

Enhanced Laser Sentinel

958001020

SLS-M3-0812-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 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	≤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	3 (8 poli) / 10 (12 poli)
With 1 safety zone + 1 warning zone	2 (8 poli) / 6 (12 poli)
With 1 safety zone + 2 warning zones	3 (12 poli)
With 2 safety zone	3 (12 poli)
With 2 safety zone + 1 warning zone	2 (12 poli)
With 2 safety zone + 2 warning zones	1 (12 poli)
With 3 safety zone	N/A
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. angolar resolution	0,1°
Angular resolution	0,1°
Response time (Master + 3 slaves)	Min: 92 ms; Max: 1232 ms
Tollerance zone	100 mm
Operative temperature range	-10 …+50 °C

Application

Description	Compact scan view 275°
Functions	Master 10 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)	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	1 (8 poli) / 2 (12 poli)
Measurement data	disponibili
EDM (external device monitoring)	disponibile
Highspeed input	N/A
Muting lamp	disponibile
Configurable Inputs/Outputs total number	5 (8poli) / 7 (12 poli)

Configurable Inputs max number	2 (8poli) / 1 (12 poli)
Configurable Inputs/Output max number	1 (8poli) / 4(12 poli)
Configurable Output max number	0
Configurable OSSDs max number	1x2 (8poli) / 2x2 (12 poli)
Safety zone max number	1 (8poli) / 2 (12 poli)
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 singolo dispositivo, 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 oppure M12 12 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%

UNASSIGNED

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