

# ZENNER IoT gateway outdoor

For implementation of IoT applications

The ZENNER IoT 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 ZENNER IoT gateway outdoor 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 a few gateways, entire cities can already be covered.

Due to the very robust housing made of coated aluminum, 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 ZENNER IoT gateway outdoor also uses an external LTE antenna to ensure the best possible connection to the backend.

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.



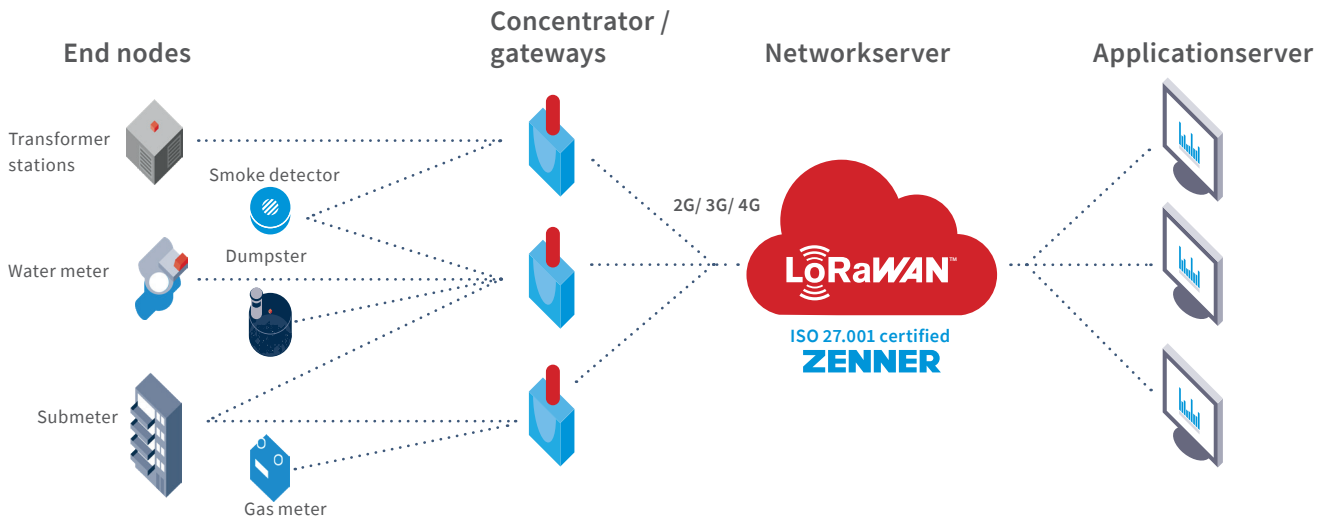
The ZENNER IoT gateway outdoor is able to integrate a wide range of end devices into the LoRaWAN® wireless system. The data is stored via the ZENNER system landscape to our data centre in Germany, which is certified according to DIN EN ISO / IEC 27001.

## Features and functions

- Suitable for LoRaWAN® IoT solutions from ZENNER and network operation of Minol 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 cellular network to Ethernet backhaul (if available)

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## Architecture



## Applications

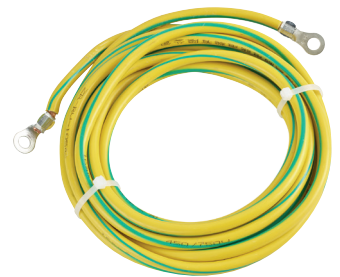
- Smart City (Smart Parking, Smart Waste, Smart Lighting, ...)
- Monitoring of local network transformer stations
- Readout of meters in manholes
- Asset Tracking

## 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 mm<sup>2</sup>)
- Network cable (5 m) with PG cable gland
- PoE injector
- Power cord for PoE injector



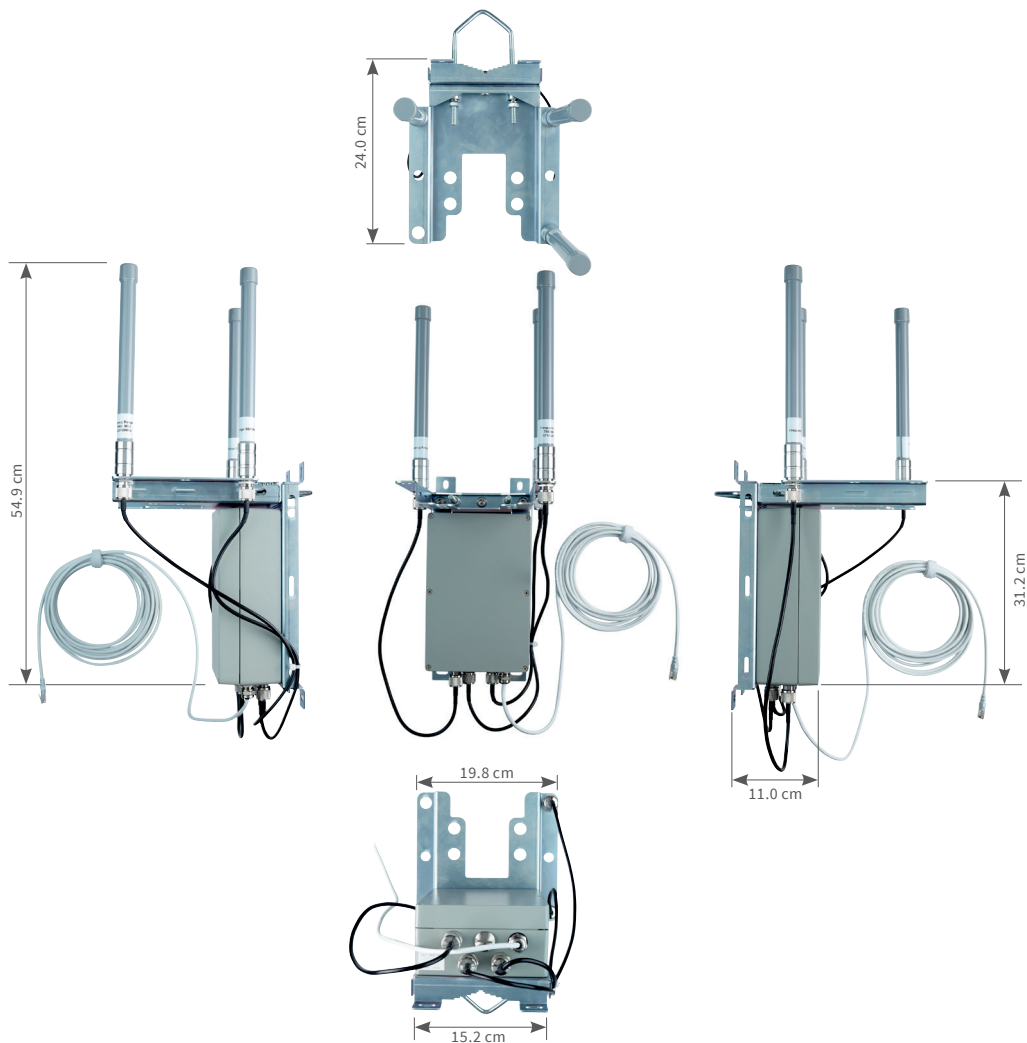
PoE injector



Equipotential bonding cable

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Technical data	
Cellular network	Mini SIM – 2G, 3G (UMTS), 4G (LTE) – external 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	0 °C to +50 °C
Storage temperature	- 40 °C to + 80 °C
Installation	Wall, pole (bracket incl. grounding cable included in delivery, galvanized steel)
Maintenance	Remote firmware upgrades
Standards	EN 301 489-3, EN 300 220-2
Weight	ca. 4.1 kg



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