

# PRODUCT DATASHEET

TELID® RFID Sensors

## TELID® 311.ac

### RFID temperature data logger for autoclaves

- semi-passive sensor device
- temperature measurement -15°C ... +135°C
- non flexible hard TAG, package D27
- contactless data communication 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 and pharma industry, for temperature check in maintenance and quality processes. TELIDs are operating optimal with *microsensys* standard RFID reader.



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RFID in motion

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this data sheet is subject to change  
contact *microsensys* for latest information

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<b>RFID Technology:</b>	RFID system TELID®300	iID®3000 based on ISO 14443B
<b>Chip Type:</b>	iID-L	closed coupling HF sensor solution
<b>Carrier Frequency:</b>	13.56 MHz	
<b>Communication Rate:</b>	106 kbps	
<b>Communication Distance:</b>	0 ... 5 mm	depending on reader antenna and environmental conditions
<b>Data Memory:</b>	EEPROM read write type	endurance >100.000 cycles, data retention > 10 years
<b>Static Memory:</b>	parameters, calibration data, manufacturer OTP, ID-No	
<b>Recording Capacity:</b>	256 kbit, up to 8,000 samples (programmable)	
<b>Real Time Clock:</b>	quartz stabilized RTC	synchronisation by HOST
<b>Temperature Sensor:</b>	semiconductor sensor with sensor dot outside	
<b>Working Range:</b>	-30°C ... +140°C	
<b>Resolution:</b>	0.125°K	
<b>Accuracy:</b>	+/- 0.5°K at 0°C ... +65°C +/- 2.0°K at -15°C ... +135°C	
<b>Thermal Time Constant:</b>	approx. 10 s	depending on mounting technology
<b>Operating Modes:</b>	SLEEP, ACTIVE LOGGING	
<b>Measure Modes:</b>	LOGGING: STOP FULL or STOP TIME	stop time programmable
<b>Basic Functions:</b>	programming of parameters, item information and measure modes set start time, read header, read data memory, set RF marker calibration data and event limits (optional)	
<b>Parameters:</b>		
<b>Sample Time:</b>	1 min ... 59 min programmable	
<b>Battery:</b>	Li primary cell, 400 mAh	
<b>Life Time:</b>	up to 3 years	depending on using conditions
<b>Working Temperature:</b>	-25°C ... +135°C	
<b>Storage Temperature:</b>	-30°C ... +140°C	long term temperature: recommended 25°C
<b>Dimensions:</b>	approx. D27 mm, thickness 16 mm	
<b>Protection Class:</b>	IP67	
<b>Case:</b>	D27ST	material: stainless steel and epoxy
<b>Marking:</b>	laser printed product type on top	optional unique ID-No
<b>Mounting Instruction:</b>	depending on application	see application note
<b>Appropriate RFID Reader:</b>	PEN reader DESKTOPsmart reader M30-HEAD reader POCKETwork	with RS232TTL, USB or Bluetooth with USB for desktop application with RS232TTL, CAN or USB for industrial application with USB or Bluetooth for mobile application
<b>Software:</b>	TELIDsoft 5.0	Microsoft Windows

<b>Type :</b>	14.311.486.00	14.311.486.10*	*) in development
<b>Memory Capacity:</b>	256	256	kbit
<b>Max. T-Samples:</b>	8,000	8,000	samples
<b>Calibration Option:</b>	-	calibration at 134°C	