

# PRODUCT DATASHEET

TELID® RFID Sensors

## TELID® 311

### RFID temperature data logger

- semi-active sensor device
- temperature measurement -35°C ... +125°C, +/-0.1 K
- non flexible hard TAG, package D27M
- 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.



*microsensys* GmbH  
In der Hochstedter Ecke 2  
D 99098 Erfurt

**microSensys**  
RFID in motion

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 us for latest information

TELID311-06

<b>RFID Technology:</b>	RFID system TELID®300, based on ISO 14443B	
<b>Chip Type:</b>	iID-L, iID-3000	closed coupling HF sensor solution
<b>Carrier Frequency:</b>	13.56 MHz	
<b>Communication Rate:</b>	106 kbps	
<b>Antenna Type:</b>	P15 integrated	placed on top
<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
<b>Data Memory:</b>		256 kbit, up to 8,000 samples (programmable)
<b>Temperature Sensor:</b>	semiconductor sensor	integrated in device volume
<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 in air, 30 s in water	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 time, 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 (short time 125°C, in liquid only up to 105°C)	
<b>Storage Temperature:</b>	-40°C ... +125°C (short time 125°C, in liquid only up to 105°C), recommended 25°C	
<b>Remark:</b>	temperatures over 85°C reducing the battery life time	
<b>Dimensions:</b>	approx.. D27 mm , thickness 12 mm	
<b>Protection Class:</b>	IP 67	
<b>Packaging:</b>	stainless steel ring, black EP filling, black PEEK cap on top	
<b>Marking:</b>	laser printed product type on top, optional unique ID-No	
<b>Mounting Instruction:</b>	glue or adhesive tape	
<b>Appropriate RFID Reader:</b>	PEN reader	with RS232TTL, USB or Bluetooth interface
	HEAD reader	with RS232TTL, RS485 or USB for industrial application
	DESKTOP	RFID read write device with USB
<b>Software:</b>	TELID application software for Windows PC and mobile devices on inquiry	

<b>Type :</b>	<b>14.311.482.00*</b>	<b>14.311.484.00*</b>	<b>14.311.484.01</b>	*) no longer available
<b>Package:</b>	D27M	D27M	D27Mspecial filling	
<b>Temperature Range:</b>	-35°C...+90°C	-35°C...+125°C	-35°C...+125°C no liquid, 105°C liquid	