


## 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.

### **CAUTION**

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!

### **CAUTION**

#### **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.

### **CAUTION**

#### **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

# SPOT LED 003

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 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 MCXFL 3, MCTFL 3 or MCBFL 3).

The mounted light **MCAYL 3** meets the requirements of the standard if the position of the light does not have to be changed. 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 useful life to be achieved. This results in fewer machine downtimes as a result of maintenance work.

A housing made of anodised aluminium and a protective borosilicate glass pane are resistant to hot and sharp-edged chips. The housing is water-proof and resistant to coolants and lubricants.

The selection between several variants of different radiation characteristics makes for universal use.

## Designated use



### Intended purpose:

Mounted light - light for universal use, but in particular as additional lighting of the working area of machines and workstations.

### 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



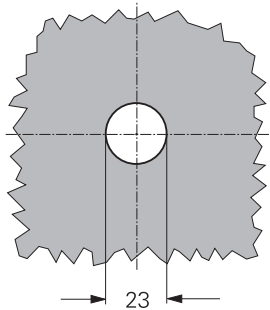
CE Conformity mark



**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



### General

The light has been designed as stationary light.

Both light and operating unit must be mounted stationary.

### CAUTION

#### Damage to the light caused by improper cable layout!

If the cable is laid incorrectly, it may be damaged due to outside influences (e.g. hot chips).

- Make sure that the cable is laid in such a way that it cannot be damaged!

### CAUTION

#### Decrease in the useful life

In the case of insufficient heat dissipation, the useful life of the light will decrease!

- Operate light only when mounted!
- Provide a sufficiently large metallic mounting surface (> 900 cm<sup>2</sup>).
- Ensure good heat transfer between light and mounting surface!

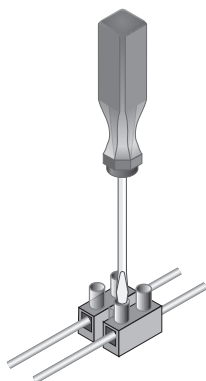
### CAUTION

#### Danger due to insufficient fastening!

When mounted incorrectly, the light may fall down.

- Mount light [2.1] using the enclosed nut [2.2] and washer [2.4] (see Fig. 2 on page 3).
- Mounting to a surface suitable for mounting only!
- Mounting by a skilled electrician only!


## Connection



### CAUTION

#### Damage caused by wrong mains voltage!

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

- Lights of international protection class III  must be operated only with safety extra low voltage (SELV)!
- Connection only by a skilled electrician!
- Before putting the light into operation, the user has to check whether the supply voltage is identical with the rated voltage specified on the rating plate!
- All wiring termination shall be in accordance with the National Electric Code!

### Note

The light is protected against polarity reversal. The function is also guaranteed when the two lines are interchanged.

#### Light with connecting cable

The light is supplied with free strand ends for connection to safety extra low voltage (SELV).

For connection to the supply voltage use the terminal connector provided with the light.

For lights with accompanying terminal strip, the outlet must correspond to the protection type of the light and be adequately dimensioned for the terminal strip.

#### Light with connector

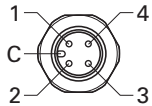
See page 24.

### Note for USA

This device must be connected to a class 2 power supply!

## Connection (continued)

Fig. 15



### Light with connector

For lights with built-in plug, a coupling which guarantees the compliance with the protection type must be used for connection.

### Connection assignment:

#### MCEYL 3 S

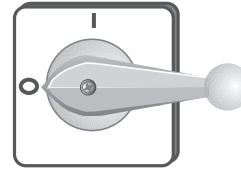
1	+
2	(not used)
3	-
4	(not used)
C	Coding mark



### Note:

Use a connection cable 1 mm<sup>2</sup>.

## Operation

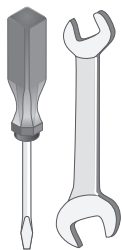


### Switching ON/OFF

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



## Maintenance and repair



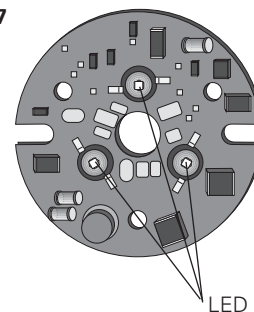
### **WARNING**

#### **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!

Fig. 17



#### **Defective light source**

**i** The light works with light emitting diodes (LED). The useful life of LEDs exceeds by far that of conventional lamps (e.g. light bulbs). There fore, a replacement of the light source is rarely necessary.

If nevertheless one of the three LEDs should break down, the entire LED module [Fig. 17] must be replaced.

## Care



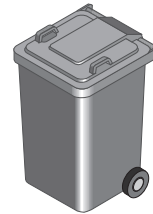
### CAUTION

#### 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



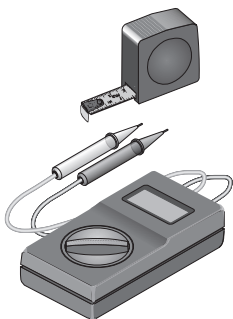
### CAUTION

#### Environmental hazard!

Wrong disposal endangers our environment.

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

## Technical data



### General:

Protection class III  
Protection type IP 67  
Operating mode:  
    Continuous operation  
Technical safety check  
    according to EN 60598-1  
Rating according to DIN 60825-1  
and VDE 0837 Class 1 laser

### Dimensions:

#### MCAYL 3 S

Light body  
    approx.  $\varnothing$  65 x 54 mm  
Mounting thread M 22 x 1.5  
Connecting cable  
    approx. 3000 mm

### Electrical values:

Nominal voltage 24 V AC/DC  
Frequency range (AC) 50/60 Hz  
Power consumption approx. 10 W

### CAUTION

#### 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!