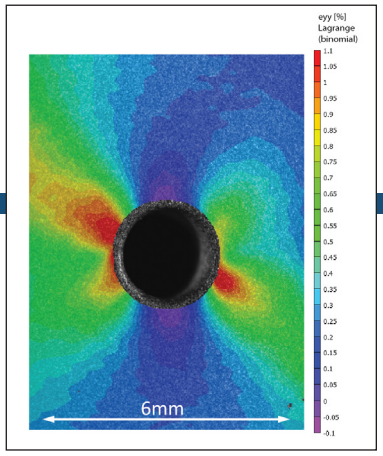
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Measure with Confidence

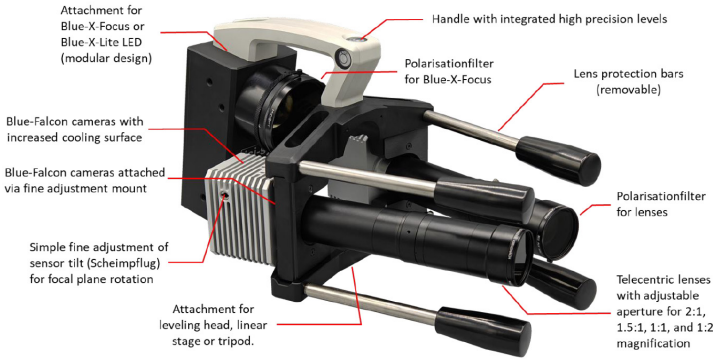
BLUE FALCON

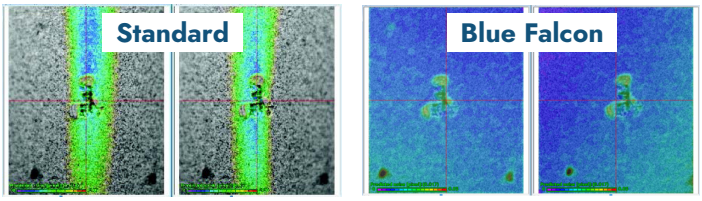
From .5x to 2x Magnification

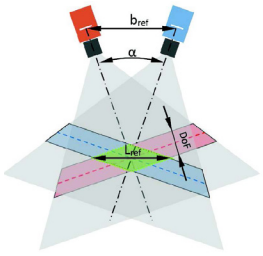


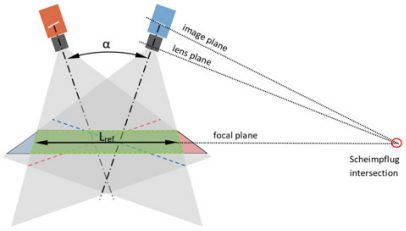
This is the sensor for 1:1 magnification with 8 mm x 6 mm @ 5 Mpx and 75 Hz.

The Blue Falcon system (formally 3D-Micro-DIC) is available in five configurations (see table below for details) and is ideal for full-field strain and deformation measurements on small fields-of-view (FOV). This system uses the Scheimflug optics principle to overcome diffraction limits and depth of field issues present in traditional imaging optics, obtaining unmatched optical resolution for small field imaging. The Blue Falcon system leverages the patented distortion correction calibration module to overcome non-parametric distortions introduced by the lens/sensor tilt present in Scheimflug setups.









System Features

- Turnkey 3D full-field microscale displacement and strain measurement
- Up to 2X magnification and up to 24.6 MP sensor configurations available (see table for more details)
- Suitable for video extensometer functions & real time feedback control
- Strain noise level down to 0.001% (10 με)
- Deformation sensitivity in nm range (1/100 pixel) depending on FOV
- Compact and rigid design with pre-adjusted, fixed field-of-view & stable calibration
- Designed for small and very small fields-of-view (FOV)
- Reliable & fast USB 3.0 interface for desktop or laptop PCs

Resolution, Frame Rate, & Field-of-View Options

Resolution	Resolution (H x V)	Framerate	Field-of-View (mm)		
			2:1	1:1	1:2
8.1 MP	2884 x 2884	51 fps	4.0 x 4.0	7.9 x 7.9	15.8 x 15.8
12.3 MP	4128 x 3006	33 fps		11.3 x 8.2	22.6 x 16.4
16.2 MP	5312 x 3040	26 fps		14.5 x 8.3	29.0 x 16.6
20.4 MP	4512 x 4512	21 fps		12.4 x 12.4	24.7 x 24.7
24.6 MP	5328 x 4608	17 fps		14.6 x 12.6	29.4 x 25.2



Blue Falcon cameras



Blue-X-Focus LED



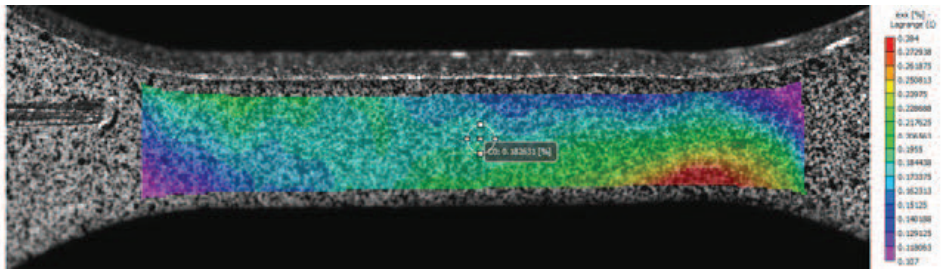
Rigid mounting system

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sales@correlatedsolutions.com
1.803.926.7272

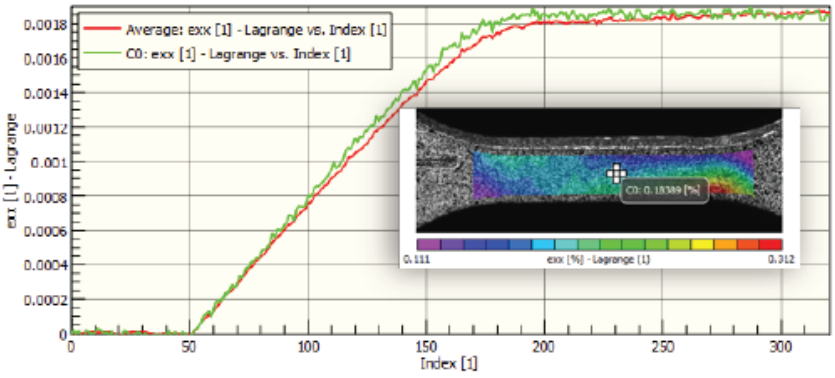
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Measure with Confidence





The Blue Falcon system can also be used as a 3D video extensometer (e.g. @ 300 Hz) and for high resolution, 3D, full-field strain, deformation and fatigue measurements on small fields-of-view.



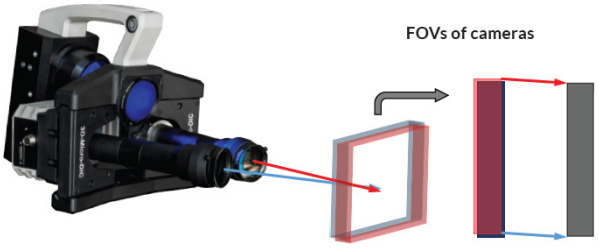
Comparison of Overlapping Field-of-View (FOV) Regions

Conventional Stereo Camera Setups



Effective usable FOV width is far smaller than for a single camera. Further depth-of-field for enhanced FOV requires a closed aperture, which reduces optical resolution due to the diffraction limit.

Blue Falcon System



Fully overlapping the measurement volumes of the two cameras enables evaluation over the full FOV with the highest precision (corresponding optical resolution at equivalent apertures of conventional stereo setup).

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