# NFC SensorTag

Vibrationsdetektion, Kontrolle technischer Wartungen an Maschinen, Produktionsanlagen und
Klimaüberwachung, die Datenübertrag erfolgt per Smartphone.

## NFC SensorTag

**The NFC SensorTag is available in several product configurations and delivers reliable accurate data about temperature, humidity and crash detection to you. Due to rugged enclosure types, the NFC SensorTag can be used in numerous application areas.**

The stored measurement values are easily accessible via NFC on an Android Smartphone. To check the measurement data as well as to parameterize the NFC SensorTag, a Web application is available.

For more custom software solutions for the management of measurement data or additional readers for data readout, please contact the local sales representative.
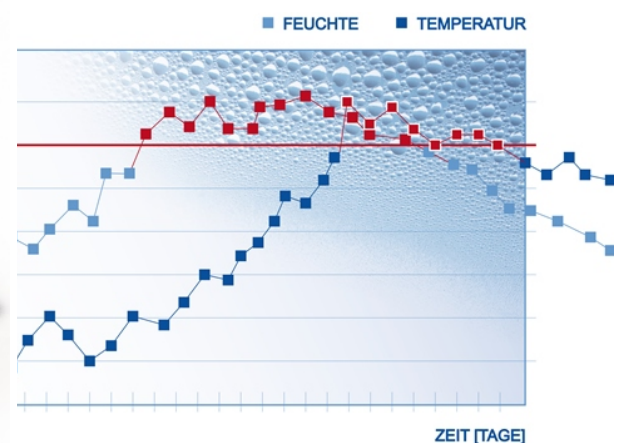


*Illustration 1: Sensor Tag Enclosure*

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# Messpunkte-Analyse und Kontrolle bei technischer Wartung

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## NFC SensorTag

| SPECIFICATION | |
|---|---|
| **Frequency / Protocol*** | RFID HF (NFC) ISO 15693, 13.56 MHz |
| **Read range*** (depending on the tag type and surroundings) | Up to 1 cm |
| **Dimensions*** | 113.0 mm × 53.0 mm × 7.0 mm |
| **Mass*** | Approx. 30 g |
| **Service life*** (depending on the activated sensors, the tag type, the GSM mobile network, the operating temperature range, the mounting location and the configured measurement and transmission intervals over the entire operating period) | Up to 5 years <br><br> (Used with moderate sensor threshold values / measurement intervals under continuous use is typical to expect a life of 6 months.) |
| **Memory capacity*** | Up to 16.000 measurement data <br> UID 16 characters (alphanumeric) |
| **Sampling rate / measurement interval*** <br> - Temperature / Humidity <br> - Impact, inclination, operation time | Configurable from 5 sec to 18 hours in 1 sec steps <br> Continuously |
| **Battery monitoring*** | Continuously |
| **Operating temperature range*** | -5°C to +55°C (peek values) |
| **Storage conditions** | +10°C to +30°C at 20% RH to 60% RH |
| **Sensors*** | - Temperature, humidity (filter cap protected) <br> - Crash detection, inclination and operation time means of an acceleration measurement <br> - Expiration date, geo information (by APP loc.) |
| **Sensor and alarm activation** | Adjustable and ability of activation independently |

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| | |
|---|---|
| **Operating mode*** | According to the measurement interval and mode, all measured values are stored in the internal non-volatile memory |
| **IP rating*** | IP 4X |
| **Mounting*** | Enclosure with two holes for mounting with cable ties or M3 screws |
| **Product color*** | Blue |
| **Device parameterization*** | - Default parameters are set at production<br>- Individual parameterization |
| **Evaluated Android Smartphones capable of NFC** | - Samsung Galaxy S4 GT-I9505<br>- Samsung Galaxy S5 SM-G900F<br>- Sony Xperia Z3 D6603<br>- Sony Xperia Z5 E5823 |

*\* depending on the version and configuration of the product*

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| SENSOR SPECIFICATION* | | |
|---|---|---|
| **Relative Humidity** | **Operating range** <br> **Resolution** <br> **Accuracy** | 0 %RH to 100 %RH <br> 0.04 %RH <br> typical± 4.5 %RH, maximum ± 7.5 %RH @ 0 %RH to 10 %RH <br> typical± 3.8 %RH, maximum ± 6.0 %RH @ 10 %RH to 20 %RH <br> typical± 3.0 %RH, maximum ± 4.5 %RH @ 20 %RH to 80 %RH <br> typical± 3.8 %RH, maximum ± 6.0 %RH @ 80 %RH to 90 %RH <br> typical± 4.5 %RH, maximum ± 7.5 %RH @ 90 %RH to 100 %RH |
| **Temperature** | **Operating range** <br> **Resolution** <br> **Accuracy** | -25°C to +70°C <br> 0.04°C <br> typical ± 0.60°C, maximal ± 0.95°C @ -25°C to +5°C <br> typical ± 0.30°C, maximal ± 0.45°C @ +5°C to +60°C <br> typical ± 0.45°C, maximal ± 0.65°C @ +60°C to +70°C |
| **Crash Acceleration** | **Operating mode: continuous** | Up to 8.00 g, internal resolution 0.07 g, an alarm event is stored |
| **Inclination** | **Operating mode: continuous** | In 20° counts beyond the threshold, an alarm event is stored |
| **Expiration date** | **Operating mode: continuous** | An alarm event is stored |
| **Geo Information** | **NFC Read out** | By Smartphone GSM cell identification, variance up to 30 km, depending on GSM network (not available with WLAN) |
| **Response time of the sensors** | | Application specific as it is dependent on, e.g., environmental temperature, air ventilation and mounting |

*\* depending on the version and configuration of the product*

Batteries are factory installed in the product. The NFC SensorTag also consumed energy in a deactivated recording state because of the used technology. Depending on usage and model self-heating of the device can occur. Devices may only be stored in original packaging. The applicable shipping regulations for batteries must be observed.

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## NFC SensorTag

| SENSOR TAG PRODUCT VERSIONS* | | | |
|---|---|---|---|
| **Part Number** | **Description** | **Power** | **Sensors** |
| IoT_G_NFC_IP4x_B_01 | SENSOR TAG Only for the highest clean room requirements | Battery powered non replaceable | Sensors: temperature, humidity, crash, impact, inclination, operation time, geo information |

*\* depending on the version and configuration of the product*

The highest clean room requirements are based on the article number 926994 special assembly without sensor O-ring. All features, functionality and other product specifications are subject to change without notice or obligation.

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