


# Enhanced Laser Sentinel

## 958001090

**SLS-SA5-08**

**LASER SENTINEL™ENHANCED**

# OVERVIEW

- Safety laser scanner based on Time Of Flight measurement
- More than 72 m2 safely monitored, with 5.5 m over 275°
- High detection performances in compact size
- Advanced dust filtering
- Easy programming with intuitive Graphic User Interface
- Dimensions (w,d,h): 102 , 112.5, 152 mm
- I/O connection with standard M12 cables
- Up to 3 simultaenous safety zones
- 2 Warning zones up to 40 m
- 30/40/50/70/150 mm selectable detection capability
- Up to 70 zone sets
- Partial dynamic muting
- Metal brackets allowing full orientation and fast replacement
- Advanced measurement data protocol
- Colour graphic display for monitoring and diagnostics
- Speed measurement with encoder in

# TECHNICAL FEATURES

Detection properties

| | |
|---|---|
| Nominal sensing distance | ≤5.5 m |
| controlled height | 5.5 m |
| Sensitivity adjustment | GUI |

| | |
|---|---|
| Muting enable | disponibile |
| Scan angle | 275° |
| Warning zone max range | 40m@target bianco (90%) |
| Detection capability | 30/40/50/70/150 mm selezionabile |
| With 1 safety zone | 3 |
| With 1 safety zone + 1 warning zone | 2 |
| With 1 safety zone + 2 warning zones | N/A |
| With 2 safety zone | N/A |
| With 2 safety zone + 1 warning zone | N/A |
| With 2 safety zone + 2 warning zones | N/A |
| With 3 safety zone | N/A |
| Max zone sets number in a particular activation order | 6 |
| Safety area range with detection capability =30 mm | 0.05 ... 2.5m |
| Safety area range with detection capability =40 mm | 0.05 ... 3m |
| Safety area range with detection capability =50 mm | 0.05 ... 4m |
| Safety area range with detection capability =70 mm | 0.05 ... 5.5m |

| | |
|---|---|
| Safety area range with detection capability =150 mm | 0.05 ... 5.5m |
| Partial muting, dynamic for first OSSDs couple | disponibile |
| Total Muting (monodirectional or bidirectional) | disponibile |
| Override | disponibile* |
| Reference points | disponibile |
| Measurement data max. angolar resolution | 0,1° |
| Angular resolution | 0,1° |
| Response time ( Master + 3 slaves ) | N/A |
| Tollerance zone | 100 mm |
| Operative temperature range | -10 …+50 °C |

Application

| | |
|---|---|
| Description | Compact scan view 275° |
| Functions | Stand-alone 6 areas enhanced |
| Wait time for next zone switching | 30 ...5010 ms |
| Configuration and monitoring interface | DL Sentinel |

Safety parameters

| | |
|---|---|
| Type | 3 (EN 61496-1) |

| | |
|---|---|
| SIL | SIL 2 (IEC 61508) |
| SILCL | SILCL 2 (EN 62061) |
| Cat. | 3 (EN ISO 13849-1) |
| PL | PL d (EN ISO 13849-1) |
| Mission time according ( EN ISO 13849 ) | 20 anni |

Outputs

| | |
|---|---|
| Output type | PUSH/PULL |
| Response time | Min: 62 ms; Max: 1202 ms |
| Response Time (Master + Slave) | N/A |
| Response Time (Master + 2 Slave) | N/A |
| Generic alarm | disponibile |
| Window cleaning alarm | disponibile |
| Safety output ( OSSDs) max number | 1 |
| Measurement data | disponibili |
| EDM ( external device monitoring ) | disponibile |
| Highspeed input | N/A |
| Muting lamp | disponibile* |
| Configurable Inputs/Outputs total number | 5 |

| | |
|---|---|
| Configurable Inputs max number | 0 |
| Configurable Inputs/Output max number | 3 |
| Configurable Output max number | 0 |
| Configurable OSSDs max number | 1x2 |
| Safety zone max number | 1 |
| Warning | disponibile |
| Advanced data transmission protocol | disponibile |
| Reset ( power cycle) | disponibile |
| Manual/automatic restart | disponibile |
| Shut off | disponibile |

Electrical data

| | |
|---|---|
| Operating Voltage | 24 Vdc ± 20% |
| Power consumption | 8W@24v a vuoto |
| Max ripple content | +/- 5% |
| LED indicators | OSSD / Warning / Interlock |
| Max output current | 0,25 A max per ogni OSSD |
| Emission | Laser Red |
| Zero-voltage switching | < 5V |

| | |
|---|---|
| Optical power class | 1 (EN 60825-1:2014 ) |
| Maximum capacitance load | 2,2uF @24 Vdc |
| Output voltage | > Tensione alimentazione - 2V |
| Cabel Length (Power Supply/Output) | max 25m |
| Ripple | +/- 5% |
| Input capacitive load | 22uF |
| Input current | 6..15 mA |
| Input saturation voltage | > 12V |

Mechanical data

| | |
|---|---|
| Dimensions | 102x113x152 |
| Material | Metal - Aluminium / PMMA |
| Housing material | Alluminio verniciato / PC |
| Weight | 1,5 kg |
| Connections | M12 4 poli Key D x Ethernet |
| Storage temperature | -20 … 70°C |
| Plug | M12 8 poli M |
| max rotation speed | 1980 rpm |
| Optic cover material | PMMA |

| | |
|---|---|
| Mechanical protection | IP 65 (EN 60529) |
| Humidity | 15 … 95 % (no condensazione) |

Test/Approvals

| | |
|---|---|
| Approvals | CE |
| EMC compatibility | IEC 61496 -1 / 3 |

Generical Data

| | |
|---|---|
| System Memory | N/A |
| Storage | -20 … 70°C |
| Network Interface | Ethernet |
| Dimensions | 102x113x152 |
| Operating Temperature | -10°C ... +50°C |
| Mechanical Protection | IP 65 (EN 60529) |
| Certifications (Safety Compliance) | TUV / UL |
| Power supply | 24Vdc +/- 20% |

UNASSIGNED

| | |
|---|---|
| Disegno 2D PDF | 6,38 x 10-8 |

Tel. 059 420411
Fax 059 253973
E-mail
info@datasensing.com