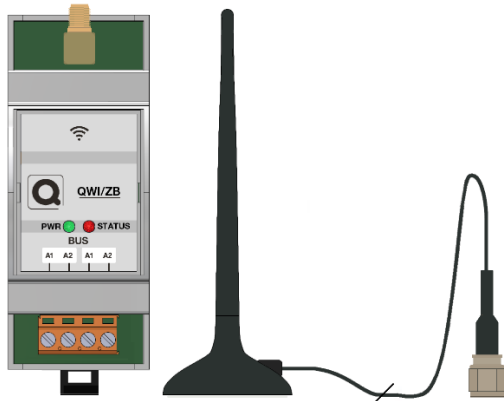# Qbus

Qbus Wireless Interface Zigbee (QWI/ZB)

1. Product description

The Qbus Wireless Zigbee® Interface (QWI/ZB) serves as the link between the Qbus system and compatible wireless devices. This allows you to connect up to 50 Qbus wireless Zigbee® modules and certain products from other manufacturers that operate on the Zigbee® protocol to a Qbus system (see annex 1). You can use this as a wireless expansion to the Qbus system and/or transform a traditional wired installation into a smart Qbus system.

This enables you to utilize various control options within the Qbus system, both inside and outside the home or building, using applications like Qbus Control. The module comes with an external antenna, allowing the antenna to be optimally positioned.

The QWI/ZB, with its Zigbee® network, can even be combined within the same Qbus system with a QWI/EW. These two distinct RF systems can be simultaneously used within a single Qbus installation. Easywave modules are not compatible with Zigbee®, and therefore not with the QWI/ZB, but you can link them to the same Qbus system where the QWI/ZB is connected using a QWI/EW. This allows you to combine the benefits of both RF systems within one Qbus system, whether or not combined with Qbus wired modules. To use the QWI/ZB, connection to the Qbus bus from a CTD controller is required..

Zigbee® modules that are powered can relay the signal of another Zigbee® module, allowing commands to be transmitted to and from the QWI/ZB through a network of Zigbee® modules. This significantly extends the distance to the QWI/ZB or allows the signal to reach Zigbee® participants within a building via an indirect path. The QWZ modules each have their own range. Battery-powered Zigbee® participants typically have limited range, but their signal can be relayed by mains-powered participants. Participants powered via the mains have a greater range. Check the technical specifications of the Zigbee® participants you are connecting to understand their range.

Because the Zigbee® protocol involves bidirectional communication, the Qbus wireless Zigbee® range offers applications like multi-zone heating control using wireless thermostats, energy monitoring, and more. You can choose to apply the wireless range in scenarios such as "aging in place," creating ambiances, energy management, and security, among others.

2. Safety instructions

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Read the complete manual before installing and activating the module.

WARNING

- Installation, commissioning, and maintenance of the devices must be carried out by a certified electrician in accordance with applicable legal requirements.
- This device is exclusively suitable for DIN rail mounting according to EN50022. It should be installed in a fire-resistant distribution board with ventilation holes.
- Do not open the device. Warranty becomes void if the module is opened.
- This module is only compatible with Qbus Zigbee® participants and the explicitly mentioned participants listed in annex 1 of this technical specification.

3. Installation & wiring

CAUTION: DISCONNECT POWER SUPPLY TO THE MODULE BEFORE WORKING ON THE MODULE!

Clip the device onto the DIN rail in accordance with DIN EN50022.

Qbus bus cabling:
Any shielded cable with conductors of at least 2 x 1 mm² can be used as bus cable. The green shielded EIB cable is the recommended cable when the conductors are twisted in pairs to obtain a section of at least 2 x 1 mm².

Important: The bus cable must be shielded and grounded. Connect the grounding to the general building grounding.
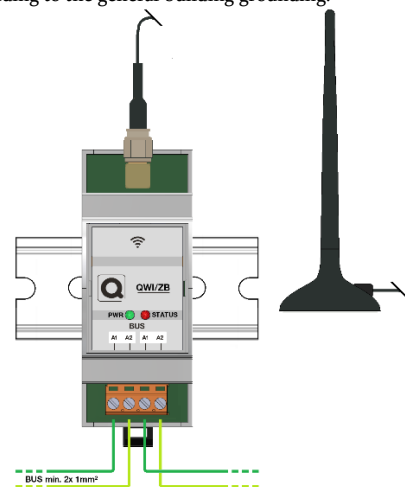
Power supply:
The QWI/ZB is fully powered by the Qbus bus.

Qbus Wireless Interface Zigbee (QWI/ZB)

LED indication on the module:
- **Green:** Power OK / Bus OK (below)
- **Red:** Status LED lights up for 2 seconds during startup and then during programming.

4. Technical data

General specifications
- Operating Temperature:
  Operating temperature: 10℃ to 50℃
  Storage temperature: -10℃ to 60℃
- Maximum humidity: 93%, no moisture condensation
- Peak power from bus: 20mA at nominal 13.8V
- Max. installation altitude: 2,000 meters above sea level.

QWI/ZB Connections
- Up to 50 QWZ products can be controlled by a single QWI/ZB module.
- Communication frequency: 2.4GHz via the included antenna.

Zigbee® RF signal distances (refer to technical data of respective product):
- Battery-powered participants, within building and same floor: 10m
- Battery-powered participants, within building different floor: 5m
- Battery-powered participants, outdoor: 15m
- Participant with 230V power supply, within building and same floor: 20m
- Participant with 230V power supply, within building to different floor: 15m
- Participant with 230V power supply, outdoor: 50m

Physical specifications:
- Enclosure: plastic, self-extinguishing according to UL94-V0
- Protection degree: IP20, EN60529
- Installation: quick mounting on DIN rail, width 2 modules
- Dimensions (H x W x L): 62 mm x 90 mm x 36 mm
- Weight: approximately 72g

CE:
- Non-toxic, in compliance with WEEE/RoHS
- Qbus declares that this product complies with all applicable European directives and regulations.
- The EU Declaration of Conformity can be accessed on our website www.qbus.be.

5. Explanation of symbols

Equipment where protection against the risk of electric contact is not solely based on basic insulation, but also on additional protection such as double insulation or reinforced insulation. There is no possibility of grounding.
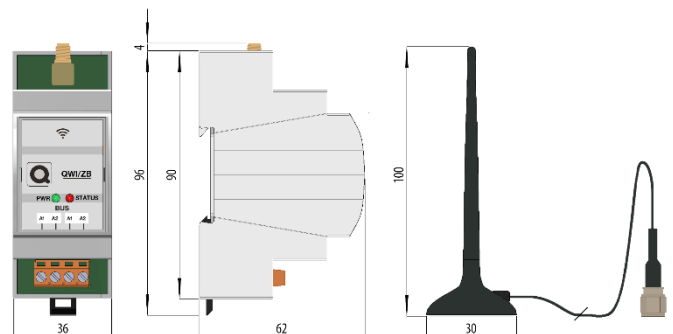
Before connecting the device, it is mandatory to read the manual of the respective product. ISO7000-0434

CE compliance. All declarations of conformity are available upon request.

6. Sizing diagram

7. Waranty provisions

Warranty period: 2 years from the date of delivery. The warranty is no longer valid if the module has been opened! The warranty period is extended by 2 years if the module has been installed by an authorized Qbus installer.
In case of defects, Qbus support should be contacted first. In case of defects, modules should be sent without the seal to our service department:

Qbus NV
Joseph Cardijnstraat 19
B-9420 Erpe-Mere
Tel: +32 (0)53 60 72 10
Fax: +32 (0)53 60 72 19
Email: support@qbus.be

Qbus Wireless Interface Zigbee (QWI/ZB)

Annex 1: Compatible Zigbee® products

Brand / Product	Type	Art nr.	Compatible from
Qbus	Wireless Zigbee® Outlet	QWZ-PPE/BE	01/09/2023
Qbus	Wireless Zigbee® Decentralized Dual Relay	QWZ-REL02/230	01/09/2023
Qbus	Wireless Zigbee® Radiator Valve	QWZ-RAD	01/10/2023
Qbus	Wireless Zigbee® Room Thermostat	QWZ-THT	01/10/2023
Niko®	Connected single switch, base, 10A, Zigbee®	552-72101	01/12/2023
Niko®	Connected double switch, base, 10A, Zigbee®	552-72102	01/12/2023
Niko®	Connected switching socket outlet, 16A, Zigbee®	170-33505	01/12/2023
Niko®	Wireless battery-powered switch, onefold, Zigbee®	552-72001	01/12/2023
Niko®	Wireless battery-powered switch, twofold, Zigbee®	552-72002	01/12/2023
Niko®	Wireless battery-powered switch, fourfold, Zigbee®	552-72004	01/12/2023