



Data Loggers

To record and display data from instruments

Finding the right data acquisition system for your valuable measurement data can be very time consuming. The system needs to be able to accurately read the output signals from our instruments, apply calibration factors, convert measurements to 'engineering units' store the results and offer protection from varying environmental conditions.

Kipp & Zonen has made this task easy for you by offering a wide range of data acquisition solutions. They are designed to work with our instruments and offer the functionality you need for virtually any type of installation.

Kipp & Zonen data loggers and display units have very sensitive inputs with high resolution and use the instrument sensitivity (calibration factor) to convert the input voltage into radiation values in W/m^2 , or other units appropriate to the type of radiometer. They all have software for configuring the logging functions and for download and storage of the data

on a Windows™ computer. The data files are in ASCII format and can be easily read as text and exported to spreadsheets.

METEON is a single-channel hand-held data logger with built in display. It is supplied in a rugged carry case with all accessories and space for a pyranometer, making it ideal for use as field test equipment.

LOGBOX SD is a rugged multi-channel, weatherproof data logger for outdoor use that can also handle temperature sensors and other signal types. It can run for several months on its internal batteries.

Kipp & Zonen Smart Radiometers do not require a conventional data logger with analogue-to-digital input conversion. They are designed for connection to digital data acquisition systems using the industry standard Modbus® protocol.

METEON



METEON is an accurate hand-held display unit and data logger for the measurement of solar irradiance. Its small size, long battery life and universal input make it an ideal tool for many test and field applications.

METEON is delivered in a tough carrying case together with:

- USB interface cable
- Software and manual on CD-ROM
- 2 x AA alkaline batteries

The carrying case also has space for a pyranometer.

METEON can be used with all our single output pyranometers plus the CUV5, NR Lite2, PQS1 and CA2. It is primarily intended to display real-time radiation values in Watt per square meter or PAR in micro-mol per square meter per second.

Configuration with a computer is simple, using the supplied software and USB interface cable. Just select the radiometer type from a list, enter its sensitivity, and the correct measuring range is automatically selected. Once METEON is configured, connect the radiometer, switch on, and the large 4-digit display directly shows the correct values. This makes it a perfect tool for convenient use in the field.

The great advantage of the METEON is the integrated data logging function that can store data for up to 3500 samples. It stores minimum, maximum and average values per logging interval. The low power consumption allows the METEON to record at least 50 days of data on 2x AA type batteries.

The terminals allow simple connection of radiometers with bare wires or 4 mm banana plugs.

The METEON is also available ready to go as a kit supplied with a radiometer and is pre-programmed to show the measured radiation value when the instrument is connected and the METEON switched on

Part number	Article
0365910	METEON irradiance meter and data logger
0365911	METEON irradiance meter and data logger • Configured

Note: Specify type and serial number of radiometer for use with METEON

Specifications	
Analogue inputs	1
AD conversion resolution	16 bits
Temperature coefficient	< 0.5% over range
Uncertainty	< 0.1%
Input ranges	± 6.25 to ± 200 mV
Display	4 digits with polarity
Communication interface	USB 1.1/2.0 cable included
Data logger memory	3518 samples
Logging interval	2 to 65535 seconds
Logged information	data samples, minimum, maximum, average
Supply voltage	2 x AA battery included
Windows™ compatible software	Configuration, data download, graphical display
Operational temperature range	-10 °C to +40 °C
Storage temperature range	-10 °C to +40 °C
Humidity range	0 to 100% non-condensing
Ingress Protection (IP) rating	40

Part number	METEON Irradiance Measurement Kits
0339920-701	METEON + SP Lite2 Silicon Pyranometer • 5 m cable
0356900-722	METEON + CM4 High Temperature Pyranometer • 10 m cable
0338920-702	METEON + CMP3 Pyranometer • 10 m cable
0362900-702	METEON + CMP6 Pyranometer • 10 m cable
0379900-702	METEON + CMP10 Pyranometer • 10 m cable
0362910-702	METEON + CMP11 Pyranometer • 10 m cable
0362920-712	METEON + CMP21 Pyranometer • 10 m cable
0362930-712	METEON + CMP22 Pyranometer • 10 m cable
0364910-702	METEON + CUV5 Broadband UV Radiometer • 10 m cable
0344920-703	METEON + NR Lite2 Net Radiometer • 15 m cable
0373900-701	METEON + PQS1 PAR Quantum Sensor • 5 m cable

LOGBOX SD



LOGBOX SD is an 8 channel data logger that allows connection to multiple instruments at the same time. Each input can convert measured values into the correct engineering units. The data is stored on the internal 128 kB memory or the 512 MB SD memory card that is included as standard.

The 24 bits, high resolution, differential analogue inputs can be easily configured for all our instruments, including the Pt-100 and 10K thermistor temperature sensors fitted to many of our models. Four digital inputs are available for measuring time or frequency, or as counter inputs.

LOGBOX SD has an IP 65 weatherproof enclosure and wide operating temperature range from -40 °C to +60 °C. The state of the art design consumes so little power that it will run for months on the four internal AA type batteries. The wide power supply operating range makes it possible to use solar panels or other external DC power sources.

The included user-friendly computer software makes configuration and data download fast and simple, using RS-232 serial communication. All Kipp & Zonen radiometer settings are pre-defined and can be selected from a pull-down list. LOGBOX SD is supplied with a mounting bracket for easy fixing to masts up to 50 mm diameter.

Specifications	
Analogue inputs	8 single-ended, or 3 differential + 2 single-ended, or combinations
Uncertainty	< 0.05 % for 24 bits resolution
Input ranges	± 20 mV to ± 2.5 V (24 bits) 0 to 3 V (12 bits)
Digital inputs	4, maximum input 15 Volt
Communication interface	RS-232, cable included
Data logger internal memory	128 kB
Memory card	SD, 512 MB (included)
Logged information	Data samples, polynomial functions
Supply voltage	4 x AA type bateries (included) or 4 to 20 V DC/7 mA
Power consumption	1.7 mA typical during measurement
Mounting bracket	Included, for masts up to 50 mm ø
Windows™ compatible software	Configuration and data download
Operational temperature range	-40 °C to +60 °C
Storage temperature range	-40 °C to +60 °C
Humidity range	0 to 100 % non-condensing
Ingress Protection (IP) rating	65

Part number	Article
3303090	LOGBOX SD Data Logger
0372910	LOGBOX SD Data Logger • Configured