

ISO 9001:2015 / ATEX



# Operating manual: LPS-532-AJB-ZA Laser pointer inside M18 housing

# CE

Type Type	LPS-532-AJB-ZA	
Technical Data Beam shape	point	
Light Source	Laser, green, 532nm, class 2	
Beam divergence angle	< 2mrad	
Supply voltage, Ue	24 VDC ± 10%	
Absolute maximum supply voltage, Um	30 VDC	
Maximum power dissipation	2.4W	
Maximum current consumption	80mA	
Housing	M18, Material: Ms 58 nickel plated	
Ambient working temperature range, T <sub>amb</sub>	-10°C up to +50°C	
Storage temperature range	-20°C up to +70°C	
EMC, shock and vibration resistance	Vibration: 30g over 20Hz to 2Khz. Shock: 100g for 3ms	
Connection cable	TPU insulation, AWM 20236, 4+PE x 0.5mm <sup>2</sup> , halogen free, shielded, leads numbering marked, oil resistant cable for trailing, length: 10m	
Accessories	Included	Optional
	<ul> <li>1x Warning plate "LASER RADIATION. DO NOT STARE INTO BEAM. CLASS 2 LASER PRODUCT", self-adhesive for gluing near to the sensor.</li> </ul>	• 1x clamp
Wiring and Connection	Lead-No	Function
	1	24 VDC ± 10%
	2	0V
	3	DO-Output
	4	Disable Input
	yellow-green	PE/PA
	white	Cable shield
Dimensions		

# Operating Manual / EC-/EU-declaration of conformity

#### Safety regulations for Laser devices class 2

The relevant standard is IEC/EN 60825-1 "Safety of laser products", see paragraphs 12.5.1 and 12.6.1. It is only necessary to take precautions to avoid a direct and prolongued staring into the beam. A direct look into the beam is not considered hazardous if the normal eye reflex limits it to a short duration (max. 0.25s). The laser beam path should be blocked at the end of its useful path when this is reasonably practicable. Additionally, the laser should not be directed at people.

## General mounting prescriptions

Mount the laser stable and vibration-free. The electrical connections must be exactly as shown in the connection diagr am. The cable shield must be connected as short as possible. The cable shield should be connected to the protection earth, large-surfaced. Do not exceed the maximum ratings or install the connection cables parallel to high voltage cables.

# Function

LPS-532-AJB-ZA\_e1/2023-07-20/MP

Once the laser pointer is energized, it takes about 2 seconds to start. To prolong laser lifetime, the laserpointer should be switched off when not in use. The laser can be disabled using the DI-Input. The DI-input must be set to +24V to switch off the laser pointer. The laser pointer is switched on when the DI input is set to 0V or left open. The switching frequency of the laser pointer can be up to the kHz range. The lifetime depends on the switching frequency and the ambient temperature. If there is an internal error, the DO output switches to "High". Connect the DO output only to inputs or leave it open. Never connect the DO output directly to 0V, GND, ground or +24V.

#### General notes, disposal

We reserve the right to make changes. The laser pointer is built as environmentally friendly as possible. It contains no environmentally harmful substances. A minimum of energy and resources are used during production and operation. Irreparable or no longer used devices must be disposed of according to the valid regulations.

### Maintenance

No special maintenance is required. For a high reliability hold the Laserpointer window free from sediments. It should be cleaned only with a non-aggressive cleaning liquid. Equipment should only be repaired by the manufacturer.

#### **EU-Declaration of Conformity**

The product meets the requirements of the following standards and directives: EN IEC 60079-0:2018, IEC 60079-1:2014, IEC 60079-28:2015, EN 60529:2014, IEC/EN 60825-1, IEC/EN 60825-2, IEC 61000-4-2 to IEC 61000-4-6, EN 61000-6-1/-2, EN 61000-6-4, Machine directive 2006/42/EC, EMC directive 2014/30/EU, RoHS directive 2011/65/EU

2006/42/EC, EMC directive 2014/30/EU, RoHS directive 2011/65/EU Pablo Ledergerber, Matrix Elektronik AG, is authorized to generation of documentation. The conformity of the devices with all used standards and directives and the EC-type examination certificate and the observation of the Quality Management System ISO 9001:2015, declares:

Ehrendingen, 20.7.2023

Pablo Ledergerber, Matrix Elektronik AG

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