

SMARTbox mini

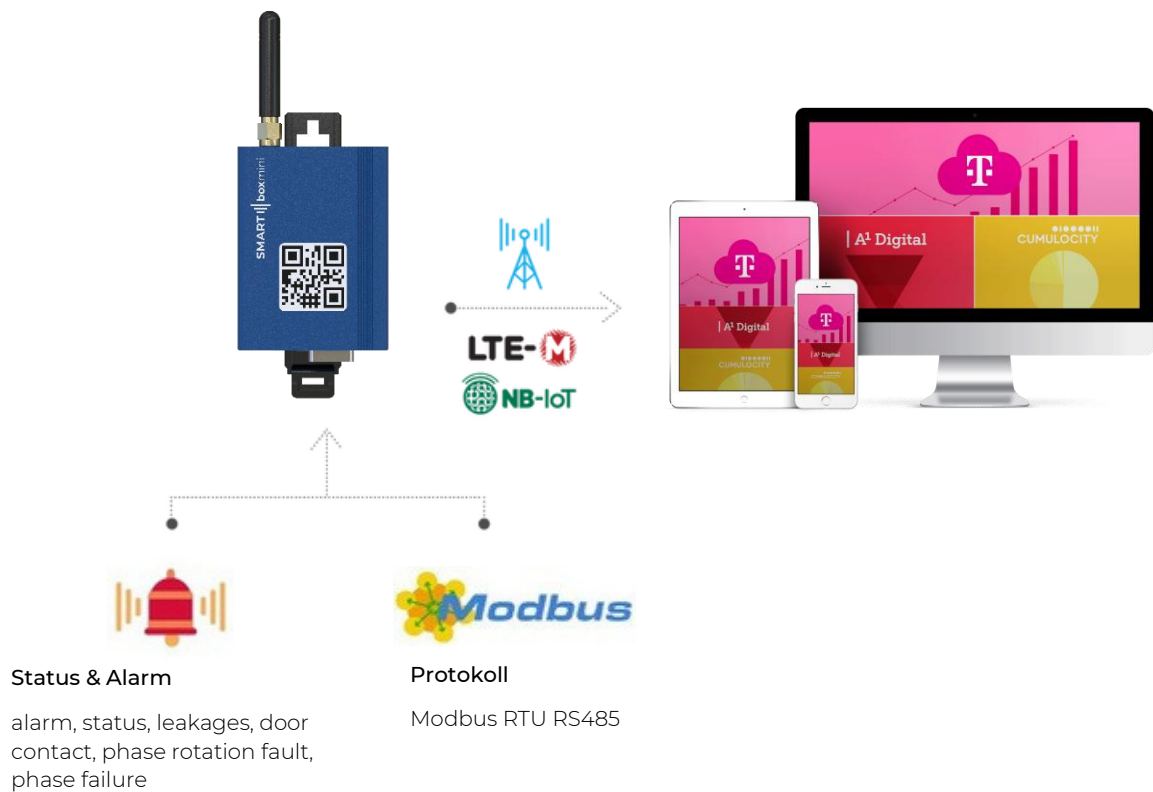
Connecting Modbus devices with Cloudfieldbus

SMARTbox mini is a fully integrated cellular gateway for connecting Modbus devices. Designed for use in industrial environments, it offers the ideal solution for companies seeking additional remote monitoring. SMARTbox mini utilizes the IoT cloud platforms Cumulocity and Cloud of Things. With the unique Cloudfieldbus application, Modbus devices can be configured and managed using a plug-and-play approach.



Keyfeatures

- Modbus-Protocol support
- Temperature sensor NTC, Digital Input
- Mounting via DIN rail
- Universal cloud platform for easy use
- LTE-M, NB-IoT 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
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 via selectable time intervals

SENSORS - FIELDBUS

Layout



Modbus



Type: Modbus RTU Master RS485 / RS232 (optional)
Baud Rates: 4800, 9600, 19200, 38400, 57600, 115200
Parity: Even, Odd, None
Stop Bits: 2, 1
Functions:

- Function 1 (Read Coils)
- Function 2 (Read Discrete Inputs)
- Function 3 (Read Holding Registers)
- Function 4 (Read Input Registers)
- Function 5 (Write Single Coil)
- Function 6 (Write Single Holding Register)

Data Points:
Max. 32 Modbus slaves with a maximum of 400 datapoints overall

Sensors	Digital input LOSI (Low-Side input) potential-free contact	· NO / NC · Refresh rate fast 10ms · Functions: alarms, operating hours, counters, switching states
	NTC10K Temperature Sensor	· Linearization for B = 3988K · Measurement range: · 40°C ... 105°C · Resolution: · 0,6K @ -40°C · 0,1K @ 20°C · 0,7K @ 100°C · Accuracy of input: · -20°C ... 60°C: +/-0,5K · -40°C ... 105°C +/- 2K
LED	Net / Run IoT/GSM	Sensor processing data state Cloud connection state
USB		USB 2.0 HS – programming, logging, and tracing the device

MANAGEMENT PLATFORM

Supported Platforms	Telekom Cloud, Cumolocity IoT, AI, Mindsphere, ooredoo, Telia, ...and more
Communication	MQTT, LWM2M OMA, https, TLS, TCP, UDP, HTTP
Access	Bidirectional communication
OTA	yes
FOTA	yes

GENERAL INFORMATION

Dimensions	72 x 53,5 x 26 mm
Weight	89g
Antenna	SMA Stecker
Power Supply	Nominal voltage range: 12-30 VDC, +/-10% Maximum (average) continuous supply current: 300 mA at 12 V, 150 mA at 24 V
Mounting	Über DIN Rail Adapter
SIM Card	4FF
Operating T / H	-40°C.. 85°C / Max. 85%
Storage T	-40°C.. 85°C / Max. 85%

IP Class	IP20
Certification	
Conformity	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 Safety DIN EN 61010-1: 2020-03, VDE 0411-1:2020-03 Cybersecurity EN 18031:2024
Warranty	1 year

Remote Manager

Third-party IoT platforms

Fleet Management

Activate, monitor and diagnose your devices from a single point of access – your desktop or mobile app.

Monitor the status of your connected systems by analyzing diagrams from various widgets, with a wide range of evaluation options available.

Cockpit:

Configure threshold monitoring, events, critical alarms, warnings and reports

Offenes API:

Use REST API to forward data to third-party systems or generate custom notifications.



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