

PRODUCT DATASHEET

TELID® RFID Sensors

TELID® 310.ac.eco

Temperature data logger with RFID interface

- semi-passive wireless sensor device according ISO15693
- temperature measurement for harsh environment process monitoring, including autoclave sterilization processes*
- extended temperature range from -30°C to +140°C
- D30MP stainless-steel case with integrated or external sensor probe
- rechargeable battery, contactless re-charge

RFID Sensor TELID® devices are an integral part of microsensys iID® system solution. These devices are very useful for independent temperature validation of processes in medicine, food and pharma industry. TELID® sensor devices are operating optimal with microsensys standard RFID reader.



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this data sheet is subject to change
contact microsensys for latest information TELID310.ac.eco-005.docx

Contactless interface:

Chip Type / Compliance:

Carrier Frequency / Communication Rate:

Communication Distance:

closed coupling HF sensor solution TELID®300, iID®3000 system

ISO15693 / NFC-V / NFC tag type 5 compliant

13.56MHz / 26.48 kbps

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

Environmental parameters:

Working Temperature:

Charging and Programming Temperature:

Storage Temperature:

-30°C ... +140°C

-20°C ... +65°C, recommended 25°C

recommended 25°C

Sensor parameters:

Sensors:

integrated semiconductor sensor

temperature

(see type information)

Memory parameters:

Memory size:

Static Memory (partial read-only protection*):

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

512 kbit, up to 32,250 samples (programmable)

UID, parameters, calibration data

Clock:

Type:

Accuracy:

quartz stabilized RTC, MEMS stabilized RTC on inquiry*

±6ppm @ -30°C ... +85°C

Security features*:

Write protection:

Password:

Authentication:

Originality:

partial read-only protection

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

128-bit AES authentication

ECC-based programmable originality signature

Operation:

Basic Functions:

Measure Modes:

Sample Time:

SLEEP, ACTIVE LOGGING, CHARGING

PROGRAM of parameters and remarks, MEASURE mode

Stop Full, Compressed*, Limit*, stop time programmable

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

Housing:

Packaging:

Marking:

Mounting instruction:

D30MP, for dimension see type information

hermetically closed package with stainless steel and blue PPSU

optional custom laser print or optional custom print on tops

usage in metal or non metal environment, see type information

Energy Source:

Li secondary cell, 4 or 7 mAh Battery, rechargeable by RFID

charging time: approx. 4h

Operation Devices:

Industrial environment:

Desktop/OEM environment:

Mobile use:

M18 or M30 head reader, Industrial handhelds with NFC interface**

iID® DESKTOPsmart, iID® TELIDstation**

iID® POCKETwork, iID® PENSolid, Smart devices with NFC interface**

Software:

TELID®soft Microsoft Windows*

Device interface:

driverless using text/plain NDEF message

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

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TELID® RFID Sensors



TELID® 311.ac.eco-D30MP

TELID®311.ac.eco-D30MP is a rechargeable battery powered RFID temperature data logger especially for capturing of temperature curves in processes up to +140°C. The sensor is located in the logger housing. The data communication works passive without any active radio emissions from the logger itself.

Device type:	Temperature sensor logger	Unit
Mounting	Metal and non metal surface	
Package	D30MP Plastic housing, PPSU red stainless steel ring	
Dimension	D30 x 9.5	mm
Measurement range	-30°C ... +140°C -22°F ... +284°F	
Accuracy	+/- 0.1K at -20°C ... +50°C (-4°F ... +122°F) +/- 0.3K at -30°C ... +140°C (-22°F ... +284°F)	
Resolution	0.0625	K
Thermal contact	Bottom side metal plate	
Time Constant	40 in water	s
Productcode	14.911.488.50	



TELID® 314.ac.eco-D30MP

TELID®314.ac.eco-D30MP is a rechargeable battery powered RFID temperature data logger with an external fast measurement pin probe especially for capturing of temperature curves in processes up to +140°C. The sensor is located in the sensor pin for dedicated measurement tasks and high accuracy. The data communication works passive without any active radio emissions from the logger itself.

Device type:	Temperature sensor TAG			Unit
Mounting	Metal and non metal surface			
Package	D30MP Plastic housing, PPSU red stainless steel ring, sensor pin (different lengths)			
Dimension without pin	D30 x 9.5			mm
Dimension pin probe	D2.0, length 25	D2.0, length 50*	D2.0, length 100*	mm
Measurement range	-30°C ... +140°C -22°F ... +284°F			
Accuracy	+/- 0.1K at -20°C ... +50°C (-4°F ... +122°F) +/- 0.3K at -30°C ... +140°C (-22°F ... +284°F)			
Resolution	0.0625			K
Time Constant	3 in water	3 in water	pending	s
Productcode	14.914.488.50	14.914.488.60*	14.914.488.70*	

*) in development or on request

***) charging with iID® TELIDstation only