

# 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 |
|-------------------|------------|------------------------|-------------------------------------|----------------------|--------------------|---------------------|
| <b>SLS-SA3-08</b> | \$2,102.00 | Up to 3m [9.84 ft]     | See Detection/Operating Range Chart | 275°                 | 0.1°               | <a href="#">PDF</a> |
| <b>SLS-SA5-08</b> | \$2,558.00 | Up to 5.5 m [18.04 ft] | See Detection/Operating Range Chart | 275°                 | 0.1°               | <a href="#">PDF</a> |

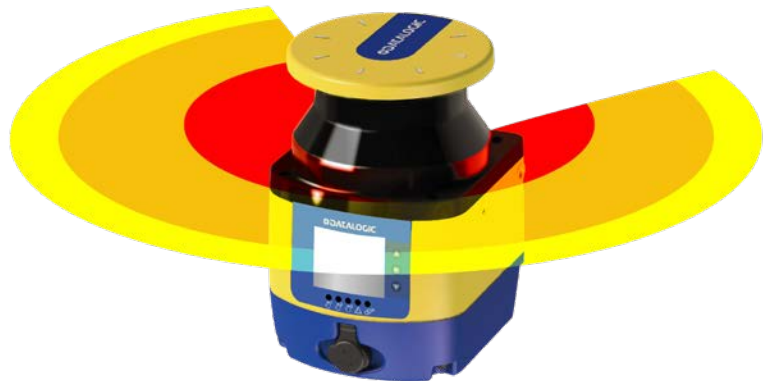
### Detection / Operating Range\*

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

\* Minimum operating range is 50mm [2.0 in]

### General Specifications

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

# Datalogic

## Safety Laser Scanners

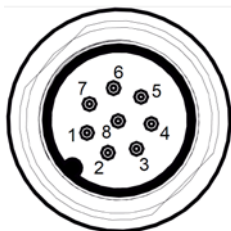


| I/O Point Options (only three may be selected) |                 |                                                                                                                                                                     |
|------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                           |
|                                                | Area Switch 2   |                                                                                                                                                                     |
|                                                | Area Switch 3   |                                                                                                                                                                     |
|                                                | Warning 1       | Up to six area zones can be specified using Area Switch 1, 2, and 3<br>(When using four or more area zones, consult hardware manual for info on zone set switching) |
|                                                | Warning 2       |                                                                                                                                                                     |
|                                                | Muting 1        |                                                                                                                                                                     |
|                                                | Muting 2        | In order to activate muting both muting inputs must be used                                                                                                         |
|                                                | Muting Enable   |                                                                                                                                                                     |
|                                                | Override        |                                                                                                                                                                     |
| 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                                                                                                                                                 |

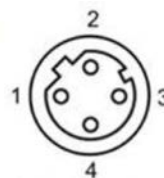
## Connection Diagrams

| 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



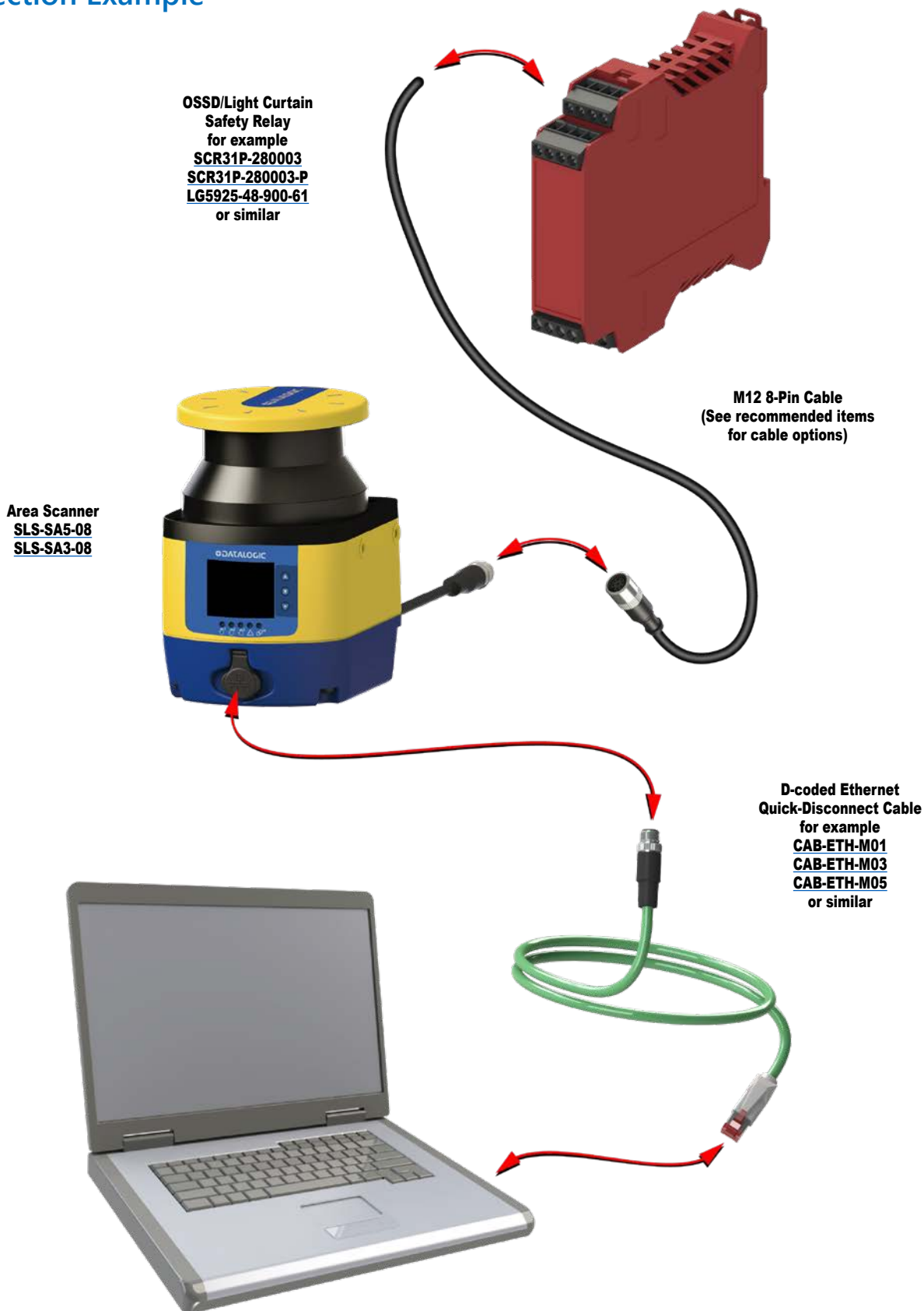
| Connection (M12 D-coded Ethernet) |                       |
|-----------------------------------|-----------------------|
| Pin                               | Signal                |
| 1                                 | TxD+, transmit data + |
| 2                                 | RxD+, receive data +  |
| 3                                 | TxD-, transmit data - |
| 4                                 | RxD-, receive data +  |



# Datalogic Safety Laser Scanners



## Connection Example



# Datalogic Safety Laser Scanners Accessories



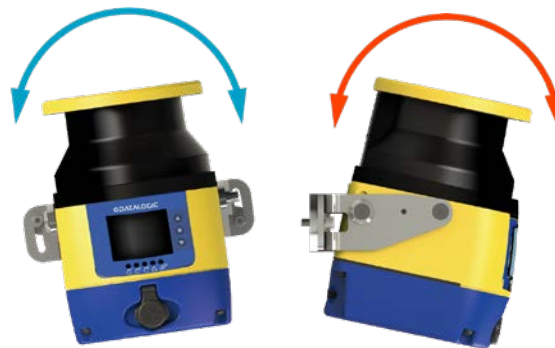
**Datalogic Laser Sentinel Area Scanner Accessories Selection Chart**

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

## 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

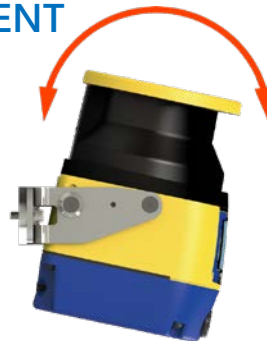


**SLS-BRACKET-A**  
and **SLS-BRACKET-C**  
assembled with **SLS-SA5-08**

## 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**

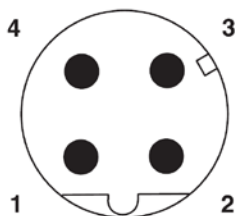
# Datalogic – Ethernet Cables



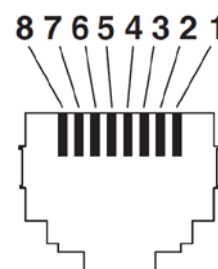
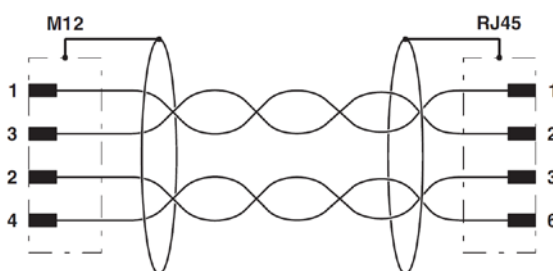
| Datalogic Communication Cables |         |                                                                                                             |
|--------------------------------|---------|-------------------------------------------------------------------------------------------------------------|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

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