

B.One Gateway indoor

for implementation of IoT applications

The B.One gateways use high-performance LoRaWAN® technology, whose excellent building penetration and long-range network coverage ensure the connectivity of IoT sensors even under challenging environmental and installation conditions.

The B.One Gateway indoor is ideally suited for LoRa network coverage within a building to receive the values of sensors, some of which are difficult to access, on several floors and in basements - without the need for additional repeaters. The device can be used across various sectors for a variety of IoT applications and is an integral part of ZENNER IoT system solutions.

Thanks to its intentionally plain design, the gateway is hardly noticeable in its environment and is therefore less prone to vandalism.

It sends data between radio-ready end devices in the property (heat cost allocators, water or heat meters, smoke detectors, room sensors, and much more) and the central LoRa network server.



The B.One indoor gateway is able to integrate a wide range of end devices into the LoRaWAN® wireless system. The data is stored via the ZENNER system landscape to our data centre in Germany, which is certified according to DIN EN ISO / IEC 27001.

Features and functions

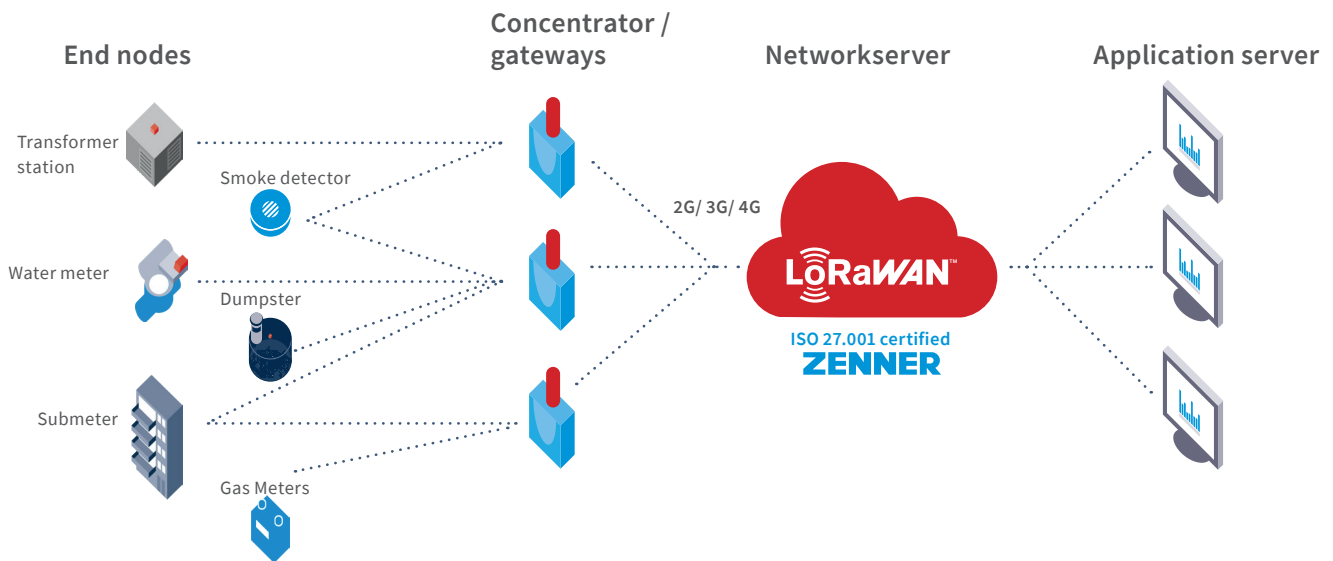
- Suitable for LoRaWAN® IoT solutions from ZENNER and network operation of the ZENNER Connect
- Bidirectional LoRaWAN® radio communication
- Encrypted end-to-end data transmission (AES 128)
- No storage of meter readings on the gateway
- Plug & Play - Simple integration through pre-configured software
- Compatible with the Gateway Management System (GMS) from ZENNER (remote configuration)
- Security patches and software updates are distributed in an automated manner
- Use in Europe, USA and China possible (country frequencies must be observed)
- LoRaWAN®- Gateway modules according to reference architecture 1.5
- Automatic change from mobile radio to Ethernet backhaul (if available)

Applications

- Multi-branch readout
- Submetering
- Monitoring of local transformer stations
- Indoor air quality monitoring
- Smart Home / Office / Hotels / School

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Architecture



Technical data

Cellular network	Mini SIM – 2G, 3G (UMTS), 4G (LTE) – internal or external antenna
Ethernet	RJ45 – priority over cellular network
# LoRa channel	8 channels (16 channels: optional assembly variant upon request and minimum order quantity)
TX power	max. 27 dBm (500 mW) conducted
Frequency	EU-868
Power supply	External power supply unit (230 V) / Internal power supply unit (230 V)
Antennas	According to the model internal or external: 1 x LoRa, 1 x mobile radio
Protection class	IP40
Housing	Plastic with flame retardancy according to UL94-2013 edition 9-2019, class.: V-0
Operating temperature	0 °C to +50 °C
Storage temperature	-40 °C to +80 °C
LED	Power, LAN, mobile radio, backend connection
Installation	Wall (bracket incl. screws and dowels included in scope of delivery)
Maintenance	Remote firmware upgrades
Certification	EN 301 489-3, EN 300 220-2

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Gateway variants



Gateway with integrated power supply unit and integrated antennas



Product image similar

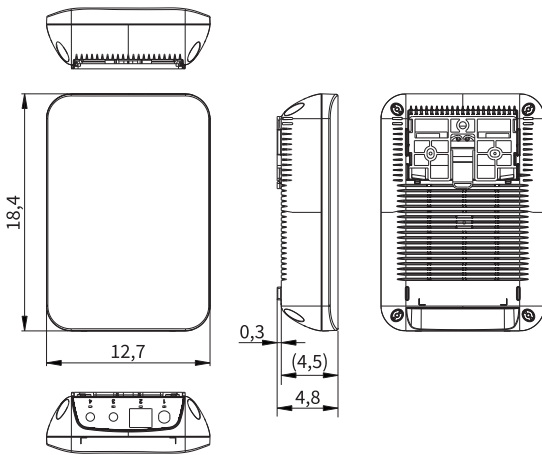
Gateway with integrated power supply unit and external antennas

Dimensions and weight gateway with plug-in power supply:

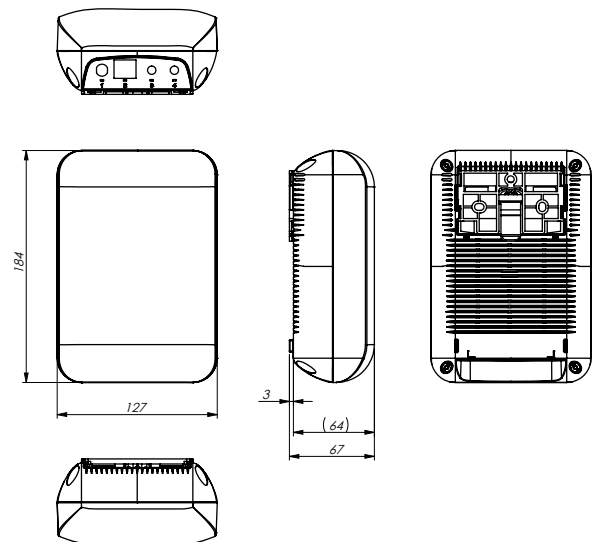
Length	mm	184
Width	mm	127
Height	mm	48
Weight approx.	kg	0.474

Dimensions and weight gateway with integrated power supply unit:

Length	mm	184
Width	mm	127
Height	mm	68
Weight approx.	kg	0.574



Dimensions of gateway with plug-in power supply



Dimensions of gateway with integrated power supply unit

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