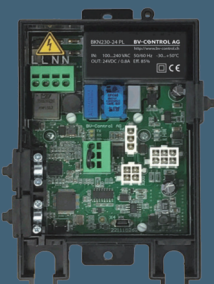
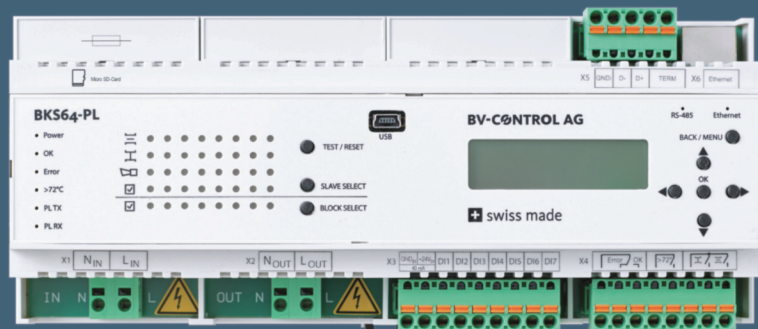


MANDIK[®]

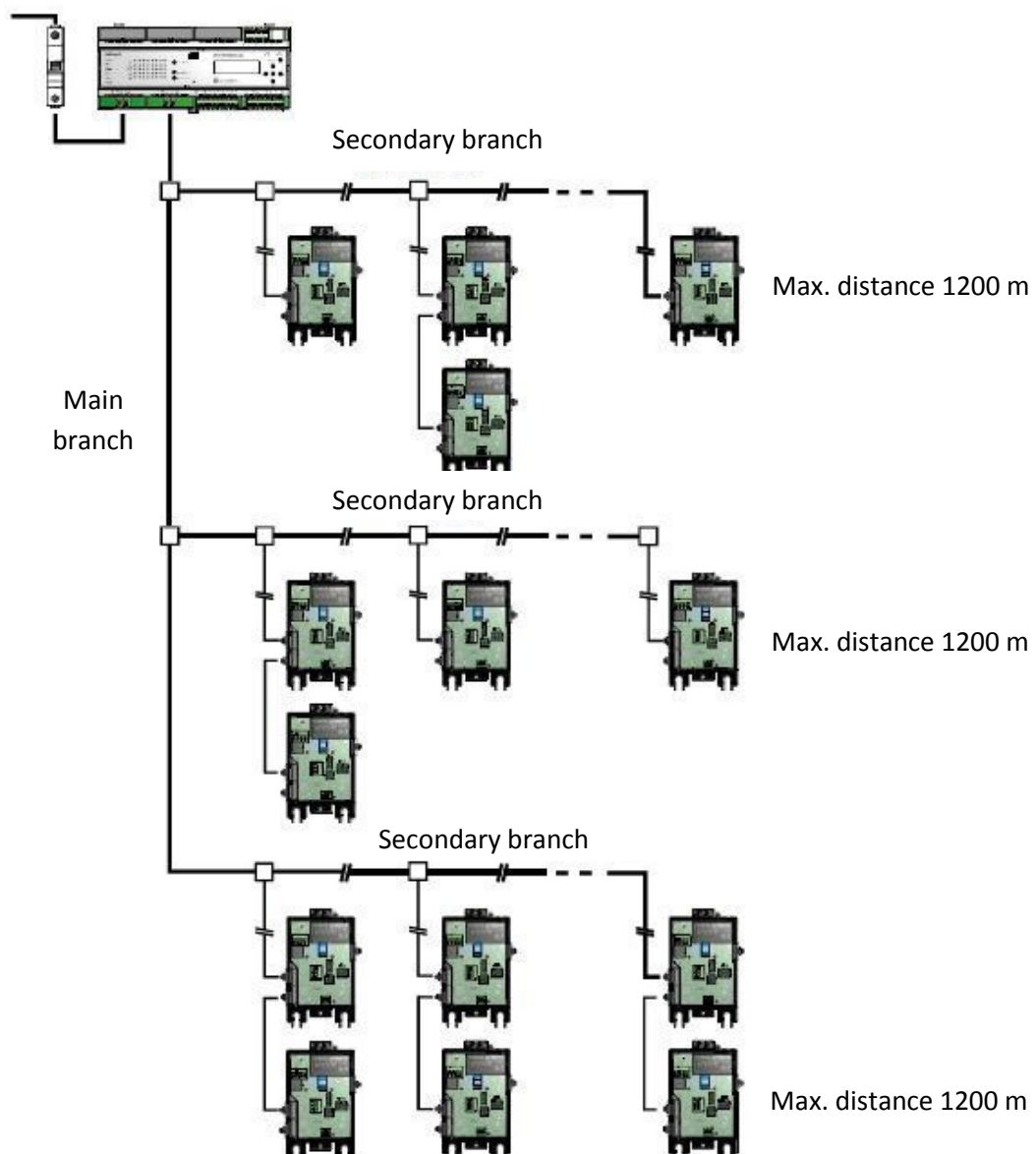
Electronic control system MCS-P Product overview



Electronic control system MCS-P MANDÍK®

This system is used to monitoring and control up to 64 motorized fire dampers and is compatible with all standard 24V actuators. The system consists of communication and from a central control unit that communicates with individual communication modules via powerline technology. That means communication through 230 VAC power cable, there is no need for any additional cable for data. The entire system operates on the Master & Slave principle, where the communications modules (Slaves) have a MAC address automatically set, the superior central control unit (Master) automatically detects individual modules and no further adjustments are required.

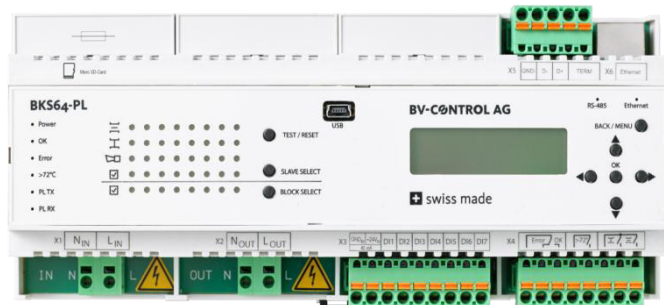
Powerline communication technology basically allows you to select any topology of a wiring, such as a star, line, bus or tree. For all topologies, however, the same limitation applies, and that the maximum distance from the master to the farthest communication module is 1200m. The picture shows an example of wiring an extended bus topology.



Central control unit BKS64-PL MANDÍK®

BKS64-PL is control and indication device for motorized fire dampers that can control up to 64 communication modules BKN230-24-PL using powerline technology.

- **Powerline technology:** The system uses powerline technology, communication with the communication modules directly via a 230V AC power cable.
- **Simple system:** Communication modules (BKN230-24-PL) have a unique physical MAC address and are therefore automatically recognized. System allows you to select any topology of a wiring.
- **Communication:** Master (BKS64-PL) can also be controlled by Modbus (TCP / IP and RTU) or BACnet (IP or MS / TP) protocol, so it can be considered as Modbus / Powerline or BACnet / Powerline gateway. The device can be connected to a computer via ethernet or USB interface and controlled by the CDU software.
- **High flexibility:** Easy integration into the superior system via RS-485 or ethernet.
- **Easy testing:** The damper can be selected and tested by pressing the button. The position of the damper and any malfunctions are displayed directly on the device.



Technical data

Nominal voltage	230 V AC, 50/60 Hz
Connection	Spring connectors
Communication	Modbus (TCP/IP a RTU), BACnet (IP a MS/TP)
Baud rate of powerline	Max. 28,8 kbps
Baud rat of BACnet	9600, 19200, 38400, 76800 bps (aut. detection)
Configuration	Via CDU or directly on the device

See the technical datasheet for more information

Application

BKS64-PL is a control and indication device for motorized fire dampers that can control up to 64 BKN230-24-PL communication modules. In total, it can monitor up to 64 motorized fire dampers and 64 smoke detectors in any topology. The system uses powerline technology, communication with the communication modules directly via a 230V AC power cable. Communication modules (BKN230-24-PL) have a unique physical MAC address and are therefore automatically recognized. The position of the damper and any eventual failures are displayed directly on the device. The damper can be selected and tested by pressing the button. The dampers can be opened or closed with a potential-free contact or an external + 24V AC / DC voltage source. Master (BKS64-PL) can also be controlled by Modbus (TCP / IP and RTU) or BACnet (IP or MS / TP) protocol, so it can be considered as Modbus / Powerline or BACnet / Powerline gateway. The device can be connected to a computer via ethernet or USB interface and controlled by the CDU software.

Communication module BKN24-230-PL MANDÍK®

The communication module BKN230-24-PL serves as a communication and power supply for one motorized fire damper with convention 24V AC/DC actuator.

- **New flexibility:** Universal system connection between the motorized fire damper and the superior system via powerline technology.
- **Compatibility:** This universal controller is compatible with all standard 24 V actuators such as Belimo, Gruner, etc.
- **Easy installation:** The mounting shield allows easy handling at the workplace. The damper actuators are connected via AMP terminals. The Belimo Top-Line actuators can also be connected. Another security device, such as smoke detector, is connected by quick connection terminals.
- **Simple configuration:** Powerline slaves (BKN230-24-PL) have a unique physical MAC address and are always recognized by the master, regardless of pre-or automatic addressing. No further programming skills are required.
- **Safety function:** The device is designed for fire applications.
- **Indication:** Simple and clear indication of function, position and status by LED.
- **Easy testing:** By using the button, you can check whether the actuator reaches both end positions at the specified time. The BKN230-24-PL can also measure power consumption.



Technical data

Nominal voltage	100-240 V AC/DC, 50/60 Hz
Power supply for actuator and smoke detector	24 V DC / max. 700 mA
Dimensioning	20 VA
Connection of actuator	AMP connector
Connection of powerline and smoke detector	Spring connectors
Max. distance from master to BKS	1200 m

See the technical datasheet for more information

Application

The BKN230-24-PL communication module serves as a communication and power supply for one motorized fire damper with convention 24V actuator. It also has terminals for connecting a smoke detector and a USB interface for updating the software (it can be updated via powerline). With the test button, you can test if the damper reaches both end positions in time, and can also measure power consumption. Communication with the central control unit (BKS64-PL) is done via powerline technology; communication with the slaves is performed directly via 230V AC power cable. Powerline slaves (BKN230-24-PL) have a unique physical MAC address and are always recognized by the master, regardless of pre-or automatic addressing.

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