

In-Line Industrial Beam Monitoring

II-VI-CO₂- Series

- An in-line industrial laser beam monitoring solution
- Rapidly tune lasers for best performance for each job
- Monitor fluctuations while processing
- Optimize beams in real-time
- Diagnose faults quickly



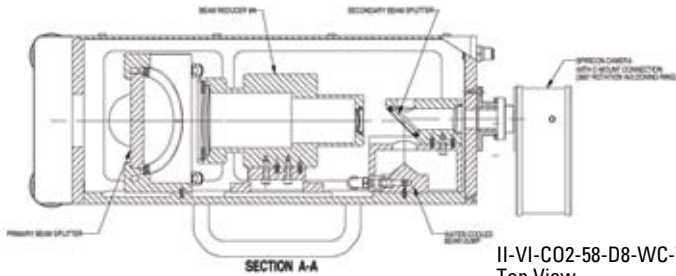
II-VI-CO2-BS-35

The II-VI Beam Sampler was developed by II-VI, a leading industrial optics supplier, specifically to enable measurement and viewing of high power industrial CO₂ beams. Spiricon and II-VI have teamed up to provide solutions to vexing laser beam stability, alignment, tuning, and optimizing difficulties.

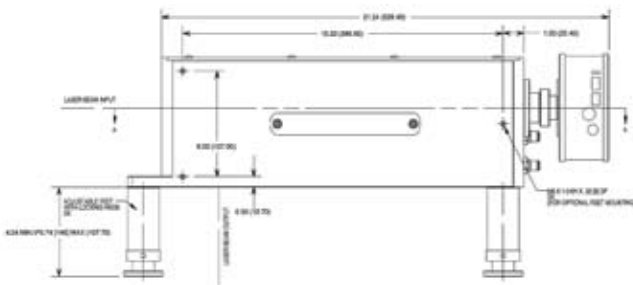
The II-VI-CO₂-BS Profiler consists of a set of turning mirrors that direct the beam to a sampling beam splitter, and then returns it to the original in-line path. After passing through the splitter, the sampled beam passes through additional attenuation and a beam telescope to size the beam for a Pyrocam III infrared camera. The camera is connected to a PC computer through a FireWire interface. A Basic Image Viewer presents 3D isometric plots, 2D color contour plots and grayscale, among other views. Add LBA-PC-PIII beam analyzer software to access many quantitative analysis, computations and charting functions.

The II-VI-CO₂-58 Series Profiler is similar to the BS model but the original beam is not returned "in-line". Both a horizontal and vertical entry model are available.

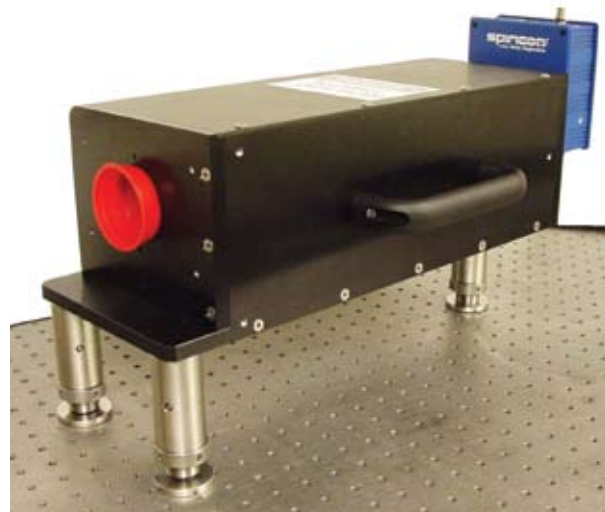
Both the Pyrocam III and LBA-PC-PIII must be ordered separately.



II-VI-CO2-58-D8-WC-V
Top View



II-VI-CO2-58-D8-WC-V
Side View



Model	Wavelength	Power	Beam Width	Beam Input	Cooling
II-VI-CO2-BS-35	10.6um	up to 8kW	20mm	Vertical	Requires external water
II-VI-CO2-58-D8-WC-H	10.6um	up to 10kW	29mm	Horizontal	Requires external water
II-VI-CO2-58-D8-WC-V	10.6um	up to 10kW	29mm	Vertical	Requires external water

Beam Analysis Systems for Industrial Lasers

BA Series for beam analysis, power, energy and temporal profile		
BA150	BA150 system for beam profile, pulse shape, power and energy including USB Interface box for transmitting power/energy information to PC. To be used with oscilloscope of user's choice. Includes interchangeable -100mm lens assy and -50mm lens assy.	SP786012
Replacement -100mm lens assembly	Replacement - 100mm lens assembly for BA150	SPZ08256
Replacement -50mm lens assembly	Replacement - 50mm lens assembly for BA150	SPZ08255
BA500-V2	BA500 system for beam profile, pulse shape, power and energy including SP620 USB camera and USB Interface box for transmitting power/energy information to PC. To be used with oscilloscope of user's choice.	SP786013
BA500-V1 for laptop	As above but with FX50 firewire camera and cardbus firewire card for laptop PC. not RoHS	SP186007
BA500-V1 for desktop	As above but with FX50 firewire camera and PC firewire card for desktop PC. not RoHS	SP186008
Optional Carrying case for BA500	Carrying case for BA500 unit, optional Picoscope, cables and firewire card	1J02048
Optional Water circulator for BA500	Portable 30 liter reservoir water circulator. For operation at 300W for up to 1Hr, at 1000W for 20 minutes. not RoHS	1Z17100
BA100-V1 for laptop	Complete pass through system for beam profile including Cardbus firewire card for installation in user's laptop PC. User must provide beam stop or power meter.	SP186009
BA100-V1 for desktop	Complete pass through system for beam profile including PCI firewire card for installation in user's desktop PC. User must provide beam stop or power meter.	SP186010
L40(150)A-V2 laser power meter for BA100	Laser power meter for 40W continuous and 150W intermittent average power to be used as a beam stop and for measuring laser power and single shot energy. (Higher power meters also available).	7Z02626
Optional PC oscilloscope	1MHz virtual oscilloscope for BA150 or BA500 to turn your PC into an oscilloscope displaying the temporal pulse shape. Uses PC or laptop USB port.	SPE10008
Optical trigger assembly for BA100	Optical trigger assembly, which can be mounted on head or separately to sense laser pulses and synchronize camera with pulses. Comes with short BNC cable for mounting on camera, and for mounting separately, a stand (with BA150 and BA500 this is built in)	SPZ17005
YAG Max	Call for details	
IPB-YAG-16	Nd:YAG sampler for 1064nm beams up to 4KW, beam width up to 16mm	SP90150
IPB-YAG-30	Nd:YAG sampler for 1064nm beams up to 4KW, beam width up to 30mm	SP90151

II-VI-CO₂ Profilers for Industrial CO₂ Lasers

II-VI-CO2-BS-35	II-VI-CO2 in-line sampler, for 10.6µm beams up to 8 kW. Beam width up to 20 mm. Pyrocam III Beam Profiler System required (ordered separately). Recommended model: PY-III-C-A or PY-III-C-B with a Germanium 10.6µm window. Optional LBA-PC-PIII laser beam analyzer also ordered separately.	SP90062
II-VI-CO2-58-D8-WC-H	CO2 laser beam sampler for lasers up to 10kW. Input Clear Aperture is 58mm. Requires cooling water. Horizontal entry. Built-in 8x beam reducer and adapters for Pyrocam III. Order Pyrocam III separately. Optional LBA-PC-PIII laser beam analyzer also ordered separately.	SP90160
II-VI-CO2-58-D8-WC-V	Same as above but with Vertical Entry	SP90161
Consult factory for larger beams		

Hartmann Wavefront Analyzer

HWA-C4812-10-HR-1064	High resolution at 1064nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90063
HWA-C4812-10-MP-1064	Multi-purpose at 1064nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90064
HWA-C4812-10-HS-1064	High sensitivity at 1064nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90065
HWA-C4812-10-HR-633	High resolution at 633nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90066
HWA-C4812-10-MP-633	Multi-purpose at 633nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90067
HWA-C4812-10-HS-633	High sensitivity at 633nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90068
HWA-C4812-10-HR-300	High resolution at 300nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90069
HWA-C4812-10-MP-300	Multi-purpose at 300nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90070
HWA-C4812-10-HS-300	High sensitivity at 300nm. Includes HWA software, COHU 4812 camera, Framegrabber card, Hartmann array permanently mounted on camera.	SP90071