

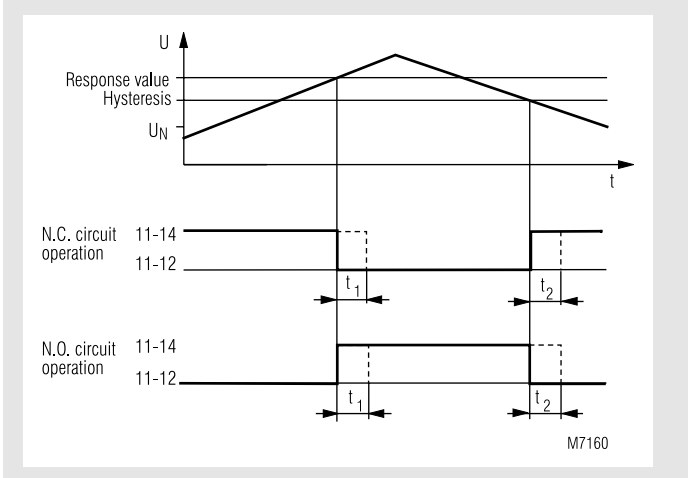
Overvoltage relay IK 9172, SK 9172, single phase varimeter

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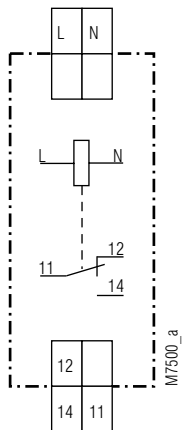


- According to IEC 255, EN 60 255, VDE 0435 part 303
- **Devices available in 2 enclosure versions:**
 - IK 9171:** depth 59 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - SK 9171:** depth 98 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Monitoring of overvoltage
- Without auxiliary supply
- Settable response value
- NC circuit operation (optionally NO circuit operation)
- Optionally with delay t₁ on trip
- Optionally with delay t₂ on reset
- LED indicator for state of output relay
- 1 changeover contact
- Width 17,5 mm

Function diagram

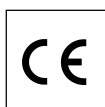


Circuit diagram



IK 9172.11, SK 9172.11

Approvals and marking



Applications

Monitors overvoltage, in single-phase voltage systems

Function

The arithmetic mean value of the voltage L-N ist measured.

Indicators

Yellow LED: output contact active (11-14 closed)

Technical data

Input circuit

Nominal voltage U_N: AC 24, 42, 110, 230 V
DC 24 V
Voltage range: 0,7 ... 1,3 U_N
Max. overload: 1,35 U_N continuously
Nominal consumption: max. 5 VA / DC 1 W
Frequency range: 45 ... 65 Hz

Setting ranges

Response value: adjustable: 0,9 ... 1,3 U_N
Hysteresis: approx. 4 % of setting value
Time delay t₁ / t₂: 0,5 ... 20 s

Output

Contacts
IK 9172.11, SK 9172.11: 1 changeover contact
Thermal current I_{th}: 4 A
Switching capacity
to AC 15
NO contact: 3 A / AC 230 V EN 60 947-5-1
NC contact: 1 A / AC 230 V EN 60 947-5-1
Electrical contact life
at AC 230 V, 1 A (cos φ = 0,5): ≥ 3 x 10⁵ switching cycles
Short circuit strength
max. fuse rating: 4 A gL EN 60 947-5-1
Mechanical life: ≥ 30 x 10⁶ switching cycles

General data

Operating mode: Continuous operation
Temperature range: - 20 ... + 60 °C

Technical data

Clearance and creepage distances

overvoltage category /
contamination level: 4 kV / 2 IEC 60 664-1

EMC

Electrostatic discharge: 8 kV (air) EN 61 000-4-2
HF irradiation: 10 V / m EN 61 000-4-3
Fast transients: 2 kV EN 61 000-4-4

Surge voltages between

wires for power supply: 1 kV EN 61 000-4-5
between wire and ground: 2 kV EN 61 000-4-5
Interference suppression: Limit value class B EN 55 011

Degree of protection: Housing: IP 40 EN 60 529
Terminals: IP 20 EN 60 529

Housing: Thermoplastic with V0 behaviour according to UL subject 94

Vibration resistance: Amplitude 0,35 mm, frequency 10 ... 55 Hz, EN 60 068-2-6

Climate resistance: 20 / 060 / 04 EN 60 068-1

Terminal designation: EN 50 005

Wire connection: 2 x 2,5 mm² solid or
2 x 1,5 mm² stranded ferruled
DIN 46 228-1/-2/-3

Wire fixing: Flat terminals with self-lifting clamping piece EN 60 999

Mounting: DIN rail EN 50 022

Weight

IK 9171: 65 g
SK 9171: 83 g

Dimensions

Width x height x depth

IK 9172: 17,5 x 90 x 59 mm
SK 9172: 17,5 x 90 x 98 mm

Standard type

IK 9172.11 AC 230 V 50/60 Hz 0,9 ... 1,3 U_N

Article number: 0048644

SK 9172.11 AC 230 V 50/60 Hz 0,9 ... 1,3 U_N

Article number: 0054745

- Adjustable response value: 0,9 ... 1,3 U_N
- Without time delay
- Closed circuit operation
- Output: 1 changeover contact
- Nominal voltage U_N: AC 230 V
- Width: 17,5 mm

Variants

IK 9172/001

- 0 N.C. circuit operation
- 1 N.O. circuit operation

- 0 without time delay
- 3 settable time delay t₁
- 4 settable time delay t₂

- 0 settable response value

Ordering example for variants

IK 9172 .11 / _ _ _ AC 230 V 50/60 Hz 0,9 ... 1,3 U_N 0,5 ... 20 s

Time delay t₁
Setting range
Nominal frequency
Nominal voltage
Variant, if required
Contact
Type