RIEGL
LASER MEASUREMENT SYSTEMS

Scanner Basic Configuration
Part-No. 21R09-00-104-00

2D Laser Scanner *RIEGL* VQ-180
Part-No. 21R09-00-004-00

- Laser transmitter & receiver front end
- Motorized mirror scanning mechanism, FOV 100°
- Signal processing electronics with echo digitization and online waveform analysis
- Internal power supply electronics, input voltage 11 – 32 V DC

symbolic photo

Detailed specifications and laser classification according to the latest datasheet *RIEGL* VQ-180.

Electrical Interfaces, integrated

- TCP/IP Ethernet Interface, providing smooth integration of the *RIEGL* VQ-180 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

- Mounting plate with 6 x M6 thread inserts for mounting of the laser scanner
- 3 x M6 thread inserts at bottom side, rigidly coupled with the internal mechanical structure for mounting of the IMU sensor
- 3 x M6 thread inserts on top

Cables

- Part-No. 02Z03-02-016-00   TCP/IP Cable M12-M12, 5 m
- Part-No. 02Z03-01-001-00   TCP/IP Cable M12-RJ45, 0.3 m
- Part-No. 02Z03-01-002-00   TCP/IP Cable M12-RJ45 cross over, 0.3 m
- Part-No. 02Z03-02-032-00   Serial Data and PPS Cable to GPS receiver, 5 m
- Part-No. 02Z03-02-033-00   Power Supply Cable, 2 pole, 5 m
- Part-No. 02Z03-01-045-00   Remote On/Off-cable with push- button, 2 m
- Part-No. 02Z03-01-044-00   Debug-cable, 2 m, only for service purposes

Information contained herein is believed to be accurate and reliable.
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Technical content subject to change.

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RiVSTARTUP Part-No. 02Z06-02-038-00
Tool for first start up operation of *RIEGL* V-Line Laser Scanners.

RiVLib – Scandata Interface Library Part-No. 02Z06-02-036-00

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. 02Z06-06-013-00
● 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.

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Firmware Option

SCAN SYNC Scanner Rotation Synchronization for V-Line Laser Scanners

Part-No. 02Z07-04-004-00

for synchronizing scan lines to external timing signal

- Synchronization of the data acquisition of a single laser scanner or several laser scanners to an external event pulse, typically the PPS-signal of a GPS receiver, whereas this event pulse can be fed to other units of a data acquisition system for synchronized operation (e.g. a camera is triggered with start of a scan line).

- Increasing the data acquisition speed by operating several laser scanners, as in some data acquisition systems the acquisition speed of a single laser scanner may be not sufficient. Operating several laser scanners scanning the same angular range requires the scanners to be synchronized to achieve a well-defined scan pattern and to avoid interference between the scanners.

Carrying Case:

Scanner Carrying Case   Part-No. 02Z05-01-027-00

with 4 hinged handgrips and wheels, splash-proof, foam lined to fit shape of *RIEGL* VQ-180, cables etc., dimensions 628 x 497 x 303 mm.

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