



## Leakage central – blocking relay type UKI-24C

for rated voltage 24V, 42V



Leakage central-blocking relay type UKI-24C, is designed to control the value earth resistance of grid for the single-phase operating voltage 24V or 42V, 50 Hz with isolated neutral point of the transformer. The relay in cooperation with the main contactor, prevents the application of voltage to the controlled section of the grid by lowering value of insulation resistance under the setting level. It is designed for use in mine face pits in non-explosive conditions, in conditions without methane explosion hazard and classified as A coal-dust explosion hazard.

### TECHNICAL DATA

ingress protection  
supply voltage power/ controlled grid  
continuous current of executive contacts  
blocking resistance  
tripping resistance  
dimensions  
weight

IP20  
24V, 42V/50Hz  
2 x 8A  
7k $\Omega$ ±20%,  
4k $\Omega$ ±20%,  
100 x 35 x 110mm (height x width x depth)  
0,3kg

## CONSTRUCTION

The relay is manufactured in housing type ME-35 with ingress protection IP20, mounted on DIN rail TS-35. From housing following circuits are led out:

- supply: terminals no. 1,2
- measurement input: terminal no. 3,6
- measurement input: terminal no. 4,14
- measurement input: terminal 4
- reset input: no. 23,24 terminals
- output signal: terminals no. 4,5 and 4,22
- executive contacts: terminals no. 7,8,9 and 10,11,12.

## DESCRIPTION OF OPERATION

Measuring of the insulation resistance before turning on the receiver is carried out by the leakage unit relay UKI-24C. The lowering of the resistance insulation in measuring circuit of relay to value  $7k\Omega \pm 20\%$ , causes turning off and blocking the relay, and it prevents of turning on of contactor. Re-turning on can carry out after increasing resistance of grid over value of resistance return and cancelling tripping of relay. Continuous measurement (live), insulation resistance of the circuit is carried out by the element of leakage relay. Lowering of insulation in measuring circuit of central element to value  $4k\Omega \pm 20\%$ , causes turning off and blockade of the relay, thereby disabling the contactor. Re-turning on can carry out after increasing resistance of grid over value of resistance return and cancelling tripping of relay.

## SCHEMATIC DIAGRAM

### Legend:

**Sieć 24 lub 42V/50Hz** – 24 or 42V/50Hz grid

**Zasilanie 24V/50Hz** – Supply 24V/50Hz

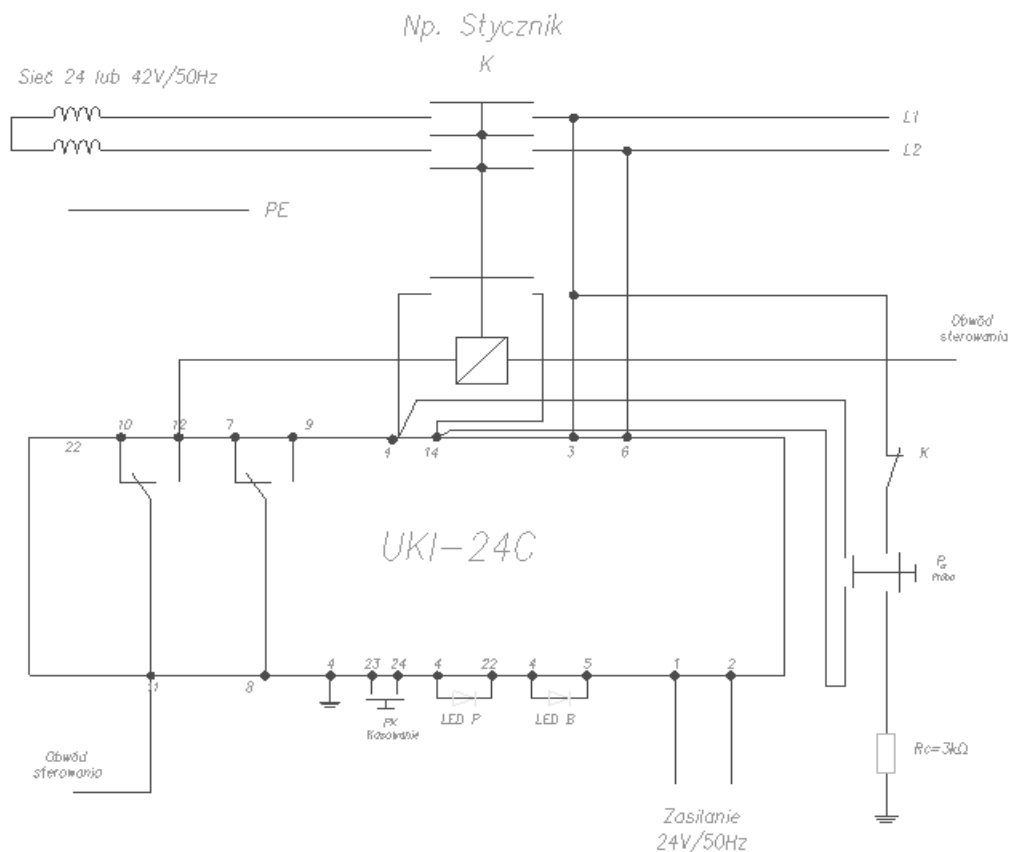
**Obwód sterowania** – Control circuit

**Np. stycznik** – F.e. contactor K

**PK Kasowanie** – PK Cancelling button

**P Próba** – test button

**Rc** – test resistor



Orders should be submitted in writing or by fax to the address:

 **Instal-Service PL**

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