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1. For your safety

The luminaire has been designed in accordance with state-of-the-art standards, manufactured with utmost care using high-quality materials, and tested.

Nevertheless, its use may constitute a risk to persons or cause material damage.

- ▶ Read all enclosed instructions and information.
- ▶ Please observe the warnings included in the documentation and attached to the unit.
- ▶ The device must only be used in technically perfect condition, and only by persons being aware of the risks and dangers involved in operating the device.
- ▶ Keep this document available near the device.

1.1 Designated use

The luminaire with integrated magnifier is intended for the illumination and simultaneous magnification of objects.

The luminaire model RLLQ 48/**2 AR** has been especially designed for use in electrostatically protected areas (EPA).

1.2 Safety instructions

Explosion hazard

Operating the luminaire in rooms subject to explosion hazards can trigger an explosion and result in serious injuries or death.

- ▶ **Do not** operate the luminaire in rooms subject to explosion hazards.

Danger due to electric current

Improper use and faulty work on the luminaire may result in injuries and material damage.

- ▶ Compare the mains voltage with the nominal voltage and the frequency specified on the rating plate and make sure that they are identical.
- ▶ Lay the connecting cable in such a way that it cannot be damaged.
- ▶ Disconnect a damaged connecting cable immediately from the power supply and have it replaced by the manufacturer, by a service technician authorised by the manufacturer or by a person with comparable qualification.
- ▶ Have the maintenance and repair performed by the manufacturer, by a service technician authorised by the manufacturer or by a person with comparable qualification.
- ▶ Before performing work on the luminaire, disconnect the luminaire from the power supply.

Risk of fire

When exposed to sunlight, the magnifier can act as a focusing glass and ignite other objects.

- ▶ When the magnifier is not used, cover it with the magnifier cover.

Mount the luminaire in a stable position

A toppling luminaire can result in personal injuries and material damage.

- ▶ Mount the luminaire in a stable position.

Hazard caused by unsuitable spare parts

Unsuitable spare parts can result in injuries and material damage.

- ▶ Only spare parts released by the manufacturer may be used as spare parts.

Risk of corrosion

Operating the luminaire in moist rooms can result in material damage.

▶ Operate in dry rooms only.

1.3 Warning levels

⚠ DANGER

Warnings against hazards that result **directly in serious injuries or death** in case of non-observance.

⚠ WARNING

Warnings against hazards that may result in **serious injuries or death** in case of non-observance.

⚠ CAUTION

Warning against hazards that may result in **injuries** in case of non-observance.

NOTICE

Warning against hazards that may result in **material damage** in case of non-observance.

2. Model overview

For optimum installation and use of the luminaire, you have to identify the luminaire model. To do so, you will require the model number of the luminaire.

NOTE: The model number can be found on the support of the luminaire.

▶ Check which model number the luminaire has.

▶ Determine the luminaire model by referring to the following table, see Tab. 1. For an explanation of the functions, see chapter 6 "Functions of the luminaire", page 26.

Example: The model number **TVD 750/940/DM** stands for the following luminaire model:

TV	**D**	**750**	**940**	**DM**
TEVISIO Magnifier luminaire	Arm type D: Double arm	Luminous flux class: 750 lm	Colour code: Ra 90, 4000 K	Version DM Functions: ▪ Dimmable ▪ Segment switching

Type	Arm type	Luminous flux class	Colour code	Version
TV TEVISIO Magnifier luminaire	**D** Double arm	**750** lm	**940** Colour rendering index Ra 90, colour temperature 4000 K	**DM** Dimmable Segment switching

Example: The model number **RLLQ 48/2 AR** stands for the following luminaire model:

RLLQ	**48**	**2 AR**
TEVISIO Magnifier luminaire	Key: 48	Version: 2 AR Functions: ▪ Dimmable ▪ Segment switching ▪ Suitable for EPA

Type	Key	Version	Functions
RLLQ TEVISIO Magnifier luminaire	**48**	**2 AR**	Dimmable Segment switching Suitable for EPA

Tab. 1: Model overview.

3. Mounting

⚠ CAUTION

Risk of injury caused by a falling or tilting luminaire.

Personal injury and material damage.

▶ Mount fastening elements correctly.

3.1 Mounting the fastening elements

NOTICE

Material damage caused by missing ESD protection.

Electrostatic discharge and damage to electronic components.

▶ In electrostatically protected areas (EPA), only luminaires suitable for EPA must be used.

▶ Use only fastening elements suitable for EPA.

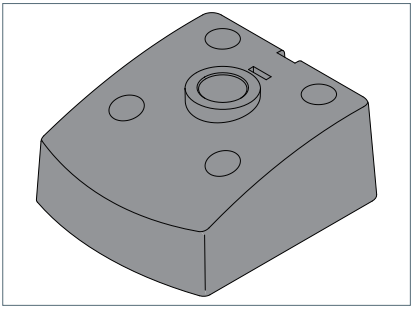


Fig. 1: Fastening element.

▶ Screw the fastening element to the mounting surface using four suitable screws.

3.2 Mounting the luminaire to the fastening element

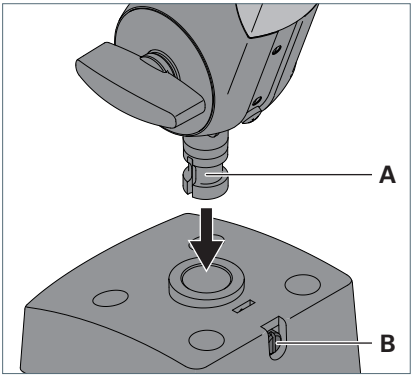


Fig. 2: Mounting the luminaire to the fastening element.

▶ Insert the stud **A** on the luminaire support into the opening of the fastening element, see Fig. 2.

▶ Tighten the screw **B** to fix the support.

3.3 Mounting the magnifier cover

⚠ CAUTION

Fire risk when the magnifier is not covered and exposed to sunlight.

Personal injury and material damage.

▶ When the magnifier is not used, cover it with the magnifier cover.

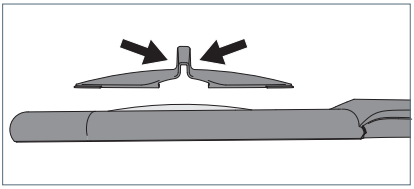


Fig. 3: Mounting the magnifier cover.

▶ Compress the upper part of the magnifier cover, see Fig. 3.

▶ Place the magnifier cover on the magnifier from above and release the cover.

The magnifier cover is clamped to the luminaire head.

3.4 Storing the magnifier cover

While using the magnifier, you can store the magnifier cover on the luminaire support.

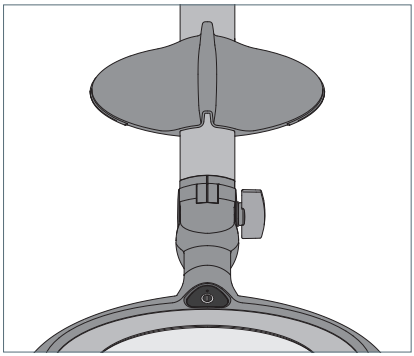


Fig. 4: Storing the magnifier cover.

▶ Clamp the magnifier cover to the luminaire support, see Fig. 4.

3.5 Remove the lens (TVD)

NOTICE

Material damage caused by wrong handling.

Damage to the lens caused by scratching.

▶ Place plastic lenses only on a clean surface.

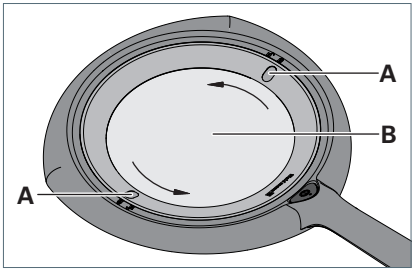


Fig. 5: Remove the lens.

▶ Turn the ring with the recesses **A** counterclockwise to the two unlocking symbols on the housing, see Fig. 5.

▶ Detach the ring and remove the lens **B.**

4. Positioning

4.1 Adjusting the support

⚠ CAUTION

Risk of injury caused by a falling or tilting luminaire.

Personal injury and material damage.

- ▶ Hold the luminaire head when unscrewing the pivot screws.
- ▶ After positioning the support, tighten the pivot screws.

NOTICE

Material damage caused by wrong handling.

Damage to the luminaire.

- ▶ Do **not** move the joints opposite to the intended direction of rotation.

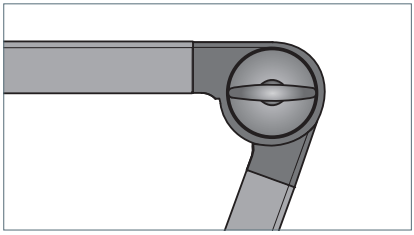


Fig. 6: Joint and pivot screw.

- ▶ Place the luminaire in the desired position.
- ▶ Tighten the pivot screw until the luminaire is fixed in the desired position.

5. Connection

NOTICE

Material damage caused by wrong handling.

Omission of the ESD protection and damage to electronic components.

- ▶ Luminaires suitable for EPA must remain plugged in in electrostatically protected areas (EPA).
- ▶ Connect the luminaire to an inspected electric mains that meets the legal requirements using the delivered power supply unit only.
- ▶ Leave the grounding cable plugged in in EPA areas.

5.1 Connecting the grounding cable

NOTE: This chapter applies only to luminaires suitable for EPA.

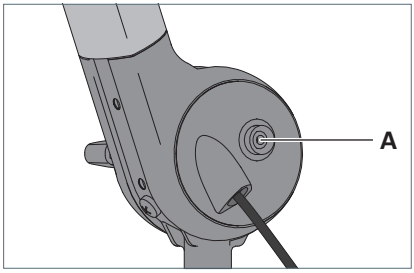


Fig. 7: Pushbutton for grounding cable.

- ▶ Connect one end of the provided grounding cable to the pushbutton **A** of the luminaire, see Fig. 7.
- ▶ Connect the other end of the grounding cable to a grounding contact point.

5.2 Connecting the luminaire to the mains voltage

NOTICE

Material damage caused by wrong mains voltage.

Damage or destruction of the luminaire.

- ▶ Compare the mains voltage with the nominal voltage and the frequency specified on the rating plate and make sure that they are identical.

- ▶ Connect the connecting cable to the power supply unit.
- ▶ Plug the mains plug into a socket.

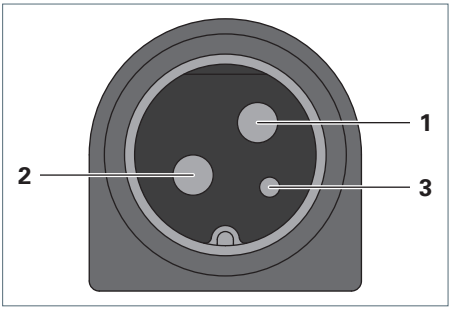
5.3 Connecting the luminaire to the 24 V supply voltage (SELV)

NOTICE

Material damage caused by wrong mains voltage.

Damage or destruction of the luminaire.

- ▶ Connection by a skilled electrician only.
- ▶ Operate the luminaire at safety extra low voltage (SELV) only.
- ▶ **USA and Canada:** This device must be connected to a class 2 power supply.



No.	Designation
1	DC +
2	DC –
3	Not connected

Tab. 2: Pin assignment.

NOTE: Please observe the pin assignment.

- ▶ Plug the plug into the socket provided for this purpose.

6. Functions of the luminaire

6.1 Operating functions

Dimmable

This function is used to change the brightness of the luminaire.

Segment switching

This function can be used to switch the individual light segments on and off.

The light segments create a 3D shadow effect which highlights the structure and reveals slight defects or fine differences in the surface structure of an object.

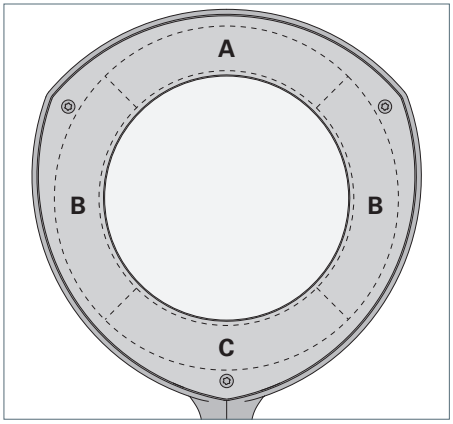


Fig. 8: Light segments.

Level	Description
1	Light segments **A**+**B**+**C** are lit.
2	Light segments **B** are lit.
3	Light segment **C** is lit.

Suitable for EPA

Luminaires with this function can be grounded and are suitable for use in electrostatically protected areas (EPA).

7. Operation

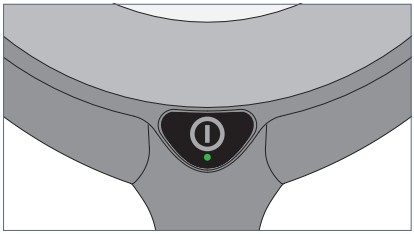


Fig. 9: Switch.

7.1 Switch-on and switch-off

▶ Press the switch, see Fig. 9.

7.2 Dimming

▶ Press the switch and keep it depressed, see Fig. 9.

After about one second, the luminaire will change its brightness.

As soon as the maximum or minimum dimming value is reached, the LED in the switch will flash.

▶ To change the dimming direction, press the switch again and keep it depressed.

This will save the set brightness. The next time the luminaire is switched on, the brightness saved last will be set.

7.3 Changing the light segments

▶ Press the switch twice in quick succession, see Fig. 9.

The next level is switched on.

The set level is saved. The next time the luminaire is switched on, the level saved last will be set automatically.

8. What to do if?

Problem	Possible causes	Corrective action
Luminaire is not lit.	Mains plug not plugged in.	▶ Plug the mains plug into a socket.
	Electronic components are defective.	▶ Contact our experts.
The luminaire switches off automatically.	The temperature in the luminaire head is too high.	▶ No measures required. As soon as the temperature in the luminaire head has decreased, the luminaire can be switched on again.
Luminaire does not respond to inputs.	Software function is defective.	▶ Unplug the mains plug for a few seconds. ▶ If the luminaire still doesn't respond, contact our experts.
The connecting cable is damaged.	Mechanical impact on the connecting cable.	▶ Disconnect a damaged connecting cable immediately from the power supply and have it replaced by the manufacturer, by a service technician authorised by the manufacturer or by a person with comparable qualification.
If you want to make use of our service, our service team can be reached at:		

Tab. 3: What to do if?

9. Maintenance

9.1 Replacing the lamp

NOTE: The luminaire is maintenance-free. A lamp replacement is not required. If nevertheless a lamp should break down, our service team can be reached at:

9.2 Checking ESD safety

Prerequisite: The luminaire is suitable for use in electrostatically protected areas (EPA areas).

▶ Check luminaire every 3 months for ESD safety and electric operational safety.

10. Cleaning

⚠ WARNING

Danger of death due to electric shock.

▶ Disconnect the luminaire from the mains.

▶ **Do not** clean with a wet cloth.

NOTICE

Material damage caused by using wrong cleaning agents.

Damage to the luminaire.

▶ Make sure the cleaning agent is compatible with the surface.

▶ Clean the luminaire with a cloth and a mild detergent.

11. Repair

NOTICE

Material damage caused by improper repair.

Damage or destruction of the luminaire.

▶ Always have repairs performed by the manufacturer, by a service technician authorised by the manufacturer or by a person with comparable qualification only.

▶ Use only spare parts approved by the manufacturer.

NOTE: If a defect occurs in the luminaire, you can contact our service team:

12. Disposal

The luminaire is subject to the European WEEE Directive.

▶ Dispose of the luminaire separately from domestic waste using the agencies responsible for disposal and designated by the authorities.

Proper disposal avoids adverse effects on man and the environment.

13. Technical data

NOTE: The data given on the rating plate attached to the support of the luminaire apply.

13.1 Dimensions

Designation	Value
Luminaire head	Diameter: 265 mm Height: 21 mm
Length	Short version: 400 + 384 + 372 mm Long version: 500 + 484 + 372 mm

Tab. 4: Dimensions.

13.2 Electrical values

Designation	Value
Voltage range	
- Luminaire	24 V DC
- Luminaire + operating unit	100–240 V AC
Frequency range Luminaire + operating unit	50/60 Hz
Power consumption TVD:	Luminaire: 11 W
	Luminaire + operating unit: 13 W
Power consumption RLLQ 48/2 AR:	Luminaire: 14 W
	Luminaire + operating unit: 16 W
Operating unit	Power supply unit

Tab. 5: Electrical values.

13.3 Classifications

Designation	Value
Protection class	Luminaire: III
	Luminaire + operating unit: TVD: II RLLQ 48/2 AR: I
Protection type	IP 20
Operating mode	Continuous operation

Tab. 6: Classifications.

13.4 Magnifier data

Designation	Value
Diameter	160 mm (153 mm visible)
Strength	Without stuck on add-on lens: 3.5 dioptres With stuck on add-on lens: 11.5 dioptres

Tab. 7: Magnifier data.

13.5 Symbols

Symbol	Designation
	Protection class I Operation with protective earth conductor
	Protection class II Operation with protective insulation
	Protection class III Operation with safety extra low voltage (SELV)
	Suitable for the electro-statically protected area (EPA)
	Suitable for mounting on normally inflammable surfaces
	CE conformity mark
	Disposal in accordance with the European WEEE Directive

Tab. 8: Symbols.