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	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)	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%
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 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 Key D x Ethernet
Storage temperature	-20 … 70°C
Material	Metal - Aluminium / PMMA
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%

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