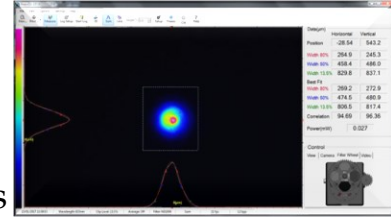


# BeamOn U3-E High Power

USB 3.0

Integrated Filter Wheel

Advanced software features



Innovative High Power Beam Profiler (1/1.2") based on advanced beam sampling in conjunction with high resolution camera

Measurement capability of a few kWatts laser power

Versatile – Measures **Profile, Power, Position & Multiple Beams in Parallel**

## Specifications

Laser Type	CW & Pulsed
Beam width resolution	1 micron or better
Beam Size	∅75 µm - ∅6 mm
Spectral Response	350 – 1350 nm (VIS NIR), 190-1350 nm (UV)
Resolution (H x V pixels)	1900 x 1200
Sensor Active Area (mm)	11.34 x 7.13, sensor can be divided into multiple active areas, working in parallel for <b>up to 400 sectors (NEW)</b>
Gain Control	x1 – x400
Dynamic Range	60 dB , 16 bit
Exposure	32 µsec to 2 sec
Frame Rate	40 fps (8 bit) 30 fps (16 bit) AIO (64x40) 397 fps, AOI (120x80) 240 fps, AOI (240x160) 190 fps
Working Distance	49 mm (contact factory)
Maximum BPP	Max. input angle – 25 deg.
Maximum power density	1,000,000 W/cm <sup>2</sup> (contact factory)
Power measuring	With user's pre-calibration at a selected point
Power range @900/1070 nm	CW 1-2500 W, Pulsed 1 – 1000 W

Output power from back side of beam sampler	90% of input power. The Beam Sampler directs only a small portion of laser power for detector measurements. Most of the power exits according to drawing.
Cooling conditions	Filtered pressurized air of 6-8 Bar
Sensor type	CMOS – 1/1.2" format
Beam width accuracy	±1.5%
Power accuracy	±5%
Position resolution	1 µm
Pixel Size	5.86 µm x 5.86 µm
Background Subtraction	User activated
Synchronization	•Software trigger
Power Requirements	~2 Watt (Via USB 3.0 interface)
Dimensions (L x W x H) in mm	64 x 115 x 73.5
Weight (typical)	350 gr.
Min. Hardware Requirements	CPU i3 1.6 GHz, 4 GB RAM Min. Resolution 1366 x 766
Interface	USB 3.0, Windows 8/10/11 (32 & 64 bit)
Mechanical Interface	Post mounting: 2 concentric opposite 8-32 UNC, 6 mm depth
Operating Temperature	10° – 35° C

## Ordering Information

**BeamOn U3E-HP-VIS NIR:** A camera for 350 – 1310 nm with motorized built-in filter wheel with a set of 3xND filters in housing, beam sampler with filter drawer, USB3.0 cable, software and user manual on Flash Drive, carrying case.

**BeamOn U3E-HP-UV NIR:** A camera for 190 – 1310 nm with motorized built-in filter wheel with a set of 3xND filters in housing, beam sampler with filter drawer, USB3.0 cable, software and user manual on Flash Drive, carrying case, additional UV filter at position #1.

\*Standard drop-in filter is Hot Mirror, allowing visible light to pass through.



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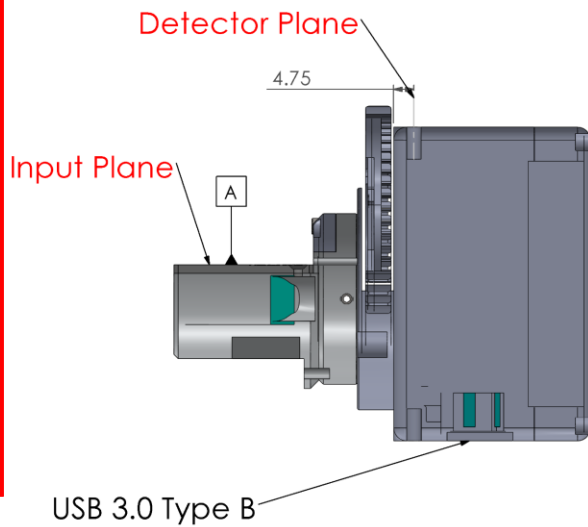
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April 2024



# BeamOn U3-E High Power

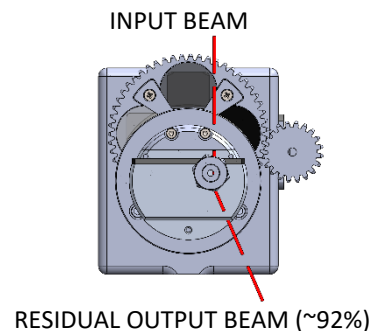
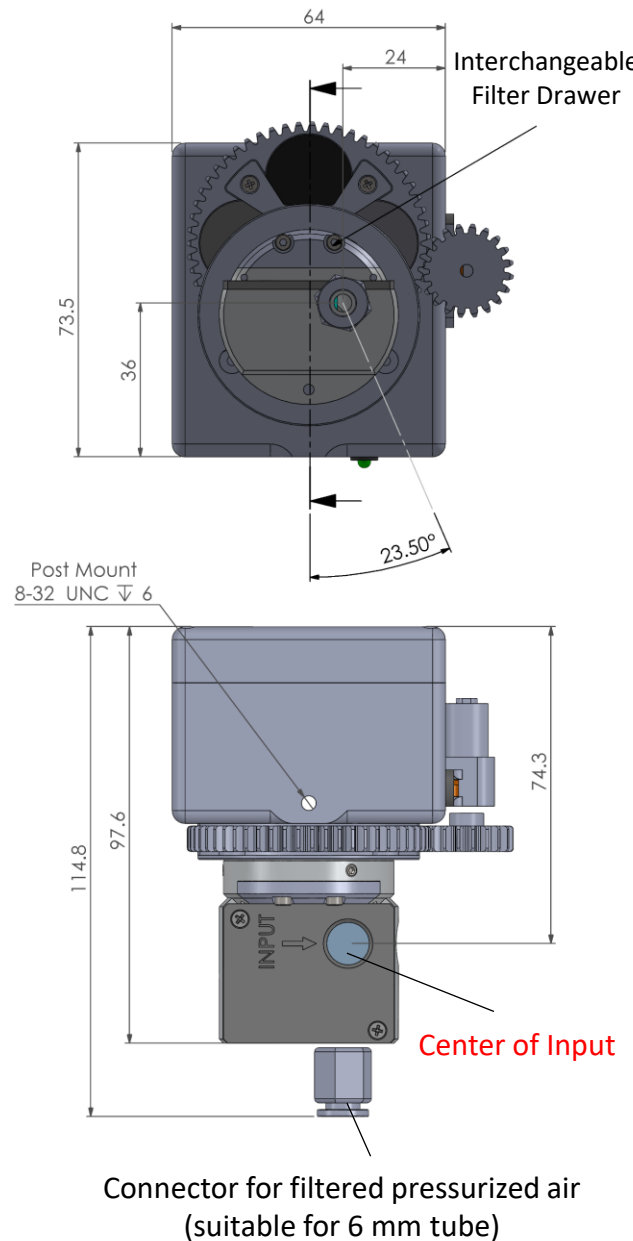


Optical distance from Input plane **A** to Detector Plane:  $49 \pm 0.5$

Warning: For focused beams, Focal Point must be at least 30 mm after input plane **A** (towards the sensor).

Focusing on input optics will damage the optical system!

Dimensions are in mm.



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