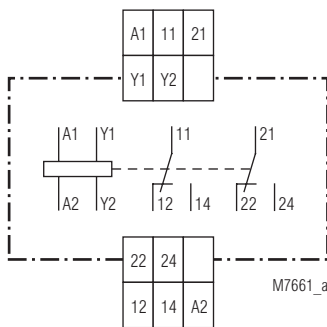


- Monitors state of bimetal switches
- Closed circuit operation
- With broken wire detection
- Width 22.5 mm

### Circuit Diagram



MK 9162.12

### Approvals and Markings



### Application

Detection of overtemperature in motor windings by using bimetal switches

### Notes

Terminals Y1 and Y2 have to be voltage free. When connecting the supply voltage and correct motor temperature the output contacts are activated

### Technical Data

#### Input

**Current on bimetal switch:** Approx. 20 mA at closed contact  
**Voltage on bimetal switch:** Approx. 25 V at open contact

#### Auxiliary Circuit

**Auxiliary voltage  $U_H$ :** AC 24, 42, 110, 127, 230 V  
**Voltage range of  $U_H$ :** 0.9 ... 1.1  $U_H$   
**Nominal consumption:** 1.8 VA  
**Nominal frequency of  $U_H$ :** 50 / 60 Hz

#### Output

#### Contacts

MK 9162.11: 1 changeover contact  
MK 9162.12: 2 changeover contacts

**Operate delay:** < 20 ms

**Release delay:** < 15 ms

**Thermal current  $I_{th}$ :** 5 A

#### Switching capacity

To AC 15

NO contact: 3 A / AC 230 V IEC/EN 60947-5-1

NC contact: 1 A / AC 230 V IEC/EN 60947-5-1

**Electrical life** IEC/EN 60947-5-1

To AC 15 at 3 A, AC 230 V: 8 x 10<sup>5</sup> switching cycles

#### Short circuit strength

**max. fuse rating:** 4 A gG / gL IEC/EN 60947-5-1

**Mechanical life:** > 20 x 10<sup>6</sup> switching cycles

## Technical Data

### General Data

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

### Clearance and creepage distances

Rated impulse voltage / pollution degree: 4 kV / 2 IEC 60664-1

### EMC

Electrostatic discharge: 8 kV (air) IEC/EN 61000-4-2  
Fast transients: 2 kV IEC/EN 61000-4-4

### Surge voltages

Between wires for power supply: 2 kV IEC/EN 61000-4-5  
Between wire and ground: 4 kV IEC/EN 61000-4-5  
Interference suppression: Limit value class B EN 55011

### Degree of protection

Housing: IP 40 IEC/EN 60529  
Terminals: IP 20 IEC/EN 60529

### Housing:

Thermoplastic with V0 behaviour according to UL subject 94

### Vibration resistance:

Amplitude 0.35 mm, frequency 10 ... 55 Hz, IEC/EN 60068-2-6

### Climate resistance:

20 / 060 / 04 IEC/EN 60068-1

### Terminal designation:

EN 50005

### Wire connection:

2 x 1.5 mm<sup>2</sup> solid or 2 x 1.0 mm<sup>2</sup> stranded wire with sleeve DIN 46228-1/-2/-3/-4

### Wire fixing:

Flat terminals with self-lifting clamping piece IEC/EN 60999-1

### Mounting:

DIN rail IEC/EN 60715

### Weight:

150 g

### Dimensions

**Width x height x depth:** 22.5 x 82 x 99 mm

## Standard Type

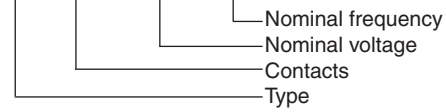
MK 9162.11 AC 230 V 50/60 Hz

Article number: 0046365

- Output: 1 changeover contacts
- Auxiliary voltage  $U_H$ : AC 230 V
- Width: 22.5 mm

## Ordering Example

MK 9162 .11 AC 230 V 50 / 60 Hz



## Connection Example

