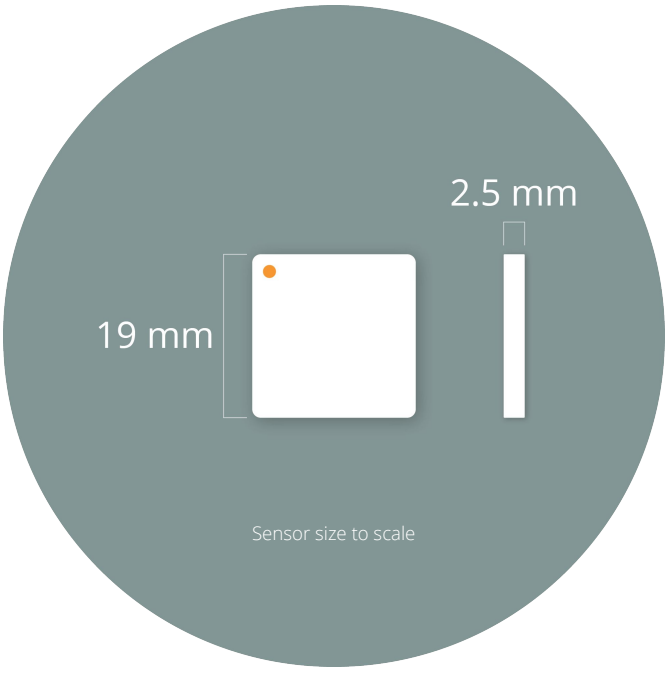
Wireless Touch Sensor

The Wireless Touch Sensor detects when the sensor is touched. A touch will result in a wireless message being sent via SecureDataShot™ technology to the Cloud Connector (Gateway), notifying the user about the event. The Cloud Connector then relays the event notification onwards to a cloud server. The Wireless Touch Sensor transmits a message notifying the system that it is present and operational at 15 minute heartbeat intervals.

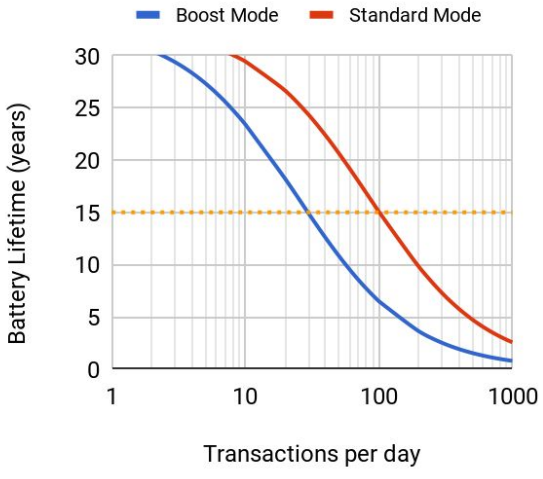
Features

- Robust touch detection scheme
- Long lifetime, 15 years in default configuration and standard environment
- Robust design, IP68
- Wireless range 25 m typical indoor, similar to a WiFi network with an advanced WiFi router
- Wireless range line of sight up to 300 m in standard mode and up to 1000 m in high power Boost Mode



Specifications

Operating Conditions	
Temperature range	-40 to 85 °C
Recommended temp. range	-25 to 50 °C non condensing
Humidity at 25 °C	0 to 100% relative humidity
Recommended Storage Conditions	Cool and dry, near normal room temperature
Construction	Sealed, IP68
Material	Impact modified acrylic film
Typical Dimensions[4]	19 x 19 x 2.5 mm (±0.2 mm)
Typical Weight[4]	2.0 g (±0.3 g)
Lifetime	Up to 15 years [1], see graph
Certifications and Compliance	CE, WEEE, Batteries directive
Radio range	
Standard Mode	25 m indoor[2], up to 300 m free-space[2]
High Power Boost Mode	Up to 1000 m free-space[2]
Wireless Communication	EU: 868 MHz ISM band, SecureDataShot™



Sensor performance parameters

The Wireless Temperature Sensor performance is temperature dependent. The sensor battery will have reduced current drive capabilities at low temperatures resulting in increased recovery time and reduced range in Boost Mode. Self discharge of the battery will reduce the lifetime significantly at high temperatures.

Temperature dependency	-40 °C	-25 °C	25 °C	50 °C	85 °C
Sensor lifetime recommended temperature range[1]		5 y	15 y	7 y	
Sensor lifetime full temperature range[3]	1 w[3] / 3 y				4 mo
Typical communication recovery time (fresh battery)	1 min		0.5 s		
Typical communication recovery time (close to depleted battery)	10 min				

Water: The Sensor is waterproof, but should not be used in applications where the sensor is submerged. Long time exposure to water will result in water penetration and reduced sensor lifetime.
Magnetism, electric fields: The sensor shall not be exposed to strong magnetic fields. Magnets should not be used for mounting the sensor, as this will make the sensor unresponsive. Strong electric field fluctuations (e.g fluorescent lamps and switching transformers) may trigger false events.
Environmental factors: The sensor is designed to handle heavy stress, but exposure to environmental factors such as strong sunlight, mechanical stress, solvents and extensive temperature variations will impact lifetime.

Footnotes

(1): Assuming a radio transaction every 15 minutes, operating at room temperature in default configuration. Lifetime will vary based on operating environment and rate of transmissions.
(2): Based on standard ITU-R P.1238 (indoor) and ITU-R P.525 (free-space). Lifetime in Boost Mode is shorter than in Standard Mode.
(3): The sensor will become unresponsive and stop reporting if placed at very low temperatures for extended periods of time. The sensor will resume operation when temperature is increased
(4): The backside tape is excluded

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