



RIEGL VP-1 with integrated RIEGL VUX-SYS



RIEGL VUX-1LR features

The VUX-SYS smoothly fits into the small and lightweight RIEGL VP-1 Helicopter Pod, designed to be mounted on standard hard points and typical camera mounts of manned helicopters.

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

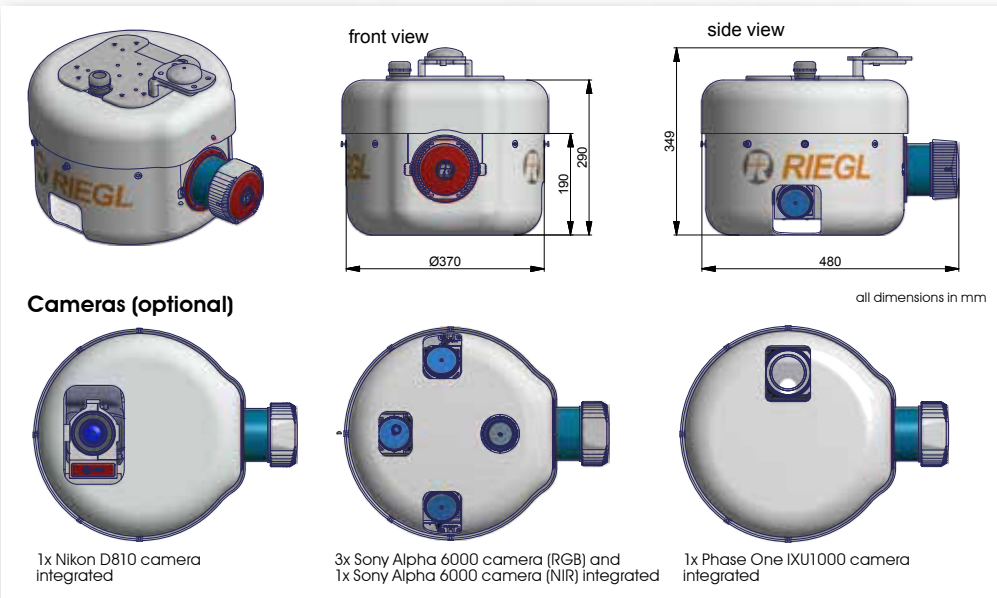
- Corridor Mapping
- Archeology and Cultural Heritage Documentation
- Terrain and Canyon Mapping
- Flood Zone Mapping
- Surveying of Urban Environments
- Topography in Open-Cast Mining
- Construction-Site Monitoring
- Power Line, Railway Track, and Pipeline Inspection
- Accident Investigation
- Emergency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



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RIEGL VP-1 Technical Data



mounting example on a helicopter (EC135) for power line mapping/inspection

RIEGL VUX[®]-SYS Sensor System

System Components	RIEGL VUX-1LR LiDAR sensor IMU/GNSS unit with GNSS antenna control unit digital cameras (optional)		
Scanner Performance	refer to VUX-1LR table below		
Total Weight	approx. 20 kg (depending on camera configuration)		
IMU/GNSS Unit	Applanix APX-20 UAV	Applanix AP20	Applanix AP60
accuracy Roll, Pitch / Heading	0.015° / 0.035°	0.015° / 0.035°	0.005° / 0.015°
IMU sampling rate	200 Hz	200 Hz	200 Hz
position accuracy (typ.)	0.05 m - 0.3 m	0.05 m - 0.3 m	0.05 m - 0.3 m
Camera Interfaces	trigger and event marker		
Technical Data	quick installation & removal using the existing mounts (e.g. AirFILM Camera System); mounting and operation at enduser's responsibility; area exposed to wind 0.114m ²		

Further details to be found on the current RIEGL VUX-SYS Data Sheet.



mounting example on BELL Long Range Helicopter



system operation and data acquisition with RiACQUIRE

RIEGL VUX[®]-1LR LiDAR Sensor

Laser Class	1
Max. Effective Measurement Rate	up to 750,000 meas./sec
Max. Range @ target reflectivity 20%	820 m
Minimum Range	5 m
Accuracy / Precision	15 mm / 10 mm
Field of View (FOV)	up to 330°

Class 1 Laser Product according to IEC 60825-1:2014

Further details to be found on the current RIEGL VUX-1LR Data Sheet.



RIEGL VP-1 Helicopter Pod with GNSS antenna mounted



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