

PRODUCT DATA SHEET

NavVis VLX 4



LiDAR

LiDAR sensor	3 × 569,000 points per second 2-channel class 1 ⁽¹⁾ 1535 nm
Max. operational range	40 m to 50 m ⁽²⁾
Beam size and divergence	3 mm × 3 mm @ 0m 1 mrad × 1 mrad

Accuracy

Accuracy of the point cloud	~4 mm ⁽³⁾
Resolution of the point cloud	3 mm ⁽⁴⁾
Control point support	Physical capture of ground and wall control points ⁽⁵⁾

Cameras

Cameras for panoramic images	4 × 20 MP 3.3 mm fisheye lens fixed focus f/2.4 rolling shutter
Panorama field of view	360°

Operation

Live scanning feedback	Real-time visual feedback on data coverage
Battery and operating time	2 × 95 Wh Li-ion V-Mount Micro hot swappable >1 hour (with 1 set of 2 batteries)
Storage	Portable SSD with 1 TB storage ⁽⁶⁾
Interfaces	Wi-Fi Bluetooth
IMU	Industrial-grade

Display

Type	Capacitive multi-touch display
Size	5.5"
Resolution	1920 × 1080

Environment

Operating temperature	-10°C to 40°C (14°F to 104°F) ⁽⁷⁾
IP rating	IP42 (indoor and outdoor)

Output

Point cloud formats	E57 PLY LAS PTS XYZ
Image formats	JPEG TIFF
Mesh formats	OBJ PLY
Data processing	Different processing presets including automated object detection and blurring

Device

Form factor	Wearable
Housing	Powder coated & anodized aluminum, carbon frame
Dimensions	111 × 33 × 57 cm (in XL position)
Weight	8.9 kg

Transportation

Transport case	43 × 54 × 82 cm 24.3 kg (fully equipped) 22.1 kg (excluding batteries)
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⁽¹⁾ Eye-safe per IEC 60825-1:2007 & 2014.

⁽²⁾ Depending on final sensor specification and depending on processing settings.

⁽³⁾ Local accuracy with fully constrained LiDAR SLAM. All accuracy statements are 1 sigma. Absolute accuracy depends on the environment.

⁽⁴⁾ Maximum true point cloud resolution the beam size supports. The actual resolution is configurable in IVION processing to balance quality against processing time.

⁽⁵⁾ Supports survey targets (e.g., checkerboards, nails, scribe marks) and natural features.

⁽⁶⁾ exFAT file system (compatible with Windows, macOS, Linux)

⁽⁷⁾ Operation possible below 0°C (32°F) for a maximum of 20 minutes in calm conditions (no wind) following a 20-minute warm-up period above 0°C (32°F).