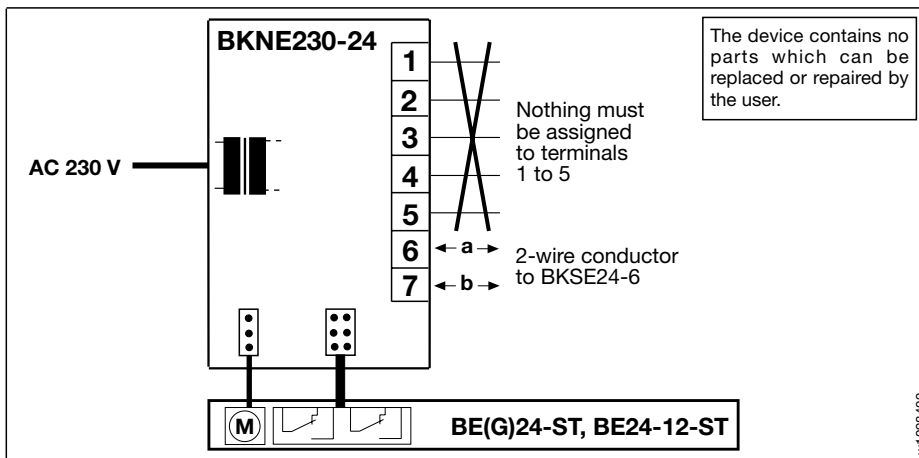




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**Wiring diagram**



WT098402

**Monitoring motorized smoke extraction dampers using the BKSE24-6 control unit**

**Description**

The BKNE230-24 is a separate power supply unit for BE(G)24-ST smoke extraction damper actuators. It also serves as a communications interface between the actuators and the BKSE24-6 control and monitoring unit.

**Communication / Command memory**

The BKNE230-24 signals the damper position OPEN / CLOSED (from switches on the actuator) and any fault alarms to the BKSE24-6 unit. It also receives positioning commands from the control unit and triggers the actuator to the required position. The last control command is retained throughout temporary power failures. (The factory setting is *Close damper* command stored in the memory).

**Monitoring**

The BKNE230-24 unit monitors the positions of the switches on the actuator, its running time and the exchange of data with the control and monitoring unit. It also monitors the actuator current (actuator connected?) and the power supply.

**Signalling**

The power supply unit incorporates two LEDs to signal its functional status.

**Installation and connection**

In order to make installation as simple as possible the smoke extraction damper actuators ...-ST are fitted with plug connectors that can be inserted directly into the BKNE230-24 unit. The 2-wire conductor must be connected to screw terminals 6 and 7.

**Note:** It is recommended that a fire alarm signal cable suitable for the application be used for the 2-wire conductor. It is essential to ensure the correct polarity.

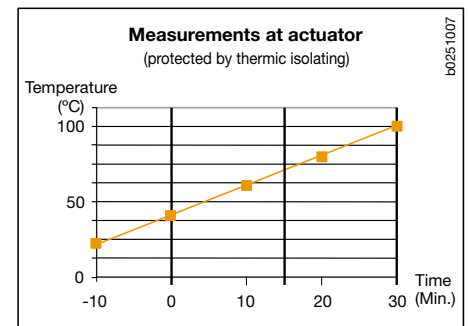
**Safety function**

The safety function is guaranteed within the temperature range shown in the diagram below which is based on standard ÖNORM H 6029 and DIN 18232.

**Displays**

LED	Status	Function
yellow	flashing light	damper moving to OPEN
yellow	steady light	damper open
green	flashing light	damper moving to CLOSED
green	steady light	damper closed
yellow  or green	flashing at double frequency	fault
yellow  + green	dark	power failure

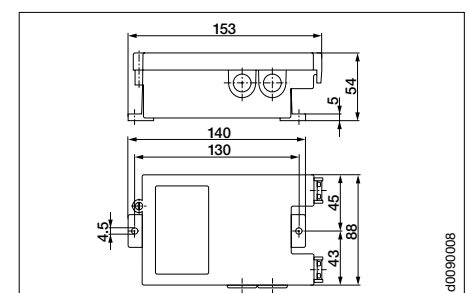
Technical data	BKNE230-24
Nominal voltage	AC 230 V 50/60 Hz
Nominal voltage range	AC 198...264 V
For wire sizing	19 VA (with actuator)
Power consumption	10 W (with actuator)
<b>Connections</b>	
• mains	lead 1 m long (halogen free, without plug)
• actuator	6-pin plug, 3-pin plug
• *2-wire connector	screw terminals for wire 2 x 1.5 mm <sup>2</sup>
*Recommended cable	JE-H (St) Bd FE180/E30-E90
Protection class	II (all-insulated)
<b>Ambient temperature range</b>	
• normal operation	-30...+50°C
• safety function	see: text/diagram <b>Safety function</b>
storage	-40...+80°C
EMC	CE according to 89/336/EEC
Low Voltage Directive	CE according to 73/23/EEC
Mode of operation	type 1 (EN 60730-1)
Software class	A (EN 60730-1)
Maintenance	maintenance-free
Weight	680 g



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Typical connections see overleaf.

**Dimensions**



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## Your monitoring system for smoke extraction - ensuring safe control and tripping

### Safe monitoring and tripping with SBSE-Control

In an emergency, Belimo SBSE-Control automatically takes over control and monitoring of the smoke extraction dampers. So, no valuable time is lost in waiting for the fire brigade to arrive. However, SBSE-Control also allows authorized rescue services to intervene manually if necessary.

### The advantages for you

#### For project design:

- Easy compliance with standards and specifications
- Self-contained control system with universal interface to the fire alarm system
- Easy integration into the overall concept of smoke extraction
- Less planning work.

#### For installation:

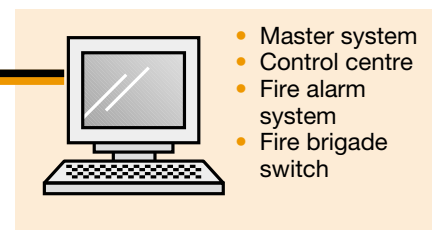
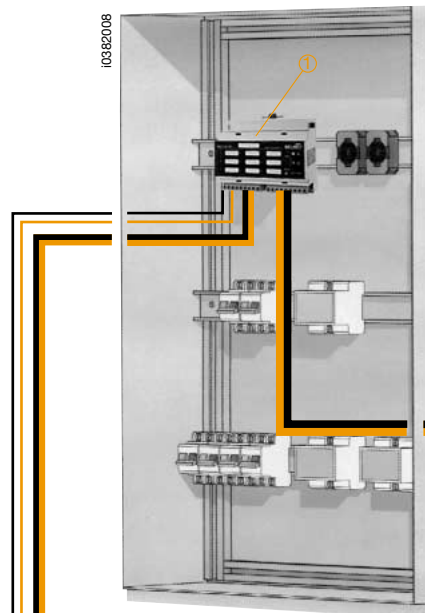
- Minimal wiring
- Only two conductors needed to connect damper to control cubicle
- Wiring errors avoided through the use of prewired connectors on the actuator leads.

#### For operation and maintenance:

- Simple commissioning
- Easy local testing
- Monitoring and functional testing can be performed from a central point
- Continuous monitoring of the dampers improves safety and reduces maintenance.

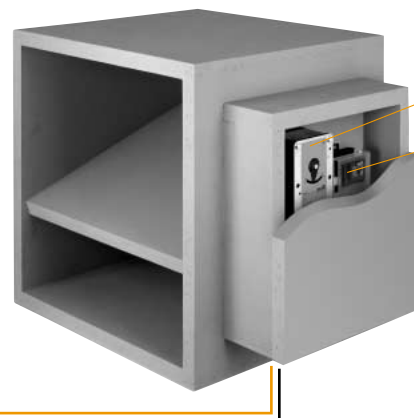
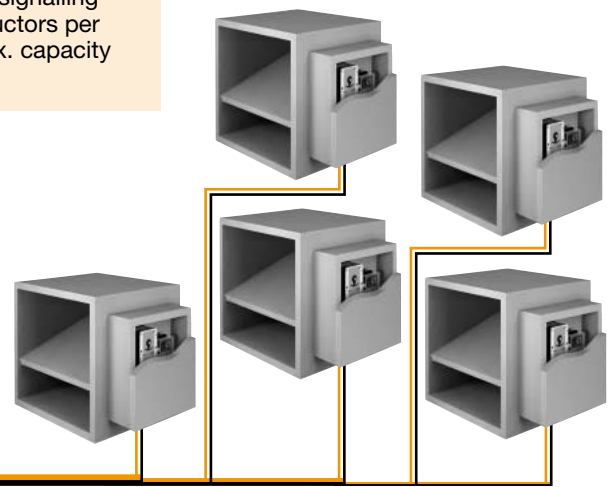
The BKSE24-6 Communications and Control Unit ① for the central control of up to 6 smoke extraction dampers can detect the following faults:

- Open-circuit
- Failure of local power supply
- Excessive opening or closing time
- Defects in smoke extraction dampers or actuators.



The BKSE24-6 unit receives the OPEN/CLOSE command from the master control system via a potential-free contact.

Control and signalling with 2 conductors per damper; max. capacity 6 dampers



Smoke damper as complete functional unit with:

- ② Belimo smoke extraction actuator (BE24-ST or BEG24-ST)
- ③ Communications and Power Unit BKNE230-24 for control, command storage and monitoring of the actuators directly at the dampers. It also serves as the interface to the control unit BKSE24-6 ① in control cubicle.