



# SMARTsocket

IoT Gateway for supervising facility

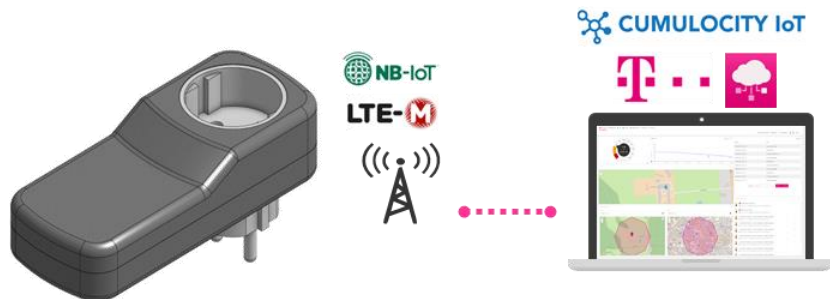
SMARTsocket is a cellular gateway supporting power supply blackout detection, environmental sensors. It is the ideal solution for companies looking for supervising and managing decentralized facility to prevent unneeded service trips. SMARTsocket leverages the IoT Cloud of Cumulocity and Cloud of Things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

## Ready2Use – Key parameters

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

	Shocksensor
	Temp., Humidity
	Current metering
	CO2, IAQ, VOC
	Blackout detection
external I/O	
	WaterMetering*
	Modbus*

\*one section is supported



## Industry

Commercial




Facility Management




Supermarket



# Specification

 Radio	
<b>4G LTE</b>	M1 & NB1 B1 (2100), B2 (1900), B3 (1800), B4 (AWS 1700), B5 (850), B8 (900), B12 (700), B13 (700), B18 (800), B19 (800), B20 (800), B26 (850), B28 (700))
<b>2G</b>	GSM   GPRS B2 (1900) B3 (1800) B5 (850) B8 (900)
<b>LTE Cat1</b>	optional
<b>Regions</b>	WorldWide

 OnBoard Sensors	
<b>Motion</b>	3-axis accelerometer, $\pm 2g/\pm 4g/\pm 8g/\pm 16g$ ✓ Continuous Mode ✓ Data Rate 1hz (up to 5300 Hz possible) ✓ Shock detection

<b>Temperatur</b>	Temperature Accuracy ✓ -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
-------------------	---

<b>Humidity</b>	Humidity accuracy: $\pm 3.5\%$ rH, 20 to +80% rH
-----------------	--

<b>Current</b>	✓ Current measuring ✓ 0..1610 Watt (Optional 0..3600Watt) ✓ Current measuring includes active and reactive current ✓ Accuracy: $\pm 1.5$ Watt
----------------	--

<b>Airpressure</b>	Pressure sensor:300-1100 hPa ✓ The logging interval of the sensor Readout is selectable from 10sec to 3hours, max. 96 logs for intermediate buffering, until sending to Cloud
--------------------	--

<b>AirQuality</b>	✓ Index Air Quality (IAQ): 0..500 according to guidelines issued by German federal environmental agency (Umweltbundesamt). See also here: ✓ <a href="https://www.umweltbundesamt.de/daten/luft/luftdaten">https://www.umweltbundesamt.de/daten/luft/luftdaten</a>																																
	<table border="1"> <thead> <tr> <th>IAQ Index</th> <th>Air Quality</th> <th>Impact (long-term exposure)</th> <th>Suggested action</th> </tr> </thead> <tbody> <tr> <td>0 – 50</td> <td>Excellent</td> <td>Pure air; best for well-being</td> <td>No measures needed</td> </tr> <tr> <td>51 – 100</td> <td>Good</td> <td>No irritation or impact on well-being</td> <td>No measures needed</td> </tr> <tr> <td>101 – 150</td> <td>Lightly polluted</td> <td>Reduction of well-being possible</td> <td>Ventilation suggested</td> </tr> <tr> <td>151 – 200</td> <td>Moderately polluted</td> <td>More significant irritation possible</td> <td>Increase ventilation with clean air</td> </tr> <tr> <td>201 – 250<sup>a</sup></td> <td>Heavily polluted</td> <td>Exposition might lead to effects like headache depending on type of VOCs</td> <td>optimize ventilation</td> </tr> <tr> <td>251 – 350</td> <td>Severely polluted</td> <td>More severe health issue possible if harmful VOC present</td> <td>Contamination should be identified if level is reached even w/o presence of people; maximize ventilation &amp; reduce attendance</td> </tr> <tr> <td>&gt; 351</td> <td>Extremely polluted</td> <td>Headaches, additional neurotoxic effects possible</td> <td>Contamination needs to be identified; avoid presence in room and maximize ventilation</td> </tr> </tbody> </table>	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 <sup>a</sup>	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
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 <sup>a</sup>	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																														
	✓ The logging interval of the sensor Readout is selectable from 10sec to 3hours, max. 96 logs for intermediate buffering, until sending to Cloud																																

<b>CO2, VOC</b>	✓ 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
-----------------	--

<b>LED</b>	Signal LED: ✓ Off – the device is in sleep Mode
------------	--

	✓ Slow flashing – The device is waked up and in low Power mode
--	--

<b>USB</b>	✓ USB 2.0 HS - programming, Logging and Trace the device
------------	--



## External Sensors

<b>Waterleak</b>	✓ Flooding detection ✓ Functions: Sicherung von Zuläufen, Abflüssen, z.B. an Badewannen, Waschmaschinen, Heizkesseln, Wasserspeichern etc.
------------------	---

<b>Temperatur</b>	Temperature accuracy: ± 0.5 °C,-15 to +40 °C
-------------------	--




## Management Platform

<b>Platform</b>	 Telekom Cloud der Dinge
	 Cumulocity IoT

<b>Protocol</b>	HTTPS over TLS1.2
<b>Access</b>	Bi-directional communication
<b>OTA</b>	yes



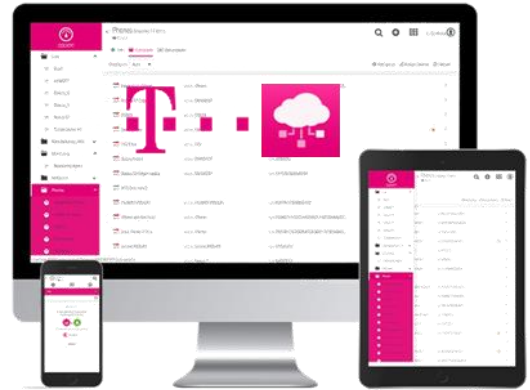
## General

<b>Dimension</b>	99,7 x 55,2 x 28
<b>Ext. Sensor</b>	External Sensor 1,5m cable
<b>Weight</b>	89g
<b>LTE Ant.</b>	OnBoard
<b>SIM Card</b>	microSim / eSim option
<b>Operate T/H</b>	-40..85°C / Max. 85%
<b>Storage T</b>	-40..85°C / Max. 85%
<b>IP Class</b>	IP20
<b>Approvals</b>	
<b>Conformity</b>	2014/53/EU (Radio Equipment Directive - RED)  Radio EN301511 v12.5.1 EN301908 v13.1.1  EMC EN 301489-1 v2.2.0 General Part EN 301489-52 v1.1.0 DIN EN 61326-1 - 2018-09  Safety DIN EN 61010-1:2020-03;VDE 0411-1:2020-03
<b>Warranty</b>	2 years

# Remote Manager

## Capabilities

- Fleetmanagement:
- ✓ Activate, monitor and diagnose your mission-critical devices from a single point — on your desktop or mobile app – Telekom Cloud of Things
  - ✓ Monitor the health of your connected facility by taking graphs from a repository of different widgets
- 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



## Platforms

Telekom Cloud of Things	
Cumulocity IoT	
Siemens Mindsphere	
Telia IoT Hub	
A1 Digital	
Ooredoo IoT Hub	

# Ordering Codes

IoT Gateway	Ordercode						
SMARTsocket	SB410A006XX	230/110 VAC 50/60Hz	Accelerometer, Current sensor 10A, PowerLoss detection		LTE CatM, 2G Fallback (opt. NB-IOT)		Pressure sensor, Temp sensor optional
SMARTsocket	SB410A026XX	230/110 VAC 50/60Hz	Accelerometer, Current sensor 10A, PowerLoss detection		LTE CatM, 2G Fallback (opt. NB-IOT)		Temperature external 1,5m cable NTC10K
SMARTsocket	SB460A006XX	230/110 VAC 50/60Hz	Accelerometer, Current sensor 10A, PowerLoss detection, Temperature, Humidity		LTE CatM, 2G Fallback (opt. NB-IOT)		Pressure sensor, Temp sensor optional
SMARTsocket	SB4C0A006XX	230/110 VAC 50/60Hz	Accelerometer, Current sensor 10A, PowerLoss detection, CO2, Temperature, Humidity		LTE CatM, 2G Fallback (opt. NB-IOT)		Pressure sensor, Temp sensor optional