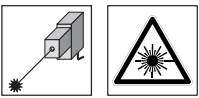


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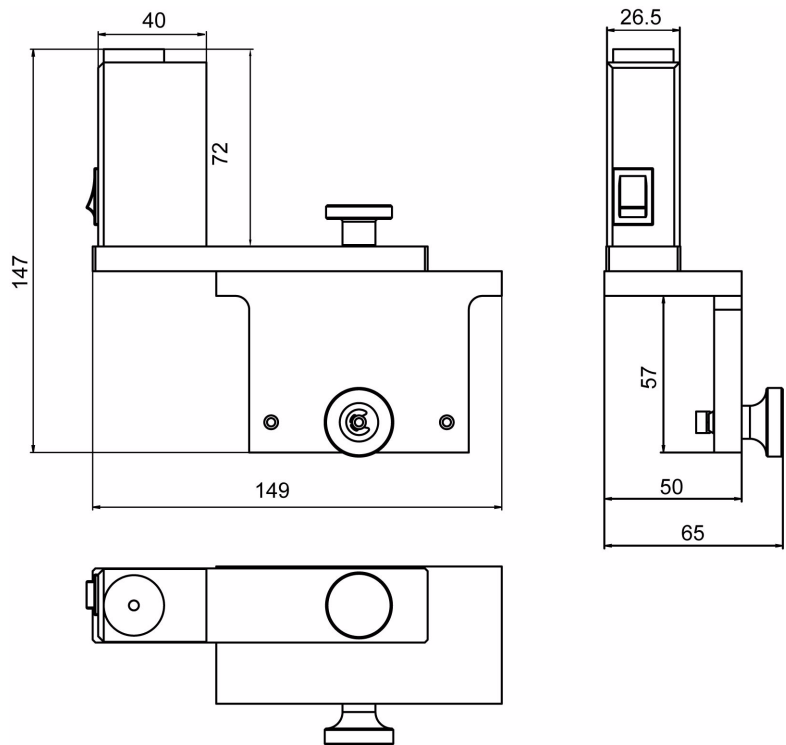


**50m**

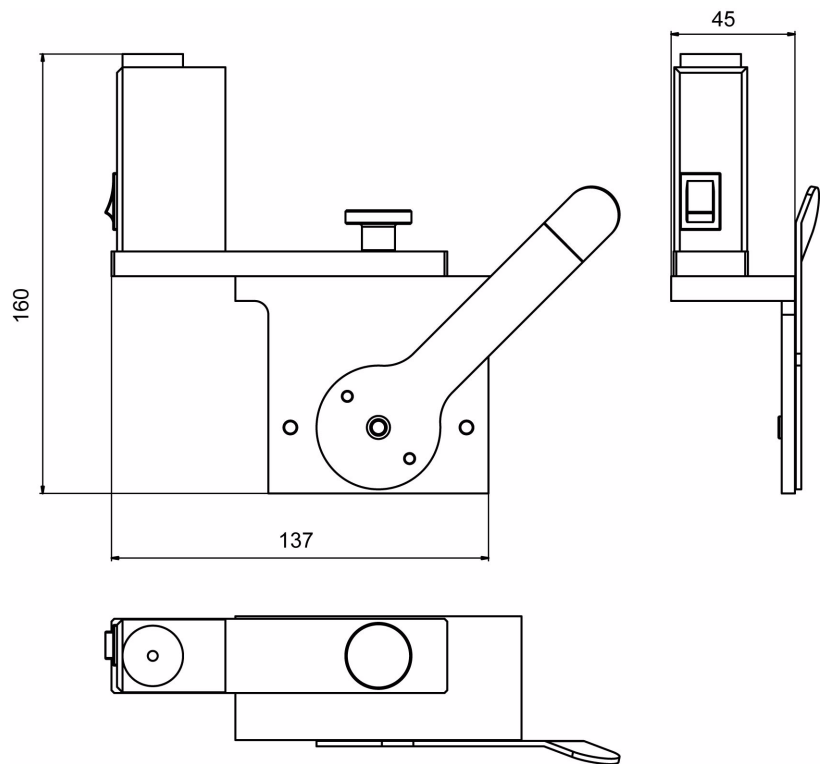
- Red-light laser, Laser class 2
- Sturdy aluminum housing
- Battery-operated
- Suitable for safety sensor MLD

**Dimensioned drawings**

**Laser Alignment Aid LA-78M**



**Laser Alignment Aid LA-78M-UDC**



We reserve the right to make changes • DS\_LA78M\_en\_601208\_01.fm



**Accessories:**

- 2x1.5V AAA batteries (built-in)

## Specifications

### Electrical data

Voltage supply	2 commercially available AAA batteries 2x1.5V replaceable
Ready to operate	approx. 8 hours in permanent operation by pressing the flip switch
Switching on/off	approx. 50m depending on ambient light
Visual range	650 ... 670nm (visible red light)
Light wavelength	2 in accordance with EN 60825-1:2007
Laser class	

### Mechanical data

Housing	aluminium
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### Environmental data

Ambient temp. (operation/storage)	-20 °C ... +55 °C/-30 °C ... +70 °C
Protection class	IP 45
Standards applied	EN 60825-1, 21 CFR 1040.10

## Remarks

### Intended use

The LA-78M and LA-78M-UDC Laser Alignment Aids are battery-operated red light lasers for quick and easy alignment of Leuze electronic MLD safety sensors, particularly with multiple side guarding via Deflecting Mirrors or with large operating ranges.

- The LA-78M Laser Alignment Aid is in-tended for direct mounting on the MLD safety sensor.
- The LA-78M-UDC Laser Alignment Aid is designed for the MLD safety sensor, mounted in the UDC device column.

### Operate in accordance with intended use!

- ↪ The product may only be put into operation by competent persons.
- ↪ Only use the product in accordance with the intended use.

### Battery change

To change the AAA cells, the two screws M2.5 on the bottom and the cover have to be removed. Change the AAA cells acc. to the figure, mount the cover and fasten the screws.

## Order guide

	Designation	Part No.
Laser Alignment Aid for MLD safety sensor	LA-78M	520023
Laser Alignment Aid for MLD safety sensor in UDC device column	LA-78M-UDC	520024
Mounting bracket for Laser Alignment Aid for MLD safety sensor	BT-LA-78M	520021
Mounting bracket for Laser Alignment Aid for MLD safety sensor in UDC device column	BT-LA-78M-UDC	520022

**Laser safety notices**



**ATTENTION, LASER RADIATION – LASER CLASS 2**

**Never look directly into the beam!**

The device fulfills the EN 60825-1:2008-05 (IEC 60825-1:2007) safety regulations for a product in **laser class 2** as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24th, 2007.

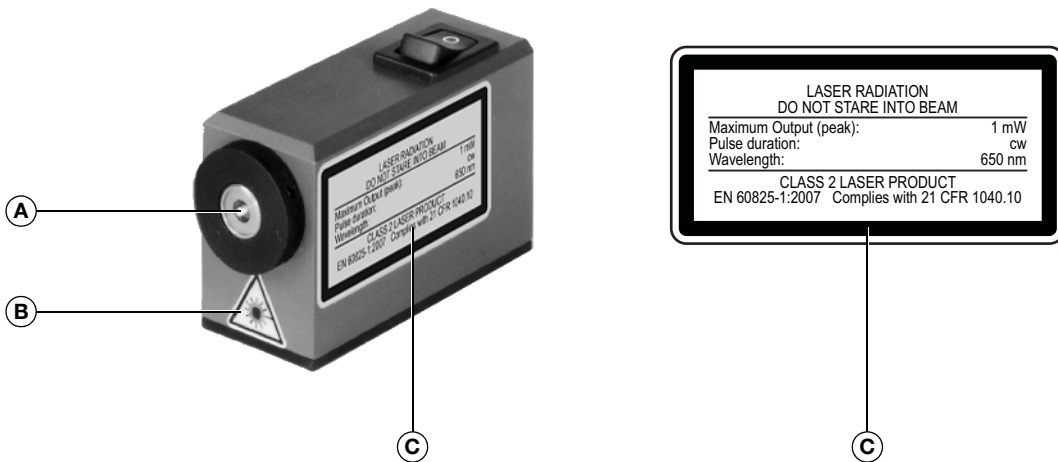
- ↳ Never look directly into the laser beam or in the direction of reflecting laser beams!  
If you look into the beam path over a longer time period, there is a risk of injury to the retina.
- ↳ Do not point the laser beam of the device at persons!
- ↳ Intercept the laser beam with an opaque, non-reflective object if the laser beam is accidentally directed towards a person.
- ↳ When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
- ↳ **CAUTION!** Use of controls or adjustments or performance of procedures other than specified herein may result in hazardous light exposure.  
The use of optical instruments or devices (e.g., magnifying glasses, binoculars) with the product will increase eye hazard.
- ↳ Adhere to the applicable legal and local regulations regarding protection from laser beams acc. to EN 60825 (IEC 60825) in its latest version.
- ↳ The device must not be tampered with and must not be changed in any way.  
There are no user-serviceable parts inside the device.  
Repairs must only be performed by Leuze electronic GmbH + Co. KG.

**NOTICE**

**Affix laser information and warning signs!**

Laser information and warning signs are firmly attached to the device (see ①).

①



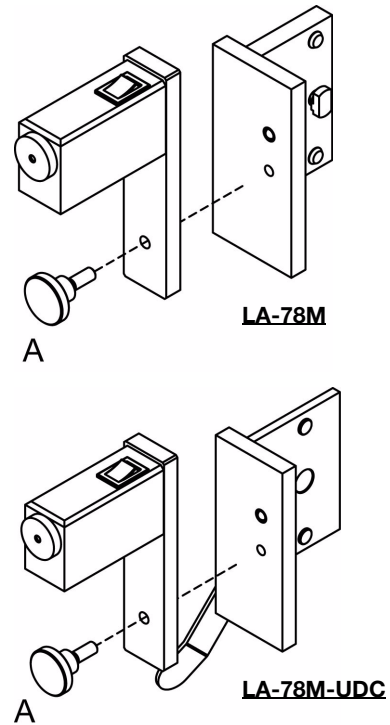
- A** Laser exit opening
- B** Laser warning sign
- C** Laser information sign with laser parameters

## Mounting

### Step 1: Securing the Laser Alignment Aid to the mounting bracket

- ☞ Set the LA-78M or the LA-78M-UDC Laser Alignment Aid on the mounting bracket.
- ☞ Fasten the Laser Alignment Aid with the knurled screw (A).

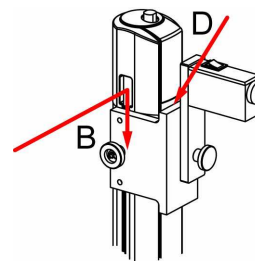
Step 1



### Step 2: Securing the Laser Alignment Aid

- ☞ Set the guide pins of the LA-78M or the LA-78M-UDC Laser Alignment Aid laterally into the guide notch of the MLD safety sensor.
- ☞ Align the Laser Alignment Aid in such a way that the upper edge of the mounting bracket locks flush with the disc edge (D).
- ☞ LA-78M: Fasten the Laser Alignment Aid with the knurled screw (B).
- ☞ LA-78M-UDC: Tilt the Laser Alignment Aid between the sensor and the UDC device column by pulling the lever down (C).

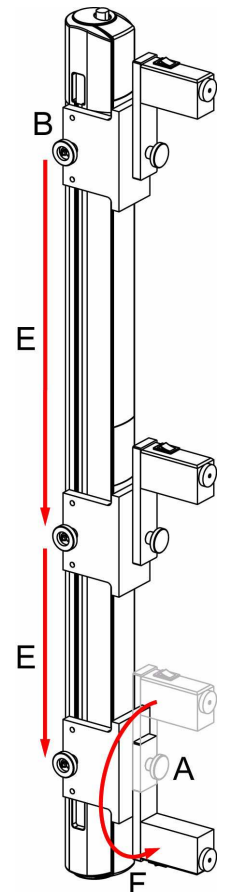
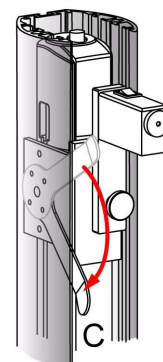
Step 2



Step 3

### Step 3: Alignment of the Laser Alignment Aid on the MLD safety sensor

- ☞ Loosen the knurled screw (B) or lift the lever (C) to secure the Laser Alignment Aid on the safety sensor.
- ☞ Move the Laser Alignment Aid along the guide notch (E).
- ☞ Align the Laser Alignment Aid in such a way that the upper edge of the mounting bracket locks flush with the upper, middle or lower disc edge (D).
- ☞ Retighten the knurled screw (B) or push the lever back down (C).



#### Only lower light beam:

- ☞ Loosen the knurled screw (A) to secure the Laser Alignment Aid to the mounting bracket.
- ☞ Turn the Laser Alignment Aid by 180° (F), whereby the mounting bracket remains fastened to the safety sensor.
- ☞ Retighten the knurled screw (A).