

AGNOSYS

PRODUCT SPECIFICATIONS

AGNOSYS Series F BR V1.0 BRT-10-S

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Agnosys GmbH	Date:	17.05.2022	Title: BRT-10-S	Pages
	Version:	01.14		
	Edited by:	FL		
	Reviewed by:	-		
	Reviewed by:	-		
			Project: A9888-A007 AGF BR V1.0	8

1 History

Date	Editor	Description
01.09.2012	MAR	First version.
18.07.2013	MAR	Various changes.
22.08.2013	HAM	BKT-> BRT, remove photos, project change footer
19.12.2013	MAR	Photos inserted, various data adjusted
10.06.2014	MAR	Technical changes, new CD.
27.10.2014	LG	Typing errors, uniformity
07.07.2015	LG	Number DI and DO
08.07.2015	RO	Connection diagram added
11.05.2016	MAR	Div. technical changes
11.11.2016	LG	Update figures; release status
04.04.2019	DAA	Update Figure BRT
13.05.2019	DAA	Update connection diagram
22.04.2020	MAR	Complement initial load
17.05.2022	FL	Minimum detection voltage

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3 General information



BRT-10-S

The communication interface BRT-10-S is the central interface between bus ring and controller. It can connect 17 digital inputs and send 13 digital outputs and always works together with a controller (BRC-10-x).

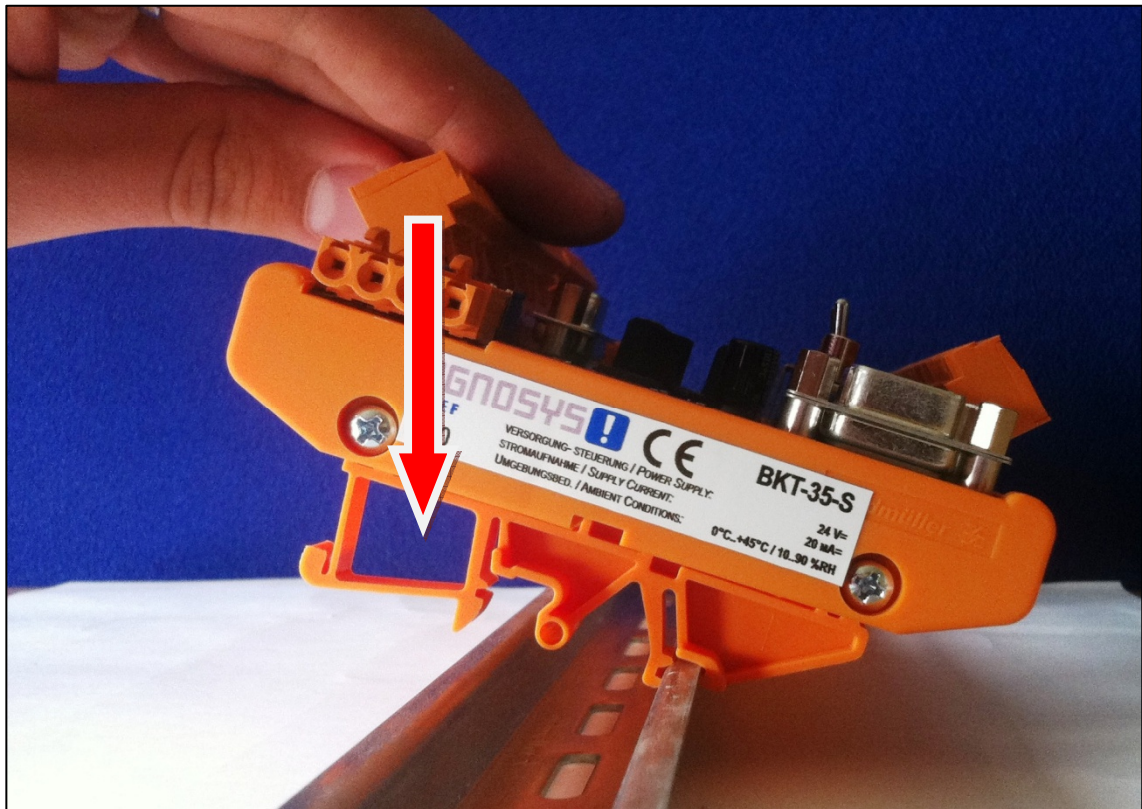
Function overview:

- Galvanic isolation bus ring - controller
- Conversion from RS232 to RS485
- Fuse protection of the control cabinet components via glass tube fuses
- Disconnection and connection of the termination resistors
- 14 digital inputs monitored for cable breakage and 3 normal digital inputs
- 12 digital outputs, GND-switching
- 1 potential-free output, relay contact; in connection with BRC Master designed as SSM
- Manual disconnection of the bus voltage

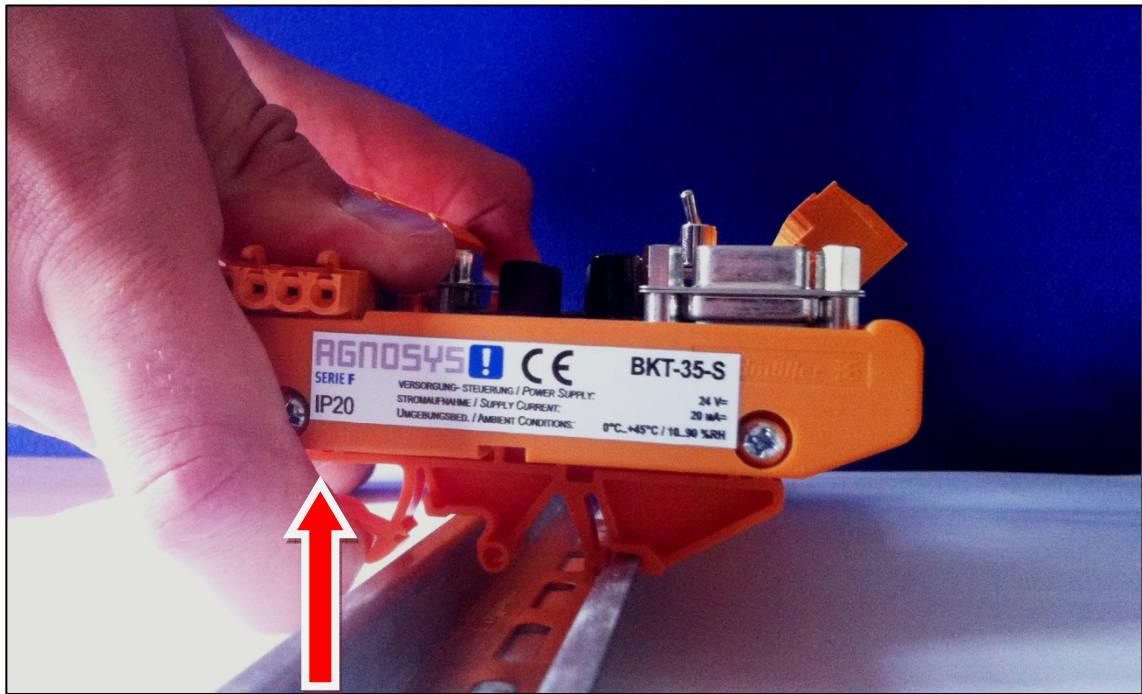
4 Safety regulations

- The device must only be used for its intended purpose.
- Attention! Device is under voltage!
- The device may only be installed and put into operation by trained specialist personnel.
- The device contains electronic components and must not be disposed of in household waste.

5 Assembly

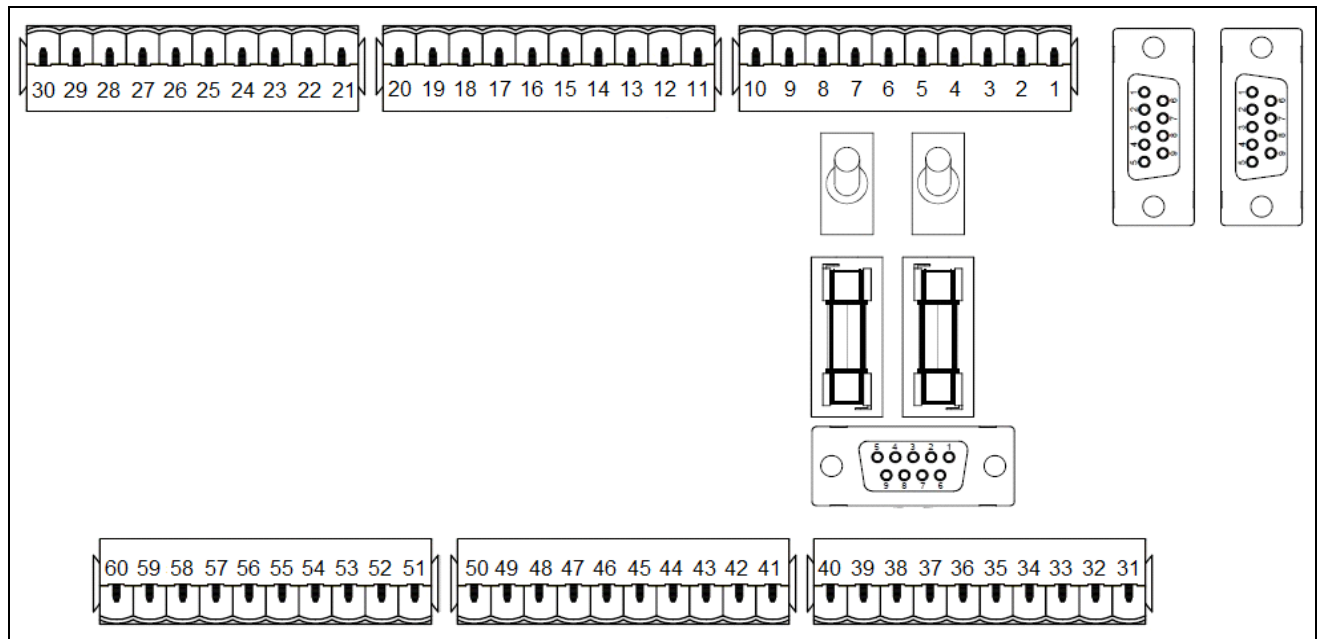


Mounting on top-hat rail



Dismantling from top-hat rail

6 Wiring diagram



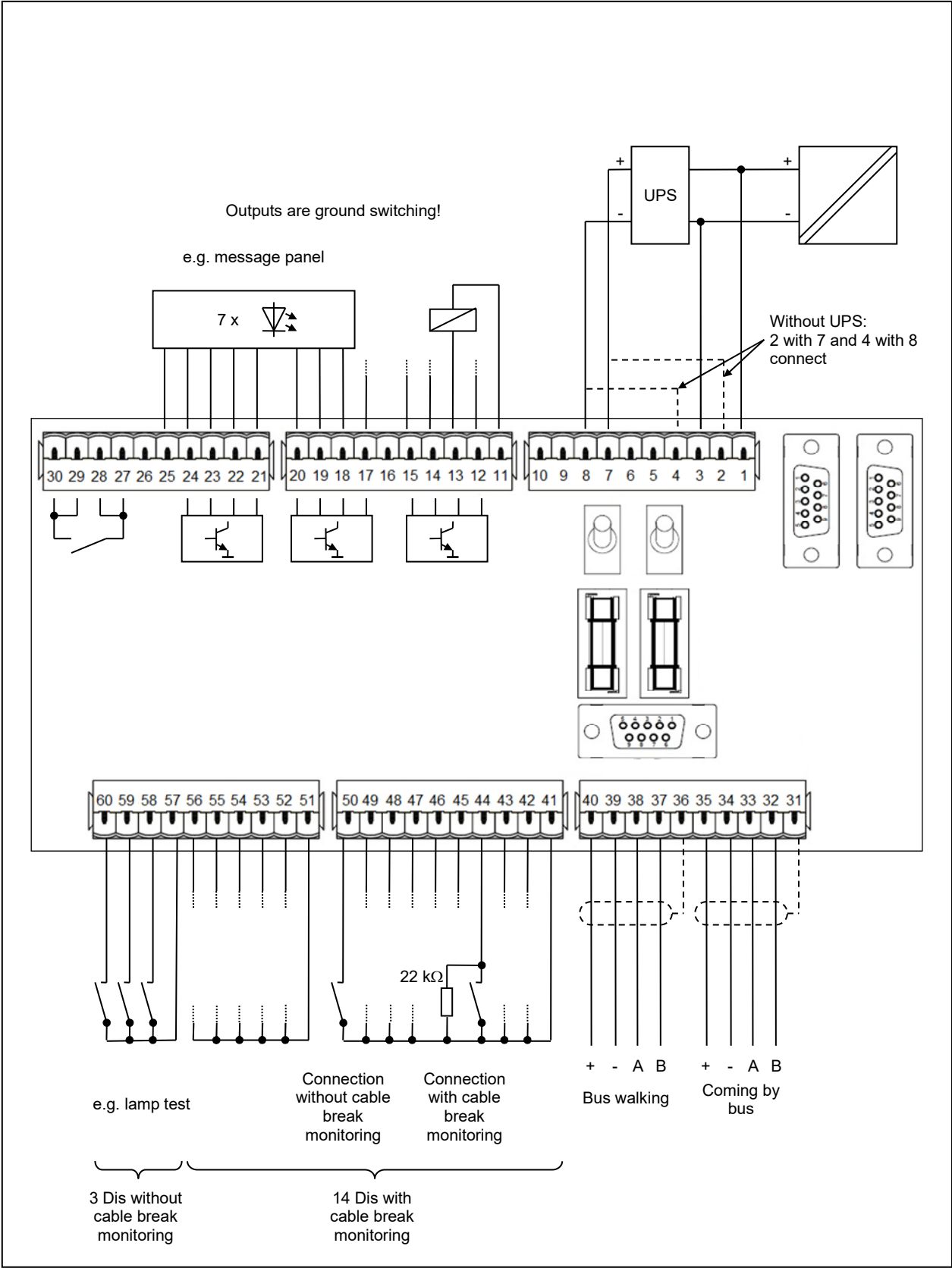
Pin number	Function
1	24VDC + input (BUS supply)
2	L 24VDC + output (BUS supply)
3	24VDC – input (BUS supply)
4	24VDC – output (BUS supply)
5	PE input
6	PE output
7	24VDC UPS + input (supply chip)
8	24VDC UPS – input (supply chip)
9	24VDC UPS + output (supply chip)
10	24VDC UPS – output (supply chip)
11	Root DO 8-11
12	DO11
13	DO10
14	DO9
15	DO8
16	Root DO 4-7
17	DO7
18	DO6
19	DO5
20	DO4
21	DO3
22	DO2
23	DO1
24	DO0
25	Root DO 0-3
26	Not occupied.
27	Root DO12 (potential-free) (root SSM for BRC-M)
28	Root DO12 (potential-free) (root SSM for BRC-M)
29	DO12 (potential-free) (SSM for BRC-M)

30	DO12 (potential-free) (SSM for BRC-M)
31	Coming by bus Shield
32	Bus coming B
33	Bus coming A
34	Coming by bus GND
35	Bus coming 24VDC+
36	Bus Walking Shield
37	Bus walking B
38	Bus walking A
39	Bus going GND
40	Bus going 24VDC+
41	Root DI8-16
42	DI16
43	DI15
44	DI14
45	DI13
46	DI12
47	DI11
48	DI10
49	DI9
50	DI8
51	Root DI3-7
52	DI7
53	DI6
54	DI5
55	DI4
56	DI3
57	Root DI0-3
58	DI2 (without cable break monitoring)
59	DI1 (without cable break monitoring)
60	DI0 (without cable break monitoring)

Attention! To function properly, the chip must be supplied at the BRT-10-S. See 7 connection diagram

**Pins 1 to 4 are only used for the BUS supply.
The chip is supplied from pins 7 to 8!**

7 Connection diagram



8 Technical data

Electrical data	
Supply voltage	24VDC
Power consumption	< = 100 mA
Degree of protection	IP20 (EN 60529)
Protection class	II
Connections	
Monitored DI	3 x without cable break monitoring 14 x with cable break monitoring
DO	12 x semiconductor ground switching Max. 85mA continuous current / output 1 x potential-free (fixed as sum fault on BRC-M)
Bus communication	2 x serial interface for controller, 2 x 5 terminals for bus communication
Power supply	1 x (24VDC +/-, PE) 1 x (24VDC UPS +/-)
Sum fault	2 x 2 terminals
Inputs	
Minimum detection voltage	14 V _{DC}
Environment variables	
Permissible ambient temperature	-10 - 65°C
Permissible ambient humidity	10 - 90 % RH non-condensing
Dimensions (W x H x D) [mm]	
	213 x 113 x 63
Weight	
	390 g

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 possible to supply controller, interface and modules separately.