

Instructions For Use **ENG**



MACH LED PLUS
MFA

Automated Manufacturing Light



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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

This luminaire is a machine light for illuminating objects on and in machines. The luminaire is suitable for wet environments.

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.

- ▶ The connection must be conducted by a trained electrician only.
- ▶ Compare the mains voltage with the nominal voltage and the frequency specified on the rating plate and make sure that they are identical.
- ▶ Operate the luminaire at safety extra low voltage (SELV) only.
- ▶ Have maintenance and repair work carried out by a trained electrician only.
- ▶ Before performing work on the luminaire, disconnect the luminaire from the power supply.

Safe mounting

A luminaire falling down can result in personal injuries and material damage.

- ▶ Use only the delivered fastening elements or other suitable fastening elements available from the manufacturer.
- ▶ Mount fastening elements correctly.

Risk of blinding caused by bright light source

Looking directly into the light source may cause temporary visual impairment and afterimages. This may result in irritations, inconveniences, impairments or even accidents.

- ▶ **Do not** look into the light source.
- ▶ Locate the luminaire in such a way that looking directly into the light source is avoided.

Risk of burns

Hot surfaces can result in burns to the skin.

- ▶ Do **not** touch the light during operation.
- ▶ Do not touch the light until it has cooled down.

Hazard caused by unsuitable spare parts

Unsuitable spare parts can result in injuries and material damage.

- ▶ Only use spare parts approved by the manufacturer.

Danger due to incident laser beam

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

- ▶ Use the luminaire only outside the impact range of high-performance lasers such as a cutting laser.

Danger due to high ambient temperature

Exceeding the allowed ambient temperature will shorten the service life of the electronic components.

- ▶ Do not exceed the maximum permissible ambient temperature.
- ▶ Avoid direct exposure to sunlight.

1.3 Warning levels



DANGER

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



WARNING

Warning 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 rating plate of the luminaire.

- ▶ Check which model number the luminaire has.
- ▶ Determine the luminaire model by referring to the following table, see Tab. 1.

Example: The model number **MFA 320/750/S** stands for the following luminaire model:

MFA	320/750	S
MACH LED PLUS machine light	Key: 320/750	Connection: SELV version

Type	Key	Connection
MFA MACH LED PLUS machine light	320/750 780/750 1250/750 1670/750	S SELV version

Tab. 1: Model overview.

3. Mounting

⚠ CAUTION

Risk of injury caused by a falling luminaire.

Personal injury and material damage.

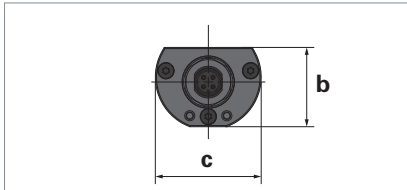
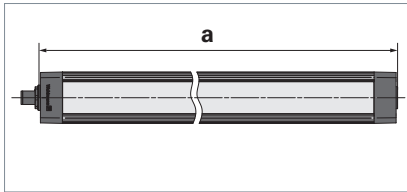
- ▶ Use only suitable fastening elements available from the manufacturer.
- ▶ Mount fastening elements correctly.

3.2 Mounting the luminaire

NOTE: For this luminaire, fastening elements are available as accessories. For more information, please visit our homepage www.waldmann.com.

- ▶ Mount the luminaire using suitable fastening elements to the mounting surface. To do so, use the dimensions of the luminaire, see Tab. 2.

3.1 Dimensions



No.	Luminaire	Dimension
a	MFA 320/750	190 mm
	MFA 780/750	365 mm
	MFA 1250/750	540 mm
	MFA 1670/750	715 mm
b	all	30 mm
c	all	40 mm

Tab. 2: Dimensions.

4. Connection

4.1 Connecting the luminaire to the supply voltage

To connect the luminaires, connecting cables are recommended, which can be found in the Waldmann range of accessories.

NOTICE

Material damage caused by wrong mains voltage.

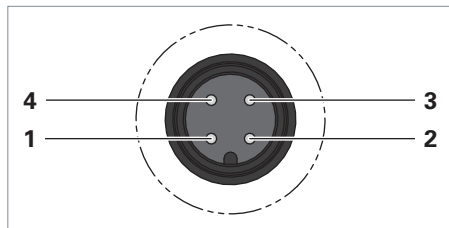
Damage or destruction of the luminaire.

- ▶ The connection must be conducted by a trained electrician only.
- ▶ Operate the luminaire at safety extra low voltage (SELV) only.
- ▶ Observe the pin assignment and the socket assignment.
- ▶ Use connecting cable with strands which have a conductor cross-section of at least 0.34 mm². For luminaires with through-wiring, use a connecting cable with a cross-section of at least 1.5 mm².
- ▶ **USA and Canada:** This device must be connected to a power supply unit of class 2.

To be able to connect the luminaire, you must know the pin assignment of the luminaire.

NOTE: The pin assignment designation can be found on the rating plate of the luminaire.

- ▶ Check which designation is on the rating plate.
- ▶ The pin assignment can be found in the following tables.



No.	Designation
1	DC +
2	Not used
3	DC -
4	Not used

Tab. 3: Plug M12-A-4, pin assignment Type A.

- ▶ Connect a suitable socket with the A-coded plug.

5. What to do if?

Problem	Possible causes	Corrective action
Luminaire is not lit.	Luminaire has not been connected.	▶ Connect the luminaire, see chapter 4 "Connection", page 18.
	Improper connection of the luminaire.	▶ Check the signals applied to the socket.
	Luminaire is defective.	▶ Contact our service team.

If you want to make use of our service, our service team can be reached at:

Service Hotline: +86 21 5169 1799

Service e-mail: info-cn@waldmann.com

Tab. 4: What to do if?

6. 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:

Service Hotline: +86 21 5169 1799

Service e-mail: info-cn@waldmann.com

7. Cleaning

WARNING

Danger of death due to electric shock.

- ▶ Disconnect the luminaire from the power supply.

NOTICE

Material damage due to use of 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.

8. Repair

WARNING

Danger of death due to electric shock.

- ▶ Disconnect the luminaire from the power supply.
- ▶ Always have the repair performed by the manufacturer, by a service technician authorised by the manufacturer or by a person with comparable qualification.

NOTICE

Material damage caused by improper repair.

Damage or destruction of the luminaire.

- ▶ Only use spare parts approved by the manufacturer.

NOTE: If a fault occurs to the luminaire, you can contact our Service team:

Service Hotline: +86 21 5169 1799

Service e-mail: info-cn@waldmann.com

9. 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.

10. Technical data

NOTE: The data given on the rating plate attached to the rear side of the luminaire is applicable.

10.1 Electrical values

Designation	Value
Voltage range SELV version	20 – 28 V DC
Power consumption	The power consumption is specified on the rating plate of the luminaire.




Tab. 5: Electrical values.

10.2 Classifications

Designation	Value
Protection class SELV version	III
Protection class	IP 67
Operating mode	Continuous operation
Maximum permissible ambient temperature	The maximum permissible ambient temperature is specified on the rating plate of the luminaire.

Tab. 6: Classifications.

10.3 Symbols

Symbol	Designation
	Protection class III Operation with safety extra low voltage (SELV)
	CE conformity mark
	Disposal in accordance with the European WEEE Directive

Tab. 7: Symbols.

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