

PRODUCT DATASHEET

TELID® RFID Sensors

TELID® 512

RFID temperature data logger

- semi-active sensor device
- temperature measurement -40°C ... +85°C, +/- 1 K
- non flexible hard TAG, package Q54
- contactless data communication ISO 18000-6C

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

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RFID Technology:	RFID system TELID®400/500, based on ISO 18000-6C		
Chip Type:	iID-4000	long distance UHF sensor solution	
Carrier Frequency:	868 MHz		
Communication Rate:	up link 128 kbps, down link 640 kbps		
Communication Distance:	0 ... 100 cm	depending on reader antenna and environmental conditions	
Data Memory:	EEPROM read write type endurance >100.000 cycles, data retention > 10 years		
Static Memory:	parameters, calibration data, manufacturer OTP		
Free Memory:	8 kbit user memory		
Temperature Sensor:	semiconductor sensor		
Working Temperature:	-40°C ... +85°C		
Resolution:	0.18 K		
Accuracy:	+/- 1.0 K	at -20°C ... +60°C	
	+/- 2.0 K	at -40°C ... +85°C	
Thermal Time Constant:	approximately 3 min	mounted on object	
Clock:	RTC		
Operating Mode:	ACTIVE or SLEEP		
Measure Modes:	STOP FULL or CONTINUOUS		
Basic Functions:	programming of sensor parameters read parameters, read memory, get temperature, read UID		
Parameters:	start delay (500s ... 600h), sample time (1s ... 9h), calibration data (optional)		
Battery:	Li MnO ₂ , 50 mAh		
Life Time:	1 ... 3 years	depending on using conditions	
Working Temperature:	-35°C ... +85°C		
Storage Temperature:	-40°C ... +90°C	recommended 25°C	
Dimensions:	54 x 40 mm ² , thickness max. 4 mm		
Packaging:	epoxy glass fiber enforced (black)		
Marking:	laser printed product type on top, optional unique ID-No optional two color printing glue or plastic screws		
Mounting Instruction:	for data communication don't use on metal		
Appropriate RFID Reader:	INDUSTRY reader CASIO IT-800	with RS232TTL or USB with UHF reader module	
Software:	TELID application software for Windows PC and mobile devices on inquiry		
Type :	16.512.101.00	16.512.301.00*	*) in development
Package:	epoxy, half lens	epoxy plane	
Temperature Range:	-40°C...+85°C	-40°C...+85°C	