THINGSLOG

THINGSLOG Temperature Monitoring

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ThingsLog Temperature Monitoring

Temperature monitoring is a solution for temperature monitored environment and logistics with focus on monitoring of places with difficult access and no power supply. Solution consists of highly accurate temperature sensors, low power mobile data loggers, monitoring and positioning platform and a mobile app for the end user.

Applicable for

- **temperature monitored logistics in cars and vans**
- **remote vaccine/medicine refrigerators monitoring**
- **low power environment temperature monitoring in locations with difficult access**
- **water temperature monitoring in rivers, dams, channels, tanks and pipes**
- **temperature monitoring in warehouses**
- **low power independent temperature monitoring of other goods over large distances**

Features

- **Network type**: 2G, NB-IoT or LoRa/LoRaWAN
- **Environment**: air, gas, water, non-aggressive liquids (water) | aggressive fluids (fuels, acids and others)
- **Temperature range**:

  Standard sensor range: -30 °C : +70 °C / - 22 F : 158 F

  Custom request any range from -55 °C to 150 °C / -67 F : 302 F)
- **Sensor location**:
- **Embedded in data logger**
- **Cable output over a cable glad/ Cable range**: up to 5m* (up to 100m possible on special request)
- **Power supply options**: Lithium batteries/Solar/24V
- **3th party sensor integration**

  Sensors with Output signal: 4 ÷ 20 mA (2-wire)

- **Reverse-polarity protection**: YES
- **Logger working temperature**: -40 ÷ 70 °C
- **Low / high temperature instant alarms**
- **Probe material**: plastic/stainless steel 304/316 L for aggressive environments
- **Data logger Protection class**: IP 68

Solution Description

Sensor details

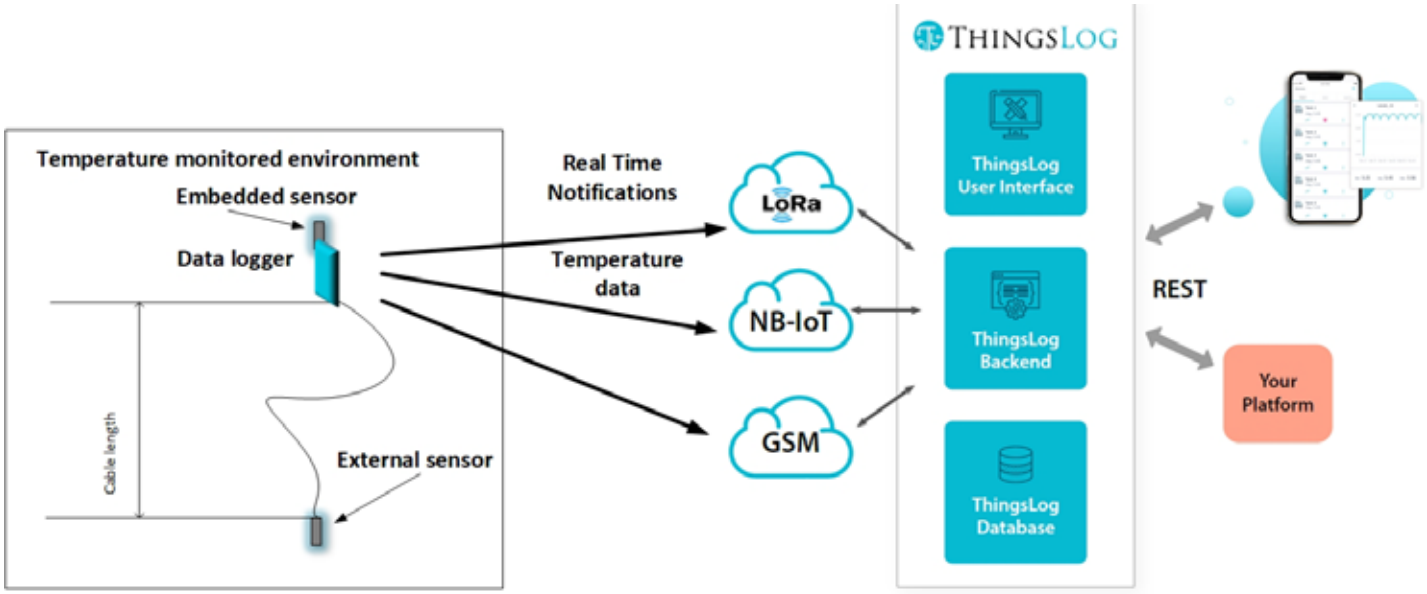
Sensor could be installed inside the logger or outside on a cable exit. The solution supports also integration with existing 4-20mA temperature probes.

Data logger operation

Data logger is waking up on configurable interval of time, provides power supply to the sensor, reads the measurement and records the value in memory. Logger wakes on configurable transmission interval and transmits the recorded readings.

If the reading is bridging a preconfigured low/high power threshold values the logger wakes up and transmits an instant alarm. Alarms are forwarded to the subscribed users through an email, mobile notification or an API message.

How it Works



ThingsLog Platform

Remote monitoring of temperature, water, gas, electricity, level, pressure and many other

Consumption monitoring as a service

Data management of meter / sensor readings

Device management and configuration

Battery and signal level monitoring

Data visualisation and analysis

REST API interface for integration with other platforms

Alarms and notifications

User friendly UI and app

Self documented REST API interface:

https://iot.thingslog.com/swagger-ui.html

Additional Services Upon Request

Sensor customization

Professional services

Third-party systems integration

Training

Device pre-provisioning

ThingsLog Temperature Monitoring
Ordering Codes

TMDL (Temperature Monitoring Data Logger) order code taxonomy

TMDL-XXXX-YYY-F-CL-PS

XXXX (NETWORK TYPE)	DESCRIPTION
1101	2G/GSM (6K data transmissions)
1102	NB-IoT (10K data transmissions)
1102na	NB-IoT for North America (10K data transmissions)
1103	LoRa/LPWAN for Europe (868 MHz) (10K data transmissions)
1103na	NB-IoT for North America (915 MHz) (10K data transmissions)

YYY – Temperature Range Code,,YYY=

RANGE CODE	RANGE
201	-30 - + 70 °C
202	-50 - +50 °C
203	0 – 100 °C
5xx	Custom temperature rangeCustom temperature range

F – Environment types

1	Non aggressive fluids (Water)
2	Aggressive fluids with ATEX
3	Air

CL – excessive cable length between sensor and logger

00	No cable needed (embedded sensor)
01	1m (default option)
02	2m

PS – power supply

11	Low power with lithium battery pack (200000 sensor readings)
22	Solart
33	24 VDC
34	12 VDC
44	Custom

An example order code for a 2G GSM low power air temperature monitoring (-30 : +70 °C) with 1 meter extra cable length is:

TMDL-1101-201-3-01-11
Same with NB-IoT would be:
TMDL-1102-201-3-01-11

Package

- Each temperature monitoring package is offered with a temperate sensor, cable with 1 m extra length (by default), batteries and power supply and 1 month ThingsLog platform subscription.

Delivery Terms

- **30 Working Days** for 10+QTY
- **10 Working Days** for samples
- **EXW**

ThingsLog Platform
Subscription

Subscription packages are reading based

A reading is one digit read from a meter or sensor

Package options are:

10k — 10 thousands readings per year

100k — 100 thousands readings per year

1M — 1 million readings per year

10M — 10 million readings per year

100M — 100 million readings per year

Subscription packages count for all customer's data loggers, e.g one subscription package spans across many loggers

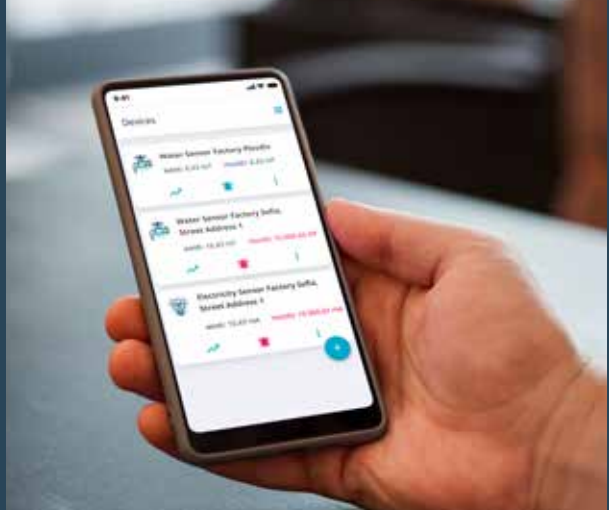
SUBSCRIBTION PACKAGE	NUMBER OF READINGS
10K	10 000
100K	100 000
1M	1 000 000
10M	10 000 000
100M	100 000 000

If you don't see your package don't hesitate to ask for a custom option on

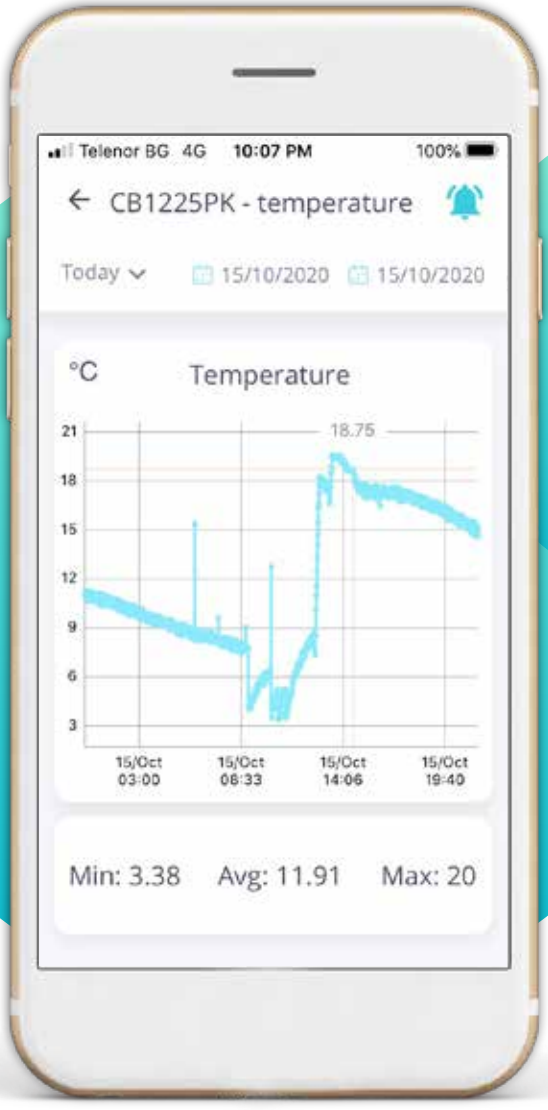
sales@thingslog.com

ThingsLog
Mobile App

Keep an eye on water temperature; get graphs and instant notifications on your mobile phone.



Monitor your tanks and reservoirs on your phone, view graphs, check records and get instant notifications for level changes.



Download on the App Store

ANDROID APP ON Google play

How to Calculate Platform Subscription

NUMBER OF DEVICES	READING INTERVAL	READINGS	TOTAL READINGS	PROPER PACKAGE
100	15 minutes	4 readings per hour 96 readings per day 35040 readings per year	3504000	Between 1M and 10M
100	1 hour	24 readings per day 8760 readings per year	876000	1M package

How to Order

Step 1.

Choose the right network type for your temperature monitoring solution

Step 2.

Fill up an order based on our taxonomy

Step 3.

Drop as a PO on **sales@thingslog.com**