

ANALOG DIMMER MODULE ANA04



Figure 1 : Analog dimmer module ANA04

1. Product Description

Module for a DIN-rail, suitable for controlling four analog dimmers operating with input voltages of 0-10V or 1-10V (can be selected via System Manager Software). The control contains four digital-analog converters with 8 bit precision. An optical separation between the inputs and outputs guarantees safe operation. This module can be used for dimming very large capacities.

The control and programming occurs following the same principle as the dimmer DIM04. Set as a one-button dimmer it is possible to reduce the number of control buttons with, however, the disadvantage that the cycle must always be completed : starting from zero to maximum and back to zero. Set as a two-button dimmer you need a + and a – button and this will enhance your operating comfort. When you keep a button pressed in, the transit time from zero to maximum is 5.1secs. A short pulse (< 0.3secs.) will take the dimmer to zero or to the maximum value in 2.5secs. The maximum value can be adjusted from 20 to 100%. The lighting can also be dimmed automatically after a set time of 1 sec to 255mins. Ideal for bedrooms...

If the dimmers are controlled by a sequence the rise time and fall time can be adjusted independently between 0.3seconds and 20minutes.

Each module has a unique serial number enabling programming anywhere and anytime. After a voltage cut-off the outputs return to their latest position.

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

2. Safety Instructions

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



WARNING

- The device must be mounted and commissioned 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 closed distribution board and should be well ventilated. Heat dissipation must be ensured.
- A safety disconnection of the device must be possible. Before carrying out the installation the ANA04 should be de-energized.
- Only 1 phase has a fuse. Even in case the fuse is blown, there module might still be powered.
- The device must not be opened. The guarantee will be void if the device has been opened.
- Electrical shock when live parts are touched.

3. Mounting and wiring

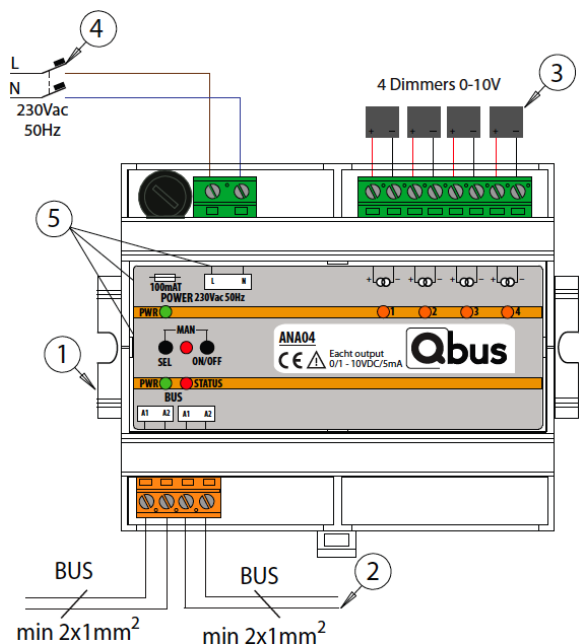


Figure 2 : Connection example for mains voltage and loads

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 (Figure 2). Conductor cross section : minimum 1,5mm². Remove approx 7mm of insulation from the wire and screw it into the terminals OUT1 – OUT4.

IMPORTANT :

THE CONTROL VOLTAGES OUT1-4 MUST NOT BE CONNECTED TO THE MAINS. THE NEGATIVE TERMINALS ARE INTERNALLY LINKED.

POWER SUPPLY ④ :

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

Conductor cross section : minimum 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 light : power supply.

Red light : start-up 2 seconds and during programming.

Orange OUT1-4: outputs active

MANUAL OVERRIDE:

Used to override the bus-steering of the outputs. Press both the “SEL” and the “ON/OFF” button at the same time on the cover of the module 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 output will start flashing fast. Pushing the “on/off” button the output can be set on manual on, manual off, or automatic (controlled by the bus). The setting will be indicated by the orange led:

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

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

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 outputs of the module so all outputs will work automatically again.

4. Technical Data

GENERAL SPECIFICATIONS :

- Power supply : 230Vac +-10%, 50Hz - maximum protection 16A/2P
- Insulation voltage : 3 KV tested
- Characteristic consumption : 1,5VA
- 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 500mAT single phase
- Max installation altitude : 2.000m

OUTPUTS :

- OUT1 – OUT4 : analog outputs 0-10V or 1-10V.
- Each output can handle:
 - Max 5mA (source; 0-10V)
 - Max 100mA (sink; 1-10V)

PHYSICAL SPECIFICATIONS

- Housing : Plastic, self-extinguishing according to UL94-V0
- Protection Degree : IP20, EN 60529
- Installation : rapid mounting on DIN-RAIL, width 6 modules
- Dimensions (HxWxL) : 62mm x 90mm x 107mm
- Weight : approx. 0,321 kg

ELECTRICAL SAFETY

- Bus : 13,8VDC safety extra low
- Complies according the LVD EN60950 – 1 : 2006
- Dielectric strength : module has been tested (and approved) 3kVac.(50 Hz, 1 min)
- Non-toxic WEEE/RoHS compliant

CE

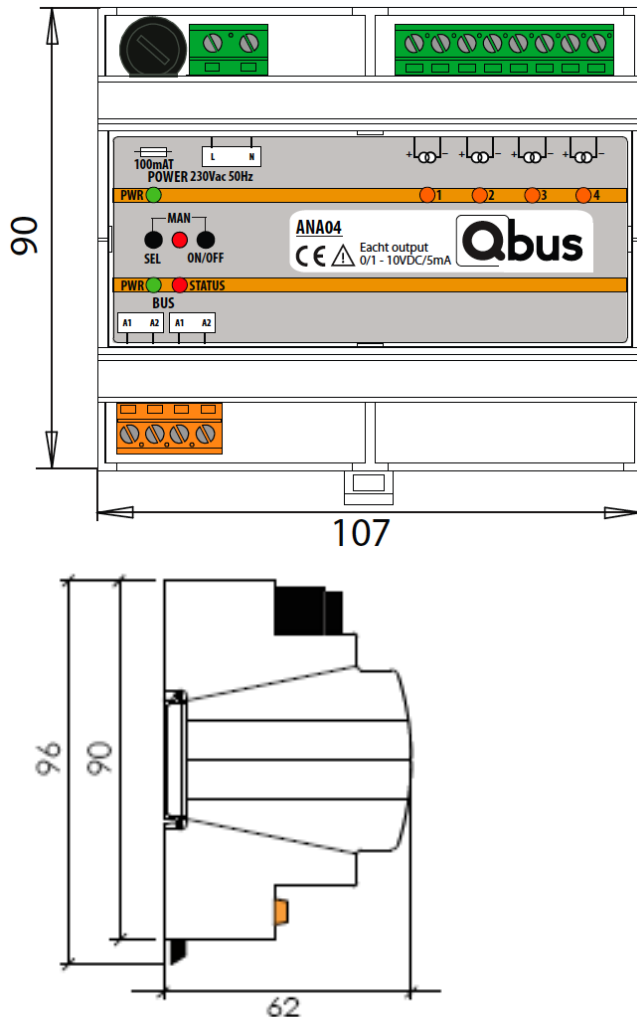
- Complies with the EMC regulations and low voltage regulations. The device complies with HBES – EN 50090-2-2 and EN 60950 – 1 : 2006.

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5. Dimension Diagram

Dimensions in mm.

Email : support@qbus.be



Width = 6 modules.
1 Module = 17mm.

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 :

QBUS N.V.

Joseph Cardijnstraat 19
9420 Erpe-Mere
Belgium
T +32 53 60 72 10
F +32 53 60 72 19