

NEW

RIEGL VP-1 with integrated **RIEGL VUX-SYS**



RIEGL VUX-1LR features

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

Quick release adapter brackets and a minimum of external cabling (i.e. power supply, LAN, GPS antenna) allow quick system installation and removal.

NEW RIEGL VP-1

Helipod for Airborne Laser Scanning (ALS)

Typical Applications

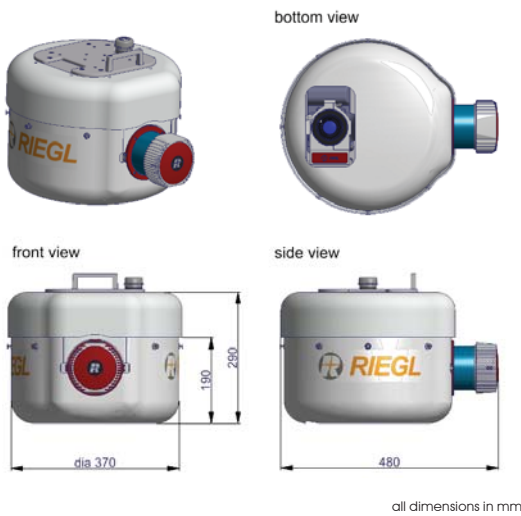
- Precision Agriculture
- Archeology and Cultural Heritage Documentation
- Terrain and Canyon Mapping
- Flood Zone Mapping
- Surveying of Urban Environments
- Topography in Open-Cast Mining
- Construction-Site Monitoring
- Power Line, Railway Track, and Pipeline Inspection
- Accident Investigation
-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



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RIEGL VP-1 Components & Technical Data



System Components:

- RIEGL VUX-1LR LiDAR sensor
- IMU/GNSS unit
- GNSS antenna
- Control unit
- digital camera (e.g. Nikon D810 or Phase One iXU)
- connecting cables

Technical Data:

- quick installation & removal using the existing mounts (e.g. AirFILM Camera System); mounting and operation at enduser's responsibility
- total weight approx. 19 kg
- area exposed to wind 0.114 m²

RIEGL VUX[®]-SYS Sensor System

system components	RIEGL VUX-1 UAS LiDAR sensor IMU/GNSS unit with antenna control unit digital camera
scanner performance	refer to VUX-1LR table below
IMU/GNSS unit accuracy Roll, Pitch / accuracy Heading IMU sampling rate position accuracy (typ.)	0.015° / 0.035° 200 Hz 0.05 m - 0.3 m
camera interfaces	trigger and event marker

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

RIEGL VUX[®]-1LR LiDAR Sensor

eye safety class	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 IEC60825-1:2007

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

RIEGL VP-1 Main Features & Key Facts

- robust und reliable airborne scanner carrying platform
- full mechanical and electrical integration of sensor system components into aircraft fuselage
- first applications for Supplementary Type Certificates (STC) in progress

RIEGL VP-1



mounting example on BELL Long Range Helicopter



RIEGL VP-1 Pod with GNSS antenna mounted



system operation and data acquisition with RiACQUIRE



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