RIEGL VP-1
with *RIEGL* VUX-Series Laser Sensors fully integrated

The *RIEGL* VP-1 carries a complete airborne laser scanning platform for easy mounting on suitable support arms of helicopters.

The platform comprises a *RIEGL* laser scanner (VUX-120[23], VUX-160[23], VUX-180[24], or VUX-240[24]), two digital cameras (1x Phase One iXM camera, 1x Flir TC2 thermal camera) and a high-end IMU/GNSS system.
Quick release adapter brackets and minimum external cabling (i.e. power supply, LAN, GNSS antenna) allow quick system installation and removal.

RIEGL VP-1
Helicopter Pod for Airborne Laser Scanning (ALS)

Typical Applications

• Corridor Mapping • Archeology and Cultural Heritage Documentation • Terrain and Canyon Mapping • Flood Zone Mapping • Surveying of Urban Environments • Topography in Open-Cast Mining • Construction-Site Monitoring • Power Line, Railway Track, and Pipeline Inspection • Accident Investigation • Emergency Management Planning

Contact us

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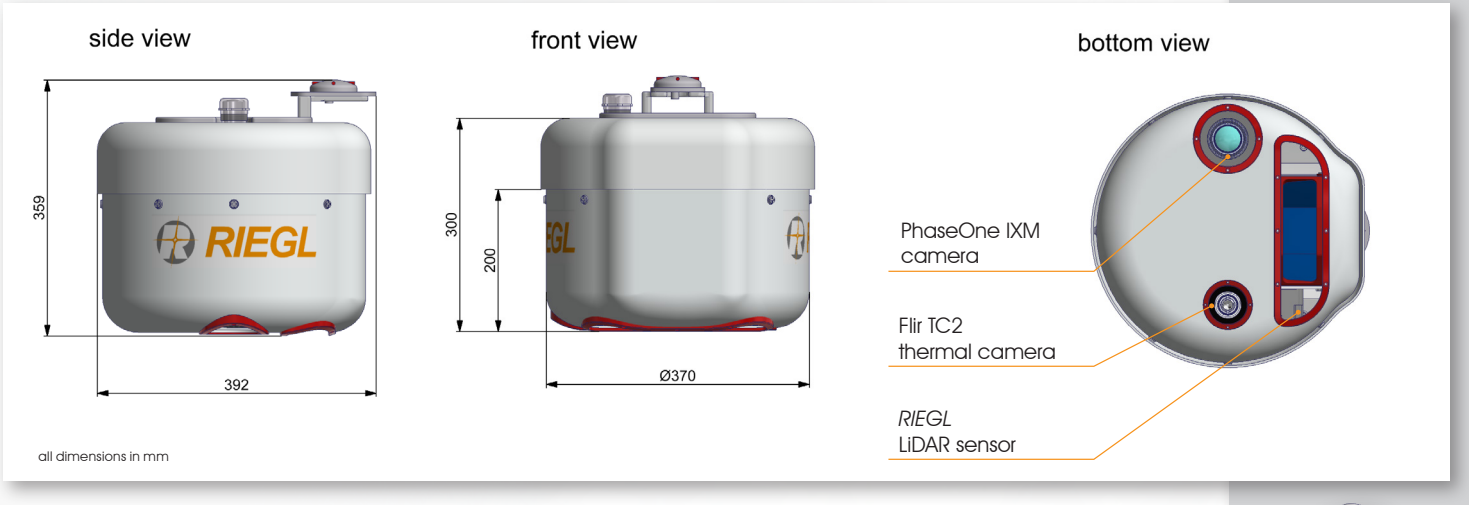
RIEGL VP-1 Technical Data



all dimensions in mm

RIEGL Sensor System

System Components	1x *RIEGL* LiDAR sensor 1x IMU/GNSS unit with GNSS antenna 1x control unit 1x laptop or Phase One iX controller for data acquisition 2x digital cameras (optional) 1x flight management system (optional)		
Total Weight	approx. 20 kg (depending on IMU/GNSS unit and camera configuration)		
IMU/GNSS Unit accuracy Roll, Pitch / Heading IMU sampling rate position accuracy (typ.)	AP+30 0.010° / 0.025° 200 Hz 0.02 m - 0.05 m	AP+50 0.005° / 0.010° 200 Hz 0.02 m - 0.05 m	AP+60[1)] 0.0025° / 0.005° 200 Hz 0.05 m - 0.1 m
Additional Information	quick installation & removal using the existing mounts (e.g. Meeker Aviation Camera System); mounting and operation at enduser's responsibility; area exposed to wind 0.114m²		

1) Only for *RIEGL* VUX-240[24] laser scanner.

RIEGL VP-1 Helicopter Pod with VUX-240 and GNSS antenna mounted

system operation and data acquisition with RiACQUIRE

RIEGL LiDAR Sensors

***RIEGL* LiDAR Sensor**	***RIEGL* VUX-120[23]**	***RIEGL* VUX-160[23]**	***RIEGL* VUX-180[24]**	***RIEGL* VUX-240[24]**
PRR / eff. meas. rate	2.4 MHz / 2,000,000 pts/sec	2.4 MHz / 2,000,000 pts/sec	2.4 MHz / 2,000,000 pts/sec	2.4 MHz / 2,000,000 pts/sec
accuracy / precision	10 mm / 5 mm	10 mm / 5 mm	10 mm / 5 mm	20 mm / 15 mm
FOV (scan pattern)	100° (NFB)	100° (NFB)	75°	75°
lines per sec.	400 lps	400 lps	800 lps	600 lps
max. measuring range natural targets ρ ≥ 20 % natural targets ρ ≥ 80 %	 760 m 1430 m	 980 m 1800 m	 810 m 1520 m	 1200 m 2180 m
laser class	class 1	class 1	class 3R	class 3R
weight	2.3 kg	2.65 kg	2.7 kg	4.2 kg

YouTube

Watch our videos!
youtube.com/rieglms

www.riegl.com

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