

Datalogic

Safety Laser Scanners



Datalogic Safety Laser Scanners provide a cost-effective way to safeguard static applications such as robot cells and moving applications such as automatic guided vehicles (AGVs). They are also ideal for providing safe access to potentially dangerous locations or areas.

The Safety Laser Scanners are configurable to meet a wide range of area protection needs. They feature a 275-degree viewing window and allow for several user-definable zones of protection.

These scanners can also be configured to filter out dust in order to eliminate false trips.

Features

- 275° viewing window
- Easy programming with intuitive Graphic User Interface (GUI)
- Three levels of advanced dust filtering configurable via GUI
- Can be installed to monitor either horizontally or vertically
- Configurable warning areas extending up to 40m [131.23 ft] out
- Two distinct and assignable warning signals
- Muting capability for vertical installations
- Three I/O points, each configured either as input or output via GUI



Datalogic Safety Laser Scanner Selection Guide

Part Number	Price	Safe Operating Range	Resolution	Safe Operating Angle	Angular Resolution	Dimensional Drawing
SLS-SA3-08	\$2,102.00	Up to 3m [9.84 ft]	See Detection/Operating Range Chart	275°	0.1°	PDF
SLS-SA5-08	\$2,558.00	Up to 5.5 m [18.04 ft]	See Detection/Operating Range Chart	275°	0.1°	PDF

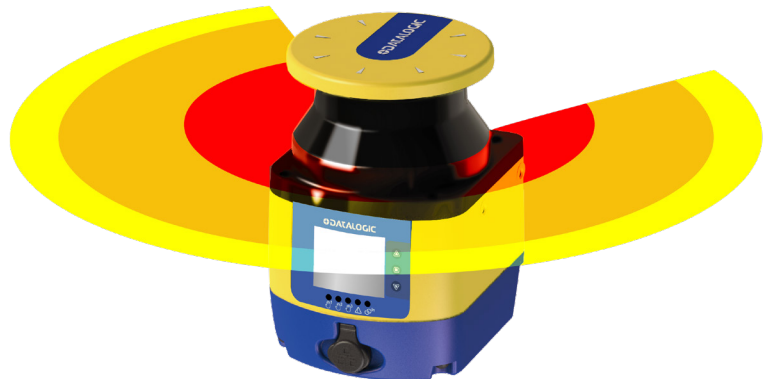
Detection / Operating Range*

	SLS-SA3-08	SLS-SA5-08
30mm [1.18 in]	2.5 m [8.20 ft]	2.5 m [8.20 ft]
40mm [1.57 in]	3m [9.84 ft]	3m [9.84 ft]
50mm [1.97 in]	3m [9.84 ft]	4m [13.12 ft]
70mm [2.76 in]	3m [9.84 ft]	5.5 m [18.04 ft]
150mm [5.91 in]	3m [9.84 ft]	5.5 m [18.04 ft]

* Minimum operating range is 50mm [2.0 in]

General Specifications

Supply Voltage	24Vdc $\pm$ 20%
Safety Outputs (OSSD)	0.25 A max / each OSSD
Operating Temperature	-10 to 50 °C [14 to 122 °F]
Humidity	Up to 95% (no condensation)
Safety Category	Type 3, SIL 2, Pld
PFHd	6.38 x 10 ⁻⁸
Response Time	Varies based on configuration(min: 62ms)
MTTFd	61 years
DCavg	96.6%
Degree of Protection	IP65
Power Consumption	8W
Weight	2.92 lb [1.32 kg]
Connections	M12 8-pin QD (Power and I/O) M12 4-pin QD (Ethernet - configuration only)
Maximum Connection Length	25m [82.02 ft]
Warning Zone Operating Range	40m [131.2 ft]
Certifications	TUV, CE, cULus



Datalogic Safety Laser Scanners can manage two simultaneous warning zones and one safe zone. Safe zones can extend up to 5.5 m [18.04 ft], depending on the model, over an angle of 275 degrees. Warning zones can extend 40m [131.2 ft].

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Safety Laser Scanners



I/O Point Options (only three may be selected)

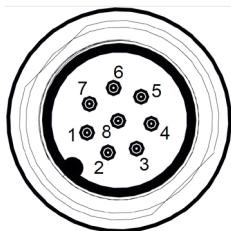
Type I/O	Description	Notes	
Inputs	Reset		
	Restart		
	Reset/Restart		
	EDM		
	Area Switch 1	Two area zones can be specified using Area Switch 1 and 2	Up to six area zones can be specified using Area Switch 1, 2, and 3 (When using four or more area zones, consult hardware manual for info on zone set switching)
	Area Switch 2		
	Area Switch 3		
	Warning 1		
	Warning 2		
	Muting 1	In order to activate muting both muting inputs must be used	
	Muting 2		
	Muting Enable	Can be used in combination with muting function	
	Override	Can be used in combination with muting function	
Outputs	Muting Lamp	Can be used in combination with muting function	
	Override Status	Can be used in combination with muting function	
	Alarm 1	Clean Window Alarm	
	Alarm 2	General Fault Alarm	

Connection Diagrams

Connection (M12 8-pin)

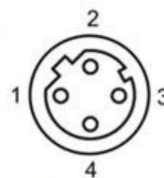
Pin	Color*	Description
1	White	Selectable I/O (by GUI)
2	Brown	24VDC
3	Green	Selectable I/O (by GUI)
4	Yellow	Selectable I/O (by GUI)
5	Gray	Safety Output (OSSD)
6	Pink	Safety Output (OSSD)
7	Blue	0V
8	Red	Ground

* This connection chart is for 292 series 8-pin cables



Connection (M12 D-coded Ethernet)

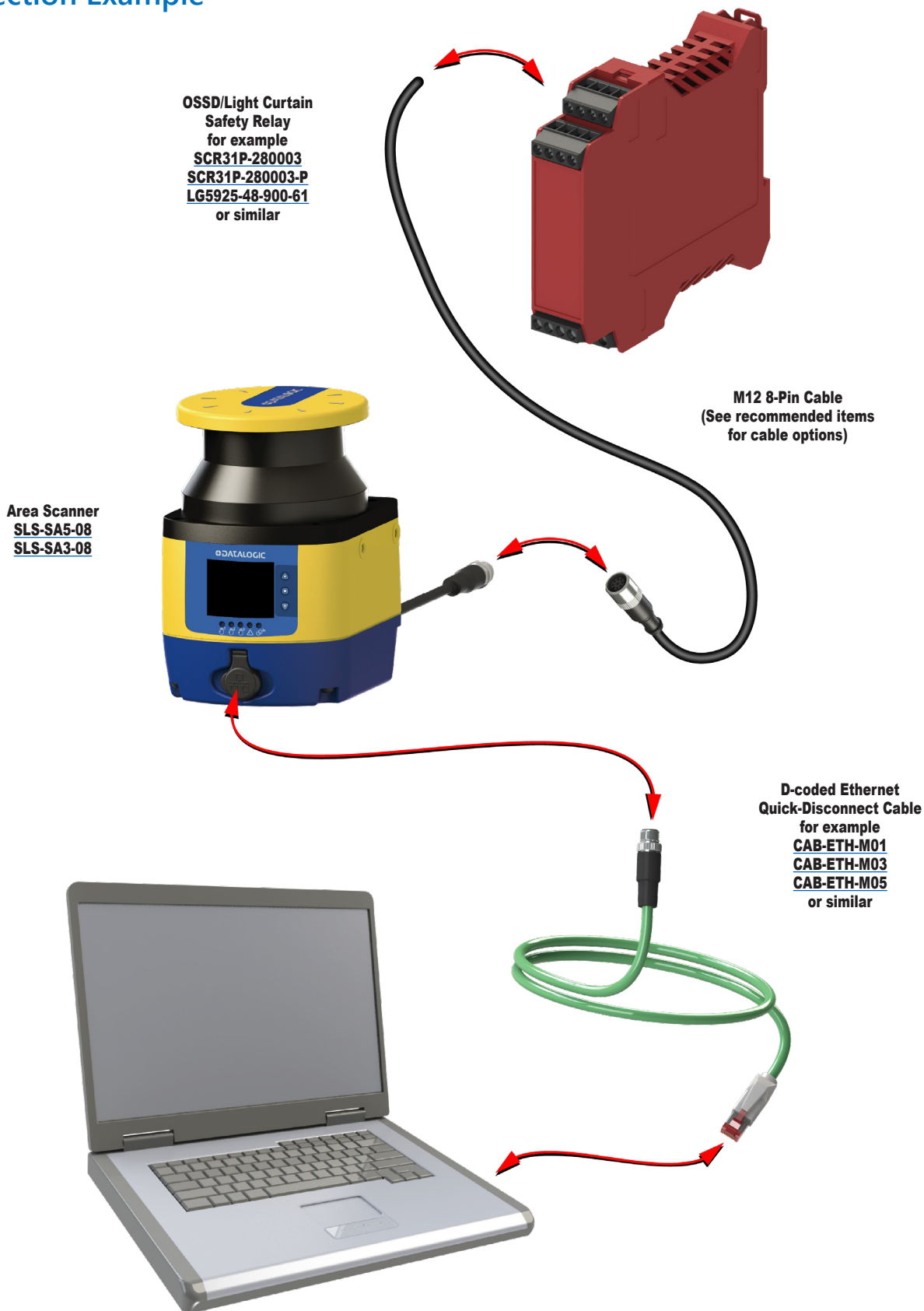
Pin	Signal
1	TxD+, transmit data +
2	RxD+, receive data +
3	TxD-, transmit data -
4	RxD-, receive data +



Datalogic Safety Laser Scanners



Connection Example



Datalogic Safety Laser Scanners Accessories



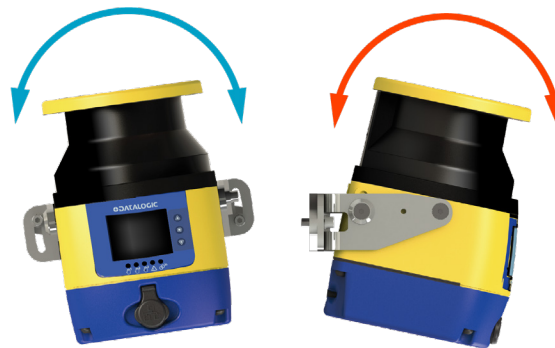
Datalogic Laser Sentinel Area Scanner Accessories Selection Chart

Part Number	Price	Description	Weight (kg [lb])	Dimensional Drawing
<u>SLS-BRACKET-A</u>	\$96.00	Bracket, Mounting, Pitch and Roll Regulation Bracket System	0.53 [1.17]	<u>PDF</u>
<u>SLS-BRACKET-B</u>	\$61.00	Bracket, Mounting, Pitch Regulation Bracket System	0.24 [0.53]	<u>PDF</u>
<u>SLS-BRACKET-C</u>	\$35.50	Bracket, Mounting, Head Protective Bracket	0.47 [1.04]	<u>PDF</u>
<u>SLS-WINDOW</u>	\$263.00	Lens, SLS, Replacement Window	0.22 [0.49]	<u>PDF</u>

BRACKET WITH PITCH AND ROLL ADJUSTMENT



[SLS-BRACKET-A](#)



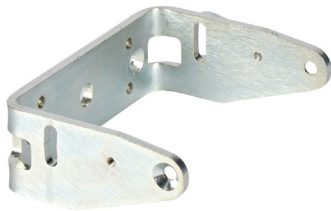
[SLS-BRACKET-A](#) assembled with [SLS-SA5-08](#)

EXAMPLE OF AN
ASSEMBLED UNIT
WITH TWO BRACKETS
INSTALLED

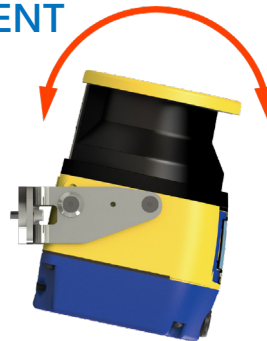


**[SLS-BRACKET-A](#)
and [SLS-BRACKET-C](#)
assembled with [SLS-SA5-08](#)**

BRACKET WITH PITCH ADJUSTMENT



[SLS-BRACKET-B](#)



[SLS-BRACKET-B](#) assembled with [SLS-SA5-08](#)

REPLACEMENT WINDOW



[SLS-WINDOW](#)

HEAD PROTECTIVE BRACKET



[SLS-BRACKET-C](#)



[SLS-BRACKET-C](#) assembled with [SLS-SA5-08](#)

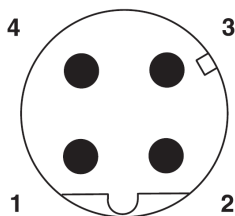
Datalogic – Ethernet Cables



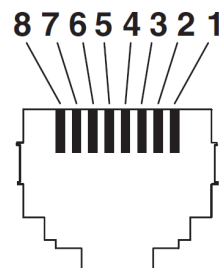
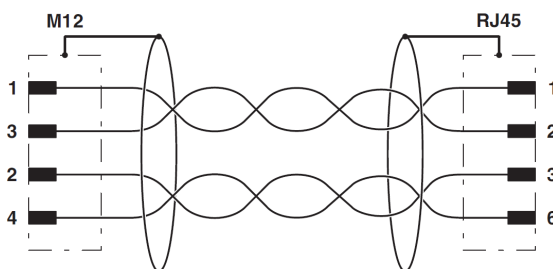
Datalogic Communication Cables		
Part Number	Price	Description
<u>CAB-ETH-M01</u>	\$52.00	Datalogic cable, Ethernet, PVC jacket, shielded, 1m [3.28 ft] cable length, M12 4-pin male D-coded to RJ45
<u>CAB-ETH-M03</u>	\$63.00	Datalogic cable, Ethernet, PVC jacket, shielded, 3m [9.84 ft] cable length, M12 4-pin male D-coded to RJ45
<u>CAB-ETH-M05</u>	\$75.00	Datalogic cable, Ethernet, PVC jacket, shielded, 5m [16.40 ft] cable length, M12 4-pin male D-coded to RJ45

**CAB-ETH-M01****CAB-ETH-M03****CAB-ETH-M05**

Diagrams



Pin assignment M12 male connector,
4-pos., D-coded, male side



Connector pin assignment plug RJ45



Cable cross section

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.