

PRODUCT DATASHEET

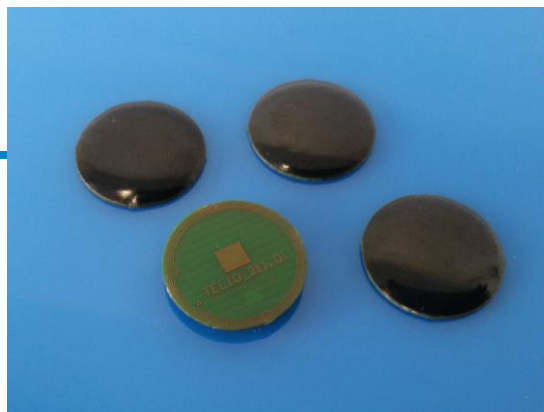
TELID® RFID Sensors

TELID® 2m-D14

Sensor transponder with RFID / NFC contactless communication interface

- unique identification and free user memory
- battery-less measurement of temperature, humidity, pressure
- contactless data communication, HF ISO15693 / NFC
- ODP: on device data processing and formatting
- non-flexible hard TAG, package D14/D14special

TELID®200 passive sensor transponders are an integral part of *microsensys* iID® contactless system solution. Battery-less sensors are very useful for maintenance-free wireless identification and sensor applications in industrial environment, quality check in food and pharma or in logistic processes. TELID®200 sensor transponders can be used together with iID®contactless RFID readers, third party RFID readers or NFC based mobile devices.



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this data sheet is subject to change
contact microsensys for latest information TELID2m-D14-011.docx

Contactless interface:

Chip Type / Compliance:

Carrier Frequency / Communication Rate:

Communication Distance:

closed coupling HF sensor solution TELID®200, iID®2000 system
ISO15693 / NFC-V / NFC tag type 5 compliant
13.56MHz / 26,48 kbps
0 ... 60 mm, depending on reader antenna and environmental conditions

Environmental parameters:

Working Temperature:

Storage Temperature:

-40°C ... +85°C

-40°C ... +125°C

Sensor parameters:

Sensors:

integrated semiconductor sensor
temperature, temperature/humidity/pressure
(see type information)

Memory parameters:

Memory size:

Static Memory (partial read-only protection):*

Dynamic Memory:

EEPROM non volatile memory, read write endurance >10⁶ cycles, data retention > 40 years
2kbit, 1.5kbit for free usage
TID, UID, parameters, calibration data
device information, measurement data

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:

Initialization:

Functions:

Measurement:

permanent device and measurement parameter storage
identify, read, write, get sensor
power on measurement, measurement on request, measurement series*
measurement adjustment by calibration data*

Housing:

Packaging:

Marking:

Mounting instruction:

round, flat case, for dimension see type information
epoxy glass fiber enforced (black)
laser printed on top, optional custom laser print
usage in metal or non metal environment, see type information

Reading:

Industrial environment:

Desktop/OEM environment:

Mobile use:

M18 or M30 head reader, industrial handheld devices with NFC interface
iID®PENmini, iID®module UNI13, iID®board U70
iID® POCkEtnetwork, iID®PENsolid, mobile devices with NFC interface

Software:

TELID®200 configuration tool for PC x86/x64
iID® DEMOsoft for PC x86/x64

Device interface:

driverless using text/plain NDEF message
GET_SENSOR command (for iID®contactless RFID interfaces)
iID® driver engine Windows/Android (for iID®contactless RFID interfaces)

*) in development or on request

PRODUCT DATASHEET

TELID® RFID Sensors



TELID® 210.m-D14

TELID®210.m-D14 is a passive sensor transponder supporting unique identification, data storage and temperature measurement supporting operation with iID®contactless RFID readers, third party RFID readers or NFC based mobile devices. Different types of product can be attached to metal or non metal surfaces or can be integrated into objects.

Device type:	Temperature sensor TAG			Unit
Mounting	Non metal surface	Non metal surface, integrated	On metal surface	
Package	epoxy, half lens	epoxy, lens	epoxy with shielding	
Dimension	D14 x 2	D=14 x 2.5	D15 x 3.5	mm
Measurement range	-40°C ... +125°C -40°F ... +257°F			
Accuracy	+/- 1K at -40°C ... +125°C (-40°F ... +257°F) +/- 0.5K at 0°C ... +65°C (32°F ... +149°F)			
Resolution	0.0625			K
Thermal contact	Bottom side metal plate	-	-	
Productcode	12.210.114.100	*	12.210.154.100	



TELID® 211.m-D14

TELID®211.m-D14 supports unique identification, data storage and high precision temperature measurement supporting operation with iID®contactless RFID readers, third party RFID readers or NFC based mobile devices. Thermal contact on device bottom allows optimal heat conduction.

Device type:	Temperature sensor TAG, extended range	Unit
Mounting	Non metal surface	
Package	epoxy, half lens	
Dimension	D14 x 2	mm
Measurement range	-55°C ... +150°C -67°F ... +302°F	
Accuracy	+/- 0.1K at -20°C ... +50°C (-4°F ... +122°F) +/- 0.3K at -55°C ... +150°C (-67°F ... +302°F)	
Resolution	0.0625	K
Thermal contact	Bottom side metal plate	
Productcode	12.211.114.100	

TELID® 290.m-D14



TELID®290.m-D14 is a multi sensor transponder supporting measurement of temperature, relative humidity and environmental pressure. It comes with unique identification number and allows object data storage. TELID®290.m supports operation with iID®contactless RFID readers, third party RFID readers or NFC based mobile devices.

Device type:	Multi sensor TAG, temperature, relative humidity, pressure			Unit
Mounting	Non metal surface	Non metal surface, integrated	On metal surface	
Package	epoxy, half lens	epoxy, lens	epoxy with shielding	
Dimension	D14 x 2.5	D=14 x 3	D15 x 4	mm
Measurement range	-40°C ... +85°C 0%RH ... 100%RH 300hPa ... 1100hPa			
Accuracy	± 0.5°K (25°C), ± 1.0°K (0°C...+65°C) ± 3%RH (20%RH...80%RH) ± 1hPa			
Resolution	0.1°K 0.1%RH 1.3Pa/50mg			
Thermal contact	-	-	-	
Productcode	12.290.114.100*	*	12.290.154.100*	

*) in development or on request