

AGNOSYS

PRODUCT SPECIFICATIONS

AGNOSYS Series F BR V1.0 BRC-10-M BRC-10-SL

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1 History

Date	Editor	Description
01.09.2012	MAR	First version.
18.07.2013	MAR	Various small changes
22.08.2013	MAR	BKC-> BRC, remove photos, project change
19.12.2013	HAM	New photos, various data changed
10.06.2014	MAR	Technical changes, new CD
27.10.2014	LG	Typing errors, uniformity
07.07.2015	LG	Typing error, update
28.10.2015	LG	Controller update
11.05.2016	MAR	Various technical additions
24.05.2016	MAR	Technical additions
11.11.2016	LG	Update figures; release status
15.11.2016	MAR	Supplement pin assignment
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14.05.2021	SPA	Supplement supply via BxN

2 Content

1 HISTORY	2
2 CONTENT	2
3 GENERAL INFORMATION	3
4 SAFETY REGULATIONS	4
5 ASSEMBLY	4
6 WIRING DIAGRAM	6
7 TECHNICAL DATA	8
8 DESIGN VARIANTS	9
9 SUPPLY OF CONTROLLER AND BUSRING	9

3 General information



BRC-10-M



BRC-10-SL

The Agnosys controllers BRC-10-M (= master) and BRC-10-SL (= slave) work together in the master-slave principle and form the central units of the AGF V1.0 BR system.

The communication between the controllers, the fire panel (BRF-10-FW-S0x) and the LAN-based IO modules takes place via Ethernet. The connection to the fire alarm panel (BRF-10-A-S) is realised via conventional wiring at the communication interface (BRT-10-S). One BRM bus ring per controller is controlled via serial interface through the communication interface.

The controllers work together with the communication interface (BRT-10-S). This contains the interface to the ring bus and a series of digital inputs and outputs.

The functions of the controllers at a glance:

General:

- Operation of up to 126 modules on the bus ring
- Operation of up to 126 actuator modules (BRM-10-x)
- Operation of up to 47 IOM modules (IOM-10-x)
- Monitoring communication with all communication partners
- Logging of all operational and safety-relevant events, as well as all overrides
- Monitoring for ring breakage on the bus ring

Slave functions:

- Monitoring the bus ring communication and setting the corresponding control commands

Master functions:

- Management of up to 256 plant groups and 127 floors
- Operation of up to 16 controllers (1 master + 15 slaves)
- Operation of up to 16 Modbus/TCP IO modules of type IOM-35-LAN-16-8-S or fire panel - insertion masks.
- Automatic actuator test and generation of test reports per plant group/floor at the end of the damper test
- Connection to the BMS via Modbus TCP or BACnet.

4 Safety regulations

- The device must only be used for its intended purpose.
- Attention! Device is under voltage!
- The device may only be installed and commissioned by trained specialist personnel.
- The device may only be opened by the manufacturer. It does not contain any user-serviceable parts.
- The device contains electronic components and must not be disposed of in household waste.

CAUTION! The respective system design, installation, commissioning, modifications, extensions or other interventions in components, systems, software or parameterisation of plants or systems may only be carried out by AGNOSYS certified specialist companies!

Certified specialist companies have:

- Company certification as AGNOSYS partner for planning, parameterisation and commissioning of AGNOSYS products and systems. (Validity period: 2 years from date of issue).

5 Assembly

The controller is mounted vertically with the supplied 35mm DIN rail adapter.

It is mandatory to connect the GND flag to the top of the enclosure. - Place it together with the PE contact on the ground of the control cabinet.

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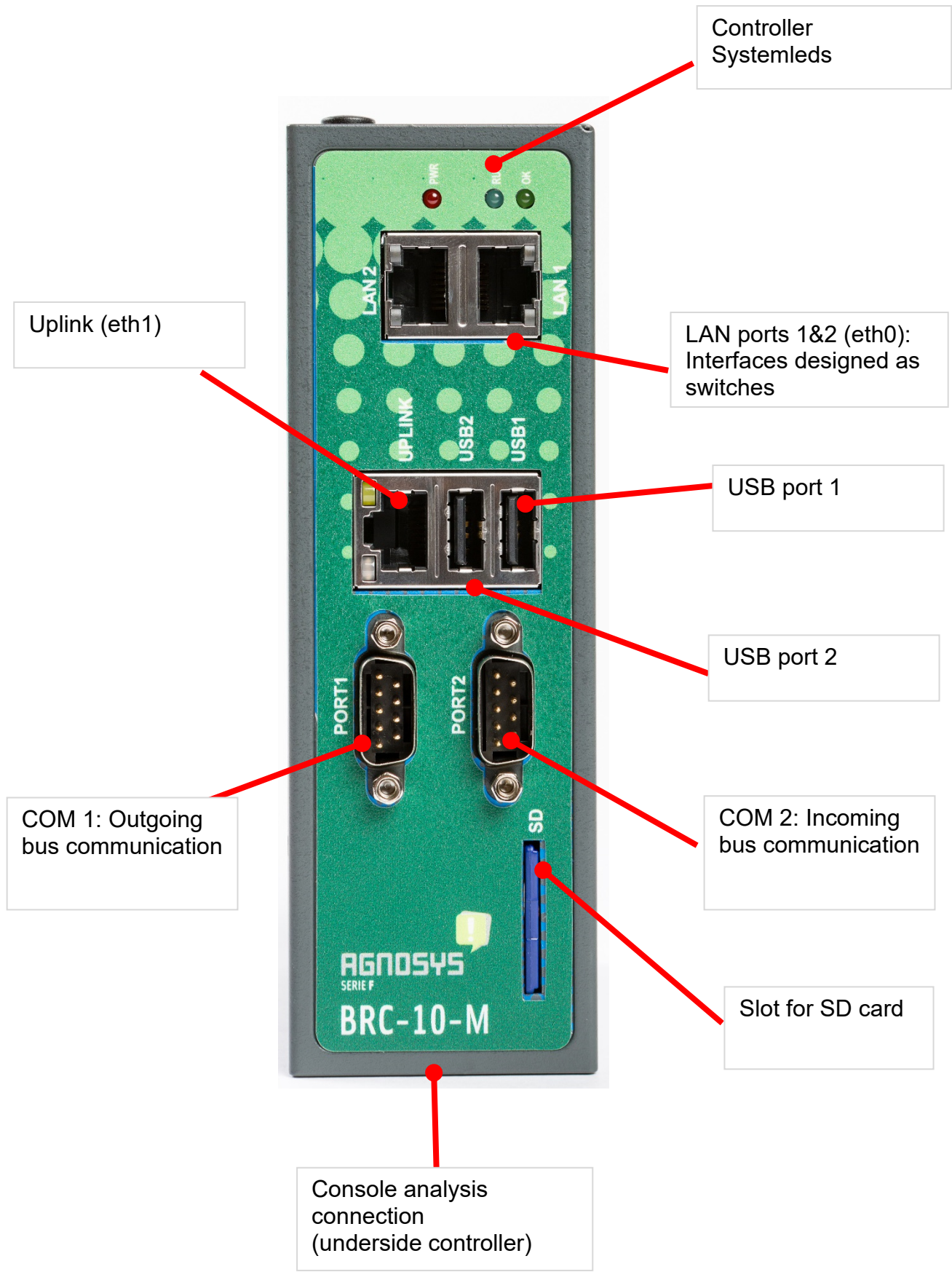
Mounting on the top-hat rail



Dismantling from the top-hat rail

6 Wiring diagram

The power supply to the controller is provided on the top of the controller with the supplied plug directly via the communication interface (=BRT-10-S).

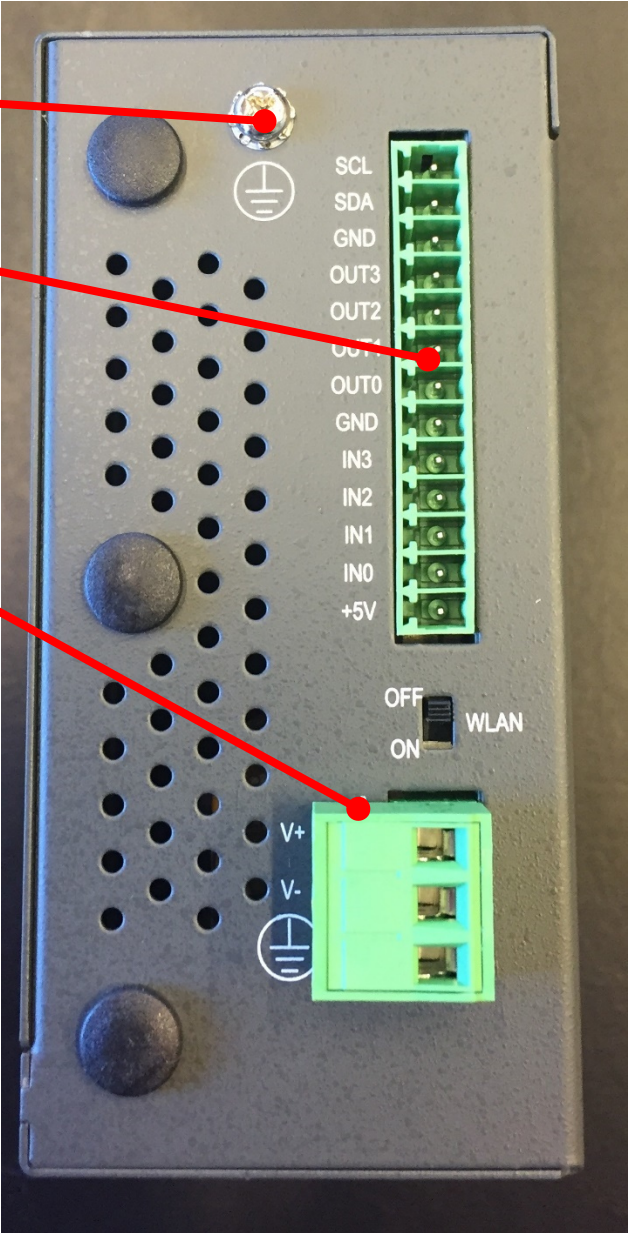


Ground lug housing

Terminal block without function

Power supply:

V+ ... +24VDC
V- ... GND
⏏ ... PE



Controller top view

7 Technical data

Electrical data	
Supply voltage	24VDC
Power consumption	800 mA
Degree of protection	IP20 (EN 60529)
Protection class	II
Connections	
Bus communication	2 x serial interface, RS232
USB	2x USB 2.0
Ethernet	3x Fast Ethernet (RJ-45)
Console	1x Serial to RJ-45
Power supply	+24VDC, GND, PE on plug-in screw terminal, GND flag on top of housing
Environment variables	
Permissible ambient temperature	-10 - 45°C
Permissible ambient humidity	10 - 90 % RH non-condensing
Dimensions (W x H x D) [mm]	
	50 x 164 x 118
Weight	
	Approx. 560 g

8 Design variants

Depending on the licensing, different versions are available. This means that a different number of ring bus modules can be integrated with the respective controller.

Article number	Max. No. Bus modules	Max. No. IOM
BRC-10-M/SL-light	5	5
BRC-10-M/SL-00	21	21
BRC-10-M/SL-01	63	47
BRC-10-M/SL-02	84	47
BRC-10-M/SL-03	105	47
BRC-10-M/SL-04	126	47

9 Supply of controller and BusRing

The AGNOSYS interfaces (BRT-10-S and BRT-10-S-light) are designed in such a way that they have separate power supplies for the bus ring output (module supply) and the internal logic supply for interface and controller (BRC-10-M-xx and BRC-10-SL-xx).

For high-availability systems or depending on national standards, it is therefore recommended to supply the controller, interface and modules separately. It is also recommended to always buffer the master controller via a UPS. The BRU-10-S component is available for this purpose.