

BeamPro

Compact

The Femto Easy BeamPro takes advantage of our user-friendly software, and provides thorough analysis and statistics of your laser beam. The BeamPro software uses standard communication protocols. It is therefore easily integrable in most complex environments. Several BeamPro can be controlled from a remote screen through the network. They are suitable for wavelengths from 190 to 1100 nm and beams as large as 12 mm. There are also high resolution models with pixels as small as 1.67 μm for focused beam measurements.



Key features

- ◆ Compact design
- ◆ User-friendly and powerful software
- ◆ High resolution (up to 24 Mpx)
- ◆ Small pixel size (down to 1.67 μm)
- ◆ Large sensor size, up to 12 mm
- ◆ C-mount or SM1 (adapter included)

Options

- ◆ Windowless
- ◆ UV extension (down to 190 nm)
- ◆ Additional ND filters
- ◆ Custom version on request
- ◆ High Dynamic Range
- ◆ Vacuum compatible versions (not available for all models)
- ◆ Trigger

Specifications

Format	C-mount											Low Profile								μ-BeamPro									
																													
Models	BP6.4	BP7.5	BP7.6	BP8.7	BP11.7	BP11.11	BP12.12	BP13.9	BP14.10	BP15.8	BP15.13	LP4.3	LP5.3	LP5.4	LP7.5	LP7.5+	LP4.3-U2	LP5.4-U2	LP6.4-U2	LP6.5-U2	LP7.5-U2	μ-BP4.2	μ-BP5.4	μ-BP6.4	μ-BP7.4	μ-BP7.5	μ-BP8.4		
Spectral range (nm)	375 – 1100 190 – 1100 with UV option											375 – 1100 190 – 1100 with UV option								375 – 1100 190 – 1100 with UV option									
Sensor size (mm)																													
Sensor format	1/2"	1/1.8"	1/1.7"	2/3"	1/1.2"	1"	1.1"	1"	1.1"	1.1"	1.2"	1/3.6"	1/2.8"	1/3"	1/1.8"	1/1.8"	1/3"	1/2"	1/2"	1/2"	1/1.8"	1/3.7"	1/3"	1/2.5"	1/2.3"	1/1.8"	1/1.8"		
Resolution	2560 x 1920 5.0 Mpx	3088 x 2076 6.4 Mpx	4000 x 3000 12.0 Mpx	2456 x 2054 5.0 Mpx	1920 x 1200 2.3 Mpx	2048 x 2048 4.2 Mpx	4504 x 4504 20.2 Mpx	5472 x 3648 20.0 Mpx	4096 x 3000 12.3 Mpx	5320 x 3032 16.1Mpx	5328 x 4608 24.4 Mx	808 x 608 0.5 Mpx	1936 x 1096 2.1 Mpx	1448 x 1086 1.6 Mpx	2056 x 1542 3.2 Mpx	3088 x 2076 6.4 Mpx	752 x 480 0.4 Mpx	2560 x 1920 4.9 Mpx	3480 x 2748 10.6 Mpx	1280 x 1024 1.3 Mpx	1600 x 1200 1.9 Mpx	1920 x 1080 2.0 Mpx	1280 x 960 1.2 Mpx	2592 x 1944 5.0 Mpx	1920 x 1200 2.3 Mpx	1600 x 1200 2.0 Mpx	3840 x 2160 8.3 Mpx		
Pixel size (μm)	2.20	2.40	1.85	3.45	5.86	5.50	2.74	2.40	3.45	2.74	2.74	4.80	2.90	3.45	3.45	2.40	6.00	2.20	1.67	5.20	4.50	2.20	3.75	2.20	3.45	4.50	2.00		
Shutter type	Rolling	Rolling	Rolling	Global	Global	Global	Global	Rolling	Global	Global	Global	Global	Rolling	Global	Global	Rolling	Global	Rolling	Rolling	Rolling	Global	Rolling	Global	Rolling	Global	Global	Rolling		
Minimum beam diameter (∅ FWHM, μm) ¹	11	12	9	17	29	27	14	12	17	14	14	24	15	17	17	12	30	11	8	26	23	11	19	11	17	23	10		
Maximum acquisition frame rate (fps) ²	15	59	31	36	47	80	18	18	23	23	15	135	135	230	57	58	87	6	3	25	18	15	54	14	160	60	45		
Exposure time	min (μs)	31 ³	8 ³	10 ³	27	20	40	20	67 ³	22	20	20	46	11 ³	17	24	13 ³	80	75 ³	340 ³	37 ³	20	31 ³	30	52 ³	17	20	80 ³	
Exposure time	max (s)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Dynamic (dB)	60	73	70	73	70	58	71	72	72	71	71	55	71	71	72	73	58	58	58	58	49	58	58	58	71	49	71		
Sensor type	CMOS											CMOS								CMOS									
Bit depth	12											10	12	12	12	12	12	10	12	12	10	10	12						
PC Interface	USB 3.1											USB 3.1						USB 2						USB 3.1					
Synchronization	Yes ⁴											Yes ⁴								Yes ⁴									
Dimensions (mm)	36 x 39 x 46											40 x 45 x 12.5								33 x 29 x 10.5									

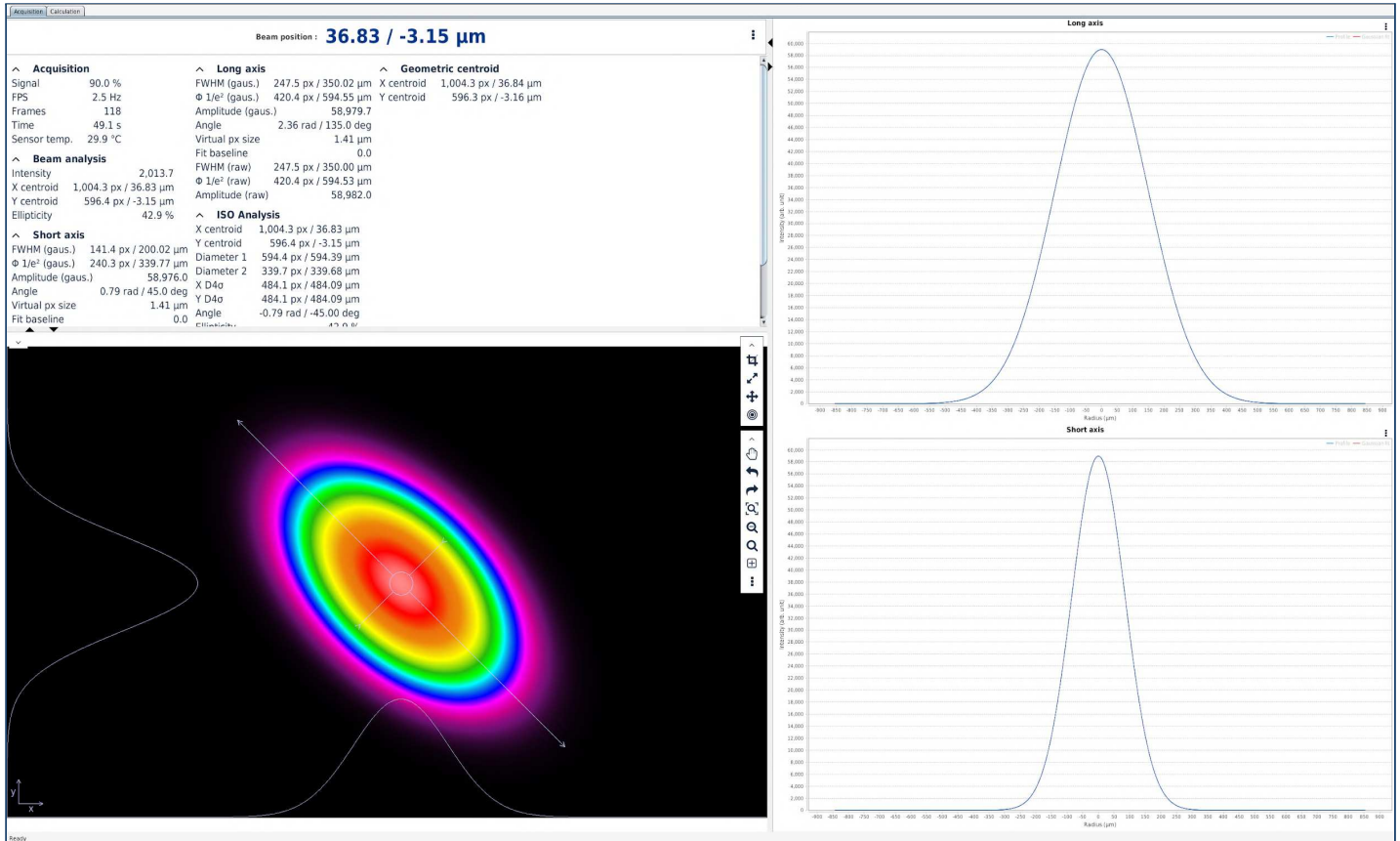
¹ The minimum beam diameters are specified for a precision of measurement better than 1%. Smaller beam diameter can be measured but the error will progressively increase

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

⁴ Requires the Trigger option

Thanks to a highly optimized C++ and Java architecture, the STAR software is fast, touchscreen-enabled, intuitive and user-friendly.



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