Prizmatix

Mic-LED-385

High Power Collimated Ultra-Violet LED Light Source for Fluorescence Microscopy

Featuring Prizmatix Modular Design for Multi-Wavelength and Fiberoptic Setup

Introduction

The compact Mic-LED-385, High Power UV LED light source is an effective replacement of Mercury and Xenon lamps in many power demanding applications, such as fluorescence microscopy, photo activation (e.g. uncaging), machine vision and numerous others.

The LED source provides ***>190 mW*** of ***collimated*** UV power on its output. The LED driver supports CW or pulsed operation.

As a member of the modular OptiBlocks family the Mic-LED-385 can be easily converted to numerous configurations providing outstanding versatility (see Accessories section).

Key Features

- Compatible with Prizmatix modular Microscope-LED Light-Source products family – for **Multi-Wavelength**, **fiberoptic** applications and more. See all accessories on page 3.
- Easy connection to Olympus, Nikon, Zeiss or Leica microscopes by direct adaptor connection, Liquid Light Guide or Optical fiber
- Single chip High Brightness UV LED
- TTL external triggering (no mechanical shutter needed)
- Analog input, USB and LabView software (Optional features)
- Easy illumination field adjustment by XY and Focus (collimation)
- Very Stable. Precisely adjustable power
- Passive cooling without a fan

Applications

- Fluorescence microscopy
- Fluorescence microscopy and Imaging
- Photolysis of caged compounds
- FRET, FRAP (fluorescence recovery after photobleaching)
- Quantum Dots, BFP, DAPI, Fura, Hoechst, excitation

Main Office
Phone: +972-72-2500097
Fax: +972-72-2500096
sales@prizmatix.com

European Sales Office
Phone: +44-(0)77-9172-9592
Fax: +44-(0)20-7681-2977
sales.europe@prizmatix.com

North America Sales Office
Phone: +1-(248)-436-8085
Fax: +1-(248)-281-5236
sales.usa@prizmatix.com

P.O.B. 4234 Modiin-Ilite 71919, Israel

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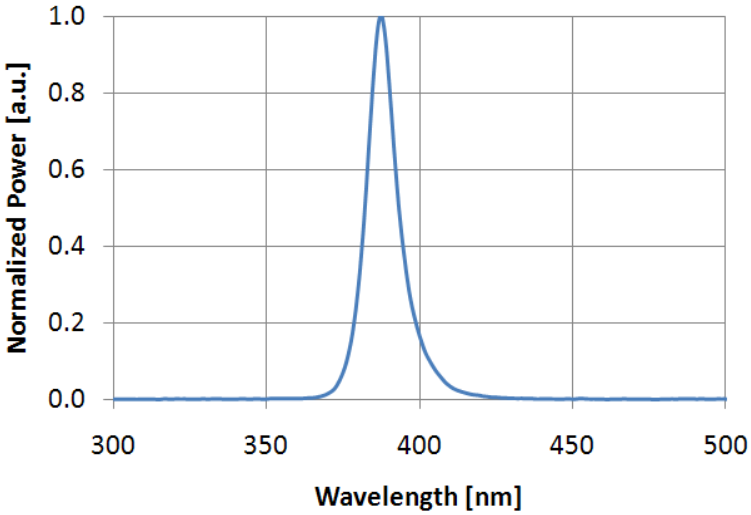
Optical Specifications

Peak Wavelength	nm	385 ± 4
Emission Spectrum FWHM	nm	12
Collimated optical power output	mW	>190
Beam Diameter	mm	~22
Beam Divergence (full angle at collimation)	mrad	~40



- Mic-LED-385 spectrum

BLCC-02 Benchtop LED Current Controller Specifications

Features

- Constant current or chopping modes
- Precise LED current setting by 10 turn dial
- TTL external trigger input (TTL high level – LED ON)
- Compact and robust enclosure
- Analog Input and USB control (options)

Digital modulation input		TTL
Connector for TTL input		BNC
Digital modulation frequency	Hz	DC-10000
Rise / Fall time (10% - 90%)	µs	20
Input Voltage	V	24
Max Input current	A	1
Power Adaptor Input		100-240 VAC, 50-60Hz, 1.5A

Remark: The Mic-LED-385 can be used also with TLCC-01 and BLCC-01 current controllers for more information please see http://www.prizmatix.com.

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General Specifications

Operation temperature range	°C	10 - 40
Storage temperature range	°C	-10 - 55
Operating relative humidity (Non condensing)	%	<90
Head dimensions		See drawing below
BLCC-02 Controller dimensions (W x H x L)	mm	75 x 40 x 120
Power adaptor dimensions (W x H x L)	mm	60 x 35 x 10

Accessories for Mic-LED-385

Microscope Adaptor

The Mic-LED-385 can be directly connected to standard epi-fluorescence port of Olympus, Nikon, Zeiss or Leica microscope. The user can exchange microscope adaptor easily by simple screwing the adaptor to the Mic-LED-385 head.

Beam Combiner Module

The output beam of Mic-LED-385 can be collinearly combined with additional Mic-LEDs by Dichroic Beam Combiners. The Beam Combiner is connected to the Mic-LED by means of four connection pins.

Light Guide Adaptor and Liquid Light Guide (LLG)

The Light Guide Adaptor can be easily screwed into the Mic-LED-385 converting the Mic-LED into a LLG coupled light source. Prizmatix can supply the LLG or adapt the Light Guide Adaptor to match your light guide

Fiber Adaptor and Optical Fiber

The Fiber Adaptor can be easily screwed into the Mic-LED-385 converting the Mic-LED into a Fiber Coupled LED light source. Prizmatix can supply a variety of fiber patch cords and custom fiber optic assemblies as well as Fiber Collimator for high NA fibers

Filter Wheel and Filter Adaptor

The Mic-LED-385 can be connected to a 6 positions Filter wheel or to a filter adaptor to provide additional filtration of LED output spectrum.

Remark: Most accessories can be connected in series to create complex system.

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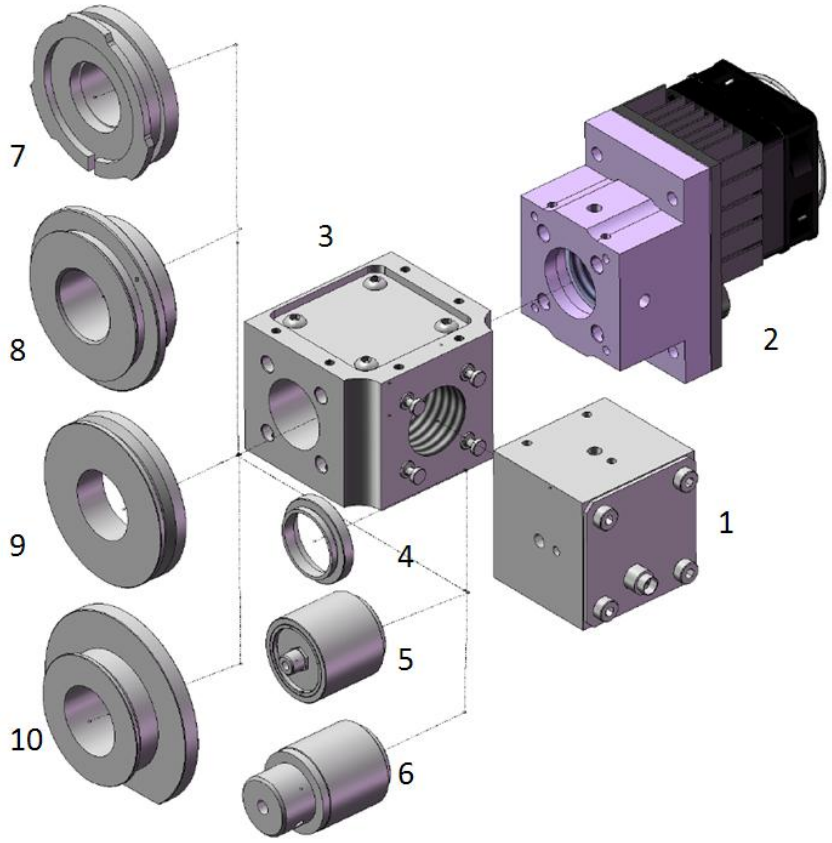

#	Part	Description
1	Mic-LED-385	Microscope LED 385 nm
2	UHP-Mic-LED-???	Ultra high power LED at ??? nm
3	Multi-LED-BC	Beam Combiner with dichroic mirror
4	SM1 adaptor	Adaptor to SM1 thread
5	FCA	Fiber coupler adaptor
6	LLGA	Light guide adaptor
7	Nikon adaptor	Adaptor for Nikon fluorescence microscope
8	Zeiss adaptor	Adaptor for Zeiss fluorescence microscope
9	Olympus adaptor	Adaptor for Olympus fluorescence microscope
10	Leica adaptor	Adaptor for Leica fluorescence microscope

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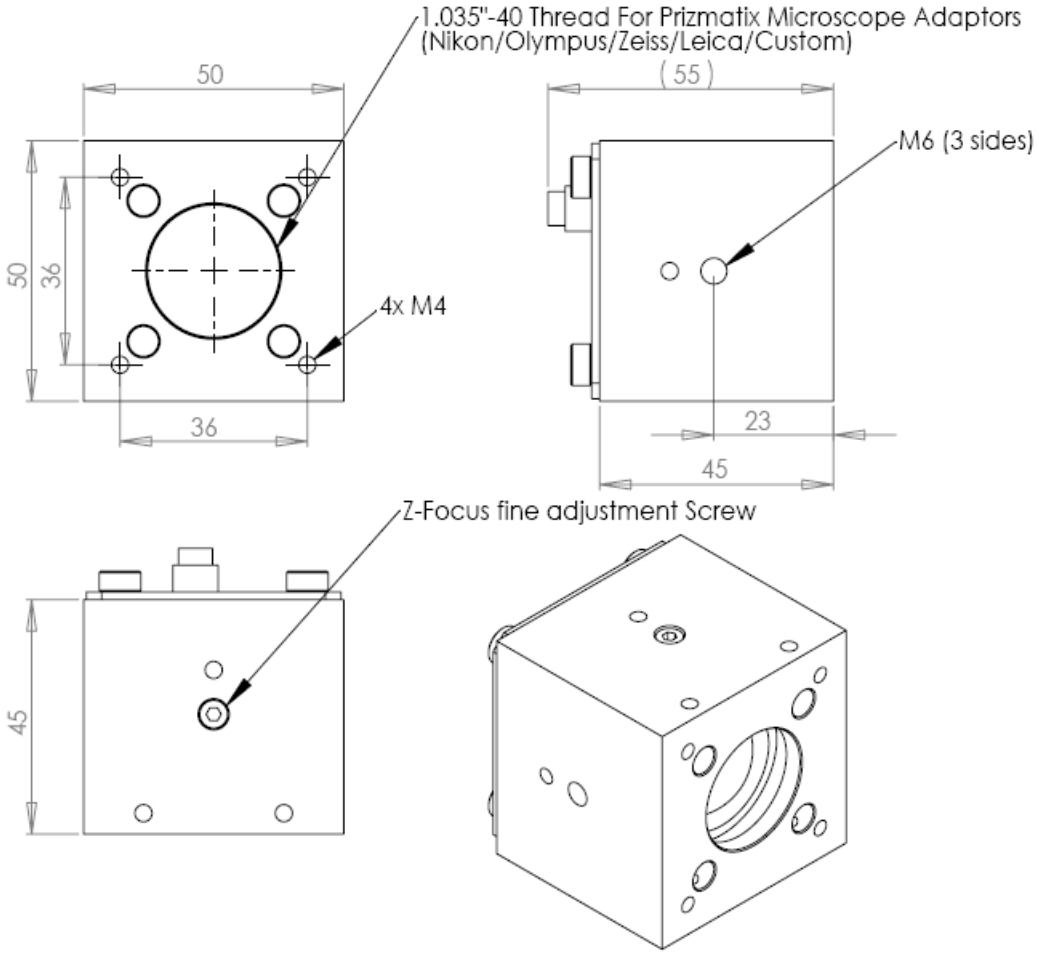
Mic-LED-385 Head Mechanical Drawings



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