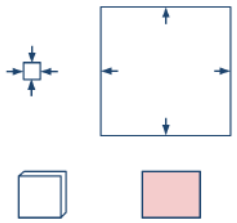
BeamPro

BeamPro is the **most comprehensive range** of laser beam profilers available on the market. All the cameras have been carefully **qualified and selected by laser experts** to successfully address any beam profiling requirement, based on decisive criteria like pixel size, detection area, wavelength range, compactness or budget. Powered by a dedicated **full-featured, automatically updated, beam profiling software**, BeamPro is a high-performance, user-friendly and tailored solution, delivering **reliable and reproducible measurements** for any application.

Models :



- **Small pixels** : down to 1.40 µm
- **Large area** : beams up to 30 mm in diameter
- **Compact footprint** : 10 mm thickness
- **SWIR range** : 400 to 1700 nm wavelengths

Options

- Windowless
- Trigger
- UV extension (down to 190 nm)
- Additional ND filters (OD1 to OD4)
- High Dynamic Range
- Vacuum compatible versions (not available for all models)

BeamPro small pixels

Pixel size from 1.40 µm up to 3.45 µm

Models	µ-BP7.5+	µ-BP6.3+	BP7.6+	µ-BP8.4+	µ-BP7.7+	BP13.9+	BP6.5	BP11.10	µ-BP7.4	BP8.7	VSWIR 7.5	VSWIR 9.7
Pixel size (µm) ↗	1.40	1.45	1.85	2.00	2.00	2.40	2.50	2.50	3.45	3.45	3.45	3.45
Spectral range (nm)	375 – 1100 190 – 1100 with UV option										400 - 1700	
Sensor size (mm)	7.2 x 5.4	5.6 x 3.2	7.4 x 5.6	7.7 x 4.3	7.1 x 7.1	13.3 x 8.9	6.5 x 5.4	11.3 x 10.2	6.6 x 4.2	8.4 x 7.1	7.1 x 5.3	8.8 x 7.1
Sensor format	M 1/1.8”	S 1/3”	M 1/1.7"	M 1/1.8”	M 1/1.7”	L 1"	M 1/2"	L 1"	M 1/2.3”	L 2/3”	M 1/1.8”	L 1/1.4”
Resolution	5136 x 3856 19.8 Mpx	3864 x 2176 8.4 Mpx	4000 x 3000 12 Mpx	3840 x 2160 8.3 Mpx	3552 x 3552 12.6 Mpx	5536 x 3692 20.4 Mpx	2600 x 2160 5.6 Mpx	4508 x 4096 18.4 Mpx	1920 x 1200 2.3 Mpx	2448 x 2048 5.0 Mpx	2048 x 1536 3.1 Mpx	2560 x 2048 5.2 Mpx
Shutter type	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling	Global	Global	Global	Global	Global	Global
Minimum beam diameter (Ø FWHM, µm)[1]	6	7	9	9	9	12	12	12	17	17	17	17
Maximum acquisition frame rate (fps)[2]	8	25	33	22	8	20	35	11	80	36	60	36
Exposure time min (µs)	35[3]	16[3]	40[3]	80[3]	31[3]	53[3]	100	500	17	27	27	29
Exposure time max (s)	1	1	0.6	1	1	0.8	1	1	1	1	0.5	0.5
Dynamic (dB)	58	65	68	71	68	70	71	64	71	70	50	50
Price	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■ ■	■	■ ■	■ ■ ■ ■	■ ■ ■ ■
Sensor type	CMOS										InGaAs	
Bit depth	12 / 16 (with HDR option)										12	
PC Interface	USB 3.1											
Synchronization	Yes (with the Trigger option)											
Dimensions (mm)	33 x 29 x 10	33 x 29 x 10	36 x 39 x 46	33 x 29 x 10	33 x 29 x 10	36 x 39 x 46	36 x 39 x 46	36 x 39 x 46	33 x 29 x 10	36 x 39 x 46	36 x 39 x 46	36 x 39 x 46

[1] The minimum beam diameters are specified for a precision of measurement better than 1%. Smaller beam diameter can be measured but the error will progressively increase
[2] Depending on the type of calculation, frame rate may vary
[3] Due to rolling shutter, the actual minimum exposure time to capture the whole beam will be limited by the beam size. The larger the beam, the longer the required minimum exposure time

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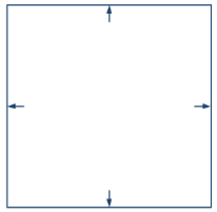

BeamPro large area

Beam diameters from 10 mm up to 30 mm

Models	BP12.10	BP11.10	SWIR 13.10	BP11.11	SWIR 22.18	BP25.16	BP25.16 UV	BPΦ25	BPΦ25 UV	VSWIR 19.15	SWIR 38.30
Sensor size (mm) ↗	12.4 x 9.8	11.3 x 10.2	12.8 x 10.2	11.2 x 11.2	22.0 x 17.6	25.0 x 16.1	25.0 x 16.1	Φ 25.0	Φ 25.0	19.3 x 15.3	38.4 x 30.6
Sensor format	L 1"	L 1"	L 1"	L 1"	L+ APS-C	L+ 4/3"	L+ 4/3"	L+ Φ	L+ Φ	L+ 1.5"	L+ Full Frame
Spectral range (nm)	375 - 1100 190 - 1100 with UV option		900 - 1700	375 - 1100 190 - 1100 with UV option	900 - 1700	375 - 1100	200 - 750	375 - 1100	200 - 750	400 - 1700	900 -1700
Resolution	2592 x 2048 5.3 Mpx	4508 x 4096 18.4 Mpx	1280 x 1024 1.3 Mpx	2048 x 2048 4.2 Mpx	640 x 512 0.3 Mpx	1920 x 1200 2.3 Mpx	1920 x 1200 2.3 Mpx	2048 x 2048 4.2 Mpx	2056 x 2056 4.2 Mpx	1280 x 1024 1.3 Mpx	1280 x 1024 1.3 Mpx
Pixel size (µm)	4.80	2.50	10.0	5.50	33.00	13.48	13.48	12.65	12.6	15.0	30.0
Shutter type	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global
Minimum beam diameter (Ø FWHM, µm)[1]	24	12	50	29	750	200 / 65[3]	200 / 65[3]	200 / 65[3]	200 / 65[3]	500 / 200[3]	750
Maximum acquisition frame rate (fps)[2]	73	11	60	35	225	37	37	35	18	72	60
Exposure time min (µs)	52	500	10	40	10	20	20	40	13	16	10
Exposure time max (s)	0.5	1	0.5	1	0.5	1	1	1	1	0.5	0.5
Dynamic (dB)	56	64	61	58	63	70	70	58	71	56	61
Price	■■	■■■	■■■■	■■	■■■■	■■■	■■■	■■■	■■■■	■■■■	■■■■
Sensor type	CMOS		InGaAs	CMOS	InGaAs	CMOS	CMOS	CMOS	CMOS	InGaAs	
Bit depth	12 / 16 (with HDR option)	12 / 16 (with HDR option)	14	12 / 16 (with HDR option)	14	12 / 16 (with HDR option)	12 / 16 (with HDR option)	12 / 16 (with HDR option)	12 / 16 (with HDR option)	12	14
PC Interface	USB 3.1										
Synchronization	Yes (with the Trigger option)										
Dimensions (mm)	36 x 39 x 46	36 x 39 x 46	58 x 58 x 70	36 x 39 x 46	46 x 46 x 57	37 x 40 x 55	37 x 40 x 55	37 x 40 x 55	37 x 40 x 55	37 x 40 x 55	58 x 58 x 80

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[2] Depending on the type of calculation, frame rate may vary
[3] Contact us for more information

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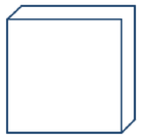

BeamPro compact footprint

10 mm thickness

Models	**µ-BP7.5+**	**µ-BP6.3+**	**µ-BP8.4+**	**µ-BP7.7+**	**µ-BP7.4**
Pixel size (µm) ↗	1.40	1.45	2.00	2.00	3.45
Spectral range (nm)	375 – 1100 190 – 1100 with UV option				
Sensor size (mm)	7.2 x 5.4	5.6 x 3.1	7.7 x 4.3	7.1 x 7.1	6.6 x 4.2
Sensor format	M 1/1.8”	S 1/3”	M 1/1.8”	M 1/1.7”	M 1/2.3"
Resolution	5136 x 3856 19.8 Mpx	3864 x 2176 8.4 Mpx	3840 x 2160 8.3 Mpx	3552 x 3552 12.6 Mpx	1920 x 1200 2.3 Mpx
Shutter type	Rolling	Rolling	Rolling	Rolling	Global
Minimum beam diameter (Ø FWHM, µm)[1]	6	7	9	9	17
Maximum acquisition frame rate (fps)[2]	8	25	22	8	80
Exposure time min (µs)	35[3]	16[3]	80[3]	31[3]	17
Exposure time max (s)	1	1	1	1	1
Dynamic (dB)	58	65	71	68	71
Price	■ ■	■ ■	■ ■	■ ■	■
Sensor type	CMOS				
Bit depth	12 / 16 (with HDR option)				
PC Interface	USB 3.1				
Synchronization	Yes (with the Trigger option)				
Dimensions (mm)	33 x 29 x 10	33 x 29 x 10	33 x 29 x 10	33 x 29 x 10	33 x 29 x 10

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BeamPro SWIR range

Wavelength from 400 to 1700 nm

Models	VSWIR 3.2	SWIR 5.4	VSWIR 6.5	VSWIR 7.5	VSWIR 9.7	SWIR 10.8	SWIR 13.10	VSWIR 19.15	SWIR 22.18	SWIR 38.30
Sensor size (mm) ↗	3.2 x 2.6	4.8 x 3.8	6.4 x 5.1	7.1 x 5.3	8.8 x 7.1	9.6 x 7.7	12.8 x 10.2	19.3 x 15.3	22.0 x 17.6	38.4 x 30.6
Sensor format	S 1/4"	S 1/2"	M 1/2"	M 1/1.8"	L 1/1.4"	L 1"	L 1"	L+ 1.5"	L+ APS-C	L+ Full Frame
Spectral range (nm)	400 - 1700	900 - 1700	400 - 1700	400 - 1700	400 - 1700	900 - 1700	900 - 1700	400 - 1700	900 - 1700	900 -1700
Resolution	640 x 512 0.3 Mpx	320 x 256 0.08 Mpx	1280 x 1024 1.3 Mpx	2048 x 1536 3.1 Mpx	2560 x 2048 5.2 Mpx	640 x 512 0.3 Mpx	1280 x 1024 1.3 Mpx	1280 x 1024 1.3 Mpx	640 x 512 0.3 Mpx	1280 x 1024 1.3 Mpx
Pixel size (µm)	5.0	15.0	5.0	3.45	3.45	15.0	10.0	15.0	34.5	30.0
Shutter type	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global
Minimum beam diameter (Ø FWHM, µm)[1]	25	75	25	17	17	75	50	500 / 200[3]	750	750
Maximum acquisition frame rate (fps)[2]	139	1000	72	60	36	225	60	72	225	60
Exposure time min (µs)	16	10	16	27	29	10	10	16	10	10
Exposure time max (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dynamic (dB)	56	63	56	50	50	63	61	56	63	61
Price	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■
Sensor type	InGaAs									
TE Cooling	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes
Bit depth	12	14	12	12	12	14	14	12	14	14
PC Interface	USB 3.1									
Synchronization	Yes (with the Trigger option)									
Dimensions (mm)	36 x 39 x 46	46 x 46 x 57	36 x 39 x 46	36 x 39 x 46	36 x 39 x 46	46 x 46 x 57	58 x 58 x 70	37 x 40 x 55	46 x 46 x 67	58 x 58 x 80

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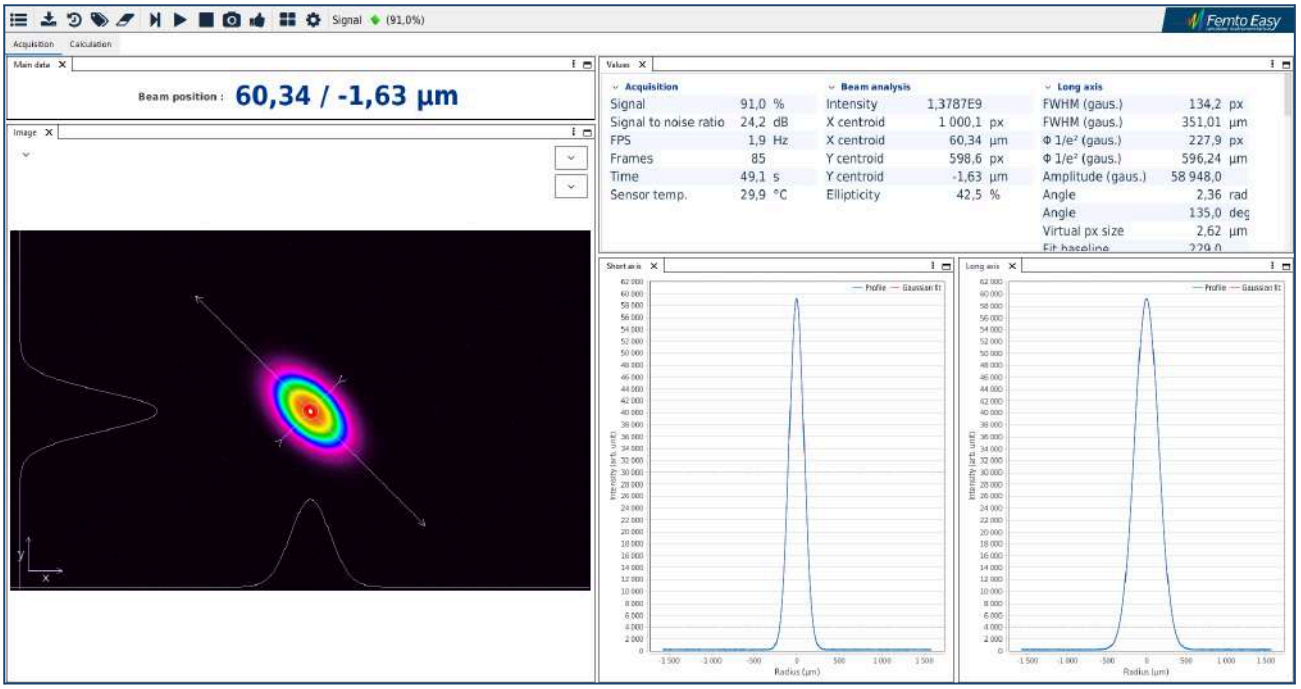
STAR Software

Thanks to a highly optimized C++ and Java architecture, the STAR software is fast, touchscreen-enabled, intuitive and user-friendly. **It also offers a unique automatic update mode, which ensures users to always use the latest version, for free, effortlessly and lifetime …**



- Live extraction of beam properties, even with resolutions larger than 20 Mpix
- Several parameters and methods supported (ISO calculation included)
- Enhanced background & hot pixels treatment, for optimum dynamic and signal to noise ratio
- Client / Server interface, allowing remote control through network
- Advanced logging and permanent access to 10 last acquisitions
- Live comparison with up to 10 different reference acquisitions
- 1-click, completely configurable, export assistant

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