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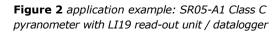packaging**
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HuksefluxUSA

LI19
Handheld read-out unit / datalogger

LI19 is a high-accuracy handheld read-out unit / datalogger. It is used to make mobile measurements, for short term datalogging (as a static logger), and as an accurate millivolt amplifier directly connected to a PC. LI19 can be used with a variety of sensors. LI19's most common application is with heat flux- and solar radiation sensors. LI19 battery life and memory allow continuous measurement for up to 50 days.

Figure 1 *LI19 read-out unit / datalogger*

Figure 2 *application example: SR05-A1 Class C pyranometer with LI19 read-out unit / datalogger*

Introduction

LI19 is typically used to display the measured solar radiation or heat flux. It measures a DC voltage. Once programmed with the sensitivity of the connected sensor, the display will show the actual value of the heat flux or solar radiation in W/m^2. LI19 is programmed through its PC user interface. We recommend downloading the latest software. LI19 is battery powered, using 2 x AA-type batteries. Fresh batteries allow more than 50 days of operation. The system is supplied in a practical transport case, for easy transport and protection during field measurement campaigns. LI19 may be used with pyranometers and heat flux sensors.

Operation

Operation of LI19 is easy. Directions for use:

- switch on LI19, connect the sensor
- optional: mark the units of measurement on LI19, in the window below the display
- connect LI19 to a PC, using the USB cable and the LI19 software
- program sensor model and sensitivity
- switch off LI19 and restart LI19, check sensor sensitivity settings on the display (displayed 1 s after startup)
- optional: program the storage interval and starting time of storage. NOTE: switching off LI19 will discontinue data storage
- disconnect LI19 from the PC
- start a mobile measurement
- later actions: export data to the PC

Suggested use

- short-term field measurement of solar radiation or heat flux
- amplification of heat flux sensor signals
- education in solar energy

Latest software

the latest software should be downloaded from
https://www.hukseflux.com/downloads

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LI19 design

LI19 is built for easy use with a large size LCD, displaying quantities in W/m², and a USB connection.

Figure 3 *application example: with HF03 heat flux sensor*

Figure 4 *LI19 with a pyranometer in a field measurement*

Delivery

- LI19 with 2 x AA battery
- 2 spare batteries (type AA)
- LI19 software
- transport case with space for sensors
- LI19 product certificate
- strip with measurement unit markers
- USB cable

LI19 specifications

Output on display	heat flux
	solar radiation
Input	analogue voltage
Conversion	division by the sensor sensitivity
Display definition	4 digits with sign
Display refreshment rate	1 s^{-1}
Calibration uncertainty	0.1 %
Temperature dependence	< 0.5 % + 3 x 10^{-6} V over rated range
Sample rate	2 s^{-1}
Rated input range	6.25 to 200 x 10^{-3} V (selectable)
A/D conversion	16 bits
Stored measurement definition	minimum maximum and average over storage interval with conversion to W/m²
Storage capacity	3518 measurements
Storage interval range	2 to 65535 s (selectable)
Compatibility with Hukseflux sensor models	SR05-A1, HFP01, SBG01, HF03
Battery type	2 x AA
Internal power supply voltage	3 VDC
Battery life	> 50 days (on fresh batteries)
Rated operating temperature range	-10 to +40 °C
System requirements for use with PC	Windows XP and higher
Connection to PC	USB 1.1 / 2.0 low speed
User interface on PC	LI19 software
IP protection class	IP40
Connection to sensor	2 x (female chassis plug for 4 mm banana with screwed signal wire clamp)
Weight	0.175 kg (net)
	1.3 kg with carrying case
Dimensions LI19	(70 x 146 x 25) mm
Dimensions transport case	(400 x 300 x 120) mm

See also

- SR05 / LI19 Class C pyranometer with LI19 for solar radiation measurement
- HF03 / LI19 heat flux sensor with LI19 for flare radiation / heat flux measurement

Interested in this product?
E-mail us at: info@huksefluxusa.com