B.One Gateway outdoor 16

LoRaWAN® gateway for implementation of IoT applications

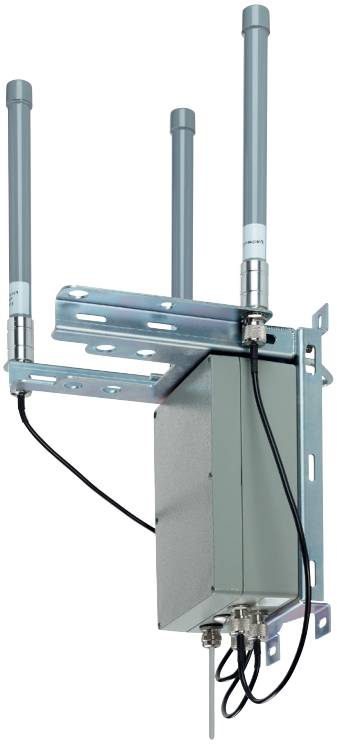
B.One Gateways use high-performance LoRaWAN® technology, which is characterised by excellent building penetration and long-range network availability. These features ensure the connectivity of IoT sensors even under challenging environmental and installation conditions.

The B.One Gateway outdoor 16 is ideally suited for LoRa network coverage in rural and urban areas to receive values from multiple sensors.

The device can be used across various sectors for a variety of IoT applications and is an integral part of ZENNER IoT system solutions. With just a few gateways, entire cities can be covered.

Due to the very robust housing made of coated aluminium, the gateway is very resilient to extreme weather conditions and is characterized by a high degree of reliability. In addition to the two external LoRa antennas, the B.One Gateway outdoor 16 also uses an external LTE antenna to ensure the best possible connection to the backend.

It sends data from the wireless end devices in the property (heat cost allocators, water or heat meters, smoke alarms, room sensors, etc.) or in the Smart City (parking sensors, air quality sensors, etc.) to the central LoRa network server.



The B.One Gateway outdoor 16 is able to integrate a wide range of end devices into the LoRaWAN® wireless system.

Performance characteristics in overview

- Suitable for LoRaWAN® IoT solutions
- Bidirectional LoRaWAN® radio communication
- Encrypted end-to-end data transmission (AES 128)
- No storage of meter readings on the gateway
- Fields of application in Europa
- LoRaWAN®- Gateway modules according to reference architecture 1.5
- Support for the Semtech Packet Forwarder
- Automatic change from mobile radio to Ethernet backhaul (if available)

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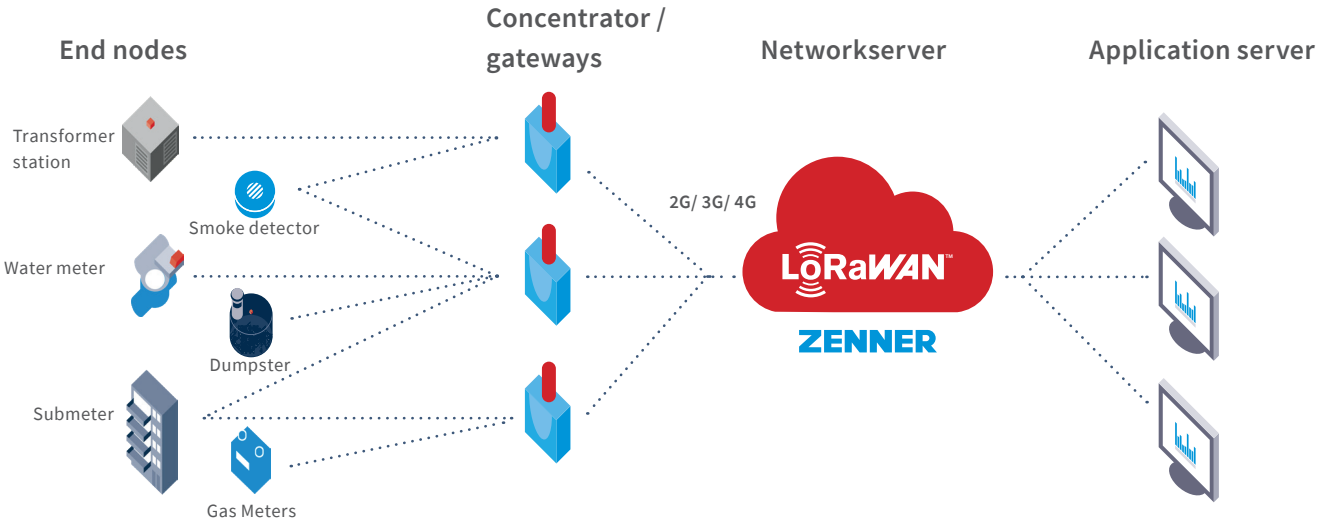
Architecture



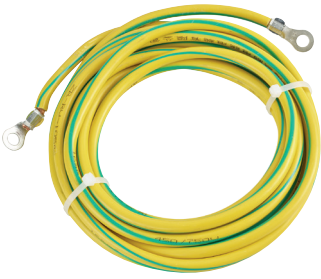
Applications

- Smart City (Smart Parking, Smart Waste, Smart Lighting, ...)
- Monitoring of local network transformer stations
- Readout of meters in manholes
- Asset Tracking

Scope of delivery

- Gateway - pre-assembled on mounting bracket
- Mounting bracket with nuts, spring ring and washers
- 2x spacer sleeves for mounting bracket
- 2x 868 MHz LoRaWAN®-Antennas
- 1x LTE broadband antenna
- 3x Antenna cable
- Cable ties
- 2x RJ45 Plugs
- Equipotential bonding cable (16 mm²)
- Network cable (5 m) with PG cable gland
- PoE injector
- Power cord for PoE injector

PoE injector



Equipotential bonding cable

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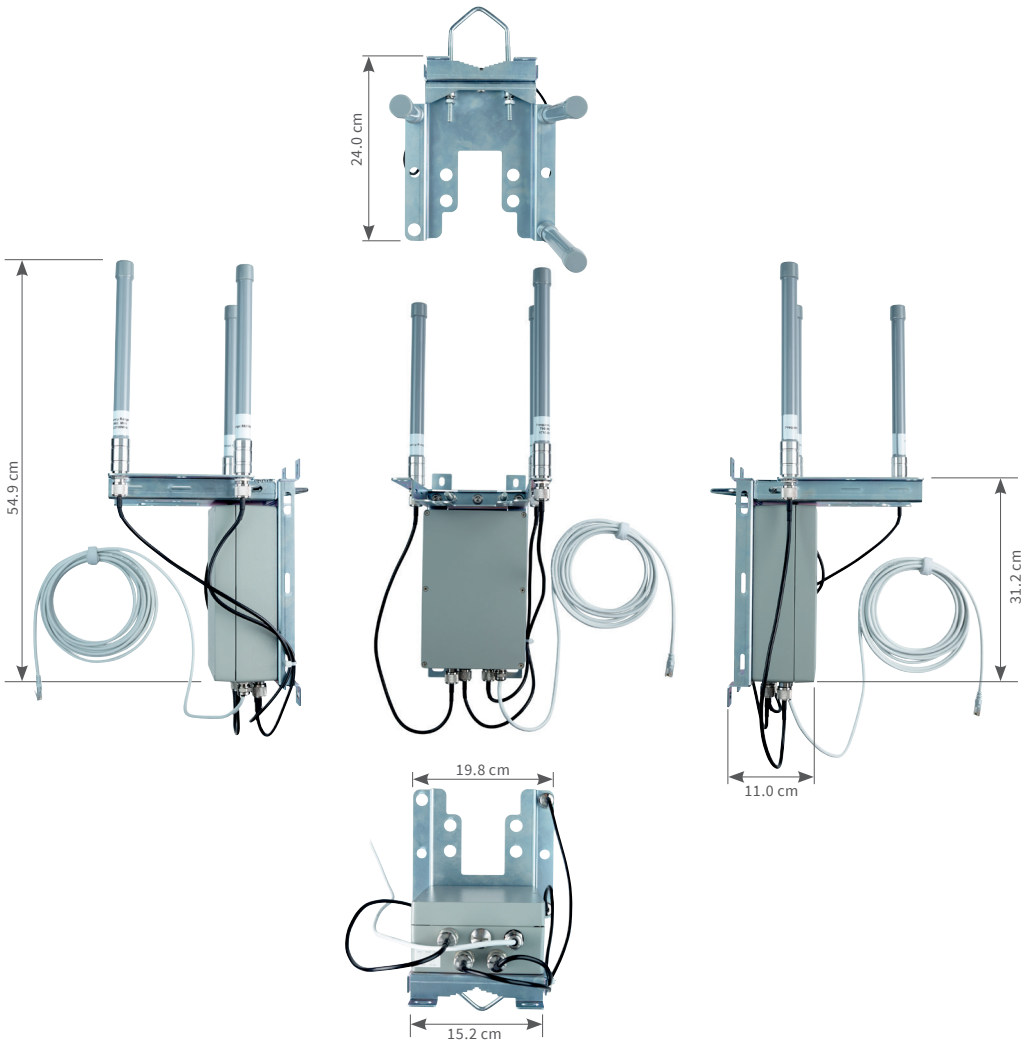
Technical data	
Cellular network	Mini SIM – 2G, 3G (UMTS), 4G (LTE) – external LTE antenna
Ethernet	RJ45 – priority over cellular network
# LoRa channel	16 channels - two external antennas
TX power	max. 27 dBm (500 mW) conducted
Frequency	EU-868
Power supply	Power over Ethernet (PoE)
Antennas	external: 2 x LoRa, 1 x cellular network (antennas incl. mounting bracket included in scope of delivery)
Protection class	IP67
Housing	Aluminium, coated
Operating temperature	-10 °C to +50 °C
Storage temperature	-40 °C to +80 °C
Installation	Wall, pole (bracket incl. grounding cable included in scope of delivery, galvanized steel)
Maintenance	Remote firmware upgrades
Standards	EN 301 489-3, EN 300 220-2
Weight	approx. 4.1 kg



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