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# AGNOSYS

## AGNOSYS Series F V3.5 BKT-35-S

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## 1 History

Date	Editor	Description
01/09/2012	MAR	First version
18/07/2013	MAR	Various changes
10/06/2014	MAR	Technical changes, new CD
27/10/2014	LG	Typos
07/07/2015	LG	Update of number of DI and DO
08/07/2015	RO	Wiring diagram added
11/05/2016	MAR	Various technical changes
25/10/2016	MAR	Connection plan corrected
11/11/2016	LG	Update of images; release status
14/05/2019	DAA	Update Connection Plan
22/04/2020	MAR	Added maximum Output load
17/05/2022	FL	Minimum detection voltage

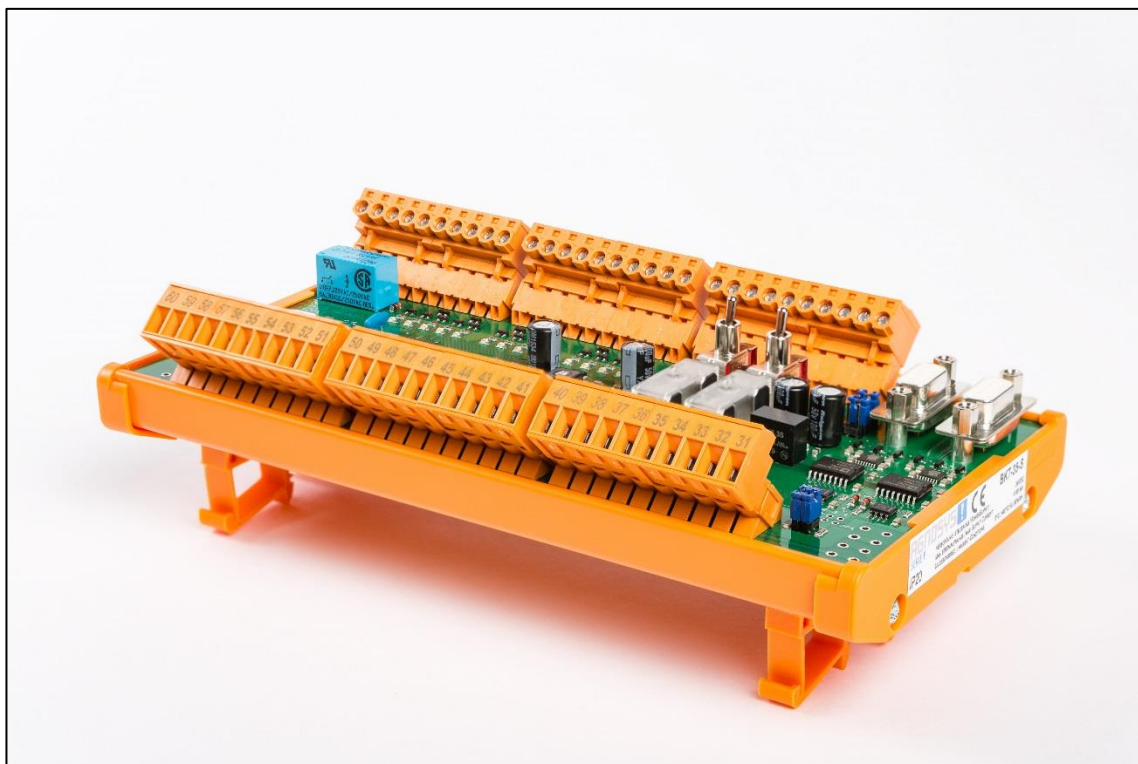
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## 3 General Information



BKT-35-S

The communication interface BKT-35-S is the central interface between the bus-ring and the controller. It offers the possibility to connect 17 digital inputs and to transmit 13 digital outputs. In addition, it always operates in tandem with a BSK fire-damper controller (BKC-35-x).

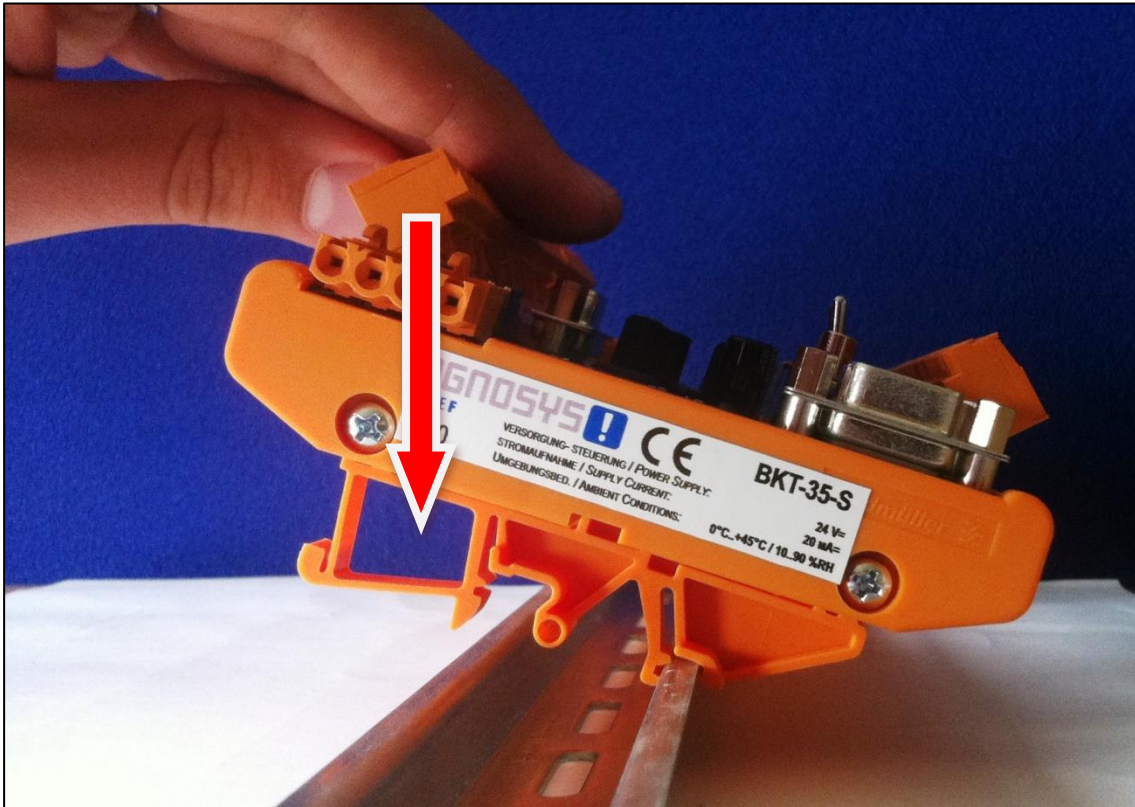
### Features overview:

- Galvanic isolation of bus-ring – controller.
- Conversion from RS-232 to RS-485.
- Safeguarding of the control-cabinet components via a glass-tube fuse.
- Power-on and power-off of the termination resistors.
- 14 inputs monitored for cable break and 3 normal digital inputs.
- 12 digital outputs, GND-switching.
- 1 galvanic isolation output, relay contact; in connection with BKC master executed as SSM.
- Manual shut-down of bus voltage.

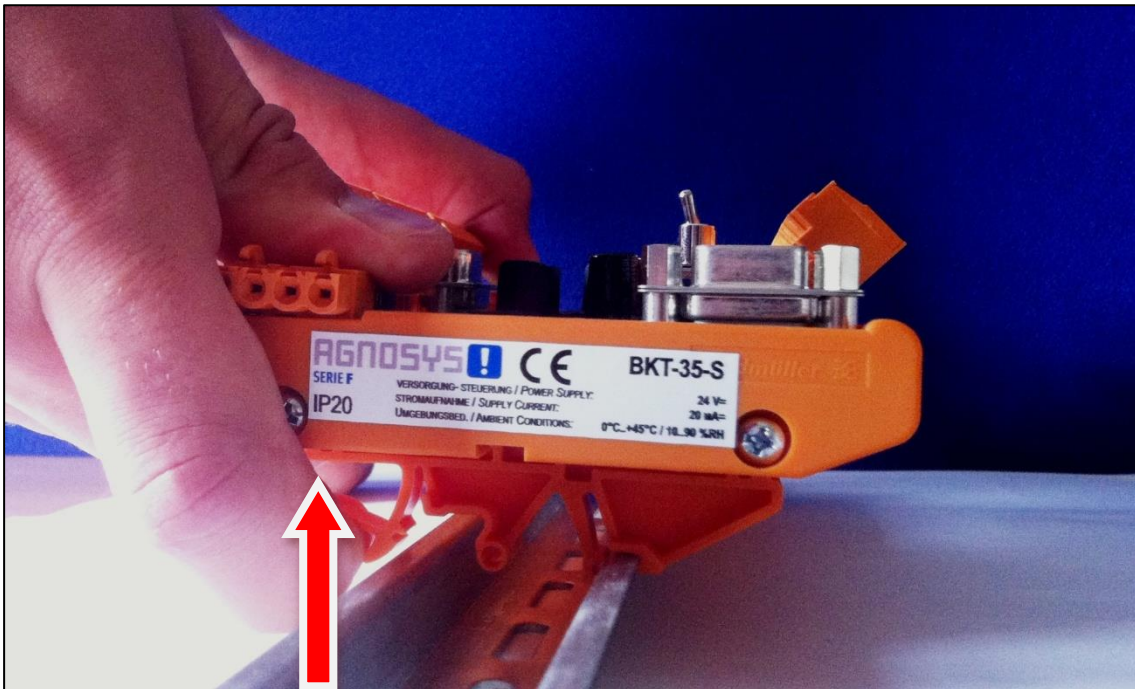
## 4 Safety Regulations

- 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 contains electronic components and may not be disposed of in general waste.

## 5 Mounting Instructions



Mounting on a top-hat rail



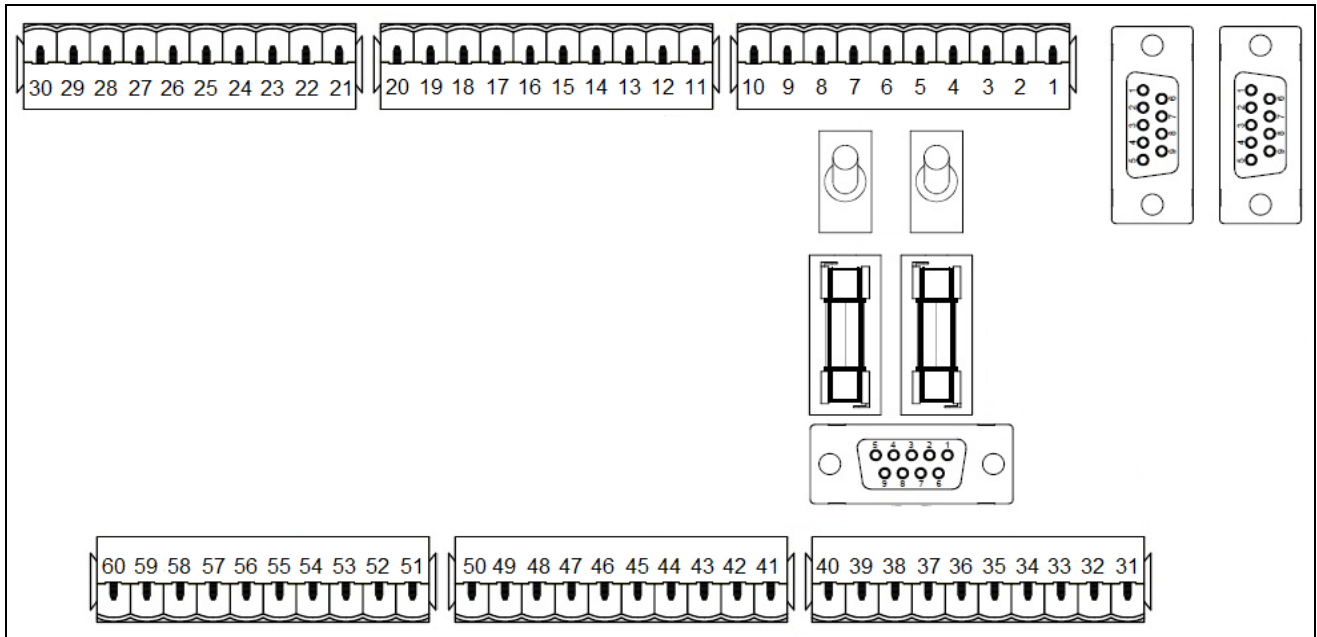
Removal from a top-hat rail

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## 6 Connection Plan



Pin-number	Function
1	24VDC + Input (BUS supply)
2	24VDC + Output (BUS supply)
3	24VDC – Input (BUS supply)
4	24VDC – Output (BUS supply)
5	PE Input
6	PE Output
7	24VDC + <i>USV</i> (UPS) Input (processor supply)
8	24VDC - <i>USV</i> (UPS) Input (processor supply)
9	24VDC + <i>USV</i> (UPS) Output (processor supply)
10	24VDC - <i>USV</i> (UPS) Output (processor supply)
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) (SSM for BKC-M)
28	Root DO12 (potential-free) (SSM for BKC-M)
29	DO12 (potential-free) (SSM for BKC-M)

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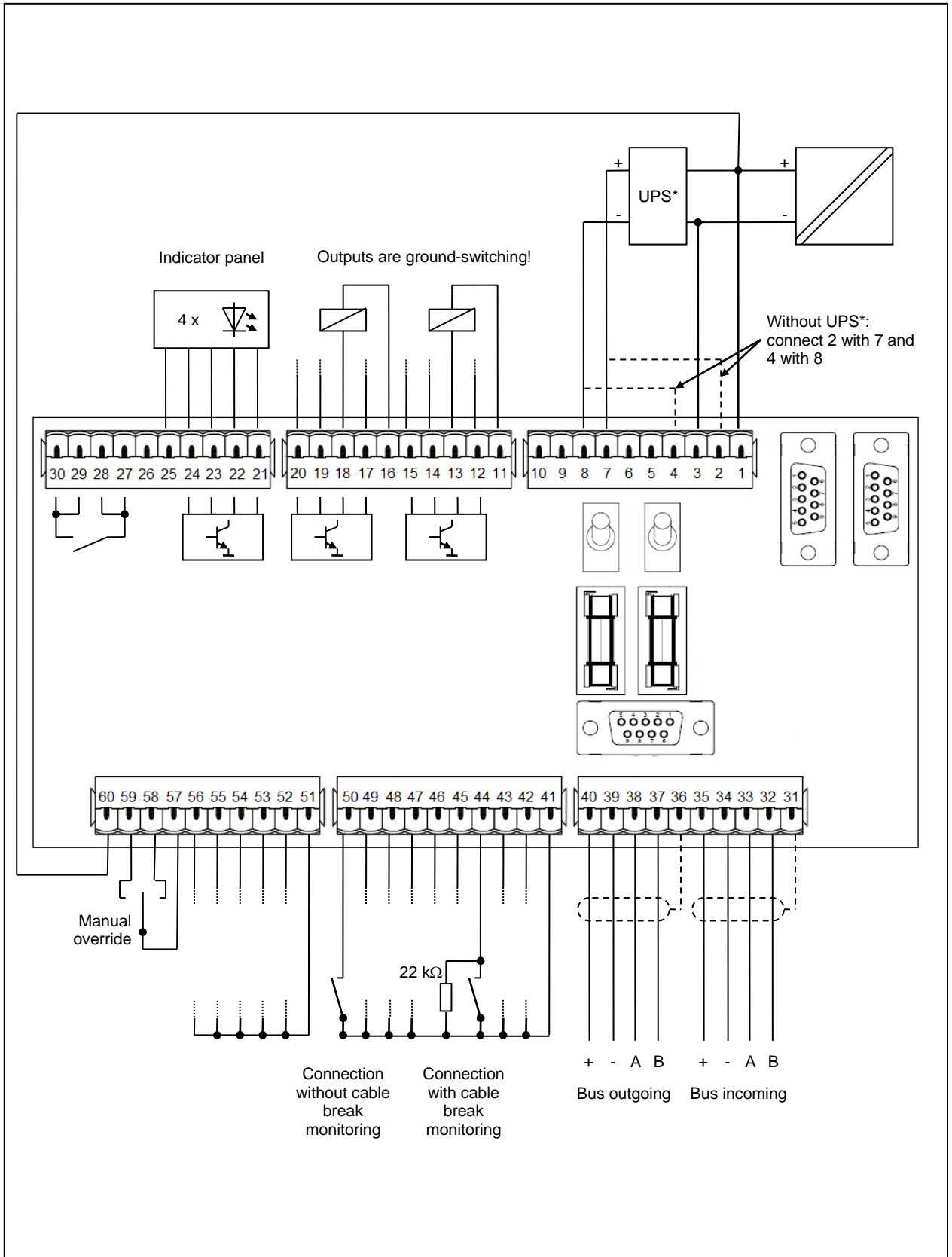
30	DO12 (potential-free) (SSM for BKC-M)
31	Bus incoming shield
32	Bus incoming B
33	Bus incoming A
34	Bus incoming GND
35	Bus incoming 24VDC+
36	Bus outgoing shield
37	Bus outgoing B
38	Bus outgoing A
39	Bus outgoing GND
40	Bus outgoing 24VDC+
41	Root DI8-16
42	DI16
43	DI15
44	DI14
45	DI13
46	DI12
47	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)

**Pins 1 to 4 are only used as ring-bus supply.**  
**The processor needs to be supplied by pin 7 to 10.**  
**See 7 Wiring Diagram.**

## 7 Wiring Diagram

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\*UPS = Uninterruptible Power Supply

## 8 Technical Specifications

Electrical data	
Supply voltage	24VDC
Current consumption	Max. 100 mA
Protection rating	IP20 (EN 60529)
Protection class	II
Connections	
DI	3 x without cable break monitoring 14 x with cable break monitoring
DO	12 x semiconductors ground-switching Maximum output current per output: 85mA 1 x potential-free (fixed as common alarm on the BKC-M)
Bus communication	2 x serial ports for controller, 2 x 5 terminals for bus communication
Power supply	1 x (24VDC +/-, PE) 1 x (24VDC UPS +/-)
Inputs	
Minimum detection voltage	14 V <sub>DC</sub>
Environment variables	
Permissible ambient temperature	-10 – 65°C
Permissible ambient humidity	10 – 90 % RH non-condensing
Measurements (width x height x depth) [mm]	
	213 x 113 x 63
Weight	
	390g

## 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.