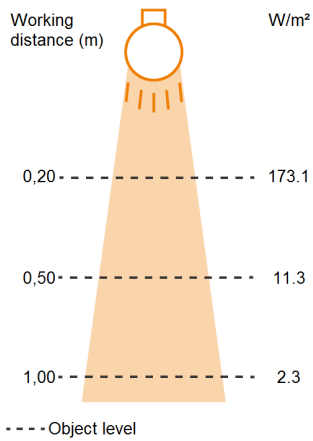


High Power LED Spot5W-W / 101.0028.00.03.00



Pictures may differ from the original.

Irradiance



Technical Specifications

| | |
|--|--|
| Light area dimensions | Ø in mm 24 |
| Illumination colour Wavelength | White 7400 K |
| Light direction | Directed, adjustable light area from Ø 25 to 120 mm at 100 mm working distance and Ø 50 to 250 mm at 250 mm working distance |
| Operating mode | Continuous and switch mode |
| Controller | Integrated illumination controller |
| LED technology | 1 High Power LED |
| Irradiance | 173 W/m ² @ 0,2 m |
| Average current (24 V DC) | 0.20 A |
| Maximum electrical power at the light area | 3 W |
| Risk group - DIN EN 62471 | Risk Group 2 |
| Operating voltage | 19 to 30 V DC wide-range voltage input |
| Electrical connection | 150 mm connection cable with M16 12-pin plug |
| TTL switching input | High level = 3 to 30 V DC |
| PLC switching input | High level = 15 to 30 V DC |
| Switch operation | Switching time follows the switching signal Connect + ON / OFF and GND ON / OFF |
| Switch-on delay | 100 % brightness within a maximum of 1200 µs |
| Continuous operation | Assign + ON / OFF permanently with high signal, e. g. by applying to operating voltage Connect GND ON / OFF |
| Brightness control via potentiometer | 0 % (left stop) to 100 % (right stop) brightness Note: automatic deactivation at VC > 1 V DC |
| Brightness control via VC analogue input | VC = 1 to 10 V DC (0 % to 100 % brightness) Note: Turn potentiometer to left stop |
| Maximum operating temperature at 21°C | 34 °C |
| Allowed ambient temperature | 5 to 45 °C, non-condensing |
| Protection class | IP40 |
| Dimensions | l x w x h in mm 36 x 36 x 75 (h = 132 mm with cable incl. bending radius as well as max. extended lens barrel) |
| Weight | 150 g |
| Material Casing Screen | Aluminium, anodised PMMA |
| Tariff code | 85395100 |
| Country of Origin | Federal Republic of Germany |

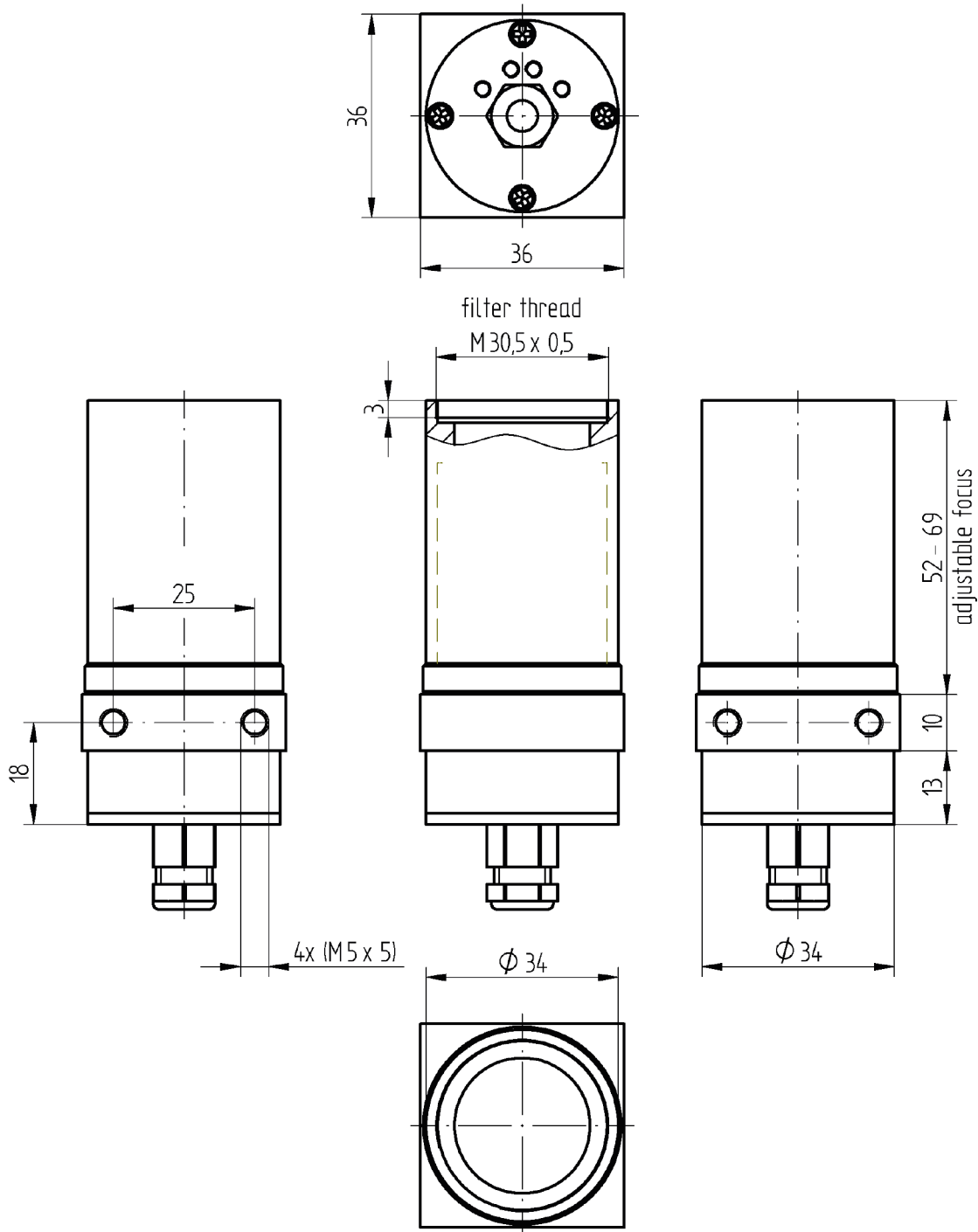
Pin Assignment

| | U _B | LUMIMAX [®] |
|--------|-----------------|----------------------|
| brown | + 24 V DC | |
| white | GND | |
| | ON / OFF | |
| pink | PLC +24 V DC | |
| grey | TTL +5 V DC | |
| blue | GND | |
| | VC | |
| yellow | 1...10 V DC | |

| Pin | Colour | Assignment | Function | Image |
|-----|--------|----------------|--------------------------------|-------|
| A+K | white | GND | GND Operating voltage | |
| B+L | brown | U _B | Operating voltage | |
| C | green | NC | NC | |
| D | yellow | VC | Brightness control 1...10 V DC | |
| E | grey | + ON / OFF TTL | Switching input, TTL > 3 V DC | |
| F | pink | + ON / OFF PLC | Switching input, PLC > 15 V DC | |
| G | blue | GND ON / OFF | GND switching circuit | |
| H | Shield | Shield | Shield connection | |
| J | NC | NC | NC | |
| M | NC | NC | NC | |

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Technical Drawing



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Warnings

Photobiological safety - visible light



Caution! The lighting emits optical radiation light in a wavelength region between 400 nm and 750 nm. This is visible to the human eye. It can glare and/or cause irritation and damage to the eyes and skin. Observe the following risk group classifications and protective measures. The use of additional optical accessories (e. g. lenses, interchangeable screens/frames) can lead to a change of the risk group. For further help ask the LUMIMAX[®] Service&Support Team.

Hazard related risk group labelling

| Illumination colour | RG 0 (exempt) | RG 1 | RG 2 | RG 3 |
|---------------------|-----------------|-----------------|--|--|
| Visible light | No requirements | No requirements | CAUTION Hazardous optical radiation may be emitted from this product | WARNING Hazardous optical radiation may be emitted from this product |

Instructions for protective measures

| Illumination Colour | RG 0 (exempt) | RG 1 | RG 2 | RG 3 |
|---------------------|-----------------|-----------------|--|--|
| Visible light | No requirements | No requirements | Do not look at operating light for a long time. May be harmful to the eye. | Do not look at operating light. Eye injury may result. |

Hot housing surfaces



Caution! High ambient temperatures and insufficient heat dissipation lead to hot housing surfaces. These can cause burns if touched. Do not touch the light during operation. Maintain a minimum distance of 20 mm between the light and thermally insulating surfaces or mount the light on a thermally conductive surface.

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FAQ

Intended Use

LUMIMAX[®] LED lights are exclusively intended as components for Machine Vision systems, that are used for quality control as well as process control and optimisation in industrial installations.

- Use the lights in enclosed rooms only.

Notes on operation

Initial operation

- Have the light only put into operation by trained specialists and in compliance with the specified protective measures. Adhere to the permissible environmental conditions.
- For optimal heat dissipation, mount the largest possible surface of the light on thermally conductive machine elements.
- Keep cooling fins free to ensure sufficient convection.

Status LEDs

Most lights have 2 status LEDs on the (rear) side. The light only illuminates when both status LEDs light or blink.

- The green status LED signals the connection to the correct operating voltage.
- The red status LED blinks when a switching or trigger signal is connected to the light.

Protection class

LUMIMAX[®] LED lights with protection class IP64 and higher are protected against dust, contact and splash water on all sides in accordance with the applicable standards. Permanent protection against liquids containing solvents, such as e. g. cleaning agents, machine emulsions or other lubricants cannot be guaranteed.

Ageing-related brightness decrease of the LEDs

The brightness of LEDs decreases over time due to natural ageing. LUMIMAX[®] LED lights are designed and manufactured in such a way that at full load operation under the permissible ambient conditions at least the following expected operating hours are achieved or exceeded without the light's intensity falling by more than 30% compared to the delivery condition:

- 80,000+ h for LUMIMAX[®] LED lights in the visible and infrared wavelength range
- 55,000+ h for LUMIMAX[®] High Power LED lights in the ultraviolet wavelength range
- 21,000+ h for LUMIMAX[®] High Power LED Spot lights in the ultraviolet wavelength range

The ageing is significantly influenced by the mounting conditions in the machine, the ambient temperature, and the operating mode of the lighting. Switching or flashing can significantly reduce the decrease in brightness of the LEDs and thus of the light. Further information concerning this topic you could find [here](#).

Troubleshooting

The device does not light up.

The green status LED does not light up.

- Check if the light is connected as described on the data sheet and that the correct operating voltage is set. If you are using a power supply with current limiting, increase the allowable current.

The green status LED does light up.

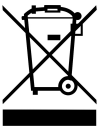
- Check whether the light has been dimmed. Carefully turn the brightness potentiometer clockwise. For variants with an active VC brightness regulation, check if the VC voltage input is correctly connected and a control voltage of at least 2 V DC is applied.
- For lights with switching input and for flash lights check that the necessary switching or trigger signals are present. The status LED should blink red when a trigger is released.

Care and Maintenance

The LED lights from iiM AG usually do not need maintenance. Should it still be necessary to clean the external glass and plastic surfaces or device components, then observe the following:

- Do not use acetone, methylated spirits or other solvents.
- For cleaning the plastic surfaces use a soft, lint-free cloth moistened with soapy water or a normal glass cleaning cloth.

Disposal



LUMIMAX[®] LED lights and cables are registered at Stiftung Elektro-Altgeräte Register[®] under WEEE Reg. No. DE 48985193.

- Ensure the separate collection of electrical and electronic equipment. Beforehand, a non-destructive removal of the LEDs is not possible.
- On request, the iiM AG will handle the proper disposal of returned LED lights.
Contact via info@iimAG.de

The aims of the Packaging Act (VerpackG) are the avoidance or reduction, reuse and recycling of packaging waste to protect the environment.

- Properly recycle packaging waste.

Compliance



EU and UK Documents of Conformity for all LUMIMAX[®] standard lights can be found online on the respective product detail page using our product configurator.

UK Representative: PKG Consultants LLP, 38 Northgate, Newark, Nottinghamshire NG24 1EZ, United Kingdom