


Safety instructions



DANGER

Danger caused by wrong mounting or handling!

Wrong mounting or handling of this unit can result in serious injuries or death.

- First read these instructions and, where appropriate, any other instructions and information attached to the unit! 
- Please observe the warnings and notes included in the instructions and attached to the unit!

DANGER

This symbol identifies items that may directly result in serious injuries or death in case of non-observance or wrong handling.

WARNING

This symbol identifies items that may result in serious injuries or death in case of non-observance or wrong handling.

CAUTION

This symbol identifies items that may result in injuries or material damage in case of non-observance or wrong handling.

NOTICE

This symbol identifies items that may result in material damage in case of non-observance or wrong handling.

Safety instructions



DANGER

Explosion hazard!

Operating the light in rooms subject to explosion hazards can trigger an explosion.

- Operate in rooms not subject to explosion hazards only!

WARNING

Danger due to electrical shock in case of contact!


Maintenance or repair work carried out incorrectly may result in serious injuries or death.

- Disconnect the light from the mains before carrying out any maintenance or repair work!
- Maintenance and repair work must be carried out by a skilled electrician only!
- Only parts released by the manufacturer may be used as spare parts!

NOTICE

Damage caused by wrong mains voltage!

A wrong mains voltage can result in damaging or destroying the lamp.

- Operate units of protection class III with safety extra low voltage (SELV) only! 
- Connection only by a skilled electrician!
- Before putting the light into operation, the user has to check whether the mains voltage is identical with the rated voltage specified on the rating plate.

Safety instructions



WARNING

Risk of blinding!

Looking directly into the light source may cause temporarily impaired vision and afterimages. This may result in irritations, inconveniences, impairments or even accidents.

- Looking directly into the light source must be avoided.
- Position light in such a way that looking directly into the light source is avoided.

NOTICE

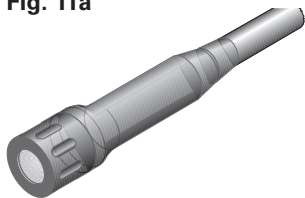
Damage caused by the incident laser beam!

Direct or indirect incidence of a laser beam may result in the destruction of the LED.

- Use the light only outside the range of action of high-performance lasers (e.g. cutting laser, welding laser).

Description

Fig. 11a

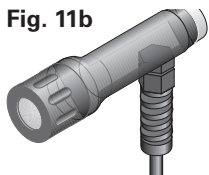


According to standard DIN EN 1837, an illuminance of 500 lx is required in the work area of machines. This is often impossible to achieve using a light that is not in the immediate proximity of the tool. However, only in rare cases is it possible to attach a light directly to the tool slide, since the restricted room available in the interior of the machine room does not allow this.

In the ideal case, a well illuminated machining area is can be achieved by combining 2 or more lights:

- a) Light for basic illumination of the machining area (using, for example, a Waldmann protective-tube light)
- b) additionally mounted light for the immediate machining area (e.g. Waldmann machine light ABLTL 1).

Fig. 11b



The machine light ABLTL1 meets the requirements of the standard since the flexible light-supporting hose (swan neck) allows virtually any positioning of the light. Mounting such a light, in addition to the basic illumination already in place, offers a maximum degree of illumination comfort at the machine.

The use of light emitting diodes (LED) instead of halogen lights allows a significantly higher service life to be achieved. This results in fewer machine downtimes as a result of maintenance work.

A housing made of anodized aluminum and a protective borosilicate glass pane are resistant to hot and sharp-edged chips. The housing is waterproof and, like the PUR cable, resistant to coolants and lubricants.

The selection between 3 variants of different radiation characteristics (6°, 15°, 25°) makes for universal use.

Designated use



Intended purpose:

Machine light - light for illuminating the work area on machines.

Place of use:

Only suitable for rooms not subject to explosion hazards.

Not for use in the range of action of high-performance lasers.

Operating mode:

The light is designed for continuous operation.

Abbreviations and symbols



Safety or warning instructions!



Important information!



Unit corresponds to international protection class III (Operation with safety extra low voltage (SELV))



The light is suitable for mounting on normally inflammable surfaces



Observe the disposal instructions!

LED Light Emitting Diode



VDE Approval



ENEC Approval



SEV Approval



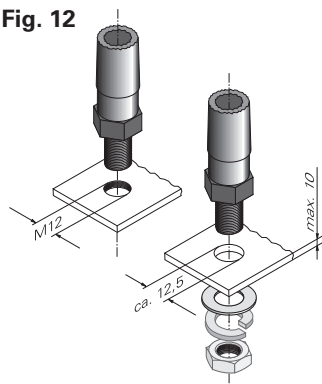
CE Conformity mark



The manufacturer cannot be held liable for damage caused by using the unit for purposes contrary to the designated use or by ignoring safety instructions and warnings.

Mounting

Fig. 12



CAUTION

Danger due to insufficient fastening!

When mounted incorrectly, the light may fall down.

- Mounting to a surface suitable for mounting only!
- Mounting by a skilled electrician only!

NOTICE

Damage caused by the incident laser beam!

Direct or indirect incidence of a laser beam may result in the destruction of the LED.

- Use the light only outside the range of action of high-performance lasers (e.g. cutting laser, welding laser).

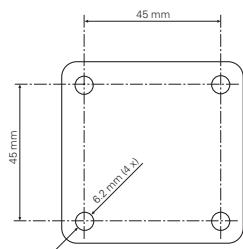
Standard version

The light-supporting hose can be mounted on a through hole of approximately 12.5 mm in diameter (using the enclosed disks and nut) or directly on the M12 thread (see Fig. 12).

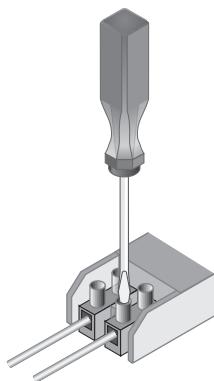
Light with screw down lash

Mount light in stable position by means of suitable screws (see Fig. 13).

Fig. 13



Connection



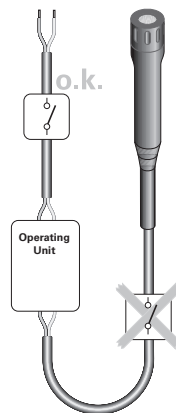
NOTICE

Damage caused by wrong connection!

Wrong connection may result in the light being damaged or destroyed.

- Operate the light with the operating units proposed by the manufacturer only.
- Connect the light only when the operating device is off!
- Install the switch always in the primary electric circuit (see fig. 14)!
- Connection only by a skilled electrician!
- The operating unit must be positioned in accordance with its type of protection.

Fig. 14



Connection



Important Information

See connection diagrams on page 31.

Depending on the mains voltage and the selected operating current, different operating units are suitable.

Suitable operating units can be found in the Appendix (page 30).

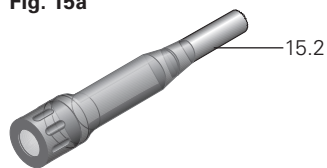
Connect the light as shown on page 31.

Two versions of the theWaldmann operating unit are available, which have different operating currents.

Note: Higher operating current means higher light yield and shorter useful life.

Operation

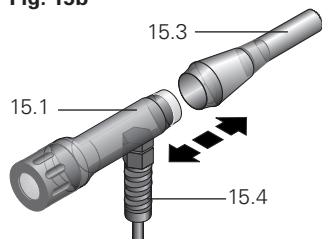
Fig. 15a



Positioning

Via the flexible light-supporting hose (15.2) (swan neck), the light can be swung virtually into any desired position.

Fig. 15b



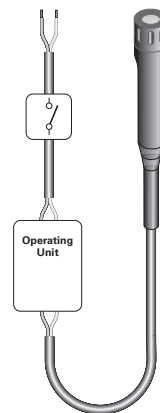
In the version with external cable duct (15.4), the light module (15.1) is maintained in the light-supporting hose (15.3) via a magnet. It can be pulled off without any problem (see Fig. 15b).



Note!

In the standard version, the light module cannot be pulled off!

Fig. 16



Switching ON/OFF

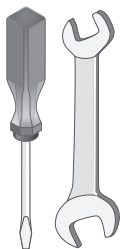
The light is not equipped with a switch of its own. It is usually switched on/off via external switching elements.



Important information

Install the switch always in the primary electric circuit (see fig. 16)!

Maintenance and repair



WARNING

Danger due to electrical shock in case of contact!

Maintenance or repair work carried out incorrectly may result in serious injuries or death.

- Disconnect the light from the mains before carrying out any maintenance or repair work!
- Maintenance and repair work must be carried out by a skilled electrician only!
- Only parts released by the manufacturer may be used as spare parts!

Maintenance

The light module is maintenance-free.

NOTICE

Loss in tightness!

The main parts of the light module are bonded to each other. When the two parts are separated from one another, tightness may get lost.

- Do not separate the light parts from one another!

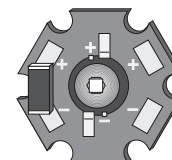
Defective light source



The light works with one light emitting diode (LED). The useful life of LEDs exceeds by far that of conventional lamps (e.g. light bulbs). Therefore, a replacement of the light source is rarely necessary.

If nevertheless the LED should break down, the entire LED module [Fig. 17] must be replaced. **To do so, send the complete light to the manufacturer.**

Fig. 17



Care



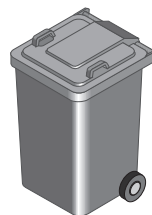
NOTICE

Risk of damage through wrong care!

Wrong care may destroy the unit.

- Clean the transparent cover at regular intervals!
- Clean the light parts only with a cloth impregnated with a suitable household cleaning agent!
- Make sure the agents used are compatible with paints and plastics!


Disposal



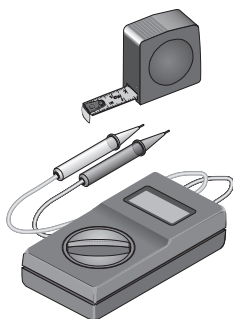
NOTICE

Environmental hazard!

Wrong disposal endangers our environment.

- Return the unit at the end of its useful life to the available recycling systems! 

Technical data



Dimensions

Standard version (Fig. 2a):

Luminaire approx. Ø 29 x 755 mm

Cable approx. 5000 mm

Version 112373000 (Fig. 2b):

Light module
approx. Ø 29 x 113 mm

Light-supporting hose
approx. 655 mm

Cable approx. 600 -2000 mm

Classification

Protection class III

Protection type see rating plate *

Operating mode

Continuous operation

Technical safety check
according to EN 60598-1

Rating according to DIN 60825-1
and VDE 0837 Laser class 1

* Example of a mixed
protection type:

IP20 [IP67] means

Light IP20

Light module IP67

Electrical values

Operation with Waldmann type A
operating unit or VLM operating
unit type 1

Operating current 700 mA

Power approx. 3.0 W

Useful life * approx. 50,000 h

Operation with Waldmann type C
operating unit or VLM operating
unit type 2

Operating current 350 mA

Power approx. 1.5 W

Useful life ** approx. 50,000 h

NOTICE

Risk of damage due to differences from the standard design.

If required, this series of units will be supplemented by further variants. The technical data may therefore be subject to modifications.

- Always observe the data and symbols given on the rating plate!

* Decrease in luminous flux
approx. 70 %

** Decrease in luminous flux
approx. 50 %

Appendix

Suitable operating units

For 230 V AC (700 mA)

VLM type 1 operating unit

Order No. 209 585 019

Input voltage	95-240 V
Frequency range	50/60 Hz
Output current	700mA

Assembly:

Adapter plate including clip for mounting rail

Operating unit/light module line length max. 10 m

a maximum of 3 light modules can be connected (in series)

For 230 V AC (350 mA)

VLM type 2 operating unit

Order No. 209 595 019

Input voltage	95-240 V
Frequency range	50/60 Hz
Output current	350mA

Assembly:

Adapter plate including clip for mounting rail

Operating unit/light module line length max. 10 m

a maximum of 3 light modules can be connected (in series)

For 24 V AC/DC (700 mA)

Waldmann-type A operating unit

Order No. 209 582 019

Input voltage	19.2-28.8 V
Frequency range	50/60 Hz / DC
Output current	700 mA

Assembly:

Housing for mounting to mounting rail

Operating unit/light module line length max. 10 m

a maximum of 3 light modules can be connected (in series)

For 24 V AC/DC (350 mA)

Waldmann-type C operating unit

Order No. 209 582 039

Input voltage	19.2-28.8 V
Frequency range	50/60 Hz / DC
Output current	350 mA

Assembly:

Housing for mounting to mounting rail

Operating unit/light module line length max. 10 m

a maximum of 3 light modules can be connected (in series)

Fig. 25a

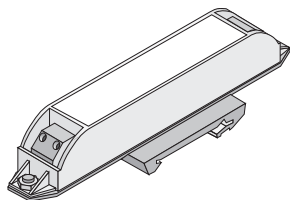


Fig. 25b

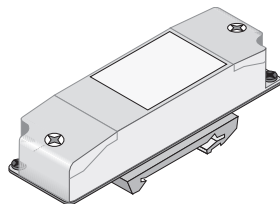


Fig. 25c

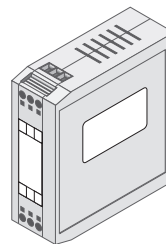
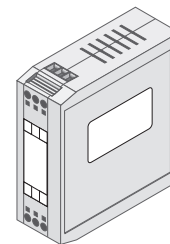


Fig. 25d



Appendix

Fig. 26a

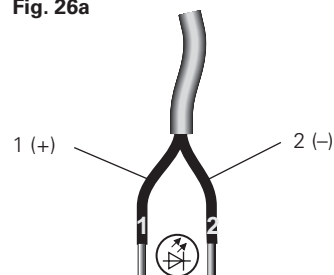
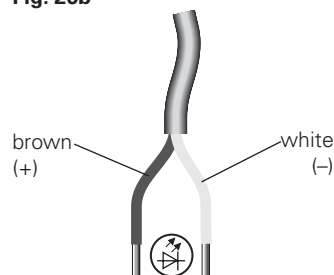
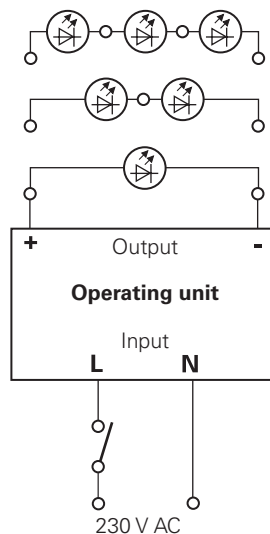


Fig. 26b



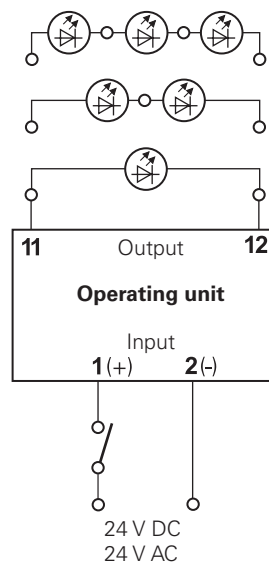
VLM operating unit

Fig. 27



Waldmann operating unit

Fig. 28



NOTICE

Damage caused by wrong connection!

Wrong connection may result in the light being damaged or destroyed.

- Operate the light only with a suitable operating unit.
- Connect the light only when the operating device is off!
- Install the switch always in the primary electric circuit (see fig. 14 on page 25)!
- Connection only by a skilled electrician!