

# LASER SENTINEL™ ENHANCED

your sentinel for safe area protection

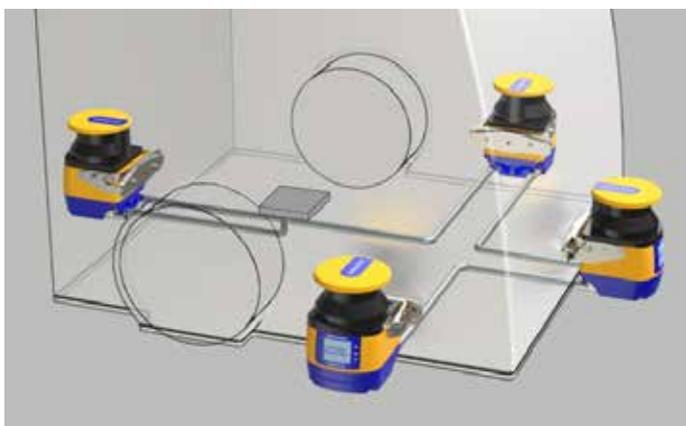


## Laser Sentinel Master/Slave

- Safety Laser Scanner Type 3, PL d, SIL 2
- Up to 3 simultaneous Safety zones up to 5.5 m **NEW**
- Up to 2 simultaneous Warning Zones up to 40 m
- Advanced measurement data on Ethernet **NEW**
- Display with colour-based Intrusion Detection System
- Configurable outputs for general fault or "clean window" alarm
- 8/12/17 pins M12 connectors for standard cabling
- Encoder inputs for speed monitoring **NEW**
- Partial dynamic muting **NEW**
- 275° Opening Angle
- 30/40/50/70/150 mm detection capability **NEW**  
Selectable by Graphic User Interface
- Muting and Override functions available
- Up to 70 zone safe set switching **NEW**
- Replaceable window **NEW**
- Master-slave connection includes seamless safe communication and power transmission
- Ethernet port on Master for programming and monitoring of whole system by a single point
- Fast replacement with memory backup **NEW**

SLS-M (Master) and up to three SLS-R (Slave) can be connected without need of additional external unit to form a consistent safety system that share safety and warning zones over all devices.

Available functions make it possible to protect static horizontal or vertical applications, as well as moving applications.



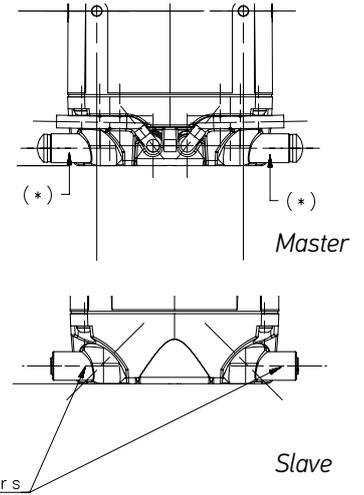
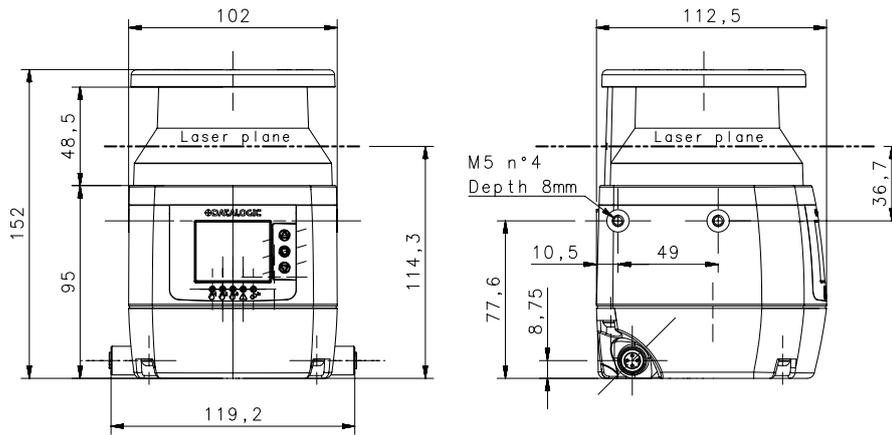
# TECHNICAL DATA MASTER/ SLAVE MODEL (SLS-M/R)

# COLOR INTRUSION DETECTION SYSTEM

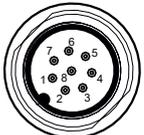
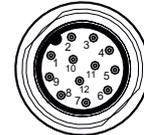
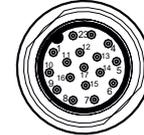
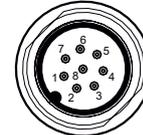
<b>General data</b>	Type ( EN61496-1 )	3
	PL ( EN ISO 13849-1 )	d
	SIL ( IEC 61508 )	2
<b>Detection data</b>	Detection capability	30/40/50/70/150 mm selectable
	Angular resolution	0.1°
	Safety zone operating range	0.05 ... 5.5 m
	Warning zone max operating range	0.05 ... 40 m
	Max. number of simultaneous warning zones	2
	Max. number of simultaneous safety zones	3
<b>Electrical data</b>	Max. opening angle	275°
	Response time (Configurable)	Min: 62 ms; Max: 482 ms
	Power supply (Vdd)	24 Vdc ± 20%
	Safety Outputs (OSSDs)	2
	Output current	0.25 A max / each OSSD
	Capacitive load	2.2 uF @ 24Vdc max
<b>Mechanical and environmental data</b>	Configurable Inputs	8pin: 2; 12pin: 4; 17pin: 4; 17+8pin:4
	Configurable Inputs/Outputs	8pin: 1; 12pin:4; 17pin: 6; 17+8pin:14
	Operating temperature	-10...+50 °C
	Storage temperature	-20...+70°C
	Humidity	15 ... 95 % (no condensation)
	Mechanical protection	IP 65 (EN 60529)
<b>Functions</b>	Manual / automatic restart	
	Dynamic switching between zone sets	
	Warning area intrusion detection	
	Total Muting ( T or L )	
	Reference Points	
	Override	
	Muting Lamp	
	Advanced measurement data	
	"Clean Window" alarm	
	Partial dynamic muting	
	Fast replacement	



## DIMENSIONS



## I/O CONNECTOR

CONNECTOR (M12, 8-POLE)	CONNECTOR (M12, 12-POLE)	CONNECTOR (M12, 17-POLE)	CONNECTOR (M12, 17+8-POLE)
			
<b>SIGNAL</b>	<b>SIGNAL</b>	<b>SIGNAL</b>	<b>SIGNAL</b>
<b>POWER</b>	<b>POWER</b>	<b>POWER</b>	<b>SPEED INPUT</b>
2 POWER SUPPLY 7 GND_ISO	1 POWER SUPPLY 4 POWER SUPPLY	1 POWER SUPPLY 10 POWER SUPPLY 11 POWER SUPPLY	8-4 MULTI IN SPEED 8-6 MULTI IN SPEED 8-5 MULTI IN SPEED
<b>INPUT/OUTPUT</b>	<b>INPUT/OUTPUT</b>	<b>INPUT</b>	<b>INPUT</b>
3 MULTI IN 4 MULTI IN	2 GND_ISO 6 GND_ISO 3 MULTI IN	2 GND_ISO 3 GND_ISO 12 GND_ISO 14 MULTI IN 7 MULTI IN	8-8 MULTI IN SPEED 8-3 MULTI IN SPEED 8-7 MULTI IN 8-2 MULTI IN 8-1 MULTI IN
<b>SAFETY OUTPUTS</b>	<b>SAFETY OUTPUTS</b>	<b>OUTPUT</b>	
5 OSSD11 6 OSSD12	7 MULTI IN/OUT 9 MULTI IN/OUT 10 MULTI IN/OUT 11 MULTI IN/OUT	6 MULTI IN 17 MULTI IN 4 MULTI IN 15 MULTI IN	
<b>OTHER</b>	<b>OTHER</b>	<b>INPUT/OUTPUT</b>	
8 F_EARTH	8 OSSD11 5 OSSD12 12 F_EARTH	4 MULTI IN/OUT 15 MULTI IN/OUT 13 OSSD11 8 OSSD12 16 F_EARTH	