

PRODUCT DATASHEET

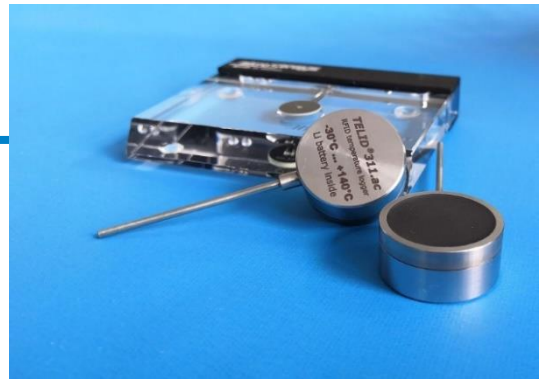
TELID® RFID Sensors

TELID® 310.advance

RFID temperature data loggers for autoclaving and cryogenic processes

- semi-passive wireless sensor device
- temperature measurement from -79°C to +140°C
- D27M.a stainless steel case with integrated sensor probe
- contactless data communication by ISO 14443B

RFID Sensor TELID® devices are an integral part of *microsensys* iID® system solution. These devices are very useful for wireless sensors applications in medicine, food and pharma industry, for temperature check in maintenance and quality processes. TELIDs are operating optimal with *microsensys* standard RFID reader.



microsensys GmbH
In der Hochstedter Ecke 2
D 99098 Erfurt

microSensys
make things wireless

TEL +49-361-59874 0
E-MAIL info@microsensys.de
FAX +49-361-59874 17
WEB www.microsensys.de

this data sheet is subject to change
contact [microsensys](http://microsensys.com) for latest information TELID310.advance-006.docx

Wireless RFID Interface:	iID®3000	closed coupling RFID sensor logger TELID®300
<i>RF Communication:</i>		ISO 14443B, iID-L
<i>Carrier Frequency:</i>		13.56 MHz
<i>Communication Distance:</i>	0 ... 5 mm, depending on reader antenna and environmental conditions	
Data Memory:	EEPROM	write endurance >10 ⁶ cycles, data retention > 10 years
<i>Standard Content:</i>		unique TELID identification number, parameter and calibration data
<i>Static Memory:</i>		parameters, calibration data, manufacturer OTP, ID-No
<i>Recording Capacity:</i>	256 kbit	up to 8,000 samples (programmable)
<i>Security Features*:</i>	Write Protection:	partial read-only protection
Real Time Clock:	MEMS stabilized RTC	synchronisation by HOST
Temperature Sensor:	semiconductor sensor	autoclaving and cryogenic processes, in air and wet environment
<i>Application:</i>		depending on product type
<i>Total Working Range:</i>	-79°C ... +140°C	
<i>Resolution:</i>	0.1°K	
<i>Accuracy:</i>	+/- 0.3°K	at measurement range, calibration available
<i>Thermal Time Constant:</i>	2 s ... 1 min	depending on product type and environment
Operation Modes:	SLEEP, ACTIVE LOGGING	
<i>Basic Functions:</i>	PROGRAM of parameters and remarks, MEASURE mode	
<i>Measure Modes:</i>	CONTINUE, STOP FULL or STOP TIME	stop time programmable
<i>Sample Time:</i>		1 s ... 59 s / 1 min ... 59 min programmable
Environmental Conditions:	IP67	
<i>Working Temperature:</i>		depending on product type
<i>Storage Temperature:</i>	-40°C ... +85°C,	recommended +25°C
<i>Pressure:</i>	0 bar ... 5 bar	absolute
Housing:	D27M.a	hermetically closed
<i>Dimension:</i>	D27 mm, thickness 13 mm	
<i>Material:</i>		stainless steel and glass
<i>Marking:</i>		laser printed product type on top, optional unique ID-No
<i>Mounting instruction:</i>		no special requirements, on nonmetal and metal objects
Energy Source:	Li primary cell, 400 mAh	
<i>Battery:</i>		not replaceable
<i>Life Time:</i>	up to 3 years	depending on using conditions
Operation Devices:	iID®reader <i>microsensys</i>	
<i>Stationary:</i>	DESKTOPsmart reader	with USB for desktop application
<i>Industrial:</i>	M30-HEAD reader	with RS232TTL, CAN or USB for industrial application
<i>Mobile:</i>	POCKETwork	with USB or Bluetooth for mobile application
Software:	TELID®soft 5.0	Microsoft Windows

*) in development or on request

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TELID® RFID Sensors



TELID® 311.ac

TELID®311.ac is a battery powered RFID temperature data logger especially for capturing of temperature curves in steam sterilizers 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
Dimension pin probe	Without pin	mm
Measurement Range	-30°C ... +140°C	
Time Constant	60 (in water)	s
Battery Life Time		
Product Code	14.311.489.00	



TELID® 314.ac

TELID®314.ac is a battery powered RFID temperature data logger with an external fast measurement pin probe especially for capturing of temperature curves in steam sterilizers up to +140°C. The data communication works passive without any active radio emissions from the logger itself.

Device type:	Temperature sensor logger with pin probe ace-14, ace-50, ace-100			Unit
Dimension pin probe	D2.0, long 14	D2.0, long 50	D2.0, long 100	mm
Measurement Range	-30°C ... +140°C			
Time Constant	2 (in water, thermal contact at pin point)			s
Battery Life Time	reduced for sample rates smaller than 10 s			
Product Code	14.314.499.01	14.314.499.05	14.314.499.07*	



TELID® 311.cr

TELID®311.cr is a battery powered RFID temperature data logger especially for capturing of temperature curves in deep temperature processes up to -80°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
Dimension pin probe	Without pin	mm
Measurement Range	-79°C ... +85°C	
Time Constant	60 (in water)	s
Battery Life Time		
Product Code	14.311.487.00*	



TELID® 314.cr

TELID®314.cr is a battery powered RFID temperature data logger with an external fast measurement pin probe especially for capturing of deep temperature curves up to -85°C. The data communication works passive without any active radio emissions from the logger itself.

Device type:	Temperature sensor logger with pin probe cre-14, cre-50, cre-100			Unit
Dimension pin probe	D2.0, long 14	D2.0, long 50	D2.0, long 100	mm
Measurement Range	-79°C ... +85°C			
Time Constant	2 (in water, thermal contact at pin point)			s
Battery Life Time	reduced for sample rates smaller than 10 s			
Product Code	14.314.497.02*	14.314.497.05	14.311.497.07*	

*) in development or on request