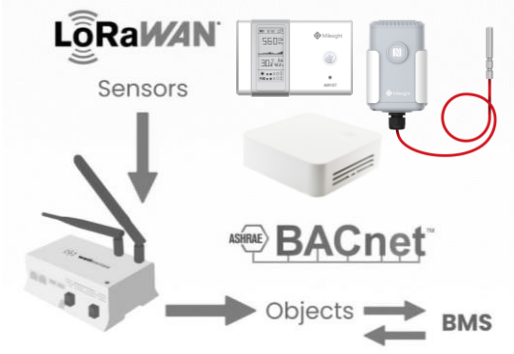
The Bridge

Universal IoT Gateway

Collect data on-premises or through your private Cloud network

The Bridge makes integrations into conventional Building Management and SCADA Systems (BMS) easy & intuitive.

The Bridge supports ON-SITE mapping of LoRa device data to BACnet IP, Modbus IP & MQTT.



Beside LoRa, Bridge supports integration of protocols such as: M-BUS, KNX, LON IP, Modbus IP/RTU and BACnet IP.

The Bridge enables with its built-in SIM & cloud console remote easy configuration & commissioning functionality.

The Bridge library supports:

- **An impressive range of more than 700 devices.**
- **Automated decoding of LoRa payloads locally in the Bridge to take advantage of emerging wireless technologies.**

Integration to BMS is done via well-known technologies such as BACnet IP and Modbus IP and/or to your private cloud network via MQTT

Specifications are according to the manufacturer and might change without any notice

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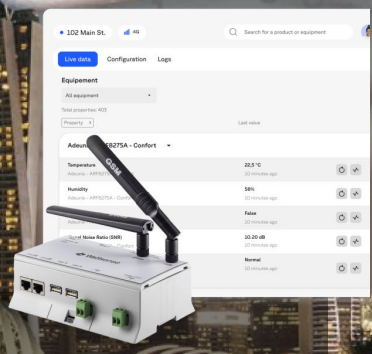
The Bridge

MQTT · KNX · Modbus · BACnet · M-Bus · LoRaWAN

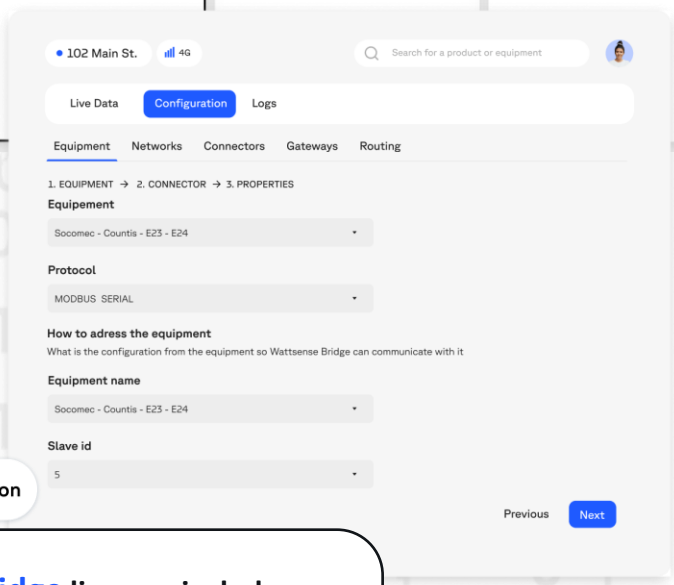


Universal IoTGateway

Collect data on-premises or through your private Cloud network

Bridge one-off licenses

IoT	Small	Medium (Most popular)	Large	XLarge
Take the first step into IoT integration	Digitally transform small buildings	Scale with more data access	Take building management to the next level	The full power of the Wattsense Bridge
IN protocol (client) LoRaWAN **OUT protocols** (server) BACnet IP Modbus TCP MQTT **Other features** Configuration Wizard 4G modem **Connected In points** 100	**IN protocols** (client) LON, LPB, KNX, Dematic, BACnet, Modbus, M-Bus **OUT protocols** (server) BACnet IP Modbus TCP MQTT **Other features** Configuration Wizard 4G modem **Connected In points** 100	Everything in Small, plus + **IN protocols** (client) LoRaWAN + **Connected In points** 250	Everything in Medium, plus + **Connected In points** 1 000	Everything in Large, plus + **Connected In points** 5 000



The Bridge licenses includes built-in SIM and free of charge remote configuration and commissioning functionality via the a Cloud console.

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Universal IoT Gateway

Collect data on-premises or through your private Cloud network

IN Protocols (Client)

- LoRaWAN
- BACnet IP
- Modbus
- KNX
- M-BUS
- LON
- LPB
- Diematic

OUT Protocols (Server)

- BACnet IP
- Modbus IP
- MQTT

Interfaces

- LoRaWAN module 863MHz to 928MHz
- KNX
- M-Bus
- LPB/BSB
- 3G/4G Modem
- 2 Ethernet ports RJ45
- 2 RS485
- 2 USB
- USB Micro

Drivers

- LoRaWAN 1.0 local private
- BACnet IP, BACnet IP Server
- Modbus TCP/IP
- MQTT Client
- KNX S and LTE
- Modbus RTU
- LON FT10, LON IP-852
- M-Bus
- wM-Bus
- LPB
- Diematic

Software

- Secured Linux Yocto distribution
- Onboard LoRaWAN server decodes LoRa data locally directly in the Bridge
- Automatic discovery of BACnet objects
- Easy configuration via remote console
- Scheduler wizard

Security

THE Bridge optionally connects to your MQTT broker with highest level of security based on SSL/TLS, with the following properties:

- Two-way authentication between the Bridge and server with x509 certificates
- End-to-end encryption, integrity checks

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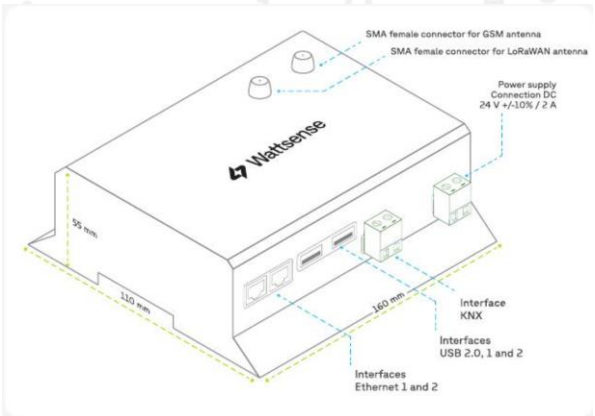
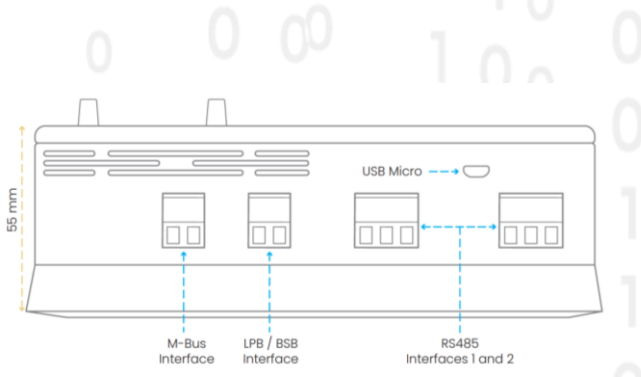
The Bridge

Universal IoT Gateway

Collect data on-premises or through your private Cloud network

Hardware	
CPU	528MHz ARM Cortex A7
Memory	512MB RAM
Storage	4GB Flash
Consumption	5 Watt
Dimension	160 x 110 x 55 mm
Weight	340g
Operating temperature	0 ° C to + 45 ° C
Humidity	5% to 95% humidity - No condensation
Power supply	12-24V DC +/-10%, 2A 2 wires (red, black), 22 AWG, Minimum: 0.35 mm²
Link to Wattsense Compatibility checker	Equipment library: quickly check if your equipment has already been decoded | Wattsense - Wattsense





SingGo Tech Pte LTD
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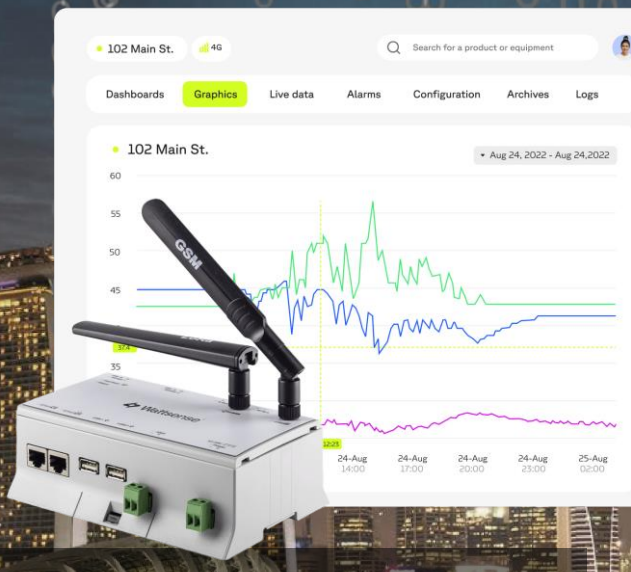


Universal IoT Gateway with Cloud Console

Access data and monitor your building from anywhere

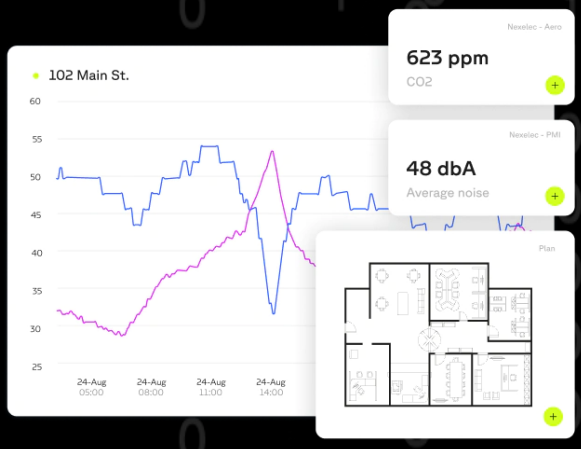
The **Tower** provides a powerful easy to configure Cloud console, monitoring conventional as well as emerging wireless devices.

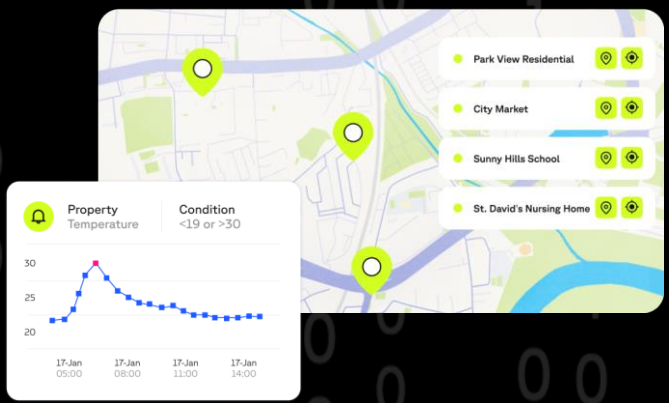
The **Tower** supports integration of protocols such as: LoRa, M-BUS, KNX, LON IP, Modbus IP/RTU and BACnet IP.

The **Tower** provides a RESTful API and MQTT on a cloud level for easy data interaction, cloud-to-cloud connectivity, etc.

The **Tower** library supports:

- An impressive range of more than 700 devices.
- Automated decoding of LoRa payloads locally in the **Tower** gateway.





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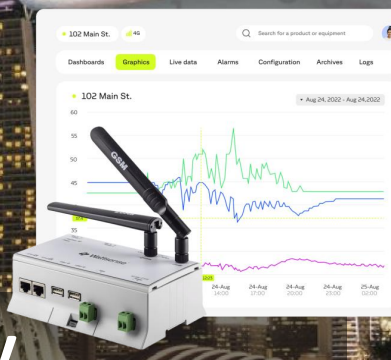


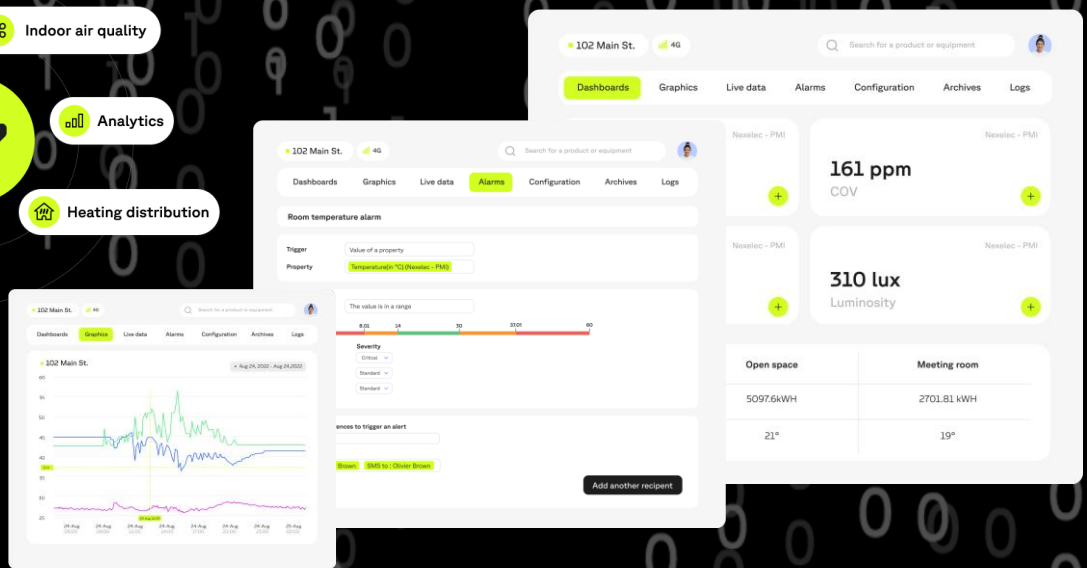
Universal IoT Gateway

Access data and monitor your building from anywhere

Tower subscriptions - Choose a plan that's right for your building.

IoT	Small	Medium (Most popular)	Large
Take the first step into IoT integration	Digitally transform small buildings	Scale with more data access	Take building management to the next level
LoRaWAN connectivity	Everything in IoT, plus	Everything in Small, plus	Everything in Medium, plus
Local server	+	+	+
Data points included	Wired connectivity for meters	Wired connectivity for all equipment	Points included
100 included Up to 200 optional		+	1 000 included Up to 10 000 optional
4G SIM card & data plan		Points included	+
Alarms, schematics, graphs		200 included Up to 400 optional	Satellite Option
Configuration wizard		+	
Devices fleet management		Satellite Option	
API integration			

Facility Management · Indoor air quality · Analytics · Monitoring · Heating distribution · Regulation compliance



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Universal IoT Gateway

Access data and monitor your building from anywhere

IN Protocols (Client)	OUT Protocols (Server)
• LoRaWAN • BACnet IP • Modbus • KNX • M-BUS • LON • LPB • Diematic	• BACnet IP • Modbus IP • MQTT

Interfaces	Drivers
• LoRaWAN module 863MHz to 928MHz • KNX • M-Bus • LPB/BSB • 3G/4G Modem • 2 Ethernet ports RJ45 • 2 RS485 • 2 USB • USB Micro	• LoRaWAN 1.0 local private • BACnet IP, BACnet IP Server • Modbus TCP/IP • MQTT Client • KNX S and LTE • Modbus RTU • LON FT10, LON IP-852 • M-Bus • wM-Bus • LPB • Diematic

Software	Security
• Secured Linux Yocto distribution • Onboard LoRaWAN server decodes LoRa data locally directly in the Tower • Automatic discovery of BACnet objects • Easy configuration via remote console • Scheduler wizard	The Tower optionally connects to your MQTT broker with highest level of security based on SSL/TLS, with the following properties: • Two-way authentication between the Tower and server with x509 certificates • End-to-end encryption, integrity checks

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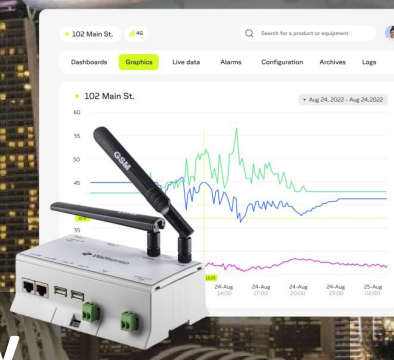

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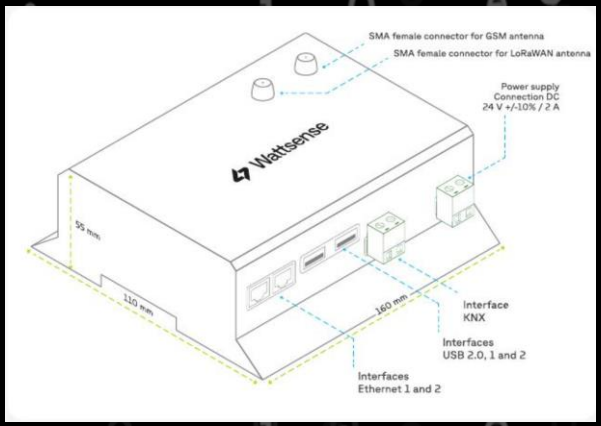

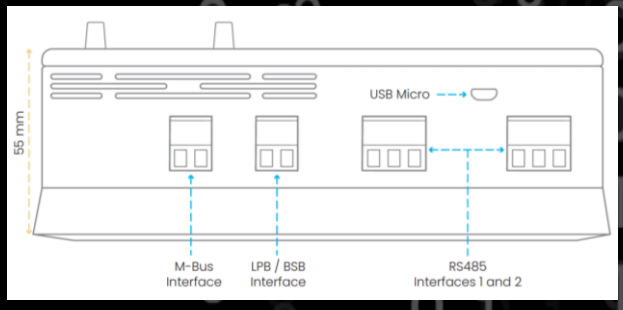

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