

LAM U3 - Analyzer



- High power beam measurements at the working tabletop level with built-in air-cooled sampler.
- USB 3.0, large area & resolution (2.35 MP).
- 12 bits digital output for pulsed/CW lasers.
- Built-in software feature for M^2 or depth of focus calculation using the machine Z-Axis.
- Interchangeable filters.

Measures beam where it matters most – at the laser’s working plane

Specifications

Laser Type	CW & Pulsed
Beam width resolution	1 micron or better
Beam Size	ø75 µm - ø6 mm
Spectral Response	350 – 1310 nm
Resolution (H x V pixels)	1920 x 1200
Sensor Active Area (mm)	11.34 x 7.13
Gain Control	x24
Dynamic Range	60 dB , 12 bit
Exposure Speed	39 µsec to 20 sec
Frame Rate	40 fps (8 bit)
Working Distance	Optical distance from input surface to sensor is 40.7 ± 0.2 mm
Maximum BPP	Max. input angle – 25 deg.
Maximum power density	1,000,000 W/cm ² (contact factory)
Power measuring	With user’s pre-calibration at a selected point

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Power range @900/1070 nm	CW 1-2500 W, Pulsed 1 – 1000 W
Output power from back side of beam sampler	With beam dump – no significant output power
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
Pixel Bit Depth	8/12 bits
Background Subtraction	User activated
Trigger	<ul style="list-style-type: none"> • Internal Software • Hardware Falling or Rising Edge • Trigger Delay 0.015ms - 4.0 sec
Power Requirements	~2 Watt (Via USB 3.0 interface)
Dimensions (L x W x H) in mm	147 x 105 x 48
Weight (typical)	Sensor head with cable ~ 1500 gr.
Min. Hardware Requirements	CPU i3 1.6 GHz, 4 GB RAM Min. Resolution 1366 x 766
Interface	USB 3.0, Windows 7/8/10 (32 & 64 bit)
Mechanical Interface	Post mounting: 2 concentric opposite M4, 6 mm depth
Operating Temperature	C° – 35°0

Ordering Information

Model LAM-U3: A camera for 350 – 1310 nm with built-in beam sampler and additional interchangeable high power attenuator, concentric mounting adapter to input aperture (see tutorial), USB3.0 cable, software and user manual on CD/Flash Drive, carrying case.

Note: The device should be handled carefully when exposed to high power, not exceeding 5 seconds continuously.

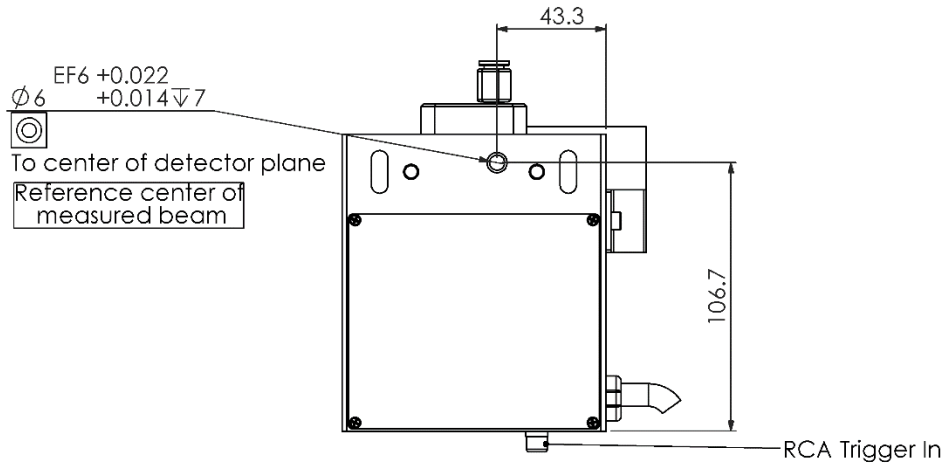
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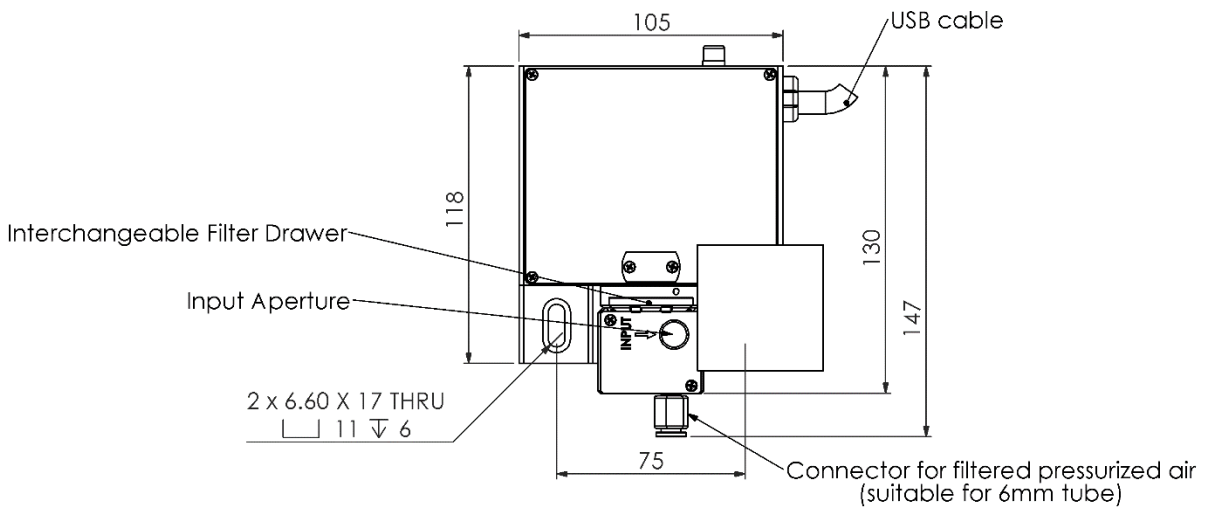
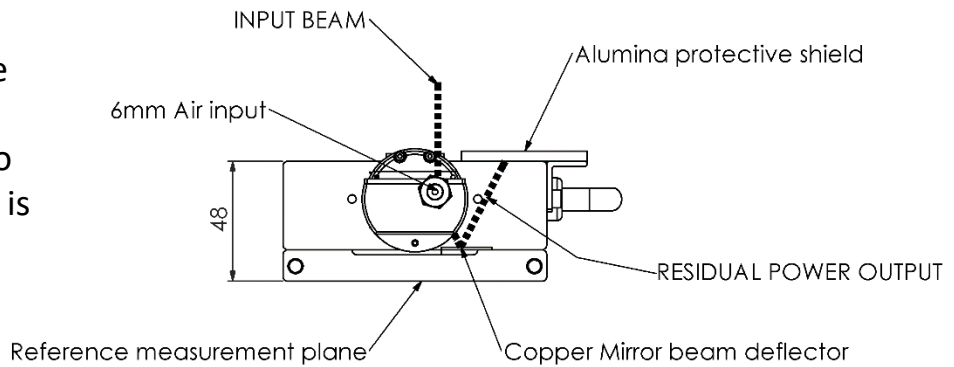
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Working distance between input aperture plane to measuring plane is about 41 mm.



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