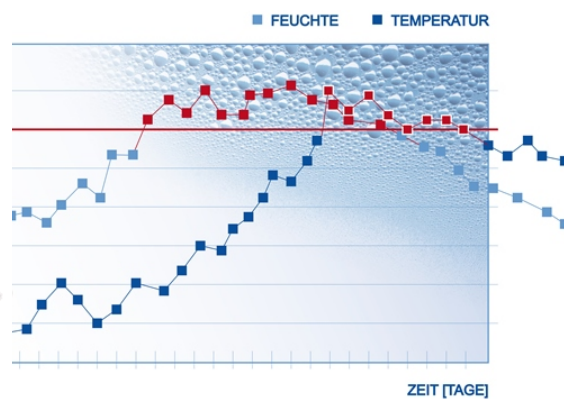# NFC Sensor Tag

Illustration 1: Sensor Tag Enclosure

The SENSOR TAG 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 SENSOR TAG 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 SENSOR TAG, 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.

sigmavista it consulting gmbh
Johann-Roithner-Strasse 131
4050 Traun
Austria

Tel.: +43 7229 90300-0
Fax: +43 7229 90300-70
E-Mail: office@sigmavista.com
Web: www.sigmavista.com

1. Specification

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 (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 UID 16 characters (alphanumeric)

Sampling rate / measurement interval*
    - Temperature / Humidity
    - Impact, inclination, operation time
	Configurable from 5 sec to 18 hours in 1 sec steps
	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) - Crash detection, inclination and operation time means of an acceleration measurement - Expiration date, geo information (by APP loc.)
Sensor and alarm activation	Adjustable and ability of activation independently
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 - Individual parameterization
Evaluated Android Smartphones capable of NFC	- Samsung Galaxy S4 GT-I9505 - Samsung Galaxy S5 SM-G900F - Sony Xperia Z3 D6603 - Sony Xperia Z5 E5823

*… depending on the version and configuration of the product

1.1. Sensor Specification

Sensor Specification*		
Relative Humidity	Operating range Resolution Accuracy	0 %RH to 100 %RH 0.04 %RH typical± 4.5 %RH, maximum ± 7.5 %RH @ 0 %RH to 10 %RH typical± 3.8 %RH, maximum ± 6.0 %RH @ 10 %RH to 20 %RH typical± 3.0 %RH, maximum ± 4.5 %RH @ 20 %RH to 80 %RH typical± 3.8 %RH, maximum ± 6.0 %RH @ 80 %RH to 90 %RH typical± 4.5 %RH, maximum ± 7.5 %RH @ 90 %RH to 100 %RH
Temperature	Operating range Resolution Accuracy	-25°C to +70°C 0.04°C typical ± 0.60°C, maximal ± 0.95°C @ -25°C to +5°C typical ± 0.30°C, maximal ± 0.45°C @ +5°C to +60°C 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

Batteries are factory installed in the product. The Sensor Tag 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.

1.2. Product Variants

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

The highest clean room requirements are based on the article number 926994 special assembly without sensor O-ring.
*… depending on the version and configuration of the product

All features, functionality and other product specifications are subject to change without notice or obligation.