sauermann®

LoRa™

KTT - TrackLog

LoRa®-Powered Temperature Thermocouple Data-Loggers

Easy to use
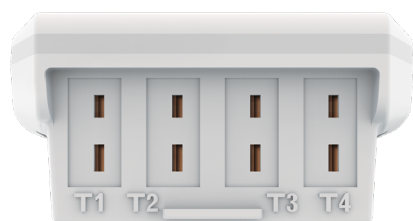
Power saving solution

Long-distance connectivity

Data integrity: accuracy and consistency over entire life-cycle

T1 T2 T3 T4

Features

- LoRaWan™ protocol and wireless connection
- Memory capacity: 20 000 points
- 2-line LCD display

- Real time alarms and alerts
- Safety lock wall mount with inviolability system

Technical specifications

Parameter	Accuracy*	Measuring range	Resolution
K thermocouple temperature	±0.4°C from 0 to 1300°C ±(0.3% of reading +0.4°C) below 0°C	From -200 to 1300°C	0.1°C / 0.1°F
J thermocouple temperature	±0.4°C from 0 to 750°C ±(0.3% of reading +0.4°C) below 0°C	From -100 to 750°C	0.1°C / 0.1°F
T thermocouple temperature	±0.4°C from 0 to 400°C ±(0.3% of reading +0.4°C) below 0°C	From -200 to 400°C	0.1°C / 0.1°F
N thermocouple temperature	±0.4°C from 0 to 1300°C ±(0.3% of reading +0.4°C) below 0°C	From -200 to 1300°C	0.1°C / 0.1°F
S thermocouple temperature	±0.6°C	From 0 to 1760°C	0.1°C / 0.1°F

*All accuracies indicated in this document were stated in laboratory conditions and can be guaranteed for measurement carried out in the same conditions or with calibration compensation.
Accuracy of the probe selected must be added to device accuracy.

General features

LoRa® frequency	868 Mhz (Europe)
Display	2-line LCD screen Screen dimensions: 49.5 x 45 mm 2 indication LEDs (red and green)
Type of sensor	Thermocouple sensor
External input	Micro-USB female connector
Input for probes	4 inputs for thermocouple probes (K, J, T, N, S)
Recording frequency	From 1 minute to 24 hours
Power supply	2x lithium AA 3.6 V batteries[1]
Battery life	3 years[2]
Protection	IP54[3]
Housing material	ABS housing and compatible with food industry environment
Dimensions	110.2 x 79 x 35.4 mm
Weight (batteries included)	200 g
Operating temperature[4]	From -20 to 70°C
Storage temperature	From -20 to 50°C
Environmental conditions of use	Air and neutral gases Hygrometry: in non-condensing conditions (<80% RH) Maximum altitude: 2000 m
European Union Directives	2011/65EU RoHS II; 2012/19/EU WEEE; 2014/30/EU EMC; 2014/35/EU

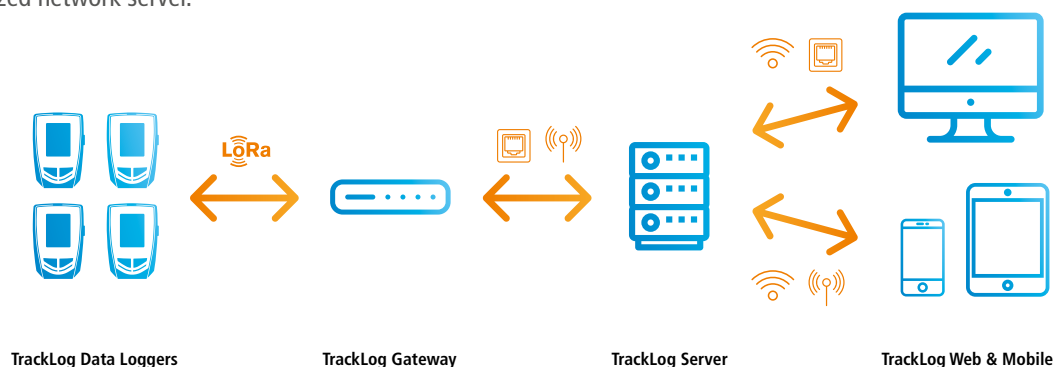[1] We recommend to use high performance batteries as SAFT LS 14500 type when replaced.

[2] Non-contractual value. Based on 1 measurement each 15 minutes at 25 °C. A correct operation of the device and the storage conditions must be respected.

[3] With all thermocouple probes connected

[4] The screen can be hard to read, and its display speed often slows down at temperatures lower than 0°C.This has no effect on the accuracy of measurements.

Recorder functions

- 4 recording modes: immediate, minimum, maximum and average
- 3 types of dataset starts: by date and time, app (web or mobile) or push-button
- 2 types of dataset stops: by app (web or mobile) or push-button

Kit content

- 1 data logger + 2 batteries + 1 safety lock wall mount with padlock + fixing screws

Accessories

Name	Ref
Gateway	TrackLog Gateway
Cloud subscription offer	See subscription sheet
Thermocouple temperature probes	See specific data sheet
Calibration certificate	Option
1x AA lithium 3.6 V battery	KBL-AA
Safety lock wall mount with padlock	KAV-320
Wired extension for probes (5 m)	KRB-320
USB cable	CK-50

What is LoRa® communication?

LoRa® is a physical layer, using radio-frequency bands. LoRa® frequency allows very-long-range connectivity with low power consumption. Data transmitted by an end-node device is received by multiple gateways. Then, each gateway forwards the data packets to a centralized network server.

| TrackLog Data Loggers | TrackLog Gateway | TrackLog Server | TrackLog Web & Mobile |

Source: LoRa® Alliance