

SHUTTER MODULE WITH POSITIONING ROL02P



Figure 1 : Shutter module ROL02P

1. Product Description

Module for DIN-rail, suitable for switching and positioning 2 shutters / blinds / curtains. The shutter module has 2 up/down outputs (2 shutters can be connected on a ROL02P module).

The shutter motors that can be connected to the ROL02P need to be 230Vac motors, with a minimum load of 40VA and a maximum load of 500VA. The shutters also need to have limit contacts, as this will be important for the calibration of the shutters. The ROL02P will not allow mutual signals on UP1(/UP2) and DN1(/DN2) when activating the 2 outputs at the same time.

The ROL02P can be positioned between 0% and 100% of the runtime. An internal calibration mechanism calibrates each shutter every time it opens or closes completely – i.e. each time it reaches the top and bottom limit contact. This calibration ensures that the position of the shutter remains accurate over time.

Each module has a unique serial number enabling programming anywhere and anytime.

A bipolar automatic fuse of a maximum of 16A must be placed on the mains power.

Warning:

- **the ROL02P can only be used with a CTD01(E), CTD02(E) or CTD03(E) controller.**
- **The limit contacts have to be manually adjusted before connecting the ROL02P module. Qbus is not responsible for any damages caused due to no / wrong adjustment of the limit contacts.**

2. Safety Instructions

Read the complete manual before carrying out the installation and activating the system.



WARNING

- The device must be mounted, commissioned and maintained by an authorised electrician in accordance with the country-specific regulations.
- This device is exclusively suitable for DIN-rail mounting EN 50022. It must be mounted in a fire-enclosure with ventilation holes.
- A safety disconnection of the device must be possible. Before carrying out the installation the ROL02P should be de-energized.
- Only one phase is fused. In case the fuse is blown hazardous live voltage can still be present in the ROL02P.
- The device must not be opened.
- Electrical shock when live parts are touched.
- Preventive maintenance of the module is not required.

3. Mounting and wiring

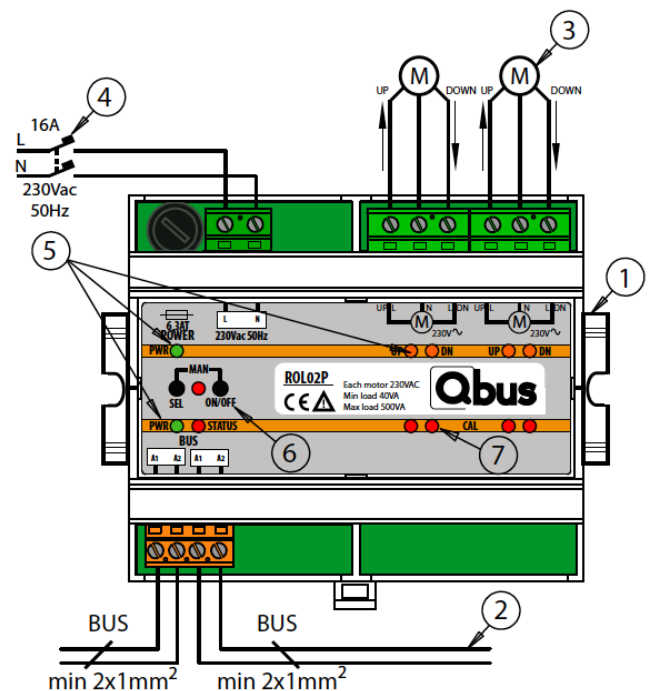


Figure 2 : Connection example for mains voltage and loads

FITTING ①:

Snap device onto DIN rail to DIN EN 50022.

BUS WIRING ② :

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It is recommended to use the Qbus cable or any other cable with minimum 2 x 1mm² conductors as a bus lead. The green protected EIB wire is also allowed when the conductors are guided per 2 in order to obtain a section of minimum 2 x 1mm².

IMPORTANT : THE BUS CABLE SHOULD BE SHIELDED AND GROUNDED! THE GROUNDING SHOULD BE CONNECTED TO THE OVERALL GROUNDING OF THE BUILDING.

LOAD CIRCUITS ③ :

Connect the loads according the connection example (Figure2). Conductor cross section : 1,5mm². Both solid and stranded wire can be used as conductor.

Remove approx 7mm of insulation from the wire and screw it into the terminals UP1/2 – DN1/2.

POWER SUPPLY ④ :

A bipolar automatic fuse of a maximum of 16A must be placed on the mains power 230Vac.

Conductor cross section : 1,5mm².

Remove approx 7mm of insulation from the wire and screw it into the terminals Ph-N.

WARNING :

BEFORE WORKING ON THE DEVICE DISCONNECT THE SUPPLY VOLTAGE.

LED INDICATION ⑤:

Green LED “PWR”: power supply.

Red LED “STATUS”: start-up 2 seconds and during programming.

Orange LED “UP” “DN”: Up1 / Down 1 /Up2 / Down 2 active.

Red LED “CAL”: Calibration of the shutters

MANUAL OVERRIDE ⑥:

Used to override the bus-steering of the relays. Press both the “SEL” and the “ON/OFF” button at the same time on the cover of the relay for 2 seconds. While pushing the buttons, the red led in between these buttons will flash for 2 seconds and then turn to constant red while the orange led under the first relay output will start flashing fast.

Pushing the “on/off” button, the respective relay indicated by the flashing LED can be set on manual on, disable or automatic (controlled by the bus). The setting will be indicated by the orange led:

- Manual on = flashing long on, short off
- Disable = flashing short on, long off
- Automatic = constant on

By pushing the “SEL” button you can move between the relays – from 1 to 4.

The Up and Down contacts for each shutter are linked together when manual overriding the shutters; this to

prevent that Up and Down contacts are initiated simultaneously. When the Up contact is manually overruled to be always on, the Down contact will automatically be disabled so it can't be steered by the bus (and vice versa). See table below:

UP	affects	DOWN
Manual On = UP	→	Disabled
Disable	↔	Disabled
Automatic	↔	Automatic
Disable	←	Manual On = DOWN

If during 5 seconds nor the SEL button nor the ON/OFF button is being pushed, the red LED between the two buttons will be turned off and the SEL or the ON/OFF buttons can no longer be used. On the module, the status of the outputs will be visible (flashing fast, flashing slow, steady).

Pushing at the same time the “SEL” and the “on/off” button for 5 seconds (red led between buttons will be flashing for first 2 seconds, then will be constant red for 2 seconds and then turn off) will erase the manual settings on all relays of the ROL02P so all relays will work automatically again.

CALIBRATION ⑦:

Red LED constant on: that direction from the shutter has not yet been calibrated. In order to calibrate the UP direction, the shutter needs to have been opened completely (from completely closed so both bottom and top limit contact have been activated), and vice versa to calibrate the DOWN direction.

Red LED flashing: calibration ongoing

Red LED out: calibration is OK.

4. Technical Data

GENERAL SPECIFICATIONS :

- Power supply : 230Vac +-10%, 50Hz - maximum protection 16A/2P
- Insulation voltage : 3KV tested
- Characteristic consumption : 2.8VA
- Ambient temperature :
Working temp. range : 10°C to 50°C
Storage temp. range : -10°C to 60°C
- Maximum humidity : 93%, no moisture condensation
- Bus load : 10mA at nominal 13,8V
- Internal fuse : 6,3AT single-phase
- Max installation altitude : 2.000m

OUTPUTS :

- UP1/2 – DN1/2 : 230V
- UP1 – DN1 and UP2 – DN2 : internally locked contacts
- Contact resistance :470mΩ

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- Set/Reset time : 15ms max / 5ms max
- Endurance : 20mil. operations
- Minimum load: 40VA on 230Vac
- Maximum load: 500VA on 230Vac
- Shutter motor minimum runtime: 6 seconds
- Shutter motor maximum runtime: 22 minutes.
- The relays can only be used for 10% of the time or 2 minutes continuously; if the relays are used for an extended period of time the shutter motor will automatically lock itself into a safety mode in order to avoid overheating.

PHYSICAL SPECIFICATIONS

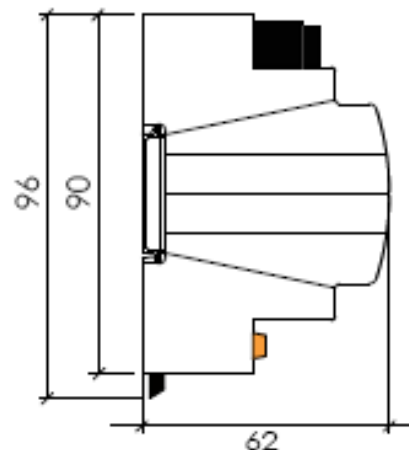
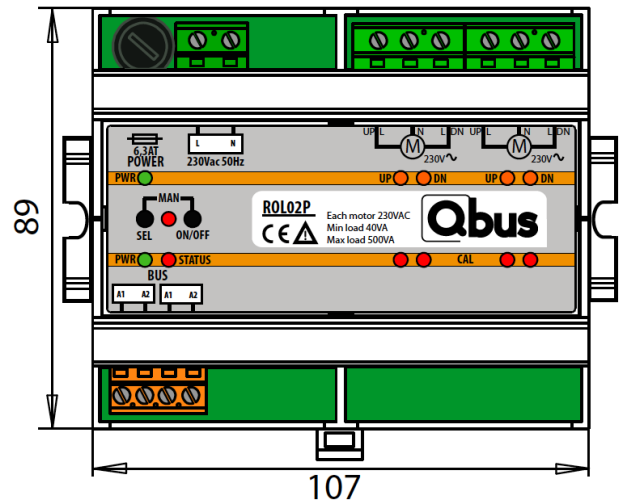
- Housing : Plastic, self-extinguishing acc. to UL94-V0
- Protection Degree : IP20, EN 60529
- Installation : rapid mounting on DIN-RAIL, width 6 modules
- Dimensions (HxWxL) : 62mm x 89mm x 107mm
- Weight : approx. 0,386 kg

ELECTRICAL SAFETY

- Bus : 13,8VDC safety extra low voltage (according EN 60950 – 1 : 2006)
- Dielectric strength : 3.000VAC, 50/60 Hz for 1 min
- Non-toxic WEEE/RoHS compliant

CE

- Complies with the EMC regulations and low voltage regulations. The device complies with HBES – EN 50090-2-2 and EN 60950 – 1 : 2006.



5. Dimension Diagram

Dimensions in mm.
 Width = 6 modules.
 1 Module = 17 mm.

6. Guarantee provisions

Period of guarantee : 2 years from date of delivery.
 Guarantee will not be accepted if the device has been opened!
 Any faulty devices should be send postage-free with a description of the defect to our central customer service office :

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