



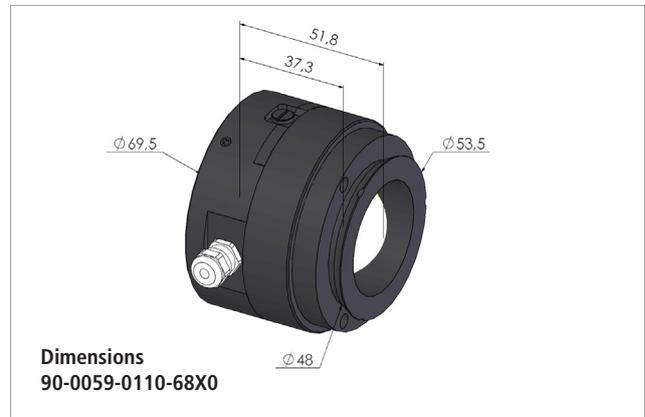
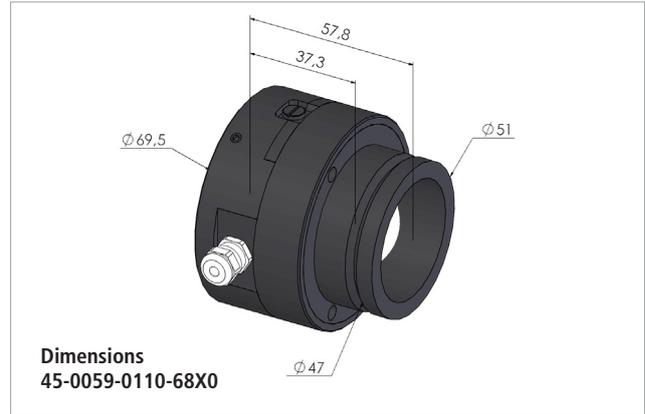
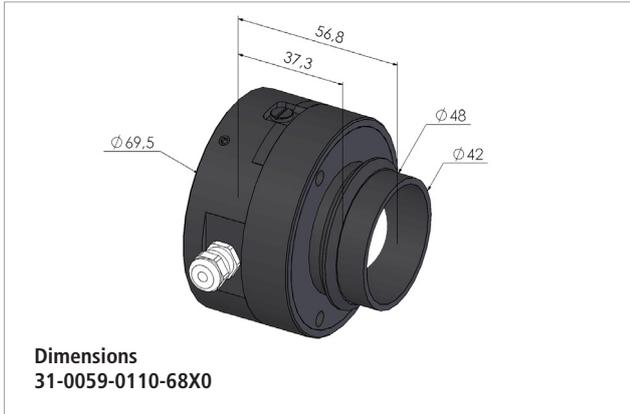
LED 100

LED Illumination for Microscopy

Specifications	
System requirements	control unit DSU-1 or TANGO controller with AUX I/O option
Colours	cool white or warm white
Brightness	0.5–100 %, infinitely adjustable
Angle of radiation	approx. 5°
Switch-on delay	approx. 35 µs
Switch-off delay	approx. 25 µs
Operating voltage	10.8 ... 13.2 V
Material	aluminium
Surface	black anodic coating
Weight	approx. 0.5 kg (incl. cable)
Cable length	2 m
Dimensions	outer diameter: 69.5 mm length (without adaption): 37.3 mm
Delivery contents	LED 100 incl. connection cable, Allen key, operating manual

- ### Product Features
- ▶ manual and programmed/automated change of brightness
 - ▶ no warm-up time, no afterglow: enables flash function¹
 - ▶ no mechanical shutter required²
 - ▶ low photobleaching of preparations by flexible programmable light pulses³
 - ▶ constant colour temperature regardless of brightness
 - ▶ constant brightness: no interference with the camera's video signal
 - ▶ no infrared component: no IR cut filter required, contrasty and sharp images
 - ▶ easily exchangeable LED module
 - ▶ filter holder with diffusor disc (optional)
 - ▶ long service life, no maintenance required
 - ▶ low operating costs (power input of approx. 3 W)
 - ▶ free of mercury and halogen
- ¹ TANGO controller with AUX I/O option or DSU-1 with additional ext. trigger signal generator required
² applies exclusively for brightfield applications, in combined applications with incident light fluorescence illumination a mechanical shutter is still required
³ TANGO controller with AUX I/O option required





Order Information

Leica (beginning with DM R series)

cool white 31-0059-0110-6800
 warm white 31-0059-0110-6810

Nikon (please indicate microscope type)

cool white 45-0059-0110-6800
 warm white 45-0059-0110-6810

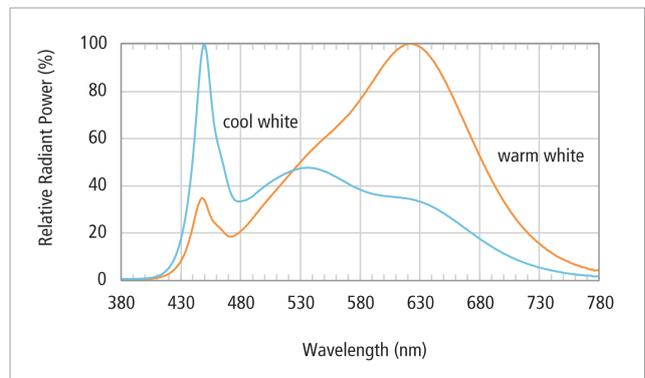
Olympus (BX/BX2/IX series)⁴

cool white 48-0059-0110-6800
 warm white 48-0059-0110-6810

Zeiss (beginning with Axio series)

cool white 90-0059-0110-6800
 warm white 90-0059-0110-6810

⁴ not compatible with Olympus BX41, BX41M, IX51



Accessories

DSU-1 (control unit for LED 100)
 Order No.: 00-76-110-6841

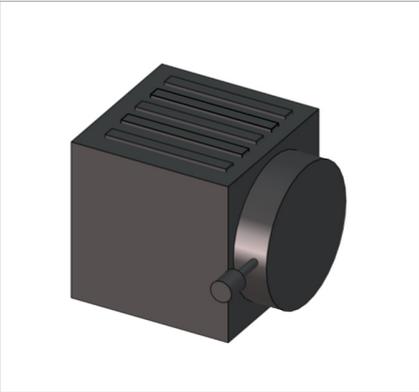
AUX I/O option for TANGO controllers
 Order No.: 00-76-801-0801 (Desktop/PCI-S)
 Order No.: 00-76-801-0802 (Desktop/PCI-E)

Filter holder with 60° diffusor disc
 Order no.: 00-0059-0110-6820

For more products please visit:

www.marzhauser.com

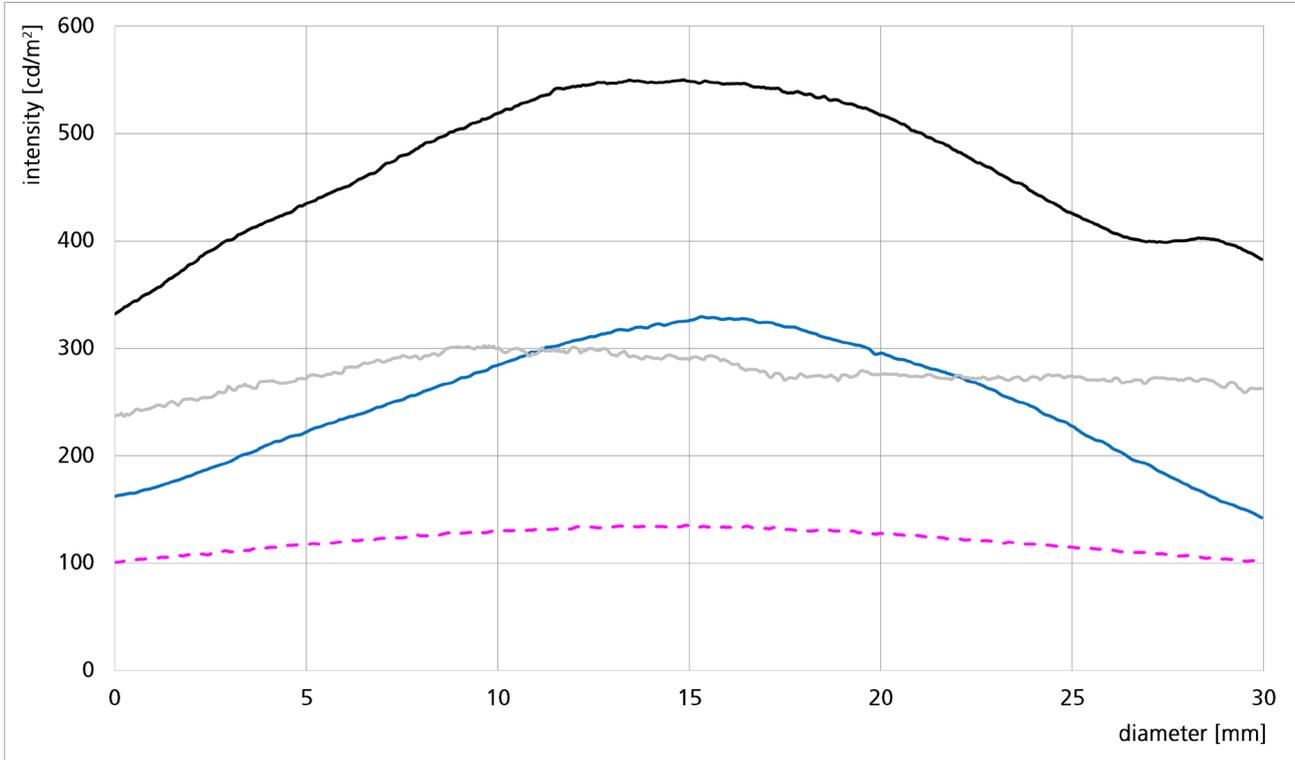
The New LED 100 in Comparison



Feature	LED 100	Halogen (100 W)
Warm-up time	see diagram <i>Switch-On Delay/Long Term Stability</i>	
Stability	see diagram <i>Switch-On Delay/Long Term Stability</i>	
Uniformity of illumination	equivalent	
Colour temperature	2,700 K (warm white) 6,500 K (cool white)	approx. 2,800 K
Flash	< 1 ms	–
Lifetime	> 70 % after 12.000 hours, typical	approx. 2,000 hours
Intensity	see diagram <i>Intensity/Homogeneity</i>	
Heat generation	moderate, no cooling needed	very high, cooling needed
Power consumption	3 W	100 W

Intensity/Homogeneity

■ LED 100
 ■ Halogen (100 W)
 ■ LED 100 (before 2019)
 - - - LED 100 with 60° diffusor disc



Switch-On Delay/Long Term Stability

■ LED 100: high luminous flux immediately after switch-on, flashing possible
■ Halogen (100 W): long switch-on delay, no flashing possible

