

# PRODUCT DATASHEET

TELID® RFID Sensors

## TELID® 300.nfc

### NFC sensor data logger 13.56MHz

- semi passive sensor data logger
- measurement of ambient temperature, humidity, pressure, shock event
- non flexible hard TAG, package Q54S
- mountable on nonmetal objects
- NFC data communication

RFID Sensor TELID® devices are an integral part of *microsensys* iID® system solution. These devices are very useful for wireless sensor applications. Caused by their NFC interface they are suitable for supply chain tracking and mobile delivery processes.



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<b>Communication System:</b>	sensor data logger system TELID®300
<b>RF communication:</b>	NFC type 2
<b>Carrier Frequency:</b>	13.56 MHz
<b>Communication Rate:</b>	106 kbps
<b>Communication Distance:</b>	0 ... 20 mm, depending on reader antenna and environmental conditions
<b>Sensors:</b>	temperature, humidity, pressure, acceleration (only shock event logging, no waveform recording) see following table
<b>Features:</b>	
<b>Memory:</b>	EEPROM
<b>Content:</b>	OTP data, ID, parameters
<b>Data Retention / Endurance:</b>	10 years / 100.000 cycles
<b>Logging Memory:</b>	up to 4kByte
<b>Environment:</b>	
<b>Working Temperature:</b>	-25°C ... +80°C
<b>Storage Temperature:</b>	-40°C ... +85°C, recommended 25°C
<b>Housing:</b>	
<b>Dimensions:</b>	54 x 40 mm², thickness max. 4.5mm
<b>Protection Class:</b>	IP67 (only 14.312.714.00)
<b>Packaging:</b>	Q54S, material PA66 GF36 blue, epoxy black
<b>Marking:</b>	laser printed product type on top
<b>Mounting instruction:</b>	glue, power strip or plastic screws, on nonmetal objects
<b>Operating Modes:</b>	SLEEP, LOGGING
<b>Basic Functions:</b>	read UID, programming of sampling rate, limit information, start delay
<b>Sample Time:</b>	1 sec ... 65535 sec (=18h 12min 15sec) programmable
<b>Battery:</b>	
<b>Life Time:</b>	Li MnO <sub>2</sub> , 68 mAh, primary battery up to 2 years, depending on usage
<b>Operation:</b>	
<b>Evaluation Software:</b>	TELID®soft NFC, TELID®soft
<b>Platform:</b>	Android 7, 8 and 9

### Types:

Logging size	temperature	temperature and humidity	temperature-humidity-pressure-shock
Working range	-40°C ... +85°C	0%RH ... 100%RH	-40°C ... +85°C 0%RH ... 100%RH 300hPa ... 1100hPa 0 ... 10g, limit progr., shock event
Resolution	0.1°K	0.1%RH	0.1°K, 0.1%RH, 1.3Pa, 50mg
Accuracy	± 0.3°K (0°C ... +40°C) ± 0.5°K (-40°C... +85°C)	± 2%RH (20%RH... 80%RH) ± 5%RH (0%RH... 100%RH)	± 0.5°K (25°C), ± 1.0°K (0°C...+65°C) ± 3%RH (20%RH...80%RH) ± 1hPa
Max. Samples	2224	1112	741
Product code	<b>14.312.714.00</b>	<b>14.332.714.00</b>	<b>14.392.714.01*</b>

\*) in development