

# PRODUCT DATASHEET

TELID® RFID Sensors

## TELID® 311-125°C

### RFID temperature data logger

- semi-active sensor device
- temperature measurement -35°C ... +125°C, +/-0.1 K
- 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 industrial solutions, for quality check in food and pharma industry, for temperature check in maintenance processes and transport and logistics. 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 us for latest information

TELID311-125-02

<b>RFID Technology:</b>	RFID system TELID®300, based on ISO 14443B	
<b>Chip Type:</b>	iID-L, iID-3000	close coupling HF sensor solution
<b>Carrier Frequency:</b>	13.56 MHz	
<b>Communication Rate:</b>	106 kbps	
<b>Communication Distance:</b>	0 ... 1 cm 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
<b>Data Memory:</b>		256 kbit, up to 8,000 samples (programmable)
<b>Temperature Sensor:</b>	semiconductor sensor	
<b>Working Temperature:</b>	-35°C ... +125°C	
<b>Resolution:</b>	0.125 K	
<b>Accuracy:</b>	+/- 0.5 K	at 0°C ... +60°C
	+/- 2.0 K	at -35°C ... +85°C
<b>Thermal Time Constant:</b>	approximately 3 min	mounted on object
<b>Clock:</b>	quartz stabilized RTC	
<b>Operating Mode:</b>	ACTIVE or SLEEP	
<b>Measure Modes:</b>	STOP FULL or ROLL OVER	
<b>Basic Functions:</b>		programming of sensor parameters, read parameters, read memory, get temperature, read UID, histogram analysis
<b>Parameters:</b>		start delay (RTC), sample time (1min ... 256min), temperature limits, calibration data (optional)
<b>Battery:</b>	Li Thionylchlorid, 500 mAh	
<b>Life Time:</b>	3 ... 6 years	depending on using conditions
<b>Working Temperature:</b>	-35°C ... +125°C	
<b>Storage Temperature:</b>	-40°C ... +90°C (short time 125°C)	recommended 25°C
<b>Dimensions:</b>	approx.. D27 mm , thickness 12 mm	
<b>Protection Class:</b>	IP 67	
<b>Packaging:</b>		PEEK ring, epoxy filling (black)
<b>Marking:</b>		laser printed product type on top, optional unique ID-No optional two color printing glue or adhesive tape
<b>Mounting Instruction:</b>		
<b>Appropriate RFID Reader:</b>	PEN reader HEAD reader DESKTOP	with RS232TTL, USB or Bluetooth interface with RS232TTL, RS485 or USB for industrial application RFID read write device with USB

<b>Type :</b>	<b>14.311.484.04</b>	<b>14.311.485.00*</b>	<b>14.311.484.06</b>	*) in development
<b>Special Features:</b>	PEEK, epoxy	PEEK/PEEK, epoxy filling	MEMS oscillator	
<b>Temperature Range:</b>	-35°C...+125°C	-25°C...+136°C	-35°C...+125°C	