Communication and control unit for control and monitoring of up to nine motorized fire dampers in combination with the communication and power supply units BKN230-24 or BKN230-24-C-MP

- **Signals the operating positions and any faults from the fire dampers to which it is connected.**
- **Reduced wiring costs due to 2-wire communication**
- **Propagation of group alarm and damper position to an overhead system via auxiliary contacts**
- **Panel mounting (DIN rail)**

Technical data

Electrical data	Nominal voltage		AC 24 V, 50/60 Hz
	Power supply range		AC 21,6 ... 28,8 V
	Power consumption	In operation	3.5 W
		For wire sizing	5.5 VA (I max. 6.4 A at 2.5 ms)
	Connection		Terminals for 2 x 1.5 mm^2
	Lenghts of conductors	2-wire conductors a/b	max. 600 m (wire 0.75 mm^2)
		control input 13	max. 600 m (wire 0.75 mm^2)
	Auxiliary contacts		AC 24 V at 0.5 A
Safety	Protection class		**III** safety extra-low voltage / UL Class 2 Supply
	Degree of protection		IP20
	EMC		CE according to 2004/108/EG
	Mode of operation		Type 1 (EN 60730-1)
	Rated impulse voltage		0.5 kV (EN 60730-1)
	Control pollution degree		2 (EN 60730-1)
	Ambient temperature		0 ... +50°C
	Non-operating temperature		–30 ... +50°C
	Maintenance		Maintenance-free
Dimensions / Weight	Dimensions		See «Dimensions» on page 2
	Weight		Approx. 160 g

Safety notes

- **The device is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.**
- **It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.**
- **The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.**
- **The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.**

Product features

Mode of operation

The BKS24-9A unit receives position signals from the **BKN230-24** or the **BKN230-24-C-MP** units and transmits control commands to them over the 2-wire conductors.
Correct operation of the dampers is indicated by the 2 LEDs:
Control ON = NORMAL Position
Control OFF = SAFE Position

Fault

If the damper does not reach the required position within the preset time, the appropriate on-board FAULT LED flashes and, at the same time, the FAULT contact K1 is activated. This contact is overridden as soon the defective damper reaches the requried position. The on-board FAULT LED remains on, until the fault is reset.

Auxiliary contact K2

An auxiliary contact is provided for signaling the positions of dampers to a higher-level system. The function of the auxiliary contact can be programmed via terminal 14 according to the instructions beside.

Product features

(Continued)

Installation and connections

The BKS24-9A unit can be clipped directly onto a 35 mm DIN mounting rail and external wiring is connected by two 9-pin terminal connectors.

Functional testing

Functional testing can be performed by pressing the TEST pushbutton. While this button is held depressed, the dampers run to the SAFE position.
Any malfunctions are indicated by the internal FAULT LEDs.

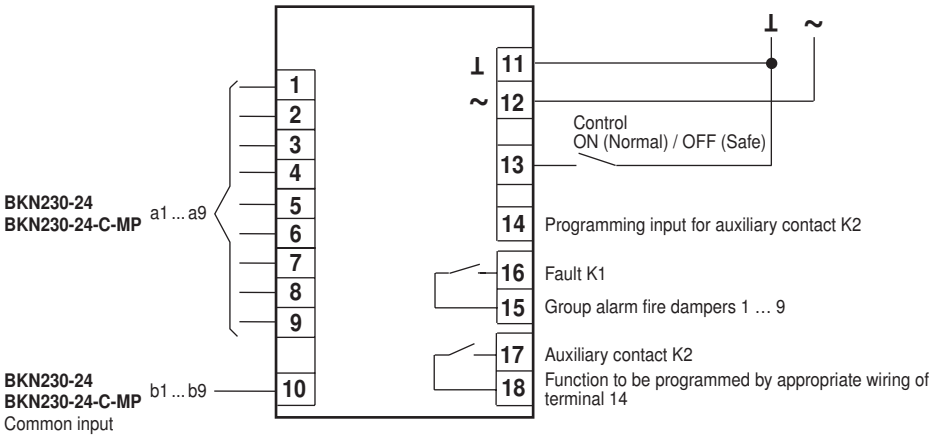
Fire zoning

The required fire zones must be taken into account when making the groupings and when wiring the BKS24-9A unit.

Electrical installation

Wiring diagram

Notes
- Connect via safety isolation transformer.
- Relay contacts K1 and K2 are shown without power applied.



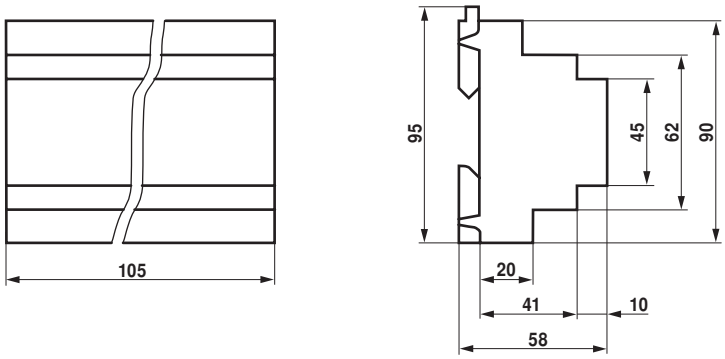
Contact K1 and auxiliary contact K2

Function contact K1	
Situation	**Status**
Alarm	15 — 16
No alarm	15 — 16

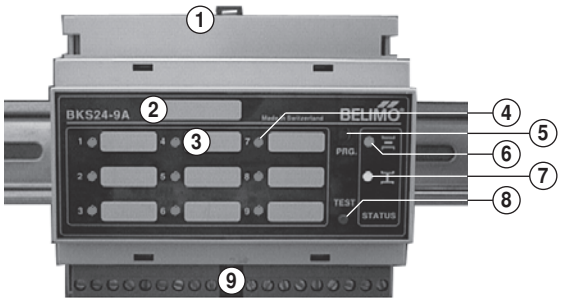
Programming auxiliary contact K2		
Function	**Wiring**	**Status**
Contact K2 closed, when all Dampers OPEN	14 — 11 ⊥	17 — 18
Contact K2 closed, when Damper No. 1 OPEN	14 — 12 ~	17 — 18
Contact K2 closed, when all Dampers CLOSED	14 left open	

Dimensions [mm]

Dimensional drawings

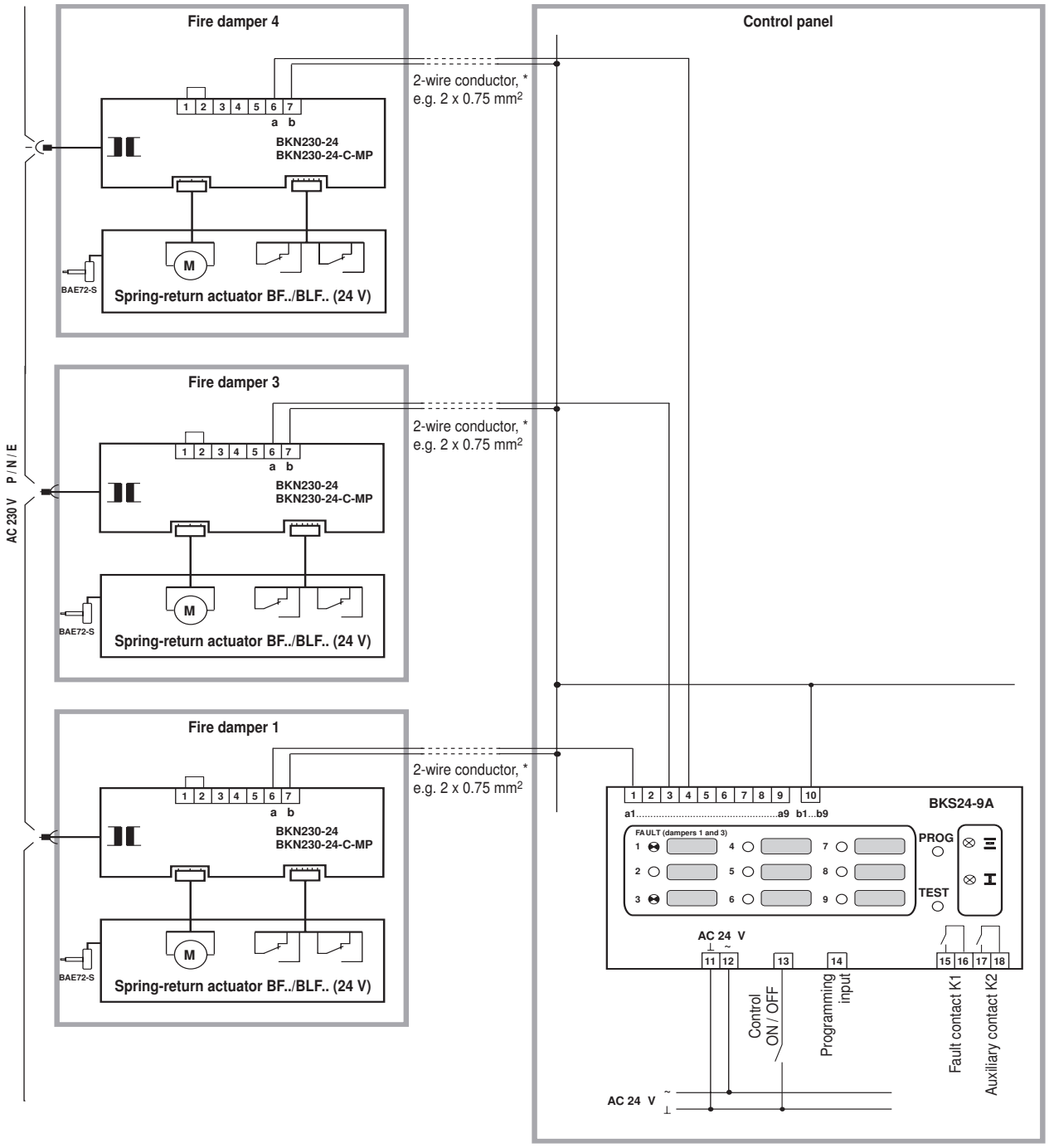


Operating controls and indications



1. Retaining-Clip
2. Label for zone identification
3. Label for damper identification
4. LEDs red (Fault)
5. Pushbutton PRG.
6. LED green (NORMAL position)
7. LED yellow (SAFE position)
8. Pushbutton TEST
9. Terminal connectors

Schematic diagram (Exemple)



* Lenghts of conductors: 2-wire conductors a/b max. 600 m (0.75 m²)