

TELID®310.pro

Temperature data logger with RFID interface

- semi-passive wireless sensor device
- temperature measurement from -30°C ... +140°C
- stainless-steel case with integrated sensor probe
- contactless data communication ISO 15693
- lifetime up to 5 years due to built-in high performance Li battery

TELID®3 RFID sensor devices are a core component of the innovative microsensys **iID®** system solution. Designed for precision and reliability, these smart sensors enable independent, contactless temperature validation, ideal for demanding applications in the medical, pharmaceutical, and food industries. The product can be attached to metal or non-metal surfaces and is even useable under water.



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This data sheet is subject to change.
Picture may differ from original product.
DS-TELID310.pro-004.docx

Contactless interface:

RF Communication:

Carrier Frequency / Communication Rate:

Communication Distance:

closed coupling HF sensor solution
ISO15693 / NFC-V / NFC tag type 5 compliant
13.56MHz / 26.48 kbps

0 ... 15 mm, depending on reader antenna and environmental conditions

Sensors:

Operating Range:

Accuracy:

Resolution:

high-accuracy temperature sensor

-25 ... 140 °C

typ. ± 0.05 °C

0.0625 °C

Clock:

Type:

Accuracy:

quartz stabilized RTC, MEMS stabilized RTC¹

±6ppm @ -40°C ... +85°C

Data Memory:

Standard Content:

Size:

Write protection¹:

Password¹:

Authentication¹:

Originality¹:

non-volatile memory, write endurance >10⁵ cycles, data retention > 10 years

unique **TELID®** identification number, parameter and calibration data

512 kbit for up to 32250 samples

partial read-only protection

full, read-only or no memory access based on 32bit password

128-bit AES authentication

ECC-based programmable originality signature

Mechanical / Environmental:

Housing:

Dimensions:

Material:

Protection Class:

Mounting:

Working Temperature in Air:

Programming Temperature in Air:

Storage Temperature:

D30MP, sealed

diameter 30.0 mm, thickness 12.5 mm

PPSU with integrated stainless steel reinforcement ring

IP67

see application note

-25 °C ... +140 °C

-20 °C ... +85 °C, recommended 25 °C

-40 °C ... +85 °C, recommended 25 °C

Energy Source:

Battery:

Lifetime:

not replaceable

Li primary cell

typ. 1 ... 5 years, depending on usage

Operation:

Basic Functions:

Measure Modes:

Sample Time:

Recommended Reader:

Industrial environment:

Desktop/OEM environment:

Mobile use:

Operating Software:

Device Interface:

MEASURE, LOGGING, CHARGING, SLEEP

logging until full memory, compressed¹, limit¹, programmable start and stop time

1s ... 24h, 1s step programmable

iID®M18 or **iID®M30** reader, handheld devices with NFC interface

TELID®station

iID®POCKETwork, **iID®PENsolid**, mobile devices with NFC interface

TELID®soft

driverless using text/plain NDEF message

GET_SENSOR command, **iID®** driver engine (for **iID®** contactless RFID interfaces)

¹) on request

TELID®311.pro-D30MP

The **TELID®311.pro-D30M** is a battery-powered RFID temperature data logger designed for precise monitoring of temperature profiles in processes reaching up to 125 °C. The temperature sensor is fully integrated within the robust logger housing, ensuring reliable and accurate measurement. With fully passive communication and zero radio emissions, the **TELID®311.pro-D30MP** is perfectly suited for use in sensitive and regulated environments.



Product Code	14.311.488.00
Measurement Range	-30 ... + 125 °C
Temperature Accuracy	typ. ± 0.05 °C, max. ± 0.1 °C
-20 ... 50 °C	typ. ± 0.05 °C, max. ± 0.15 °C
-30 ... 70 °C	typ. ± 0.10 °C, max. ± 0.2 °C
-30 ... 100 °C	typ. ± 0.10 °C, max. ± 0.25 °C
-30 ... 125 °C	
Temperature Resolution	0.0625 °C
Temperature Time Constant	40 seconds in water
Battery Capacity	Li primary cell 400 mAh
Housing Color	blue

TELID®311.ac.pro-D30MP

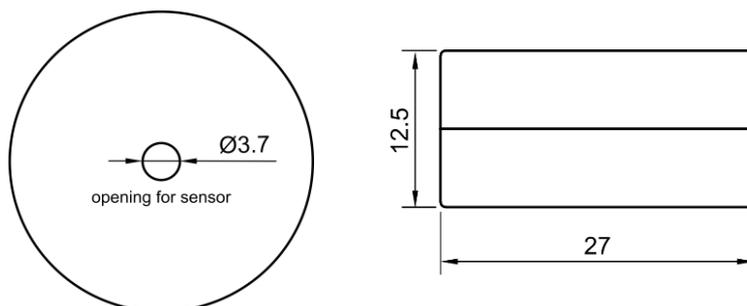
The **TELID®311.pro-D30M** is a battery-powered RFID temperature data logger designed for precise monitoring of temperature profiles in processes reaching up to 150 °C. The temperature sensor is fully integrated within the robust logger housing, ensuring reliable and accurate measurement.

This device is especially suited for applications in industrial sterilization, autoclaving, and high-temperature process validation.



Product Code	14.311.488.50
Measurement Range	-30 ... + 150 °C
Temperature Accuracy	typ. ± 0.05 °C, max. ± 0.1 °C
-20 ... 50 °C	typ. ± 0.05 °C, max. ± 0.15 °C
-30 ... 70 °C	typ. ± 0.1 °C, max. ± 0.2 °C
-30 ... 100 °C	typ. ± 0.1 °C, max. ± 0.25 °C
-30 ... 125 °C	typ. ± 0.1 °C, max. ± 0.3 °C
-30 ... 150 °C	
Temperature Resolution	0.0625 °C
Temperature Time Constant	40 seconds in water
Battery Capacity	Li primary cell 400 mAh
Housing Color	red

Dimensions:



all dimensions in mm