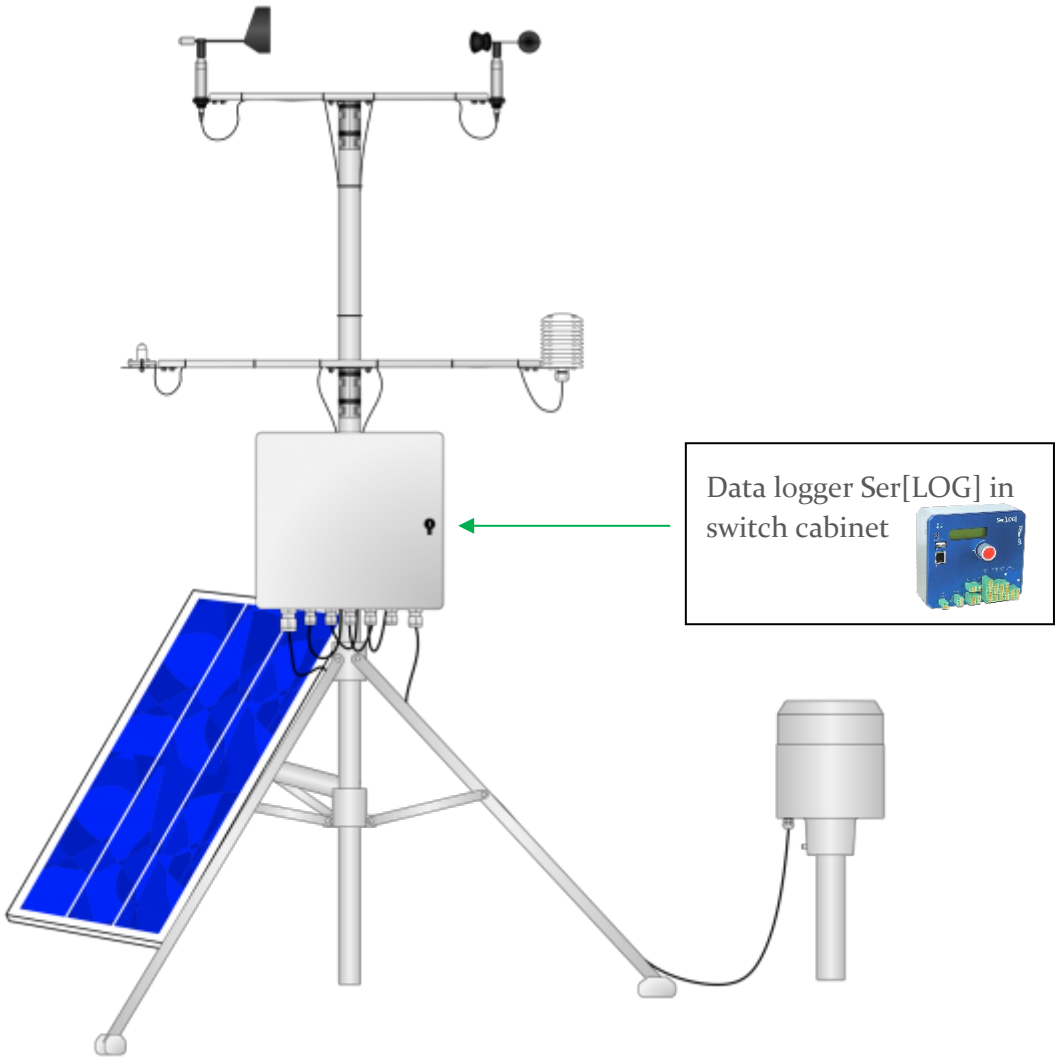
Data logger Ser[LOG]

BASICS, APPLICATIONS, USE, SOFTWARE,
TECHNICAL DATA

Lambrecht meteo GmbH | Ser[LOG] | 2019

Basics

Data loggers, such as our Ser[LOG], record the measurement data of various types of sensors over a long period of time, in the intervals you require.
They can record data for months both in- and outdoors, monitoring the entire measurement (recording) process, without supervision.



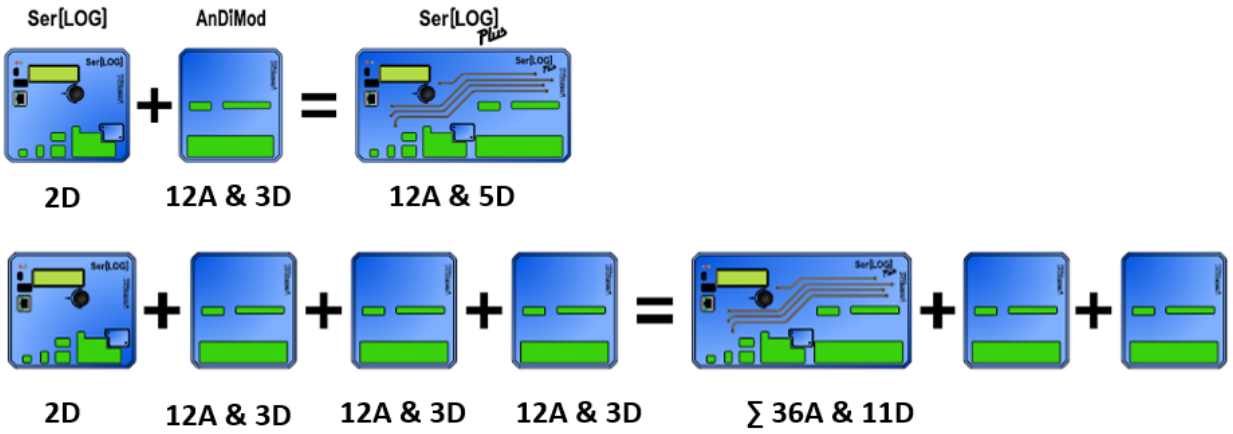
(System solution with solar operation)

Range of applications

If you want to monitor the weather or individual parameters continuously without being on site yourself, data loggers are the right equipment. Energy auditors, researchers, building managers and environmental consultants use weather stations equipped with data loggers because of their wide range of technical applications. The fields of application in meteorology range from weather services and environmental offices to industrial plants, sewage treatment plants, landfills, airports and shipping ports, and much more.

Economic efficiency

Customers often have concerns that when they decide to buy a new system, their old sensors, stations, etc. are no longer usable. With the Ser[LOG] this issue is all but taken care of. If you already have sensors for weather recording you can simply connect it to the Ser[LOG]. For this purpose, a large number of sensors can be maintained in the sensor library, whether Lambrecht meteo sensors or sensors from other manufacturers. In addition, the Ser[LOG] can be expanded modularly to meet increasing requirements, e.g. by adding several and different sensors to your weather station. In total, the Ser[LOG] can be expanded to a maximum of 36 analogue and 11 digital channels can be extended. Up to 60 channels are supported.
(More information in the technical data sheet or in the manual)



Initial operation

Before the data logger can start collecting data, it must be configured according to your requirements and needs. The configuration is done individually for each customer, as not everyone collects the same measurement data, which is reflected in the different application areas. With the configuration and maintenance software of the Ser[LOG], the Ser[LOG]-Commander, you can do this effortlessly. For the programming we offer trainings for your technical staff and for questions in the later course of the cooperation, our technical support is at your disposal.

Data storage and backup

The Ser[LOG] continuously collects your desired data. The housing is fully electrically shielded and passes all EMC tests. The memory has a capacity of more than one year and is non-volatile, so that in the event of a power failure of the entire weather station your data will still be stored.

Data transfer

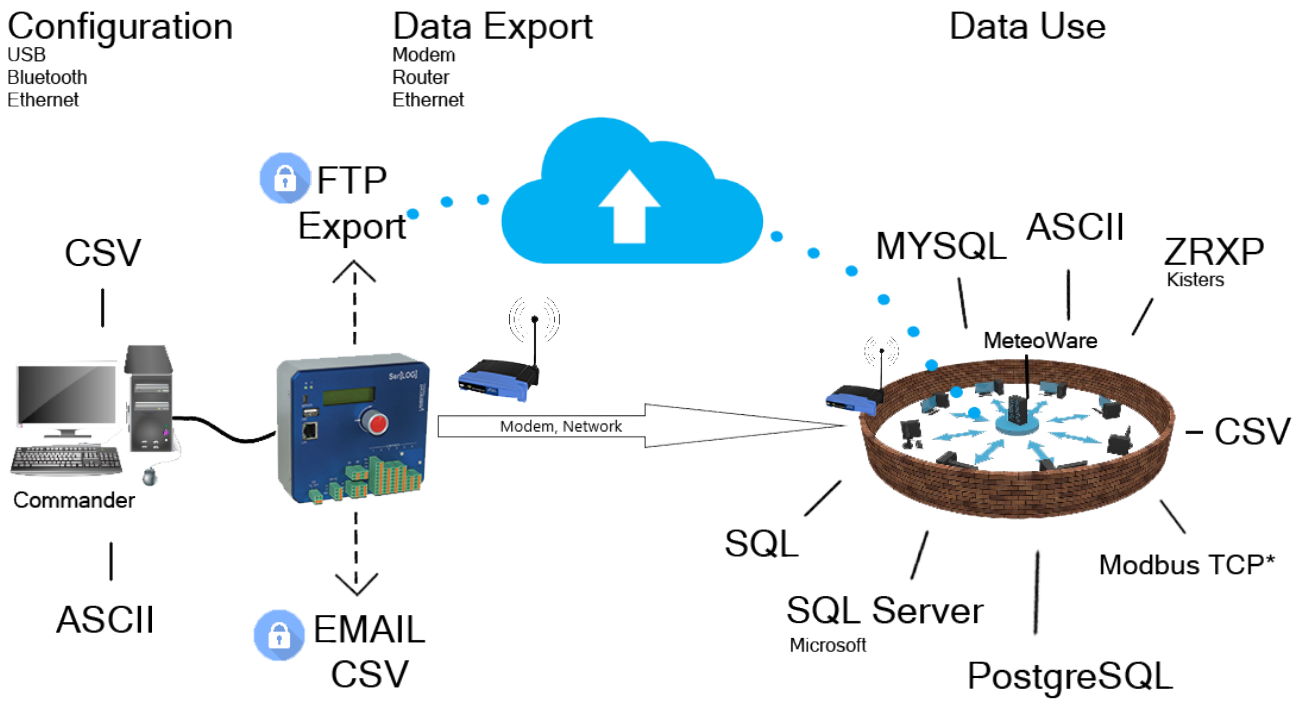
There are three basic ways to download data from Ser[LOG].
- **USB stick or USB cable**
- **Bluetooth**
- **App application on the laptop**

The classic way to download the data via USB or a Bluetooth connection has the disadvantage that you have to be there in person.

With APP applications, on the other hand, you have permanent access to the data via your PCs. This is done via GSM mobile radio (EDGE, LTE) or Ethernet communication. The data is transmitted within a secure internal web server to which only you have access (VPN). The data transmissions take place in a time interval, which you can set individually. With sensors that support Modbus, RTU and SDI-12, the data can be retrieved and transmitted every 10 seconds. The Ser[LOG] also automatically notifies you by e-mail or SMS when sensors reach threshold values, have error messages or a combination of warnings exists.

Regardless of which data transfer method you choose, the data is checked for completeness. This is guaranteed for all data transfer options. Even after the data transfer, your data is still stored in the memory of the Ser[LOG] and is only deleted on your command.

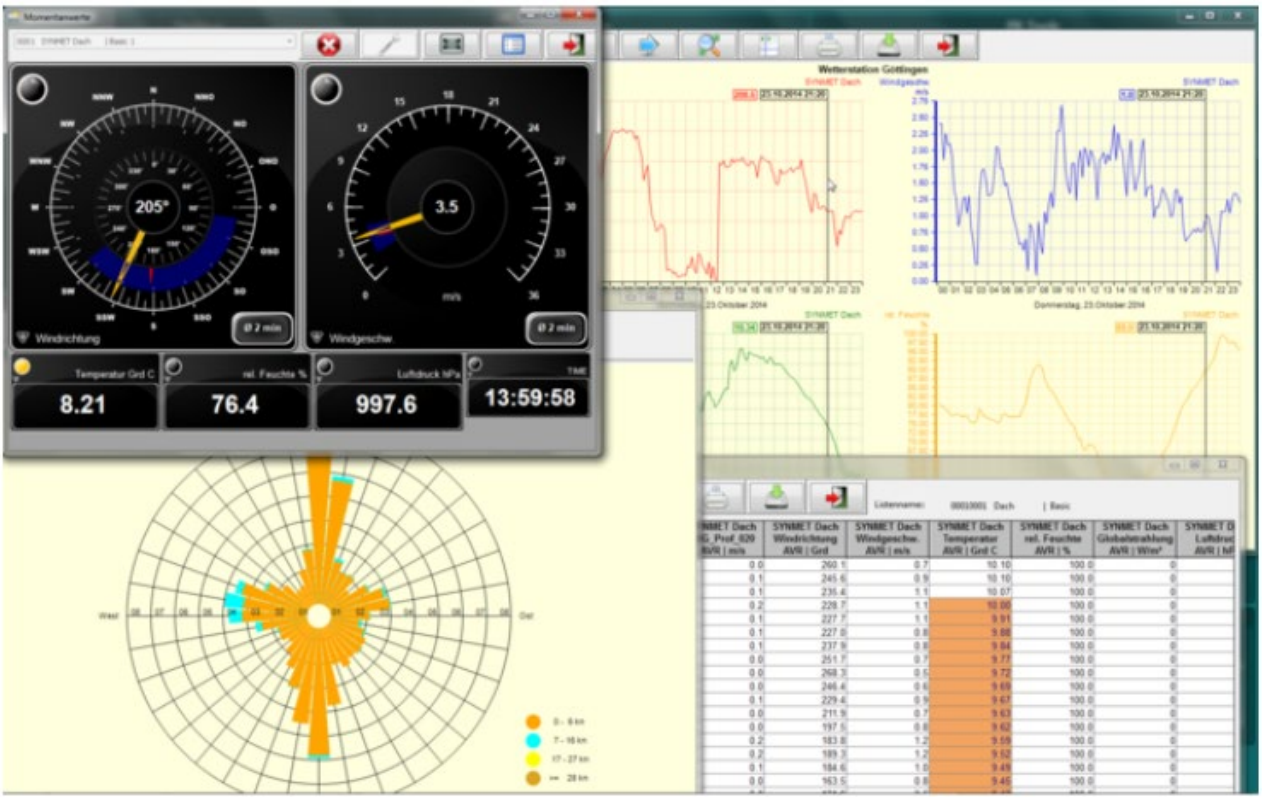
The following graphic illustrates the communication possibilities of the Ser[LOG].



Data use – Software

The Lambrecht meteo data loggers, like our Ser[LOG], work with the meteorological evaluation software **MeteoWare**. The modular software adapts itself freely to your needs. You can use it to evaluate and visualize your meteorological data. As can be seen in the graphic, your data can also be used with a variety of other programs and database systems, such as ZRXP from **Kisters®** or **SQL** Server from **Microsoft®**.

Example overview from the MeteoWare application



Some technical data

Dimension

- 135 x 238 x 72 mm
- Approx. 1.3 kg

Application range

- -30...+70 °C
- 5...95 % r. h.
  (non-condensing)

Hardware

- 32-bit Processor
- 64 MB RAM
- 16 MB Flash
- 4-64 GB Data storage

Serial protocols

- NMEA
- Modbus-RTU
- Proprietary protocols
- RS232,-422,-485
- SDI 12
- And some more (Customer inquiry)

Virtual Channels

- Configure own sensors
- Creation of an invidual sensor database
- Up to 60 measurement channels
- Direct sensor access
- Mathematical functions

Data export

- Modem
- FTP-Export
- Email
- HTTP Webserver
- SNAP
- SMTP
- NTP

(more information in the technical data sheet or in the manual)

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closer to the climate