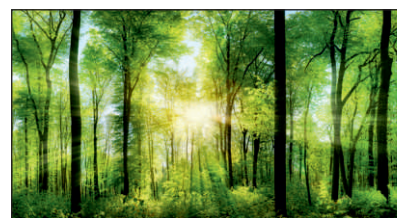
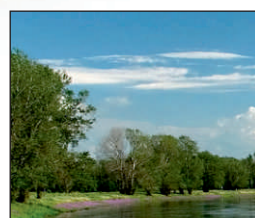
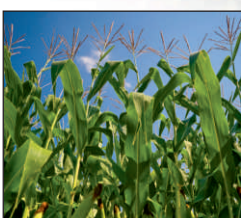


Flexible datalogger DK8040

for environmental applications



Robust, Versatile Data Logger with GPRS

and with up to 10 channels



DK8040

The data logger type Dk8040 is a robust and flexible datalogger with up to 10 channels. Each channel can be configured separately for soil moisture, temperature, humidity, temperature as well as various analogue signals including 0-1V/5V/10V/20mA and Pulse count.

The logger is protected by a robust, IP65 splash water resistant housing enabling applications under tough conditions such as rain or snow..

Flexibility and accuracy

Every probe is connected by a 2m cable by default which can be extended to a length of 100m if necessary. Thus areas of a 200m diameter can be covered with only one data logger.

Flexible data logging

The loggers are battery powered and save the measured values on a memory card. The memory cards have a memory capacity of up to 1 milliard readings ensuring data logging for many months without interruption.

The interval for storing the measured values can be user-selected between 1 second and 24 hours. In addition, it is possible to start a new series of measurements at the push of a button, which is helpful when changing the site.



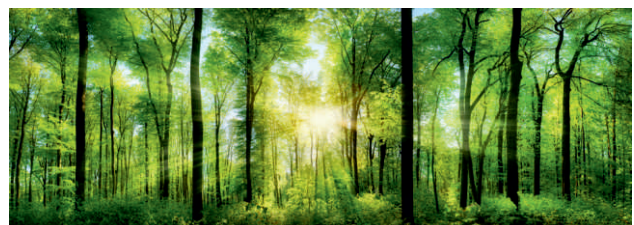
Measured data on memory card

Applications

- Water balance studies
- Seepage water studies
- Surface monitoring, e.g. aggradation
- dumping grounds for hazmat
- Bewässerungssteuerung
- Surface and waste water management Irrigation control

Features

Weather-proof data logger up to 10 channels
Sensors for temperature, soil moisture, humidity and rainfall as well standard analogue inputs
Low current consumption for maintenance-free battery operation
Remote access including download and SMS with optionally integrated (GSM) radio modem
Memory card for comfortable download and large amounts of data
Cable length up to 100m for each probe



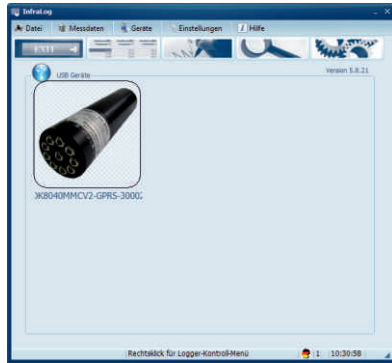
InfraLog for Windows

software for all necessary preadjustments - easy to handle

Comfortable handling

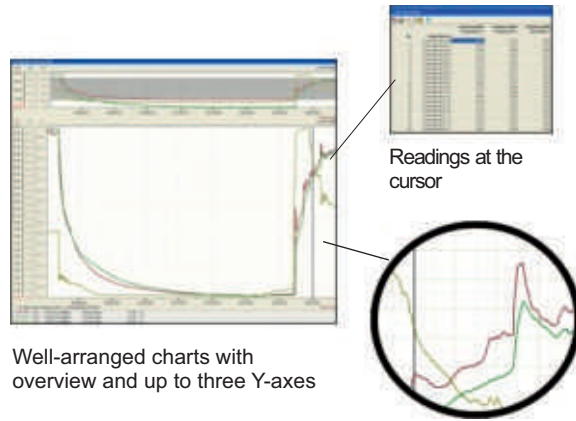
For communicating with the DK8040 logger you just need an interface and the software. The interface is connected to the USB-port of your PC or Notebook.

The InfraLog for Windows software helps you to comfortably make the necessary pre-adjustments : Set the time for the interval, the starting time of the logger, and a description to later identify the readings.



Quick data processing

InfraLog for Windows is able to read out measured data from the logger within few seconds. In InfraLog for Windows -light- and -advanced- readings can additionally be displayed and analysed in well-arranged charts, and exported to Excel or the like.



Well-arranged charts with overview and up to three Y-axes

Zooming function

Repertory of sensors for

Temperature, Soil moisture, Humidity, Bedewing, Rainauge & Radiation

Temperature sensor



EU-P6-V3 Surface probe
Pt1000 probe with metallic surface for good conduction of heat. Suited for measuring the surface or object temperature. L=20mm, W=10mm



DM-SU10-325-V Micro probe
Special probe for coverage of the temperature in particularly small objects. D=0,8mm!



DS Standard probe
D=4mm, L=100mm
CM Standard probe
D=4mm, L=50mm

Humidity/temperature sensor



DKRF400 Humidity/temperature probe with TR351 sensor protection
Miniaturised probe with high accuracy +/-1,8%RH / 0,3K
Sensor protection against solar radiation/wind/rain. (datasheet seperately available)



RFTO - Special sensor
for measuring humidity and temperature near surfaces or boundary layers. Range: -20...+80°C. D=30mm x H=10mm



RFTW - Special sensor
for measuring humidity and temperature near surfaces and confined spaces L=45mm, B=20mm

Soil moisture sensor



ECH2O Soil Moisture Probe
Capacitive sensor for determining the volumetric water content. Temperature compensated, special coating makes it resistant to salts.

Bedewing sensor



SHS Bedewing sensor
This sensor is specifically suited for monitoring condensation on surfaces. For this the point of change when high humidity forms water on a surface is measured. Dimensions: 60mm x 10mm

Rain Gauge



ARG314 Tipping Bucket Rain Gauge
Resolution 0.1/0.2/0.5mm (options)
Aerodynamic rain gauge made of UV resistant injection moulded plastic with self-emptying tipping bucket. (datasheet seperately available)



Young 52202/03 Tipping Bucket Rain Gauge
This rain gauge comes with a catchment area of 200 cm² and a resolution of 0.1mm. Can be deployed on flat surfaces or mounted to a pole. D=180mm, H=300mm

Radiation sensor



SKS1110 Pyranometer Sensor
SKP210 PAR Special Sensor
We offer a range of light sensors for the DK8040, e. g. for solar radiation, LUX, PAR, UV and more. (datasheet seperately available)

Integrated communication modem

The built-in GPRS modem allows for automated uploads of measurement data onto a file server where they can be accessed from almost any device at any time. We offer storage space on one of our servers as an option so you don't have to handle renting a server and doing backups or archiving.

Specifications

General logger information

DK8040: 10x freely scaleable analogue inputs:
 Voltage (0...100mV, 0...1V, 0...5V, 0...10V)
 Current (0...20mA)
 Temperature (Pt100, Pt1000)
 Humidity/Temperatur (requires only 1 channel!)¹
 Condensation
 Soil moisture (Meter Group ECH2O probe)

Two of these inputs can be used vor pulses:
 Pulse: 0...100 Hz for potential-free pulses
 0...1300 Hz for voltage pulses
 Resolution: 1 pulse / 1 Hz

Memory capacity: SD memory card for up to 1 million readings

Supply: Battery pack

	Temperature range	GPRS-functionality	Battery life Logging interval= 1 minute	Re-chargeable
NiMh-Battery & GPRS	-20° ... +60°C	x	2 years at daily upload intervals 2 months at hourly upload intervals	x
2xLITH9	-30° ... +60°C	-	4 years	-
External battery	max. -50° ... +60°C	x	on request	x

Dimensions: D=80mm, H=309mm with LITH9 Battery
 H= 377mm with NiMh-Akkupack

Housing: Impact resistant, weather-proof, UV resistant plastics

Optional: Integrated GSM/GPRS modem for data download and alarm function via SMS.

¹When connecting combined humidity / temperature probes to the DK8040's slots each probe only requires one input channel. Thus the maximum number of channels is 12.

Connectable Probes

Probe dimensions: See page 1
 Cable: PVC/PTFE depending on application
 Cable length: 2m by default, other lengths on request
 Cable termination: Probe cable comes with connector

Temperature: EU, DS, CM Probes

Sensor element: Pt1000 high precision temperature sensor
 Measuring range: -20...+80°C
 Accuracy: ±0.2°C (±0.1°C on request)
 Resolution: 0.001°C

Temperature: DM Probe

Sensor element: U type precision thermistor
 Measuring range: -50...+80°C
 Accuracy: ±0.2°C (±0.1°C on request)
 Resolution: 0.005°C

Humidity & Temperature Probes DKRF315/RFTO/RFTW

Sensor element: Capacitive CMOSSENS technology
 Cable length: 2m PVC cable

Relative Humidity

Measuring range: 0...100% RH non-condensing
 Accuracy: ±1.8% RH (10...90% RH)
 Resolution: 0.01% RH

Temperature

Measuring range: -20...+80°C
 Accuracy: ±0.3°C
 Resolution: 0.05°C

Radiation Shield TR351

Dimensions: D=75mm x 115mm

Rain Gauge ARG314

Sensor: Tipping bucket
 Typical accuracy: 99% up to 120mm/h
 Resolution: 0.1, 0.2 or 0,5mm
 (needs to be specified when ordering)

Rain Gauge Young 52202/52203

Diameter: 180mm
 Catchment area: 200cm²
 Height: 300mm
 Resolution: 0.1mm per tip
 Accuracy: 2% up to 25mm/h
 3% above 25mm/h
 Output: Magnetic reed switch (potential-free)
 Power: 18 Watts for heater (model 52202)
 Optional iron pipe for mounting: D=34mm, H=100mm
 Bird Protection: Bird wire assembly model 52250