AGNOSYS

AGNOSYS! Series F V3.5
BKC-35-M
BKC-35-SL

1 History

Date	Editor	Description
01/09/2012	MAR	First version
18/07/2013	MAR	Various small changes
10/06/2014	MAR	Adjustment of technical data, new CD
07/07/2015	LG	Typos, updating of IOM number bus-ring
28/10/2015	LG	Updating of controller type
11/05/2016	MAR	Various technical additions
24/05/2016	MAR	Technical additions
11/11/2016	LG	Updating of images; release status
15/11/2016	MAR	Addition: pin assignment
12/01/2020	DAA	Adaption system limits IOM

2 Contents

3 General Information

BKC-35-M

BKC-35-SL

The Agnosys BSK (fire-damper) controllers BKC-35-M (master) and BKC-35-SL (slave) operate jointly, according to the master-slave principle and form the central units of the AGF V3.5 system.

Communication between the controllers takes place via Ethernet, the connection to the BFSZ (fire control centre), the fire indicator panel (BKF-35-FW-S) and the monitoring panel (BKF-35-A-S) is realised via conventional wiring on the communication interface (BKT-35-S). One BSK (fire-damper) bus-ring is operated per controller via serial ports.

The controllers work in concert with the communication interface (BKT-35-S), which contains the interface to the ring-bus, as well as a number of digital inputs and outputs.

The features of the BSK (fire-damper) controllers at a glance:

General:

- Operation of up to 126 bus-ring devices.
- Operation of up to 126 BSK (fire-damper) modules (252 actuators) per controller.
- Operation of up to 47 IO modules via the bus-ring.
- Monitoring of communication with all communication partners.
- Logging of all operationally relevant events.
- Monitoring for ring disruption/failure on the BSK (fire-damper) bus-ring.

Slave features:

- Establishing the safe-status of the BSK (fire-damper) in case of a communications failure with the master.

Master features:

- Management of up to 256 equipment groups and floors.
- Operation of up to 16 controllers (1 master + 15 slaves).
- Operation of up to 16 Modbus/TCP IO modules of the type: IOM-35-LAN-16-8-S.
- Automated damper test and generation of test reports per equipment group/floor at the end of the damper test.
- Connection to the GLT via Modbus TCP or BACnet.

4 Safety Regulations

- The device may only be used for the specified purpose.
- Warning! The device carries live voltage!
- The device may only be installed and put into operation by trained specialists.
- The device may only be opened by the manufacturer. It does not contain any parts which the operator can maintain themselves.
- The device contains electronic components and may not be disposed of in general waste.

ATTENTION! The respective system design, installation, commissioning, changes, extensions or other interventions in components, systems, software or parameterization 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, parameterization and commissioning of AGNOSYS products and systems. (Validity: 2 years from the date of issue)

5 Mounting Instructions

The mounting of the controller is carried out with the 35mm DIN-rail adapter (included).

Connecting the GND-lead at the top of the housing is mandatory. – Connect it to the PE contact “earth” in the control-cabinet.

Mounting on a top-hat rail

Removal from a top-hat rail

6 Connection Plan

The power supply of the controller enters at the top of the controller through the plug (included) directly via the communications interface (=BKT-35-S).

Controller system-LEDs

Uplink (eth1)

LAN ports 1&2 (eth0): Interface executed as switch

USB port 1

USB port 2

COM 1: Bus communication outgoing

COM 2: Bus communication incoming

SD-card slot

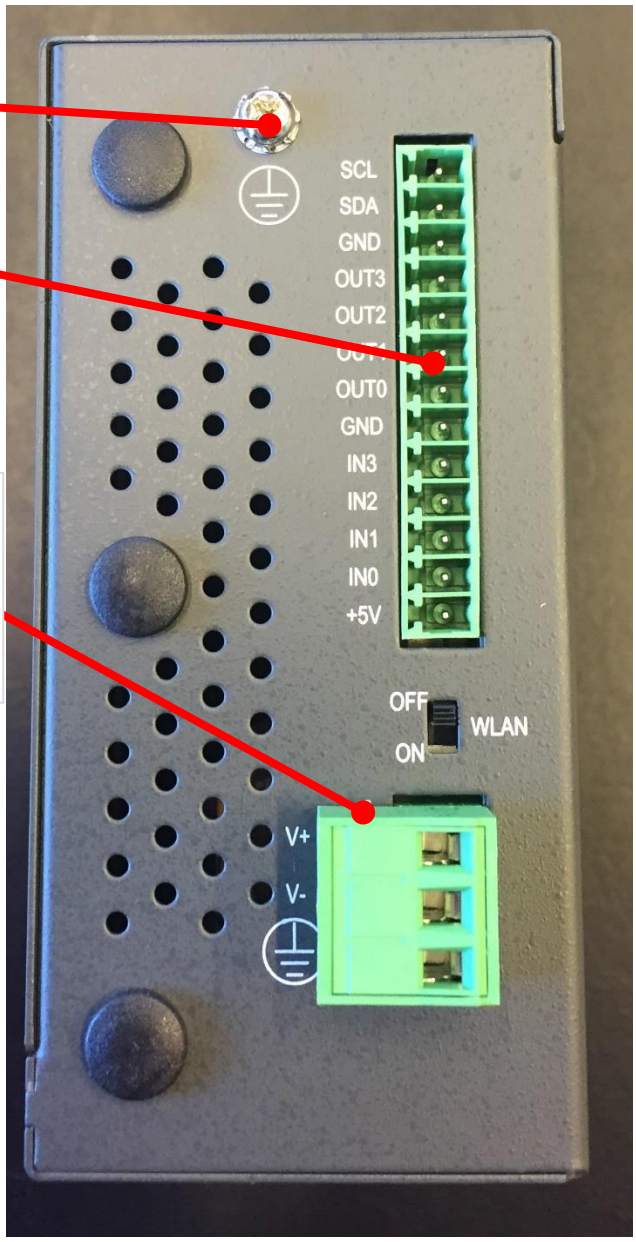
console analysis connection (bottom of controller)

Earth-lead housing

Terminal block without function

Power supply:

V+ … +24VDC
V- … GND
⏚ … PE



Controller top view

7 Technical Specifications

Electrical data	
Supply voltage	24VDC
Current consumption	800 mA
Protection rating	IP20 (EN 60529)
Protection class	II
Connections	
Bus communication	2 x serial ports, RS232
USB	2 x USB 2.0
Ethernet	3 x fast Ethernet (RJ-45)
Console	1 x serial on RJ-45
Power supply	+24VDC, GND, PE on screw/plug-in terminal, GND-lead at the top of the housing
Environment variables	
Permissible ambient temperature	-10 – 45°C
Permissible ambient humidity	10 – 90 % RH non-condensing
Measurements *(width x height x depth) [mm]*	
	50 x 164 x 118
Weight	
	Approx. 560g

8 Design Variants

Depending on licensing, different design variants are available. Thereby, a varying number of ring-bus modules can be integrated in the respective controller.

Product number	Max. No. bus modules	Max. No. IOM
BKC-35-M/SL-light	5	5
BKC-35-M/SL-00	21	21
BKC-35-M/SL-01	63	47
BKC-35-M/SL-02	84	47
BKC-35-M/SL-03	105	47
BKC-35-M/SL-04	126	47

9 Supply of Controller and BusRing

The AGNOSYS interfaces (BKT-35-S and BKT-35-S-light) are designed in such a way that they have separate power supplies for the BusRing output (module supply) and the internal logic supply for interface and controller (BKC-35-M-xx and BKC-35-SL-xx).
For high-availability systems or depending on national standards, it is therefore possible to supply the controller, interface and modules separately.