



Enhanced Laser Sentinel

958001010

SLS-M3-1708-E

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 simultaneous 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 ≤3 m

controlled height 3 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 | 20 (17poli) / 70 (17+8 poli) |
| With 1 safety zone + 1 warning zone | 20 (17poli) / 70 (17+8 poli) |
| With 1 safety zone + 2 warning zones | 20 (17poli) / 70 (17+8 poli) |
| With 2 safety zone | 20 (17poli) / 70 (17+8 poli) |
| With 2 safety zone + 1 warning zone | 10 (17poli) / 70 (17+8 poli) |
| With 2 safety zone + 2 warning zones | 6 (17poli) / 70 (17+8 poli) |
| With 3 safety zone | 6 (17poli) / 70 (17+8 poli) |
| Max zone sets number in a particular activation order | N/A |
| 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 ... 3m |
| Safety area range with detection capability =70 mm | 0.05 ... 3m |

| | |
|---|--------------------------|
| Safety area range with detection capability =150 mm | 0.05 ... 3m |
| Partial muting, dynamic for first OSSDs couple | disponibile |
| Total Muting (monodirectional or bidirectional) | disponibile |
| Override | disponibile |
| Reference points | disponibile |
| Measurement data max. angular resolution | 0,1° |
| Angular resolution | 0,1° |
| Response time (Master + 3 slaves) | Min: 92 ms; Max: 1232 ms |
| Tolerance zone | 100 mm |
| Operative temperature range | -10 ...+50 °C |

Application

| | |
|--|--------------------------|
| Description | Compact scan view 275° |
| Functions | Master 70 areas enhanced |
| Wait time for next zone switching | Min 60ms |
| 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) |
| PL | PL d (EN ISO 13849-1) |
| PFHd | 6,38 x 10-8 |
| Cat. | 3 (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) | Min: 72 ms; Max: 1212 ms |
| Response Time (Master + 2 Slave) | Min: 82 ms; Max: 1222 ms |
| Generic alarm | disponibile |
| Window cleaning alarm | disponibile |
| Safety output (OSSDs) max number | 3 |
| Measurement data | disponibili |
| EDM (external device monitoring) | disponibile |
| Highspeed input | N/A |

| | |
|--|------------------------------|
| Muting lamp | disponibile |
| Configurable Inputs/Outputs total number | 10 (17poli) / 18 (17+8 poli) |
| Configurable Inputs max number | 4 (17poli) / 12 (17+8 poli) |
| Configurable Inputs/Output max number | 2 |
| Configurable Output max number | 2 |
| Configurable OSSDs max number | 3x2 |
| Safety zone max number | 3 |
| Warning | disponibile |
| Advanced data transmission protocol | disponibile |
| Reset (power cycle) | disponibile |
| Manual/automatic restart | disponibile |
| Shut off | disponibile |

Electrical data

| | |
|--------------------|----------------------------|
| Operating Voltage | 24 Vdc \pm 20% |
| 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% |
| Power Consumption | 8W@24v singolo dispositivo, a vuoto |
| Input capacitive load | 22uF |
| Input current | 6..15 mA |
| Input saturation voltage | > 12V |

Mechanical data

| | |
|---------------------|--------------------------------|
| Dimensions | 102x113x152 |
| Weight | 1,5 kg |
| Housing Material | Alluminio verniciato / PC |
| Connections | M12 4 poli F, Key D x Ethernet |
| Storage temperature | -20 ... 70°C |
| Material | Metal - Aluminium / PMMA |
| Plug | M12 17 poli M + 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 | disponibile |
| 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% |

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