

SMARTsocket

An easy to use solution to monitor Energy and detect Power-fails

SMARTsocket is a cellular gateway supporting power supply blackout detection and monitor energy. It is the ideal solution for companies looking for supervising and managing decentralized facility to prevent unneeded service trips. SMARTsocket leverages the IoT Cloud of Cumulocity and Cloud of Things enabling customers who need to monitor large number of assets to easily integrate that data in one platform.



Key features

- Blackout detection
- OnBoard: Temp., Humid., Energy, CO₂
- External Sensor: Waterleak, temperature
- Telekom Cloud of Things for easy management
- LTE-M cellular technology
- SIM-free selection





RADIO

4G LTE	optional LTE Cat 1 B1(2100) B3(1800) B7(2600) B8(900) B20(800)
2G	B2 B3 B5 B8
LTE Cat1	B1 B2 B3 B4 B5 B8 B12 B13 B18 B19 B20 B25 B28 B66 B71 B85 B103
Regions	WorldWide



SENSORS: ONBOARD

Motion	<p>3-axis accelerometer, $\pm 2g / \pm 4g / \pm 8g / \pm 16g$</p> <ul style="list-style-type: none"> · Continuous Mode · Data Rate 1hz (up to 5300 Hz possible) · Shock detection
Temperatur	<p>Temperature Accuracy</p> <ul style="list-style-type: none"> · -0.5 between 15°C and 40°C · -1 from 0°C to 15°C and from 40°C to 60°C · -2 from -40°C to 0°C and from 60°C to 85°C
Humidity	Humidity accuracy: $\pm 3.5\%$ rH, 20 to +80% rH
Current	<ul style="list-style-type: none"> · Current measuring · 0...1610 Watt (Optional 0...3600Watt) · Current measuring includes active and reactive current · Accuracy: ± 1.5 Watt
Airpressure	<p>Pressure sensor: 300-1100 hPa</p> <ul style="list-style-type: none"> · The logging interval of the sensor Readout is selectable from 10sec to 3hours, max. 96 logs for intermediate buffering, until sending to Cloud
AirQuality	<ul style="list-style-type: none"> · Index Air Quality (IAQ): 0...500 according to guidelines issued by German federal environmental agency (Umweltbundesamt). <p>See also here: https://www.umweltbundesamt.de/daten/luft/luftdaten</p>

IAQ Index	Air Quality	Impact (long-term exposure)	Suggested action
0 – 50	Excellent	Pure air; best for well-being	No measures needed
51 – 100	Good	No irritation or impact on well-being	No measures needed
101 – 150	Lightly polluted	Reduction of well-being possible	Ventilation suggested
151 – 200	Moderately polluted	More significant irritation possible	Increase ventilation with clean air
201 – 250 ^a	Heavily polluted	Exposition might lead to effects like headache depending on type of VOCs	optimize ventilation
251 – 350	Severely polluted	More severe health issue possible if harmful VOC present	Contamination should be identified if level is reached even w/o presence of people; maximize ventilation & reduce attendance
> 351	Extremely polluted	Headaches, additional neurotoxic effects possible	Contamination needs to be identified; avoid presence in room and maximize ventilation



SENSORS: ONBOARD

CO₂, VOC	<ul style="list-style-type: none"> · eCO₂: The equivalent CO₂ (eCO₂) output · eTVOC: The equivalent Total Volatile Organic Compound (eTVOC) output · The logging interval of the sensor Readout is selectable from 10sec to 3hours, max. 96 logs for intermediate buffering, until sending to Cloud
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LED	<ul style="list-style-type: none"> · OFF – Device is switched off · ON – Device is switched on but no mobile network · BLINKING – Device is switched on and mobile network found
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Note: For locations with bad mobile coverage: The state switching between ON and Blinking can last up to 15 minutes. The state BLINKING must be present for minimum 5 minutes. If it still does not work, an external antenna with 5m cable is needed to be installed.

USB	· USB 2.0 HS - programming, Logging and Trace the device
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SENSORS: EXTERNAL



Waterleak	<ul style="list-style-type: none"> · Flooding detection · Functions: Sicherung von Zuläufen, Abflüssen, z.B. an Badewannen, Waschmaschinen, Heizkesseln, Wasserspeichern etc.
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Temperatur	Temperature accuracy: ± 0.5 °C, -15 to +40 °C
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MANAGEMENT PLATFORM



Supported Platforms	Telekom Cloud der Dinge, Cumulocity IoT, AI, Mindsphere, ooredoo, Telia, ...and more
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Communication	HTTPS over TLS1.2
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Access	Bi-directional communication
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OTA	yes
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FOTA	yes
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GENERAL



Dimension	99,7 x 55,2 x 28
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Ext. Sensor	External Sensor 1,5m cable
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Weight	89g
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LTE Antenna	OnBoard
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GENERAL

SIM Card	microSim / eSim option
Operate T/H	-40°C...85°C / Max. 85%
Storage T	-40°C...85°C / Max. 85%
IP Class	IP20
Approvals	 
Conformity	<p>2014/53/EU (Radio Equipment Directive-RED)</p> <p>Radio</p> <p>EN301511 v12.5.1</p> <p>EN301908 v13.1.1</p> <p>EMC</p> <p>EN 301489-1 v2.2.0 General Part</p> <p>EN 301489-52 v1.1.0</p> <p>DIN EN 61326-1 - 2018-09</p> <p>EN 301489-17 v3.1.1 for Bluetooth Low Energy</p> <p>Safety</p> <p>DIN EN 61010-1:2020-03; VDE 0411-1:2020-03</p>
Warranty	2 years

Remote Manager

Fleetmanagement:

- Activate, monitor and diagnose your devices from a single point – on your desktop or mobile app
- Monitor the health of your connected facility by taking graphs from different widgets. A large selection of evaluation and diagram types are available.

Cockpit:

- Creating threshold monitoring, events, critical alarms, warnings and reports

Open API:

- Create Notifications or simply use the REST API from the Cloud platform to feed your third party system with all the data







Third Party IoT-Platforms



... and more

Ordering Codes

GATEWAYS

		 BATTERY	 EXT. SENSORS	 FIELDBUS	 RADIO	 LOCATION SERVICE	 INT. SENSORS
	ORDERCODE						
SMARTsocket	SB410A006XX	230/110 VAC 50/60Hz	Acellerometer, Current sensor 10A, PowerLoss detection		LTE CatM, 2G Fallback (opt. NB-IOT)		Pressure sensor, Temp sensor optional
SMARTsocket sens	SB410A026XX	230/110 VAC 50/60Hz	Acellerometer, Current sensor 10A, PowerLoss detection		LTE CatM, 2G Fallback (opt. NB-IOT)		Temperature ex- ternal 1,5m cable NTC10K
SMARTsocket sens	SB460A006XX	230/110 VAC 50/60Hz	Acellerometer, Current sensor 10A, PowerLoss detection, Temperature, Humidity		LTE CatM, 2G Fallback (opt. NB-IOT)		Pressure sensor, Temp sensor optional
SMARTsocket sens	SB4C0A006XX	230/110 VAC 50/60Hz	Acellerometer, Current sensor 10A, PowerLoss detection, CO ₂ , Temperature, Humidity		LTE CatM, 2G Fallback (opt. NB-IOT)		Pressure sensor, Temp sensor optional