

LADAR 2D OWS 6

The LADAR 2D OWS 6 has been developed as a non-contact protection device BWS type 3 for machinery with risks of personal injury.

As non-contact protection device the LADAR 2D OWS 6 is used to safeguard dangerous areas by creating monitored protection areas. As soon as a person or an object enters the monitored areas, an emergency stop of the machine is initiated by the LADAR 2D OWS 6.

Features

- all-directional (300°)
- safe
- easy to operate
- large monitoring range (up to about 262 m²)
- warning area of up to 10m for acoustic signal
- alarm area of up to 6m for an emergency stop
- exact definition of warning and alarm areas by PC

Typical use

- personal safety
- collision protection for vehicles

Contact

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LADAR 2D OWS 6

Self-monitoring



Fast



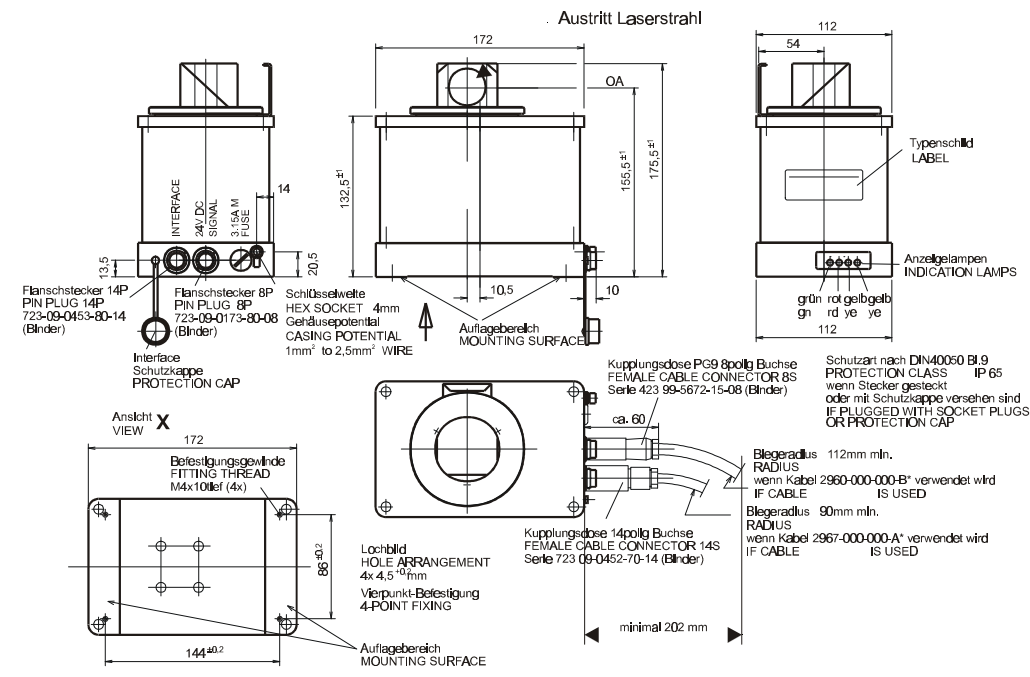
Wide-angle view



For monitoring specified safety areas



Dimensions



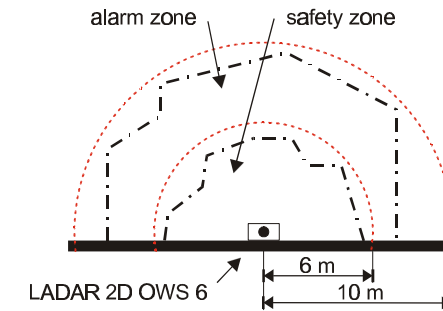
Interface

Pin No.	Signal	Description	Direction
A	GND	ground	
C	RTS	RS 232; ready to send	output
E	CTS	RS 232; clear to send	input
G	/TxD	RS 232; transmit data	output
J	/RxD	RS 232; receive data	input
L	—	do not connect!	
M	—	do not connect!	
N	LIN-	INMOS: LINK IN-	input
O	LIN+	INMOS: LINK IN+	input
P	LOUT+	INMOS: LINK OUT+	output
R	LOUT-	INMOS: LINK OUT-	output
S	GND	ground	

Power supply and 24 VDC Signal

Pin-No.	Signal	Description
1	24 V	24 Volt DC supply
2	GND24	ground
3	Safe 1.1	relais contact safety zone 1.1
4	Safe 1.2	relais contact safety zone 1.2
5	Safe 2.1	relais contact safety zone 2.1
6	Safe 2.2	relais contact safety zone 2.2
7	ALARM 1.1	relais contact alarm zone 1.1
8	ALARM 1.2	relais contact alarm zone 1.2

Typical use (personal safety at machines)



Specifications

Features	LADAR 2D OWS 6	Remarks
Laser class	laser class 1	eye-safe
Range:		
Angle	300° scan	the limitation to 300° is due to the self-test carried out with each scan
Maximum Distance:		
aiming on dark surface	6 m	reflection: 1,8%
aiming on light surface	10 m	reflection: 20%
Measurement accuracy		
Angle	± 1°	
at distance of	2 m 3 m 4 m 5 m 6 m	
Safety Extension	25cm 35cm 45cm 55cm 70cm	
Resolution:		
Angle	0,5°	
Distance	1 cm	
Measurement dynamics		
rotation frequency	8 HZ, + 5%	
output switch response time	switched output: = 280ms	
Interfaces		
	RS 232, V24, 9600 Baud	
	RS 422, Inmos Link, 10 Mbaud	
Switched outputs	3. no potential against ground	Safe 1, Safe 2 and Alarm
Indicator lights		
	LED green: safety zone ok	
	LED yellow: alarm occupied	
	LED red: safe zone occupied	
Technology		
Light source	laser diode	infrarot: Lambda 905 ± 30 nm
Beam diameter at:		
6m	10 cm	
10m	16 cm	
Case	aluminium	
General		
Power supply	24 VDC ± 25%	fully insulated
Current consumption	1,0 A, at 24 VDC	
Protection class	IP 65	
Working temperature	0° ... 50°C	
Storage temperature	-20° ... 70°C	
Weight	3,2 kg	
Electrical protection class	2	according VDE 0110/160
Shock, vibration	IEC 68	
EMV	IEC 801	industry standard

The manufacturer reserves the right to alter specification without prior notice • Data without tolerances are typical values • IBEO Lasertechnik Hipp KG April 98 • ©IBEO Lasertechnik Hipp KG is registered Trademark