

KSB-4 electronic fuse status controller

Description

The KSB-3 electronic fuse condition monitor **is used to monitor fuse links in a three-phase network** (3 x 400 V AC, 3- or 4-wire system) **and signal their blown state**. The device works with standard fuse links and is resistant to network interference, such as higher harmonics and transients. Digital signal analysis allows the controller to accurately assess the fuse link condition regardless of phase sequence or voltage asymmetry.

The modular housing (3 DIN modules) is made of self-extinguishing plastic and is designed for mounting on a TH35 rail.

Principle of operation

The KSB-4 controller is powered by a monitored circuit. After power-up, the device automatically tests itself (all LEDs illuminate). In normal operation, with the cassette closed and all fuses intact, after applying voltage, both output contacts (OUT 1 and OUT 2) remain open (terminals 1-2 and 3-4 open). **A blown fuse link is indicated by the corresponding red LED lighting up and the OUT 1 contact closing (terminals 1 and 2). Opening the cassette or all fuses blowing also closes the second OUT 2 contact (terminals 3 and 4). In the absence of power, both contacts remain open (NO).**

The maximum load current of the output contacts is 5 A at 250 V AC AC-1.

ATTENTION!

The KSB-4 controller can also be used to monitor the status of overcurrent circuit breakers or other switching elements in three-phase installations.

LED signaling

The front panel includes:

- three red LEDs – a lit LED indicating that a specific insert has burned out
- green "U" LED indicating power supply.



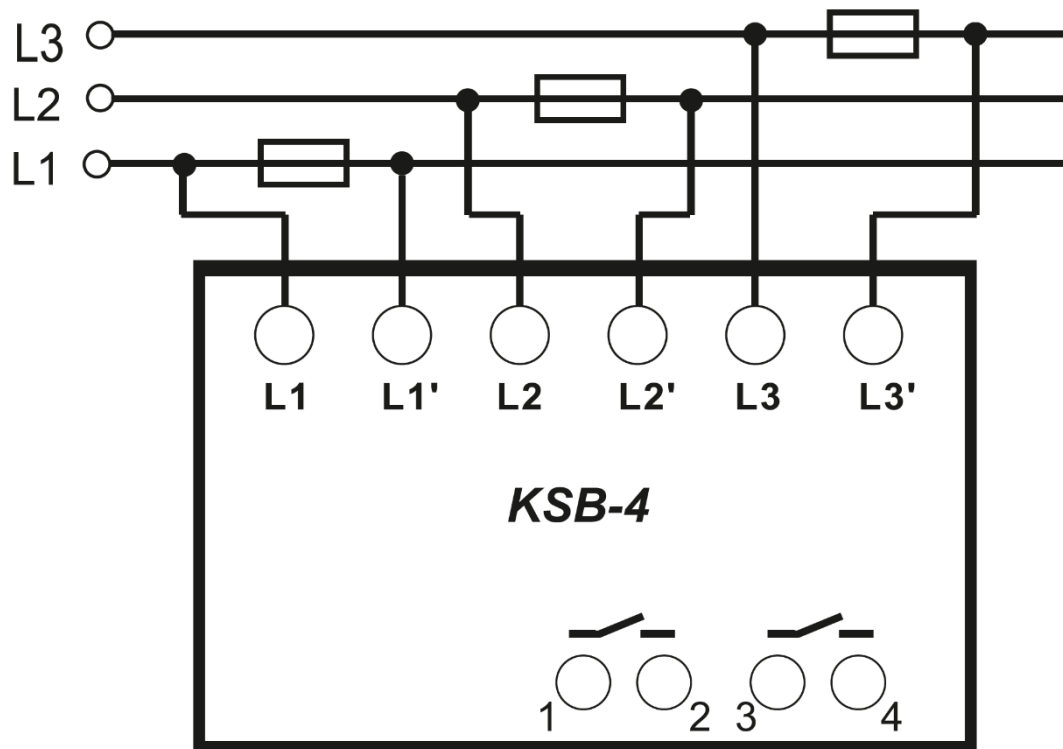
Technical data

Parameter name	Value
Rated supply voltage	3 x 400 V / AC
Operating temperature range	-20 to 50 °C
Max power consumption	2 VA
Operating mode	The contacts remain open when the power is applied and close when the fuse fails.
Number of relay outputs	2
Contact arrangement	NO
Maximum load current AC-1	5A / 250V AC
Activation threshold (U difference across the fuse)	80V AC
Measurement method	Detecting voltage difference across a fuse
Measurement accuracy	± 1%

Parameter name	Value
Delay when crossing the threshold	1 sec
Case	Modular housing (3 DIN modules)
Degree of protection	IP20
Installation	TH35 rail
Clamp type	Elevator
Wire stripping length	8 mm
Single-wire conductor	0.5 to 2.5 mm ²
Multi-stranded conductor (stranded wire) without ferrule	0.5 to 2.5 mm ²
Stranded wire with square crimp sleeve	0.5 to 2.5 mm ²
Tighten to maximum torque	0.5 Nm

Full technical specifications are available on the website www.pollin.pl/do-pobrania or by scanning the QR code provided in the warranty and guarantee section.

Connection diagram



Installation

The KSB-4 controller must be installed in accordance with applicable electrical installation standards and regulations. The following guidelines are intended to ensure the installer's safety and the proper operation of the device:

1. **Authorizations** - The device may only be installed by a person with appropriate qualifications and authorizations to work on electrical installations.
2. **Disconnecting the power supply** - Before starting any work, it is essential to disconnect the power supply at the distribution board and make sure that the circuit is voltage-free (e.g. using a voltage indicator).
3. **Personal Protection** - The installer should use personal protective equipment such as electrically insulating gloves and safety glasses.
4. **Mechanical installation** - The device should be mounted on a standard TH35 rail in the distribution board, ensuring stable mounting and adequate ventilation space.
5. **Connecting Wires** - Connections should be made according to the wiring diagram provided by the manufacturer. Ensure that terminals are tightened with the correct torque and that wires of the appropriate cross-section are used. Only one wire may be inserted into each terminal – regardless of whether it is solid or stranded with a crimped ferrule.
6. **Checking the connections** - After completing the installation, carefully check the correctness of all connections, make sure that the terminals are securely tightened and that there are no exposed wires that could cause a short circuit or a shock hazard.
7. **Restoring Power** - After completing the installation and inspection, turn on the power and check the operation of the device according to the instructions.
8. **Tests** - After completing the assembly, check the correct operation of the device.

No Modifications - Any modifications to the device or its components are prohibited. This may result in malfunctions and a safety hazard.

Warranty and guarantee – short information

The warranty applies to every purchaser, including consumers. Warranty claims should be directed to the seller from whom the purchase was made.

If a defect is found in the device, the customer has the right to choose: he or she can use the statutory warranty (in accordance with the provisions of the Civil Code) or the manufacturer's warranty.



Pollin Guarantee



Pollin devices are covered by a 10-year manufacturer's warranty – Zakład Elektroniczny POLLIN Wojciech Polak. The warranty applies only to devices purchased by businesses and covers material and manufacturing defects.

Warranty claims should be submitted by e-mail to: pollin@pollin.pl, in accordance with the procedure described in the full version of the document.

The warranty does not cover, among other things, mechanical damage, unauthorized modifications, installation by unqualified persons and natural wear and tear of consumables.

The full text of the warranty terms is available at: <https://pollin.pl/do-pobrania> or via the attached QR code.

Markings



This symbol on a device indicates that the used equipment should not be disposed of with other household waste. Used equipment should be taken to one of the designated electronic waste collection points or returned to the store when purchasing new equipment. Improper disposal of electronic waste poses a threat to the environment and human health.



The CE marking confirms that the product meets the essential requirements of all applicable European Union directives and regulations.



This marking indicates that installation, connection and all servicing of the device may only be performed by qualified personnel with electrical qualifications.

Technical support – the fastest help from Pollin experts

If you have any questions regarding the operation, configuration or installation of the device, **please contact us by email – this is the fastest way to obtain technical support**.

Send a message to: support@pollin.pl, describe the problem in detail and leave your contact number and the hours when we can call you.

Our engineers will review your request and make every effort to provide you with professional assistance as quickly as possible.



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