# Q.bloxx EC BC

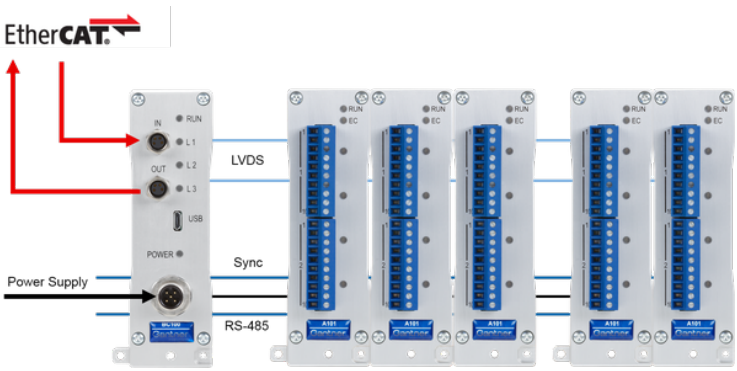
## Bus coupler for connection to EtherCAT Modules

The Q.bloxx EC brings the high precision and performance of Q.bloxx to EtherCAT-based applications. Q.bloxx EC measurement modules possess integrated signal conditioning and arithmetic functions, packaged in environmentally secure (up to IP65), DIN Rail mountable enclosures that easily snap together for system expansion. With measurement speeds of up to 100 kHz per channel, short cycle times, and low jitter for accurate synchronization, Q.bloxx EC is the ideal solution for EtherCAT applications.

- CoE (CAN over EtherCAT) according to Modular Device Profil ETG.5001.1
- XFC technology for oversampling, oscilloscope function, cycle times 1 ms up to 0.1 ms, oversampling ≤100
- Configurable PDO Mapping to optimize the data throughput
- Module Configuration via SDO or FoE and alternative via configuration software
- Modular design for DIN Rail Mounting


## Key Features

- **Bus coupler for connection of the modules Q.bloxx EC**
  Converting of the defined by EtherCAT LVDS (Low Voltage Differential Signal) on standard Ethernet
- **Connection of up to 10 I/O-Modules**
  Power supply and interface link for up to 10 modules
  (up to 80 measuring channels) via the rear industry-standard connectors
- **EtherCAT IN/OUT**
  4-pin M8 connectors A-coding Tx+, Rx+, Rx-, Tx-
- **USB interface for configuration**
  Micro USB to configure the Q.bloxx EC measurement and I/O modules using the configuration software ICP100
- **Power supply of the modules 10 VDC up to 30 VDC**
  M12 connector for the supply of the bus coupler and of max. 10 connected measurement and I/O modules
- **Communication LED**
  4 LEDs indicate the Status RUN and communication
  ECIN, ECOUT and LVDS



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## Technical Data

### Power Supply

| | |
|---|---|
| Input voltage | 10 to 30 VDC, overvoltage and overcurrent protection |
| Power consumption | approx.. 2 W, additional 4 W for each module, max. 45 W |
| PE connection | it is strongly recommended to connect PE (Protective Earth) on the front panel |

### Environmental

| | |
|---|---|
| Operating temperature | -20°C to +60°C |
| Storage temperature | -40°C to +85°C |
| Relative humidity | 5 % to 95 % at 50°C, non-condensing |

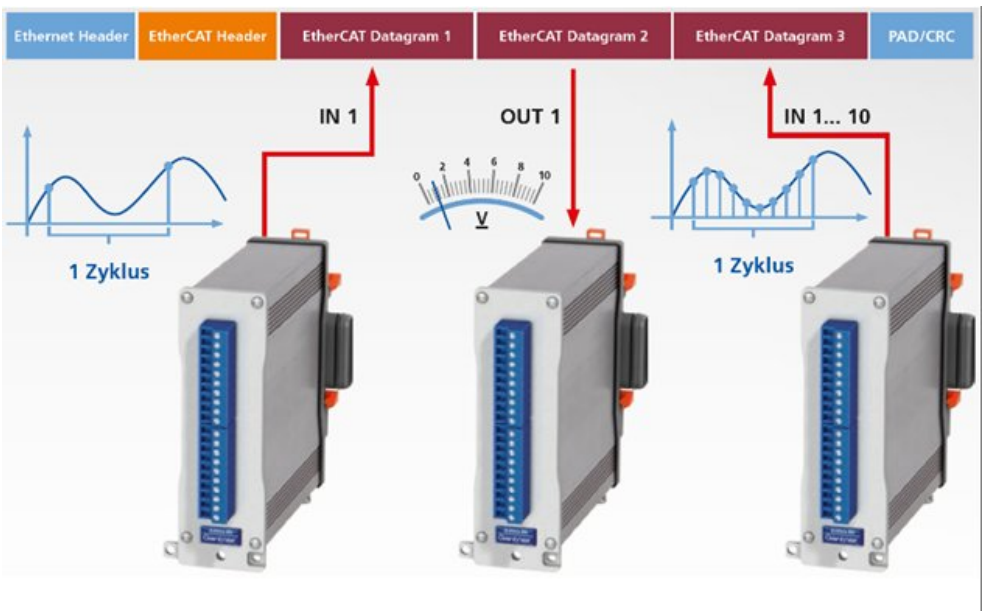
### Mechanical Information

| | |
|---|---|
| Material | Aluminum and ABS |
| Measurements (W x H x D) | 35.6 x 118.8 x 162 mm |
| Weight | approx. 400 g |

### Oversampling

EtherCAT also enables transmitting of very high data rates at low bus cycle by over sampling. In this case, a higher number of values of one channel per PDO transmitted so as to reduce protocol overhead.

Example: bus cycle 1 kHz, 100 times over sampling
= > 100 values are transferred per bus cycle
= > effective sample rate 100 kHz




### Ordering Information

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|---|---|
| Article number | 410219 |

Gantner Instruments

Austria | Germany | France | Sweden | India | USA | China | Singapore
Montafonerstraße 4 · A-6780 Schruns · T +43 55 56 · 77 463-0

office@gantner-instruments.com
www.gantner-instruments.com