



RIEGL V-Line CB 23

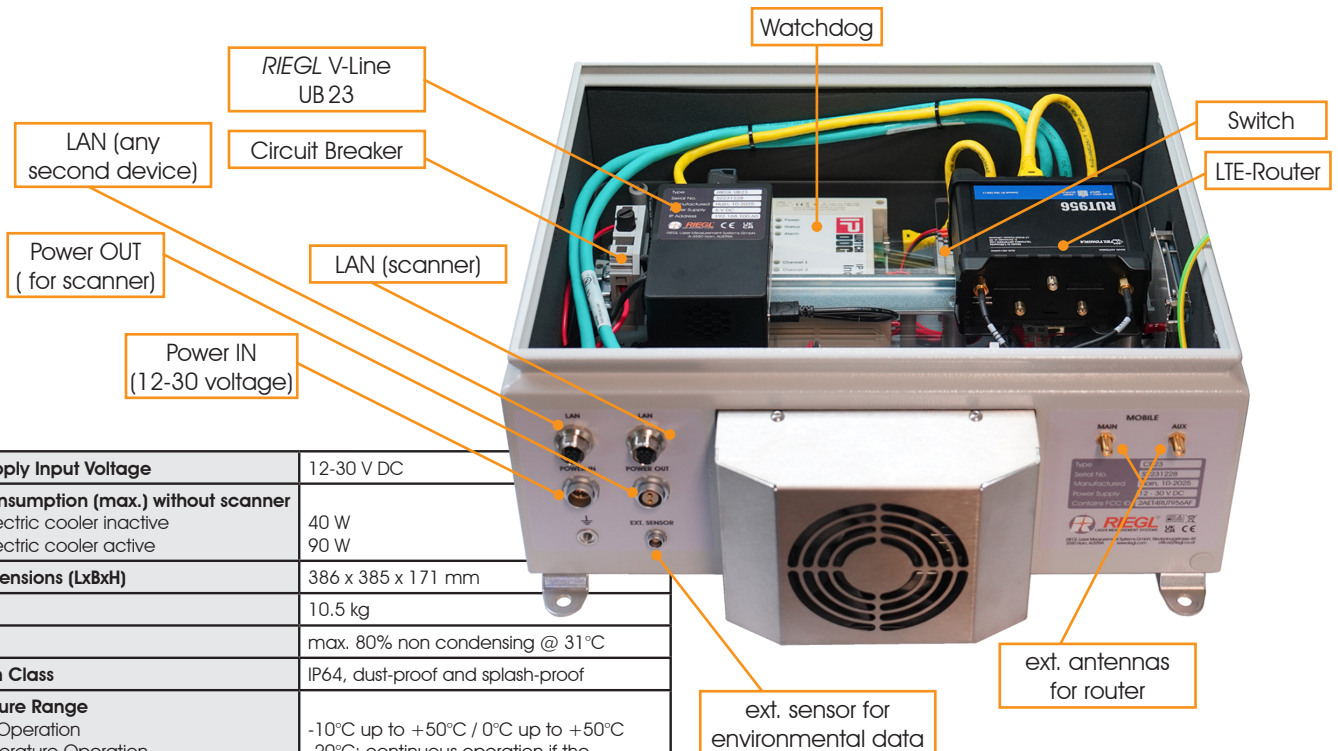
Communication Box for RIEGL V-Line Laser Scanners

RIEGL scanners are often used in fixed installations in remote environments. For this application, a stable hardware power supply and remote operation of the system are mandatory. In the unlikely event of any hardware/firmware failure, the system shall automatically reboot and continue with the specified data acquisition tasks on the scanner. To enable a stable and seamless remote 24/7 operation of RIEGL V-Line scanners, RIEGL offers the V-Line CB23. The housing of the CB23 is designed for usage in harsh environment and consists of a number of hardware components.

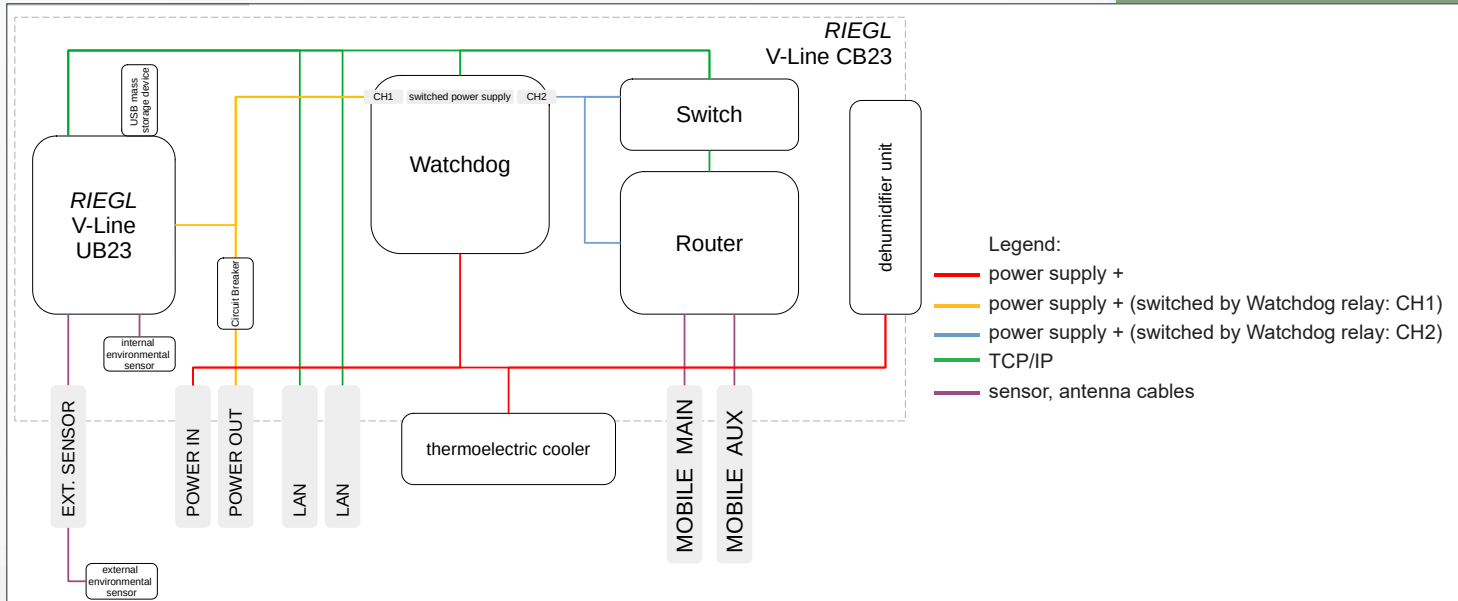
Key Features

- » enables stable 24/7 remote system operation
- » operation within a wide temperature range (-20° to +50° C)
- » compact and water proved housing
- » high accurate environmental data by external sensor
- » IP64 for usage in harsh environment
- » one Power IN connector to support all connected devices (including the scanner)

Hardware Components, Functionality & Technical Data



Power Supply Input Voltage	12-30 V DC
Power Consumption (max.) without scanner	
Thermoelectric cooler inactive	40 W
Thermoelectric cooler active	90 W
Main Dimensions (LxBxH)	386 x 385 x 171 mm
Weight	10.5 kg
Humidity	max. 80% non condensing @ 31°C
Protection Class	IP64, dust-proof and splash-proof
Temperature Range	
Storage / Operation	-10°C up to +50°C / 0°C up to +50°C
Low Temperature Operation	-20°C: continuous operation if the instrument is powered on while internal temperature is at or above 0°C and still air



LTE-Router

The integrated sim card of a local network operator enables LTE Internet connection. The pre-installed VPN connection protects the system from unauthorized access and enables remote access and configuration of all integrated hardware components.

Switch

All necessary TCP/IP connections of the individual hardware components are handled by the switch.

WatchDog

All connected hardware devices are checked for proper operation. The WatchDog sends pings on a defined schedule to check the vitality of the connected devices. If the requested device does not respond, the WatchDog activates a power relay to force a reboot of the non-responding hardware component. A notification can be sent to a defined recipient.

RIEGL V-Line UB 23

The V-Line UB 23 enables the following functionalities:

- automatic data acquisition workflows
- automatic scan data registration
- apps for automatic onboard data processing
- Python scripting for system customization
- scan data synchronization on a Network Attached Storage (NAS)
- remote scanner operation
- high-accurate environmental data by external sensor



For details, please refer to the Info Sheet "V-Line UB 23".

To ensure the provision of highly accurate environmental data, two sensors for measuring temperature, air pressure, and humidity are integrated. One sensor is installed inside the housing to monitor the environment there. The second sensor is connected from outside the housing and is equipped with a cable of 3m length. The cable enables the mounting at a location in the surrounding, where accurate ambient atmospheric environment values can be measured. For monitoring purposes, a webserver running on the RIEGL UB 23 allows graphical display of the current and historical data from both sensors. Data from the outside sensor is used for atmospheric correction of the acquired scan data.

The V-Line UB 23 also enables functionalities as provided by the RIEGL VZ-i Series scanners for systems operating a RIEGL VZ scanner (VZ-400, VZ-1000, VZ-2000, VZ-4000, VZ-6000).