Datalogic
Safety Laser Scanners

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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 features 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

3 YEAR WARRANTY

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 ± 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
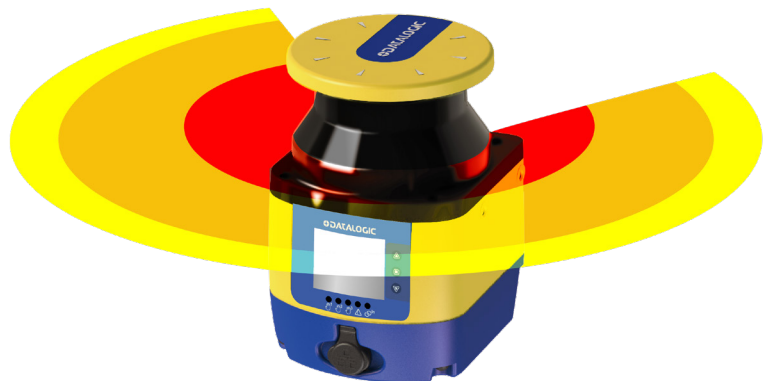
Datalogic Safety Laser Scanners can manage two simultaneous warning zones and one safe zone. Safe zones can extend up to 5.5 m [18.04 ft], depending on the model, over an angle of 275 degrees. Warning zones can extend 40m [131.2 ft].
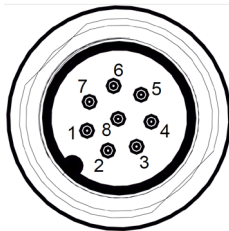
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I/O Point Options (only three may be selected)			
Type I/O	**Description**	**Notes**	
Inputs	Reset		
	Restart		
	Reset/Restart		
	EDM		
	Area Switch 1	Two area zones can be specified using Area Switch 1 and 2	Up to six area zones can be specified using 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 +

Safety Electrical Components   tESC-47

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Safety Laser Scanners

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Connection Example

**OSSD/Light Curtain
Safety Relay
for example
SCR31P-280003
SCR31P-280003-P
LG5925-48-900-61
or similar**

**M12 8-Pin Cable
(See recommended items
for cable options)**

**Area Scanner
SLS-SA5-08
SLS-SA3-08**

**D-coded Ethernet
Quick-Disconnect Cable
for example
CAB-ETH-M01
CAB-ETH-M03
CAB-ETH-M05
or similar**
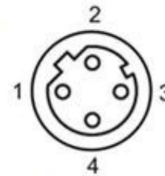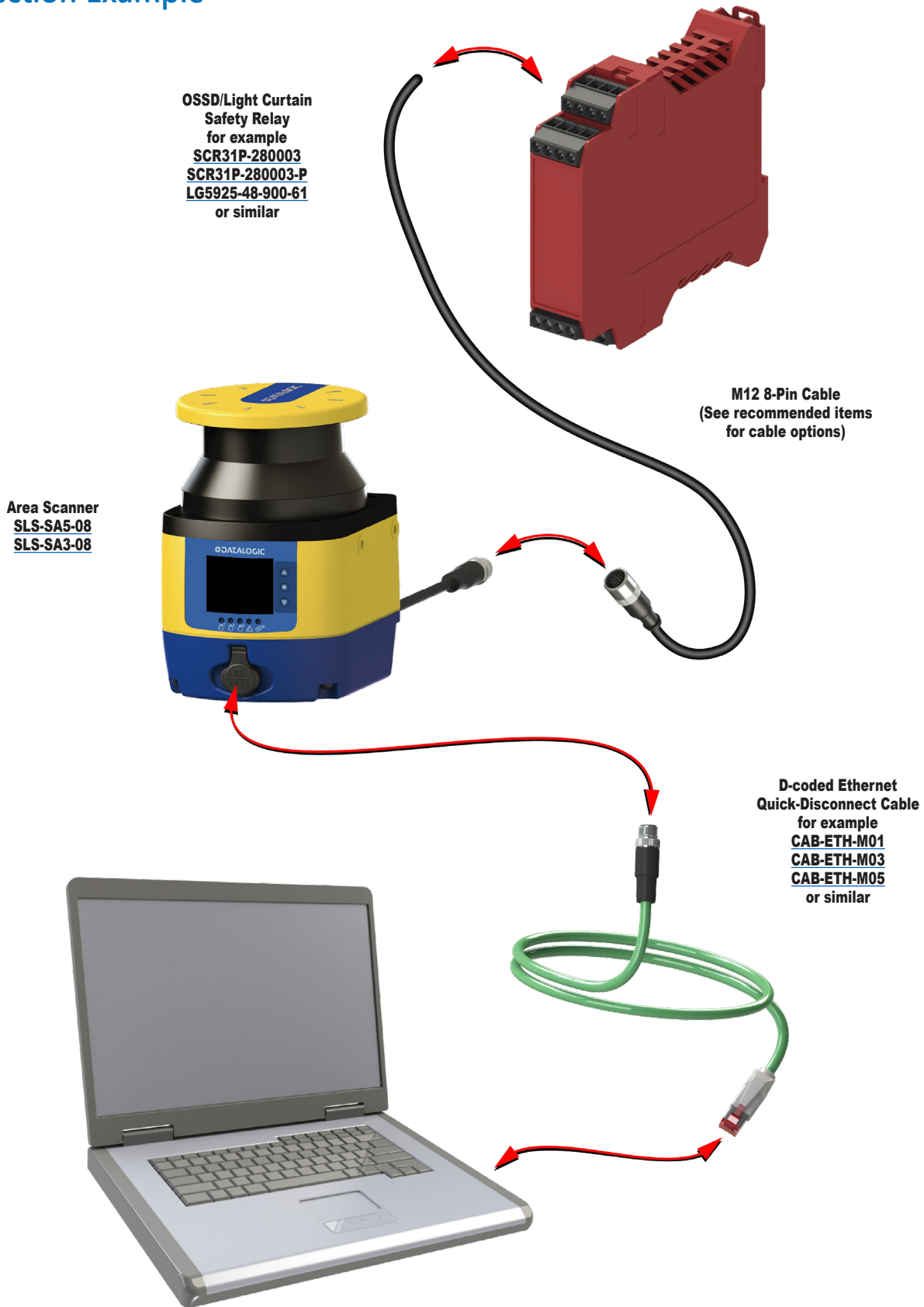
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Accessories

Datalogic Laser Sentinel Area Scanner Accessories Selection Chart				
Part Number	*Price*	*Description*	*Weight (kg [lb])*	*Dimensional Drawing*
SLS-BRACKET-A	$96.00	Bracket, Mounting, Pitch and Roll Regulation Bracket System	0.53 [1.17]	PDF
SLS-BRACKET-B	$61.00	Bracket, Mounting, Pitch Regulation Bracket System	0.24 [0.53]	PDF
SLS-BRACKET-C	$35.50	Bracket, Mounting, Head Protective Bracket	0.47 [1.04]	PDF
SLS-WINDOW	$263.00	Lens, SLS, Replacement Window	0.22 [0.49]	PDF

BRACKET WITH PITCH AND ROLL ADJUSTMENT

SLS-BRACKET-A
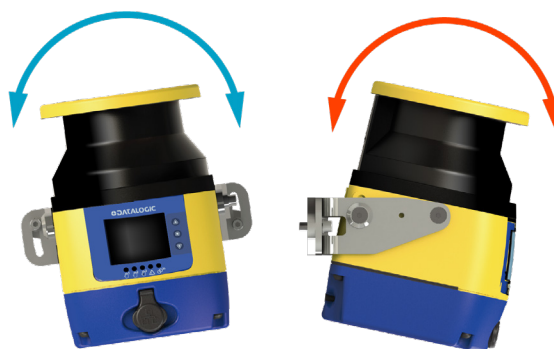
SLS-BRACKET-A assembled with SLS-SA5-08

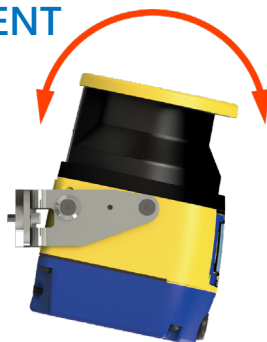**EXAMPLE OF AN ASSEMBLED UNIT WITH TWO BRACKETS INSTALLED**

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

For the latest prices, please check AutomationDirect.com.

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| Datalogic Communication Cables		
Part Number	**Price**	**Description**
CAB-ETH-M01	$52.00	Datalogic cable, Ethernet, PVC jacket, shielded, 1m [3.28 ft] cable length, M12 4-pin male D-coded to RJ45
CAB-ETH-M03	$63.00	Datalogic cable, Ethernet, PVC jacket, shielded, 3m [9.84 ft] cable length, M12 4-pin male D-coded to RJ45
CAB-ETH-M05	$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
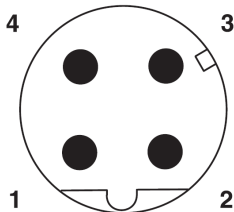
Pin assignment M12 male connector,
4-pos., D-coded, male side
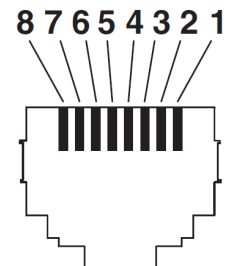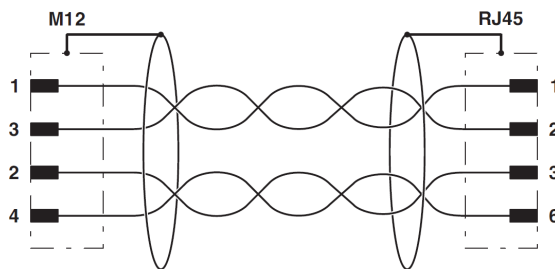
Connector pin assignment plug RJ45

Cable cross section

Safety Electrical Components tESC-25

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.

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