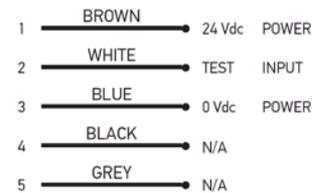
8-pin M12 Connector



### Transmitter (Sender)



5-pin M12 Connector



Pin	Description	292 Cable	295 Cable	Pin on Receiver
1	Restart/Reset	White	Brown	1
2	+24VDC	Brown	White	2
3	EDM selection	Green	Blue	3
4	EDM signal	Yellow	Black	4
5	OSSD 1 (Output Signal Switching Device)	Grey	Grey	5
6	OSSD 2 (Output Signal Switching Device)	Pink	Pink	6
7	0VDC	Blue	Violet	7
8	Manual/Auto reset function	Red	Orange	8

Pin	Description	Wire Color	Pin on Receiver
1	+24VDC	Brown	1
2	TEST signal	White	2
3	0VDC	Blue	3
4	Not used	Black	4
5	Not used	Grey	5

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

# Datasensing Safety Light Curtains Standard Models



SH4-14, SH4-30, and SH4 Body Standard Models			
Model	SH4-14 Standard Models (Finger Protection)	SH4-30 Standard Models (Hand Protection)	SH4-3-0800 or SH4-4-xxxx (Body Protection)
<b>Electrical Data</b>			
Supply Voltage	24VDC $\pm$ 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 $\mu$ F @ 24VDC		
Safety Category	Type 4 (IEC 61496-1) / PL <sub>e</sub> (EN ISO13849-1) / SIL 3 (IEC 61508)		
Auxiliary Functions (configured by wiring)	Reset/test Selectable manual/automatic restart Selectable EDM Alignment mode		
Electrical Protection	Class III		
Electrical Connections	M12 5-pole for sender		
	M12 8-pole for receiver		
Cable Length	30m [98ft] maximum		30m [98ft] maximum for receiver 50m [164ft] maximum for transmitter
<b>Optical Data</b>			
Light Emission	Infrared LED (850nm wavelength)		
Resolution	Finger 14mm [0.55 in]	Hand 30mm [1.18 in]	Body SH4-4-1200-xx-x-x = 400mm [15.75 in] SH4-4-0900-xx-x-x = 300mm [11.81 in] SH4-3-0800-xx-x-x = 400mm [15.75 in]
Operating Distance	0.2 - 10 m [0.7 - 32.8 ft]	0.2 - 20 m [0.7 - 65.6 ft]	Short range (default) = 0.5 to 15 m [2 to 49 ft] Long range (selectable) = 5 to 70 m [15 to 229 ft]
Aperture Angle (EAA)	< $\pm$ 2.5° maximum @ 3m [3.8 ft]		
<b>Mechanical and Environmental Data</b>			
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		

# 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.*