sauermann®

KISTOCK WIRELESS DATALOGGER KTU210-RF

Current / voltage / pulses / light

Features

- 20 000 measurement points
- IP65
- Visual alarm
- Possibility to turn off the Kistock

- 2 configurable setpoint alarms
- Magnetic mounting
- Supplied with secured wall-mounting bracket

References

Reference	Display	External input number	Nb of recording points	Parameters
KTU210-EN-RF	No	2	20 000	Current, voltage, pulses, light
KTU210-EO-RF	2 lines			

Technical features

Units displayed	mV, V, mA, A, lux, klx, fc
Resolution	0.001 V, 1 mV, 0.1 A, 0.001 mA 1 lux, 1 fc
External outputs	2 mini-Din connectors for current, voltage, pulses
Setpoints alarms	2 setpoint alarms on each channel Possibility to send e-mail in case of alarm*
Frequency of the measurement	From 1 s to 24 h
Operating temperature	From -40 to +70 °C
Storage temperature	From -40 to +85 °C
Radio span (in free field)	300 m
Frequency	868 MHz
Battery life	With radio frequency: 1.5 years[1] Without radio frequency: 3 years[2]
Data storage	In the kistock until downloading on PC

*Thanks to the Kilog RF software
[1] : 1.5 ans (on the basis of 1 measurement and 1 recording every 15 minutes at 20°C and a RF downloading every 6 hours)
[2] : 3 years (on the basis of 1 measurement every 15 minutes at 20°C)

Housing

Dimensions
116.5 x 74.4 x 39.8 mm

Weight
160 g

Display
2 lines LCD screen
Screen dimensions : 45 x 28.5 mm

Control
2 keys : Select and OK

Material
Compatible with food industry environment / ABS housing / Sides and caps made of Elastomer

Protection
IP65

PC communication
1 digital input
Lacquer protected circuit board
Meets RoHS standards

Battery power supply
Type lithium 3.6 V

Visual alarm
2 electroluminescent diodes (green and red)

Environment
Air and neutral gases

Technical features for cables and probes

Current input cable (optional)

Measuring range	0/4-20 mA
Accuracy*	±0.2 % of measuring ±1 µA

Voltage input cable (optional)

Measuring range	0-10 V
Accuracy*	±0.2 % of measuring ±1 mV

Ammeter clamps (optional)

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Measuring range	0-50 A / 0-100 A / 0-200 A / 0-600 A
Accuracy*	±1 à 2.5 % of reading value according to the range

Pulses cable (optional)

Measuring range	5 V
Accuracy*	TTL frequency count

Light probe (optional)

Measuring range	From 0 to 9999 lux / from 0 to 929 fc
Accuracy*	From 0 to 200 lux : ±10 lux From 201 to 9999 lux : ±3 % of reading ±4 lux
Linearity	≤ 3 %

*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

Encombrement (mm)

74.4

39.8

161.7
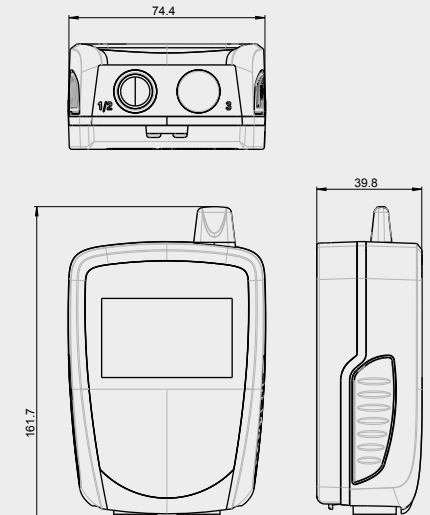
Entrées externes

Connecteurs mini-Din

Order of magnitude of lux according to the applications

Environment	Lux		Environment	Lux
Outside with open air	500 à 25000		**Factory : electronic assembling**	1500 à 3000
Outside with direct sunlight	50000 à 100000		**Hotel reception hall**	200 à 500
Full moon night	1		**Shop**	750 à 1500
Overnight lit street	20 à 70		**Hospital operating room**	750 à 1500
Apartment well lit	200 à 400		**Classroom**	200 à 750

Recorder function

KISTOCK datalogger is supplied turned off to save battery life. To activate it :
- Press **"OK"** key for 5 s , green LED "On" blinks.

To turn it off:
- Press **"Select"** and **"OK"** keys at the same time for 5 s.

It is impossible to turn it off during a recording or a data download.

Activate or deactivate the keys during a measurement dataset :
- Press **"Select"** and **"OK"** at the same time for 5 s to deactivate both buttons : red led flashes twice quickly.
- Press **"Select"** and **"OK"** at the same time for 5 s to reactivate them : green led flashes twice quickly.

5 recording modes

KISTOCK can record in 5 different ways :
- **"Immediate"** mode records values according a predefined interval.
- **"Minimum"**, **"Maximum"** and **"Average"** record automatically the calculation of minimum, maximum or average of measured values during an interval of recording.

- **''Monitoring''** mode allows to get an accurate history report during error events to help troubleshooting, without stopping the measurement logging. To proceed this way, you just have to define :
  - a record interval to be used whilst the readings are beyond the setpoints.
  - a record interval for the values measured during each reading beyond the setpoints.
- Furthermore, you can also let your KISTOCK record non-stop (**''loop''** recording option).

Two operation modes
- Autonomous mode: data download is made wireless through the Kilog RF software.
- Network mode: measurements are stored in the datalogger and sent to the computer at regular intervals (in case of alarm, the information is directly sent to the computer). So Kistock memory is used as buffer memory and is reset at each sending. In this mode, several Kistocks can be linked to a computer at the same time.

Three modes dataset start
Once your recording mode has been set, you can launch your dataset:
- With a delayed start (with predefined date and time)
- With the software
- With push-button

Six modes dataset stop
You can stop your dataset :
- As per a date and time (if it was started the same way)
- As per a period
- As per a predefined number of recording points
- Once the storage capacity is full
- With **''Stop''** option of the software
- By holding **''OK''** key for at least 5 s, if this function has been previously activated by the software.

Screen
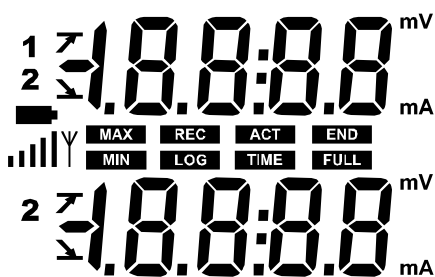
V ou mV Tension exprimée en V ou mV
A ou mA Courant exprimé en A ou mA

Indicates the reception powerful of the datalogger

END	DATASET is finished
REC	One value is being recorded
LOG	Flashing: dataset has not started yet / Constant: data set is in progress
FULL	Slow flashing: dataset is taking 80-90% of storage capacity / Fast flashing: dataset is taking 90-100% of storage capacity / Constant: storage capacity filled up
1	Channel No. which is measuring
ACT	Refresh of displayed measurements
TIME	Display of measurement and recording intervals
	Low battery indicator
MIN MAX	Displayed values correspond to maximum and minimum values of the channels
	Alarm action type: rising or falling action

Software

Configuration and data processing software
The new KILOG RF software is specially designed for the KISTOCK-RF range. In addition to the standard functions of dataloggers configuration and data processing (average, minimum and maximum values...), it allows the creation of a wireless dataloggers network (up to 100 dataloggers) for a real-time monitoring.
Ref.: KILOG-RF
Software is compatible with the wired range.

Communication base with KILOG-RF software
This base allows to communicate by radio frequency with Kistock-RF (kistock by kistock data recovery, programming of Kistock-RF...). It must be continuously powered and connected to the PC for the use of kistock in network mode. It is equipped with a USB connection for PC, a jack connection for KNT310 data collector and a relay output. Supplied with main adapter, KILOG-RF software and USB cable.
Ref.: BK-RF

Accessories

Data collector
KNT data collector allows you to collect measurements from one or several KISTOCK directly on-site (up to 500,000 values stored). Data can be displayed and printed from the KNT or download to your PC.
Ref. KNT 310

Alarm relay that can switched from KILOG-RF software via BK-RF base. Supplied with main adapter.
Ref : KAL-RF

Device to extend radio signal to kistocks (300 m). Supplied with main adapter.
Ref : KPR-RF

Autonomous instrument to check communication. It allows to check signal reception for positioning of dataloggers, extender and alarm box
Ref : KTC-RF

Lace
Ref. KDC

Supplied with

Secured wall-mounting bracket
KIMO has designed a new proprietary anti-theft system with no padlock. Your system cannot be unlock or damaged : your installation is fully secured.

Calibration

KISTOCK dataloggers can be supplied with calibration certificate as an option.

Warranty period

KISTOCK dataloggers have 1-year guarantee for any manufacturing defect (return to our After-Sales Service required).

Mounting

KISTOCK can be mounted in different ways; you can also move it or install it very easily.
• Magnetic mounting or wallmounting (see photos)
• Secured mounting (optional, see supplied with)
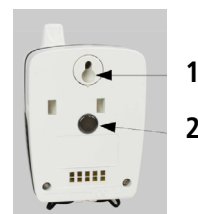
1. Wallmount and lace eyelet
2. Magnetic mounting