

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 (depending on device type)
- 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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|------------------------------------|--|----------------------------|
| RF Technology: | RFID system TELID®300 | sensor data logger |
| RF communication: | | NFC type 2 |
| Carrier Frequency: | | 13.56 MHz |
| Communication Rate: | | 106 kbps |
| Communication Distance: | 0 ... 30 mm, depending on reader antenna and environmental conditions | |
| Sensors: | temperature, humidity, pressure, acceleration | (only shock event logging) |
| Real Time Clock: | RC oscillator | synchronisation by HOST |
| Memory: | EEPROM | |
| Content: | OTP data, ID, parameters | |
| Data Retention / Endurance: | 10 years / 100.000 cycles | |
| Logging Memory: | up to 4kByte | |
| Environment: | -25°C ... +60°C | |
| Working Temperature: | -25°C ... +60°C | |
| Storage Temperature: | -40°C ... +85°C, recommended 25°C | |
| Housing: | Q54S | |
| Dimensions: | 54 x 40 mm ² , thickness max. 4.5mm | |
| Protection Class: | IP67 (only 14.312.714.00) | |
| Packaging: | Q54S, material PA66 GF36 blue, epoxy black | |
| Marking: | laser printed product type on top | |
| Mounting instruction: | glue, power strip or plastic screws, on nonmetal objects | |
| Operating Modes: | SLEEP, LOGGING | |
| Basic Functions: | read UID, programming of sampling rate, limit information, start delay | |
| Sample Time: | 1 sec ... 65535 sec (=18h 12min 15sec) programmable | |
| Battery: | Li MnO ₂ , 68 mAh | |
| Life Time: | primary battery up to 2 years, depending on usage | |
| Operation: | RFID/NFC devices for data communication necessary | |
| Appropriate RFID Reader: | DESKTOPsmart, M30-HEAD reader, POCKETwork, Smart Phones | |
| Evaluation Software: | TELID®soft NFC (Android), TELID®soft (PC) | |
| Platform: | Android 7, 8, 9 and 10 / Windows 7, 8 and 10 | |

Types:

| Logger type: | temperature | temperature and humidity | temperature-humidity-pressure | temperature-humidity-pressure-shock |
|--|---|--|---|--|
| Working range | -40°C ... +85°C | 0%RH ... 100%RH | -40°C ... +85°C 0%RH ... 100%RH 300hPa ... 1100hPa | -40°C ... +85°C 0%RH ... 100%RH 300hPa ... 1100hPa 0 ... 10g, shock event, no wave record |
| Resolution | 0.1°K | 0.1%RH | 0.1°K, 0.1%RH, 1.3Pa, 50mg | 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 | ± 0.5°K (25°C), ± 1.0°K (0°C...+65°C) ± 3%RH (20%RH...80%RH) ± 1hPa |
| Min. Samples** | 2224 | 1112 | 741 | 741 |
| ** real number of samples is higher, but may vary depending on overall memory usage. | | | | |
| Productcode | 14.312.714.00 | 14.332.714.00 | 14.392.714.10 | 14.392.714.01* |

*) in development