

Basic Configuration Package

Scanner Basic Configuration for RIEGL VQ-820-G

Part-No. HW-VQ820-01-000-00

Hydrographic Airborne Laser Scanner RIEGL VQ-820-G

(Part-No. HW-VQ820-00-000-00)

consisting of VQ-820-G scan head and VQ-820-G laser unit

Scan Head:

- Laser transmitter & receiver front end
- Motorized mirror scanning mechanism, FOV 42 deg (max. 60 deg)
- Signal processing electronics with echo digitization and online waveform processing
- Internal power supply electronics, input voltage 18 - 32 V DC

Laser Unit:

- internal power supply unit input voltage 18 - 32 V DC
- adapter plate for mounting the laser unit onto the scan head



Detailed specifications and laser classification according to the latest datasheet *RIEGL VQ-820-G*.

Electrical Interfaces, integrated

- TCP/IP Ethernet Interface, providing smooth integration of the *RIEGL VQ-820-G* data into a 10/100/1000 MBit/sec, twisted-pair (TP) Local Area Network (LAN). The scanner acts as a server allowing remote configuration and data acquisition via a platform-independent TCP/IP Ethernet Interface.
- Serial RS232, 19.2 kBd, for data string with GPS time information for synchronization
- TTL input for 1 PPS Sync Pulse

Mechanical Interfaces, integrated

Scan Head:

- 3 x M8 thread inserts in the base plate of the scan head for mounting
- 3 x M8 thread inserts at both sides of the scan head housing (rigidly coupled with the internal mechanical structure) for mounting of the IMU sensor

These thread inserts can also be used for mounting the laser unit onto the scan head by means of the appropriate adapter plate.

Laser Unit:

- 4 x 5.6mm bore holes for attaching the appropriate adapter plate to mount the laser unit onto the scan head

Adapter Plate:

- 4 x M5 thread inserts for mounting the laser unit

Cables

- TCP/IP Cable M12-M12, 5m, (Part-No. HW-GP-03-028-00)
- TCP/IP Cable M12-RJ45, 0.3 m, (Part-No. HW-GP-03-002-00)
- TCP/IP Cable M12-RJ45 cross over, 0.3 m, (Part-No. HW-GP-03-003-00)
- Serial Data and PPS Cable to GPS receiver, 5m, (Part-No. HW-VXX-03-014-00)
- Power Supply Cable Scan Head, 2 pole, 5 m, (Part-No. HW-VXX-03-000-00)
- Remote On/Off-cable with push- button, 2 m, (Part-No. HW-VQXX-03-003-00)
- Debug-cable, 2 m, only for service purpose, (Part-No. HW-VXX-03-002-00)
- Power Supply Cable Laser Unit, 2 pole, 5 m, (Part-No. HW-VXX-03-000-00)
- Connection Cable, Scan Head to Laser Unit, 12 pole, 0.5 m, (Part-No. HW-VQ820-03-000-00)

Packaging for Transport

Heavy-duty transport box to carry scan head, laser unit, adapter plate, cables, etc.

RiVSTARTUP

(Part-No. SW-GP-07-005-00)

Tool for first start up operation of *RIEGL* V-Line Laser Scanners.

RiVLib-Scandata Interface Library

(Part-No. SW-GP-07-006-00)

Library enabling smooth integration of *RIEGL*'s V-Line Laser Scanners into user applications. The library allows 2D real-time data interfacing and includes tools to create and to query 2D databases containing measurement data and meta information.

The library is available in shared library format for Linux (x86) and Windows operating systems. 1 license included.

Software Maintenance for 12 months

(Part-No. SW-VQXX-12-000-00)

- Free software updates
- E-mail and telephone support

User Manual (in English language)

"Technical Documentation & Operating Instructions"

including, among other things, instructions for: Safety, Installation, Operation, etc.