

## SMARTbox mini

### Connect Modbus devices with Cloudfieldbus

SMARTbox mini is a fully integrated cellular gateway to connect Modbus devices. Designed for use in industrial environments, it offers the ideal solution for companies that want additional remote monitoring. SMARTbox mini uses Cumulocity's IoT cloud and Cloud of Things. With the unique Cloudfieldbus application, Modbus subscribers can be configured and managed in a plug-and-play process.



### Key features

- Modbus protocol support
- NTC Temperature Sensor, Digital Input
- Mounting via DIN rail
- BLE Scan
- Universal cloud platform with REST API
- LTE-M, NB-IoT Cellular Technology
- SIM-free selection



### RADIO



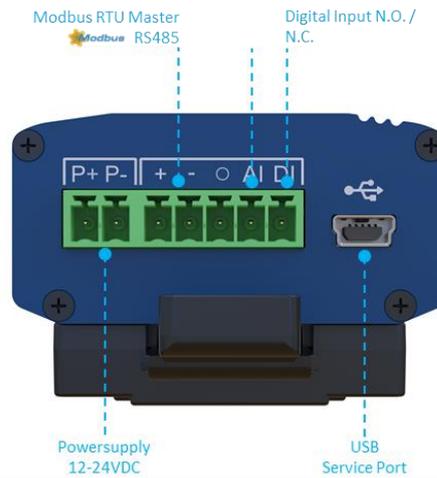
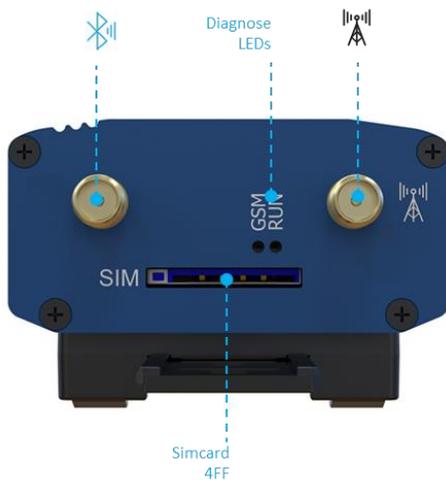
**DS-SM01DE2505.2**

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

**LOCATION SERVICES**

GNSS (optional)	optional GPS/QZSS L1C/A, GLONASS L1OF, BeiDou B1I, Galileo E1B/C, SBAS L1C/A: WAAS, EGNOS, MSAS, GAGAN
Tracking(optional)	Tracking through selectable time cycles

**SENSORS - FIELDBUS**



**Modbus**



Type: Modbus RTU Master RS485 / RS232 (optional)  
 Transfer Rate: 4800, 9600, 19200, 38400, 57600, 115200 Parity Even, ODD, NONE  
 Stop bits: 2.1  
 Features: - Works. 1 (Read Single Coil)  
 - Funkt 2 (read input status)  
 - Funkt 3 (read stop stop)  
 - Funkt 4 (read input register)  
 - Funkt 5 (Write Coil)  
 - Funkt 6 (describe stop register)

Datapoints: Max. 32 Modbus slaves with a total of max. 400 data points

Sensors	Digital entrance LOSI (Low-Side Input) Potential-Free Contact	<ul style="list-style-type: none"> <li>· NO / NC</li> <li>· Refresh Rate Almost 10ms</li> <li>Functions: Alarms, operating hours, counters, switching states</li> </ul>
	NTC10K Temperature Sensor	<ul style="list-style-type: none"> <li>· Linearization for B = 3988K</li> <li>· Measuring range:</li> </ul>

		<ul style="list-style-type: none"> <li>· 40°C ... 105°C</li> <li>· Resolution.:</li> <li>· 0.6K @ -40°C</li> <li>· 0.1K @ 20°C</li> <li>· 0.7K @ 100°C</li> <li>· Accuracy of Input:</li> <li>· -20°C ... 60°C: +/-0.5K</li> <li>· -40°C ... 105°C +/- 2K</li> </ul>
<i>BLE interface (optional)</i>	Bluetooth	v5.0 (Bluetooth low energy)
	Range	Max. 1400m
	Output power	8 dBm
	Sensitivity	-94 dBm (1 Mbps)
	Function	Scanning/Advertising/Open Mesh/Repeater
LED	Run/Net IoT/GSM	Sensor processing data state Cloud connection state
USB		USB 2.0 HS – programming, Logging and Trace the device

## MANAGEMENT PLATFORM

Supported Platforms	Telekom Cloud of Things, Cumocity IoT, AI, Mindsphere, ooredoo, Telia, ... and more
Communication	MQTT, LWM2M OMA, https, TLS, TCP, UDP, HTTP
Access	Bi-directional communication
OTA	Yes
FOTA	Yes

## GENERAL

Dimensions	72 x 53.5 x 26 mm
Weight	89g
Antenna	SMA Connector
Supplies	Nominal voltage range: 12-30 VDC, +/-10% Maximum (average) continuous supply current: 300 mA at 12V, 150 mA at 24V
Fastening	About DIN Rail Adapter
SIM card	4FF
Operation T/H	-40°C. 85°C / Max. 85%
Warehouse T	-40°C. 85°C / Max. 85%

IP Class	IP20
Approval	
Compliance	2014 / 53 / EU (Radio Equipment Directive) Radio EN301511 v12.5.1 EN301908 v13.1.1 EMC (Electromagnetic Compatibility) EN301489-1 v2.2.0 General Part EN 301489-52 v1.1.0 Security DIN EN 61010-1: 2020-03, VDE 0411-1:2020-03 Cybersecurity EN 18031:2024
Warranty	1 year

## Remote Manager (Remote Management) Third-Party

IoT Platforms

### Fleet management:

Activate, monitor and diagnose  
Your devices from a single point of view –  
your desktop or mobile app.  
Monitor the health of your networked  
by creating diagrams of various  
Evaluate widgets. Here you will find a large  
selection of evaluation options available.

### Cockpit:

Creating a threshold monitor,  
Events, critical alarms, alerts, and reports.

### Open API:

Generate notifications or use  
simply use the REST API from the cloud platform to  
Provide your third-party systems with all the data.



Telia

| A<sup>1</sup> Digital

... and more

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