

zSnapper 3D Scanners

zSnapper *portable*

zSnapper *vario*

VIALUX offers a line of products for 3D scanning with outstanding performance in speed and precision. All scanners are based upon the proven concept of fringe projection. The accuracy and reliability of white light scanning are combined with advanced hardware: DLP® micromirror technology and blue high-power LED light sources. Unique hardware design and sophisticated software algorithms guarantee robustness and ease of use. The user-friendly calibration is traceable and the scan results are validated according to VDI 2634. The zSnapper software enables

- Single view 3D snapshots
- Automatic stitching of multiple views
- Recording of 4D video sequences with up to 46 Hz
- Combination of multiple synchronized scan units.

Common data output formats are supported including ASCII text, STL, OBJ, and AOP. In addition, scan data are sent directly to the Geomagic CAD modeling or 3D inspection software. These features are available for all scanner models. Customers can select different packages of zSnapper hardware and software to scan, digitize, or inspect their objects precisely and fast.

zSnapper *portable*



The zSnapper *portable* is the compact scanner device where both, projector and camera are fixed in one housing; it can be used factory calibrated. As a novelty in white light scanning hand-held operation is supported at high quality level. Point-and-click 3D snapshots are automatically taken by pushing the integrated trigger button.

Alternatively, the scanner can be mounted on a tripod and the object is moved. Turntables are provided for convenient 360° scanning.



zSnapper *vario*

The zSnapper *vario* is designed for highest flexibility in both, field of view and triangulation angle. Projector and camera are mounted separately and can be arranged in any desired orientation. The zSnapper *vario* and *vario XS* models use the same type of projector optics with slight modifications to cover the respective field of view.

The zSnapper *vario XL* is designed for large objects and a wide-angle optics reduces the working distance enabling use in limited space. The passively cooled high-power LED supplies the appropriate light intensity for convenient scanning.



zSnapper models

Model	zSnapper <i>portable</i>	zSnapper <i>vario</i>	zSnapper <i>vario XL</i>	zSnapper <i>vario XS</i>
				
Field of views (single patch)	350 mm*	180-1100 mm	500-2500 mm	60-120 mm
Recording time	22-220 ms			
Scan results				
Point cloud standard	300 000 (x,y,z)			
High-res option	4 200 000 (x,y,z)			
Accuracy	40 µm	20-125 µm	60-500 µm	8-15 µm
Data output	PCT (ASCII), STL, OBJ, AOP, VLX3D (binary)			
Texture standard b/w	8 bit gray value for each (x,y,z)			
Colour option	15 MPixel RGB u,v mapped			
General				
Dimensions	230x130x115 [mm]	200x130x115 [mm]**	180x145x115 [mm]**	200x130x115 [mm]**
Weight	2300g	1600g	3600g	1700g
Power	20W@12-30V	20W@12-30V	70W@12-30V	20W@12-30V

* larger objects by stitching

** projector unit

zSnapper *multiple*

The zSnapper *multiple* configuration offers an alternative approach for combining different perspective views by using one scanner per viewing direction. Non-stable objects and dynamic scenes can be captured in one single shot within milliseconds. Up to 6 fully synchronized scanners yield aligned 3D data. All zSnapper scanner models, *portable* and *vario*, have the capability of building a scanner ensemble.

The total measuring time for various zSnapper *multiple* configurations is given in the table.

#of synchronized scanners	measuring time in milliseconds
2	21.5
3	24.4
4	32.5
5	40.6
6	48.8

OEM scanner

The zSnapper *portable* and *vario* models are available as OEM version for customers who are doing system integration. All devices are supported by the same application programming interface (DLL library). This DLL allows to address the full range of applications from basic snapshots to 4D video. Customers can create added value by their own development work.

