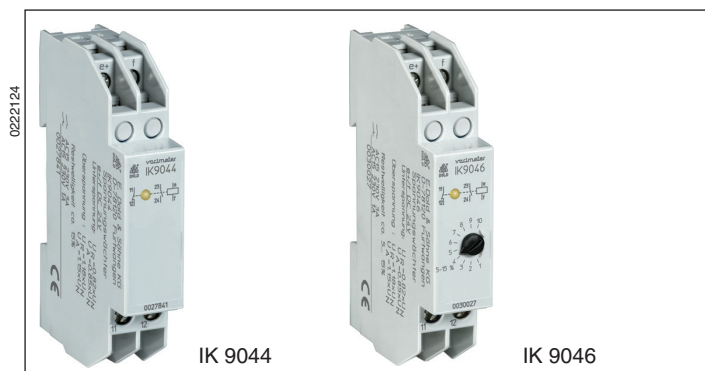
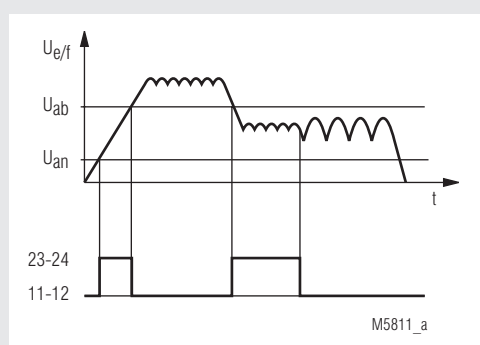


VARIMETER Voltage Monitor IK 9044, IK 9046



- According to IEC/EN 60 255, DIN VDE 0435-303
- For monitoring direct current voltage supply systems to detect undervoltage, overvoltage and residual ripple
- For DC 24 V
- IK 9046 with adjustable residual ripple
- Width 17.5 mm

Function Diagram



Approvals and Marking



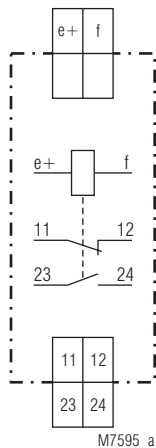
Application

For monitoring direct current voltage supply systems, e.g. of PLC (three-phase bridges), automobile industry, welding.

Indicator:

Yellow LED: on, when there are no faults in the supply system

Circuit Diagram



IK 9044

Technical Data

Input

Nominal voltage U_N : DC 24 V
Maximum overload: DC 33 V permanent
DC 35 V 0.5 s
DC 45 V 10 ms
Nominal consumption: 0.6 W

Overvoltage
setting value: $0.82 \times U_N$
Undervoltage
setting value: $1.18 \times U_N$
Hysteresis: $< 4 \% \times U_N$

Residual ripple actuation
IK 9044: approx. 15 %
IK 9046: 0 ... 15 %, adjustable

Output

Contacts: 1 NC contact, 1 NO contact
Thermal current I_{th} : 4 A
Switching capacity
to AC 15
NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1
NC contact: 1 A / AC 230 V IEC/EN 60 947-5-1
Electrical life: IEC/EN 60 947-5-1
AC 15 at 1 A, AC 230 V: 5×10^5 switching cycles
Short circuit strength
max. fuse rating: 4 AgL IEC/EN 60 947-5-1
Mechanical life: 30×10^6 switching cycles

General Data

Operating mode: Continuous operation
Temperature range:
operating: - 25 ... + 70 °C
storage : - 25 ... + 85 °C
altitude: < 2.000 m

Technical Data

Clearance and creepage distances

rated impulse voltage/
pollution degree: 4 kV / 2 (basis insulation) IEC 60 664-1

EMC

Electrostatic discharge: 6 kV (air) IEC/EN 61 000-4-2

Fast transients: 2 kV IEC/EN 61 000-4-4

Surge voltages

between wire and ground: 4 kV IEC/EN 61 000-4-5

Interference suppression: Limit value class B EN 55 011

Degree of protection

Housing: IP 40 IEC/EN 60 529

Terminals: IP 20 IEC/EN 60 529

Housing: Thermoplastic with V0 behaviour
according to UL subject 94

Vibration resistance: Amplitude 0.35 mm,
frequency 10 ... 55 Hz IEC/EN 60 068-2-6

25 / 070 / 04 IEC/EN 60 068-1

Climate resistance: EN 50 005

Terminal designation:

Wire connection: 2 x 2.5 mm² solid or
2 x 1.5 mm² stranded ferruled

DIN 46 228-1/-2/-3/-4

Wire fixing: Flat terminals with self-lifting
clamping piece IEC/EN 60 999-1

Mounting: DIN rail IEC/EN 60 715

or screw attachment

Weight: 67 g

Dimensions

Width x height x depth: 17.5 x 90 x 58 mm

Standard Types

IK 9044 DC 24 V

Article number: 0027841 stock item

• Residual ripple actuation: approx. 15 %

• Nominal voltage U_N : DC 24 V

• Width: 17.5 mm

IK 9046 DC 24 V

Article number: 0030027 stock item

• Residual ripple actuation: 0 ... 15 %, adjustable

• Nominal voltage U_N : DC 24 V

• Width: 17.5 mm

Connection Example

