BC10XXU

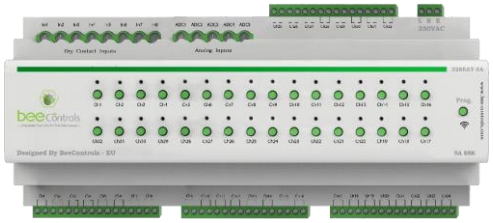
MQTT I/O CONTROLLER

Wi-Fi | 4 to 32 Outputs | 8 Digital + 5 Analog Inputs

DESCRIPTION

The BC10XXU is a universal MQTT I/O controller over Wi-Fi, with relay outputs, 8 dry-contact inputs and 5 analog inputs, for smart-building automation.

It is available with 4, 8, 16, 20, 24 or 32 outputs, is powered from 220 VAC and works with any MQTT broker, exchanging data with KNX sensors and the BeeControls IoT platform. Protection circuits guard against short circuit, overvoltage and overtemperature.



Applications

- **Lighting:** any output can switch a lighting circuit.
- **Heating:** any output can switch heating on/off, from the platform or from sensors wired to the inputs.
- **Pumps, valves, parking barriers and e-locks** can be driven from any output.
- **Shutters and blinds:** two consecutive outputs work together as one shutter/blind channel.
- Per-output timing functions, input monitoring, working-hours schedules and status feedback for each channel.
- Last-state memory: outputs return to their previous state after a power failure.
- If communication fails, every output can still be operated with its manual button.

Configuration

The complete configuration is done from the controller's built-in web interface.

Default IP addresses: LAN 192.168.1.130, Wi-Fi 192.168.1.133, access-point mode 192.168.1.135. Subnet mask 255.255.255.0, gateway 192.168.1.1.

Manual control & status LEDs

Each output has a push button for manual testing and control of the connected load. Manual control has priority over commands from the MQTT server. The green LED of each button is on while that output relay is closed.

Mounting & Safety Instructions

- The device should only be installed and put into operation by a qualified electrician or authorized person.
- Failure to observe these instructions may damage the device and may result in fire or other hazards.
- Do not connect the digital inputs to any external voltage source.
- Mount on a 35 mm DIN rail.
- Ensure adequate insulation and separation between 230 VAC cables and the input/communication cables.
- Install only in dry indoor locations. Do not expose the device to direct sunlight, rain or high humidity.
- Do not use aerosol sprays, solvents or abrasives that may damage the device.
- The device must remain accessible for operation and visual inspection.

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Technical Data

Electrical Parameters	BC1004U	BC1008U	BC1016U	BC1020U	BC1024U	BC1032U
Relay Outputs	4	8	16	20	24	32
Digital Inputs (dry contact)	8	8	8	8	8	8
Analog Inputs (max. 3.3 V)	5	5	5	5	5	5
Power Consumption	3 W	5 W	10 W	14 W	16 W	18 W
PCB Size (W × D, mm)	90 × 86	90 × 115	90 × 250	90 × 250	120 × 250	120 × 380

Parameter (all models)	Specification
Power Supply	220 VAC, 50–60 Hz
Output Current	10 A at 240 VAC
Contact Resistance	100 mΩ (at 1 A, 6 VDC)
Max. Switching Power per Channel	210 W
Interfaces	Wi-Fi; Ethernet and RS485 (optional)
Protocols	MQTT, Modbus, TCP, HTTP & ASCII

Environmental & Device Parameters

Parameter	Specification
Operating Humidity	< 90% RH
Storage Humidity	Up to 92%
Operating Temperature	-10 °C to +60 °C
Storage Temperature	-15 °C to +70 °C
Transport Temperature	-15 °C to +85 °C
Protection Type	IP20
Wireless Communication	Wi-Fi
Mounting	35 mm DIN rail
Flammability	Non-flammable product
Height	90 mm
I/O Connector	0.6–0.8 mm Ø, solid
Output Connectors	Screw terminal, 2.5 mm² stranded to 3 mm² solid
Tightening Torque	Maximum 0.5 Nm
Available Colors	Transparent Black & Transparent Light Gray

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