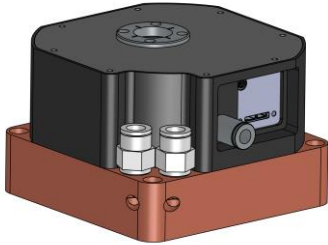


## CinCam Application Focus Beam Profiler FBP-1KF

The Focus Beam Profiler FBP-1KF is a robust and compact analysis system to measure the focused laser beam for up to 400W laser input power. The FBP-1KF is based on a multi-stage high-performance attenuator. It works with a fixed measurement position and is characterized by very compact design. The focused laser beam is guided directly to the sensor without imaging optics. Complex corrections of laser power-dependent image errors are no longer necessary. In addition, an absolute power calibration for a specific wavelength is possible.

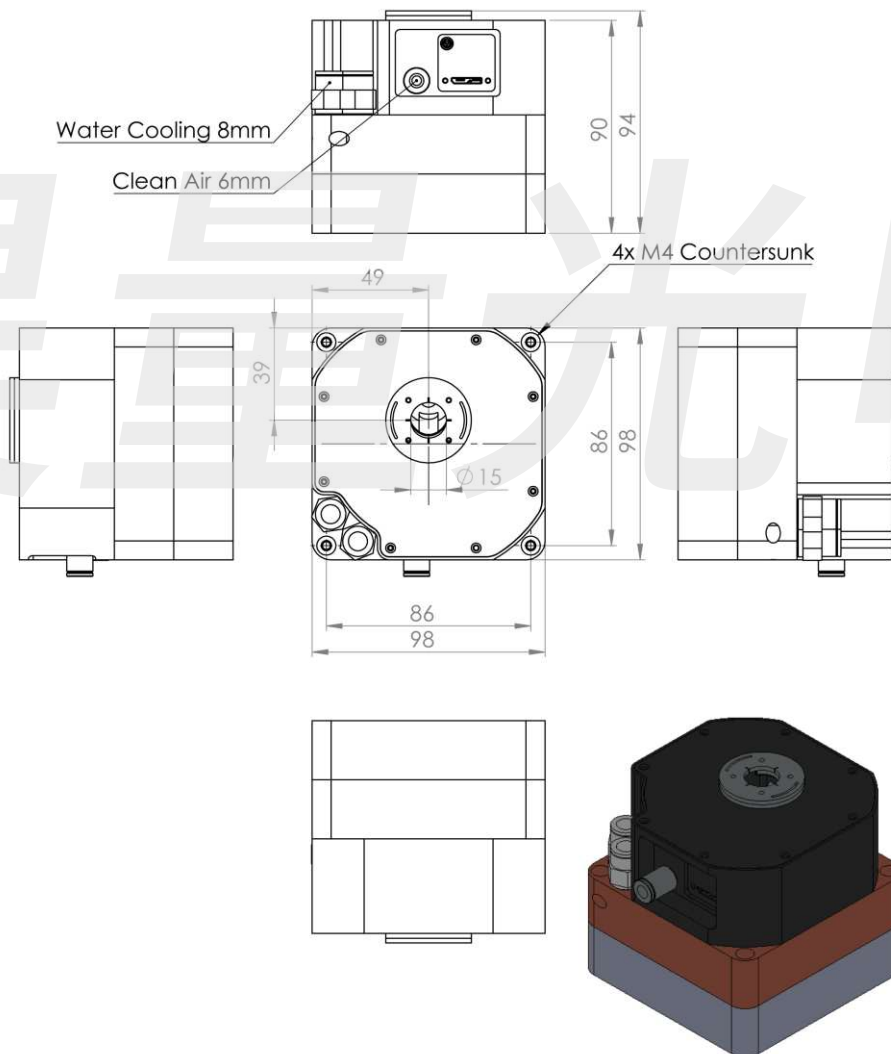
The whole measuring process is controlled by CINOGY's software RayCi.

SENSOR DATA		
Spectral response:	355nm / 532nm / 1064nm (other on request)	355nm / 532nm (other on request)
Pixel size:	5.3 $\mu$ m <sup>2</sup>	3.45 $\mu$ m <sup>2</sup>
Number of pixel:	1.3MPixel	3.2MPixel
Technology:	CMOS	CMOS
Data output:	10Bit	12Bit
Interface:	USB 2.0 / USB 3.0	USB 2.0 / USB 3.0
FEATURES		
Collimated beam size:	0.5m-3mm	
Focus spot size:	$\geq 65\mu\text{m}$ @single mode / $\geq 300\mu\text{m}$ @multi mode	$\geq 42\mu\text{m}$ @single mode / $\geq 300\mu\text{m}$ @multi mode
Max NA / Divergence:	0.05 / 100mrad	
Input laser power:	max 400W@single mode / max 700W@multi mode	
	Measurement time with water-cooling @22°C: no limitation	
	Measurement time without water-cooling: 20s@400W	
Accuracy:	Waist position 50 $\mu$ m / Spot size 2-4% (measurement position is calibrated)	
Software:	RayCi-Pro	
SPECIFICATIONS		
Mechanical dimensions (W x H x L):	98mm x 98mm x 65mm	
Weight:	~2kg	
Electrical requirements:	Power supply via USB	
Water-cooling:	Water-cooled absorber, Tap or DI-water: 2l/min, 1bar, 20-25°C, $\varnothing$ 8mm hose	
Dust protection:	Flushing with clean air to avoid contamination of the optics (cleaned, oil-free, dry, particles <10 nm)	
Storage temperature:	-10°C...+60°C	
Operating temperature:	+0°C...+40°C	
Regulations:	CE, RoHS	



## CinCam Application Focus Beam Profiler FBP-1KF

### Dimensions



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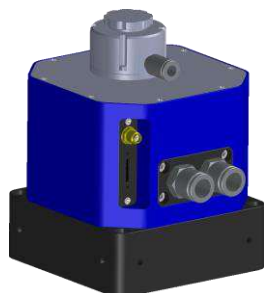


## CinCam Application Focus Beam Profiler FBP-2KF

The Focus Beam Profiler FBP-2KF is a robust and compact analysis system for focused lasers with up to 1kW power. The integrated CMOS sensor with USB3.0 interface enables precise real-time measurements. The FBP-2KF is based on a multi-stage high-performance attenuator. An additional and replaceable filter insert supports optimal adaptation of the attenuation to the respective laser power. The focused laser beam is guided directly to the sensor without imaging optics. Complex corrections of laser power-dependent image errors are no longer necessary. In addition, an absolute power calibration for a specific wavelength is possible.

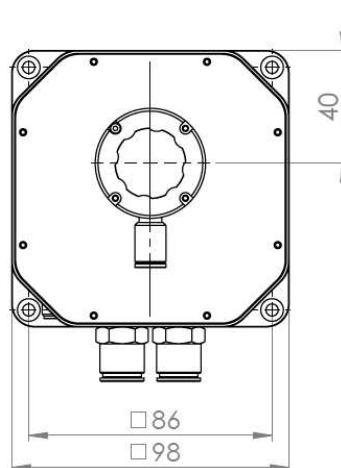
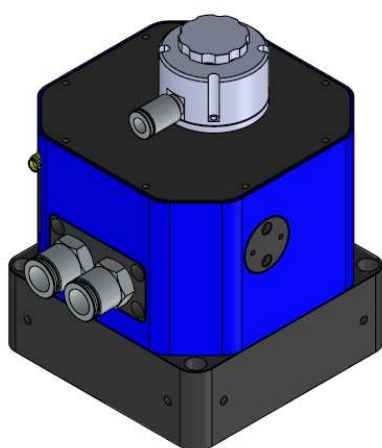
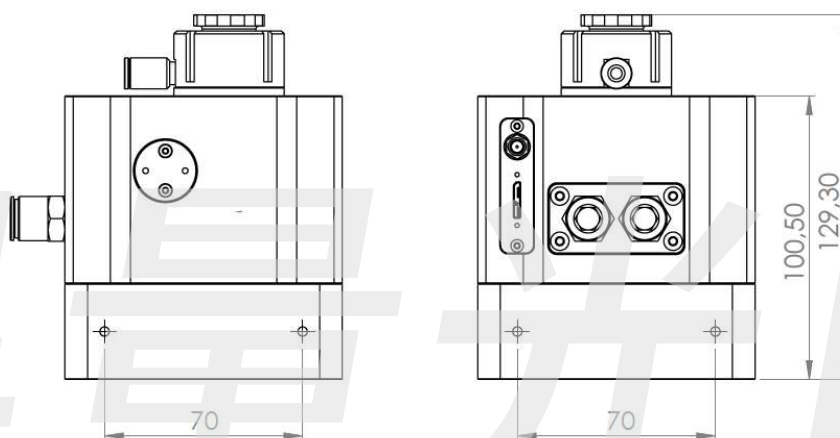
The whole measuring process is controlled by CINOGY's software RayCi.

SENSOR DATA	
Spectral response:	355nm / 532nm / 1064nm (other on request)
Pixel size:	5.3 $\mu$ m <sup>2</sup>
Number of pixel:	1.3MPixel
Technology:	CMOS
Data output:	10Bit
Interface:	USB 2.0 / USB 3.0 (other on request)
FEATURES	
Collimated beam size:	0.5m-4mm
Minimum spot size:	$\geq 64\mu\text{m}$ @single mode / $\geq 300\mu\text{m}$ @multi mode (accept focal lengths >125mm)
Input laser power:	max 1000W@ mono mode / max 1200W@multi mode
	Measurement time with water-cooling @22°C: no limitation
	Measurement time without water-cooling: 20s@500W
Accuracy:	Waist position 30 $\mu$ m / Spot size 2-4% (measurement position is calibrated)
Software:	RayCi-Pro
SPECIFICATIONS	
Mechanical dimensions (W x H x L):	98mm x 98mm x 100.5mm (~129.3mm with aperture)
Weight:	~2,6kg
Electrical requirements:	Power supply via USB
Water-cooling:	Water-cooled absorber, Tap or DI-water; 4l/min, 2bar, 20-22°C, Ø 10mm hose
Dust protection:	Flushing with clean air, Ø 6mm hose (cleaned, oil-free, dry)
Storage temperature:	-10°C...+60°C
Operating temperature:	+0°C...+40°C
Regulations:	CE, RoHS



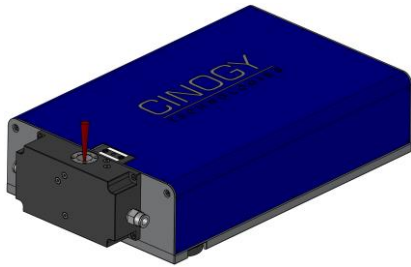
## CinCam Application Focus Beam Profiler FBP-2KF

### Dimensions



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## CinCam Application Focus Beam Profiler - CinSpot FBP-50M-

The Focus-Beam-Profiler FBP-50M is a compact and fully automated tool to measure the focused laser beam from the UV to NIR range. The integrated CinCam beam profiler is moved precisely by the translation stage along the focus region. Its operational robustness and reliability ensures continuous use applications especially in industrial applications. A modular attenuation unit allows focus analysis up to 50W laser power. The whole measuring process is controlled by CINOGY's software RayCi.

<b>SENSOR DATA</b>	
Spectral response:	340nm-1150nm
Pixel size:	5.3 $\mu$ m <sup>2</sup>
Number of pixel:	1.3MPixel
Technology:	CMOS (CCD)
Data output:	10Bit
Interface:	USB 2.0 / GigE
<b>FEATURES</b>	
Objective:	4x (NA 0.1) / 10x (NA 0.25) / 20x (NA 0.4)
Focus spot size:	>16 $\mu$ m@4x / >6 $\mu$ m@10x / >3 $\mu$ m@20x (accept focal lengths >80mm)
Stage length:	100mm (accuracy 10 $\mu$ m / speed 10mm/s)
Input power (without attenuator):	max 100mW
Input power (with attenuator):	max 50W (water cooling / 2l/min, 1bar, 20-25°C)
Replaceable ND filter:	Absorptive type: OD1.0 / OD2.0 / OD3.0 / OD4.0 / OD5.0 (400nm - 1150nm)
Replaceable ND filter:	Reflective type: OD1.0 / OD2.0 / OD3.0 (340nm - 1150nm)
Accuracy:	Waist position 50 $\mu$ m / Spot size 2-4% (measurement position is calibrated)
Software:	RayCi-Pro
<b>SPECIFICATIONS</b>	
Mechanical dimensions (W x H x L):	334mm x 220mm x 84mm <sup>3</sup> (without attenuator) / 370mm x 220mm x 84mm <sup>3</sup> (with attenuator)
Weight:	~6kg
Electrical requirements:	36V
Water-cooling:	Water-cooled absorber, Tap or DI-water; 2l/min, 1bar, 20-25°C, Ø 8mm hose
Storage temperature:	-10°C...+60°C
Operating temperature:	+0°C...+40°C
Regulations:	CE, RoHS