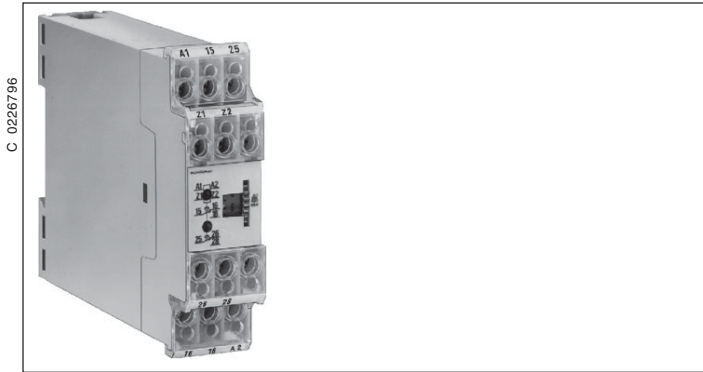
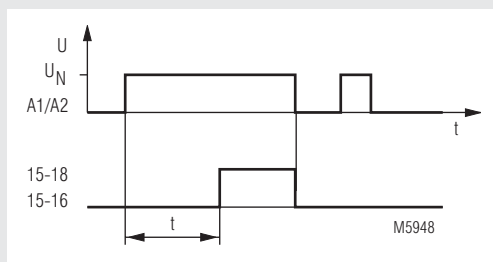


## Timer MK 9908, delay on make minitimer

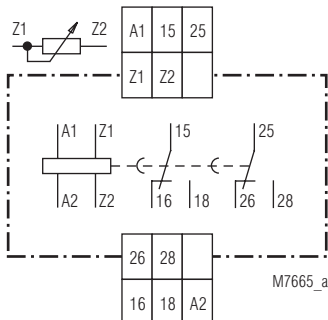


- According to IEC/EN 61 812-1
- Delay up to 300 s
- Repeat accuracy  $< \pm 1 \%$
- Remote potentiometer connection
- Control with 2-wire-initiators possible
- LED-indication for supply and contact position
- 2 changeover contacts
- Width 22,5 mm

### Function diagram



### Circuit diagram



MK 9908.82

### Approvals and marking



### Application

Time dependent controls

### Indication

upper LED: on when operating voltage applied  
lower LED: on when output relay activated

### Technical data

#### Time circuit

|                     |              |
|---------------------|--------------|
| <b>Time ranges:</b> | 0,05 ... 1 s |
|                     | 0,15 ... 3 s |
|                     | 0,5 ... 10 s |
|                     | 1,5 ... 30 s |
|                     | 5 ... 100 s  |
|                     | 15 ... 300 s |

**Time setting:** stepless on absolute scale  
remote setting by external potentiometer

#### Recovery time

tw 50 / 100:  $< 200 \text{ ms} / < 100 \text{ ms}$

**Repeat accuracy:**  $< \pm 1 \%$  of the max. scale value

**Voltage influence:**  $\leq 2 \%$  at 0,8 ... 1,1  $U_N$

**Temperature influence:**  $\leq 0,3 \%$  / K

### Input

**Nominal voltage  $U_N$ :** AC 24, 42, 110 ... 127, 220 ... 240 V

DC 24 V with polarity protection

**Voltage range:** 0,8 ... 1,1  $U_N$  at AC

**Permissible residual current:** 5 mA

**Nominal consumption**  
AC 230 V: 7 VA

**Nominal frequency:** 50 / 60 Hz

**Frequency range:**  $\pm 5 \%$   $f_N$

### Output

**Contacts:** 2 changeover contacts delayed

**Release time of the contacts:** approx. 40 ms

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

**Switching capacity**

to AC 15:

NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1

NC contact: 2 A / AC 230 V IEC/EN 60 947-5-1

**Electrical life** IEC/EN 60 947-5-1

to AC 15 at 3 A, AC 230 V:  $5 \times 10^5$  switching cycles

## Technical data

|   |                                       |                   |
|---|---------------------------------------|-------------------|
| <b>Permissible switching frequency:</b>         | 6 000 switching cycles / h            |                   |
| <b>Short circuit strength max. fuse rating:</b> | 6 A gL                                | IEC/EN 60 947-5-1 |
| <b>Mechanical life:</b>                         | 30 x 10 <sup>6</sup> switching cycles |                   |

## General data

|  |  |                   |
|--|--|-------------------|
| <b>Operating mode:</b>                         | Continuous operation   |                   |
| <b>Temperature range:</b>                      | - 20 ... + 60°C  |                   |
| <b>Clearance and creepage distances</b>        |  |                   |
| overvoltage category / contamination level:    | 4 kV / 2   | IEC 60 664-1      |
| <b>EMC</b>                                     |  |                   |
| Electrostatic discharge:                       | 8 kV (air)   | IEC/EN 61 000-4-2 |
| HF-irradiation:                                | 10 V/m   | IEC/EN 61 000-4-3 |
| Fast transients:                               | 4 kV   | IEC/EN 61 000-4-4 |
| Surge voltages between wires for power supply: | 2 kV   | IEC/EN 61 000-4-5 |
| between wire and ground:                       | 4 kV   | IEC/EN 61 000-4-5 |
| HF-wire guided:                                | 10 V   | IEC/EN 61 000-4-6 |
| Interference suppression:                      | Limit value class B  | EN 55 011         |
| <b>Degree of protection:</b>                   | Housing: IP 40   | IEC/EN 60 529     |
|  | Terminals: IP 20   | IEC/EN 60 529     |
| <b>Housing:</b>                                | Thermoplast with V0-behaviour according to UL subj. 94   |                   |
| <b>Vibration resistance</b>                    | Amplitude 0,35 mm<br>frequenzy 10 ... 55 Hz IEC/EN 60 068-2-6  |                   |
| <b>Climate resistance:</b>                     | 20 / 060 / 04 IEC/EN 60 068-1  |                   |
| <b>Terminal designation:</b>                   | EN 50 005  |                   |
| <b>Wire connection:</b>                        | 2 x 1,5 mm <sup>2</sup> solid or<br>2 x 1,0 mm <sup>2</sup> stranded wire with sleeve<br>DIN 46 228-1/-2/-3/-4 |                   |
| <b>Wire fixing:</b>                            | Flat terminals with self-lifting clamping piece IEC/EN 60 999-1  |                   |
| <b>Mounting:</b>                               | DIN rail IEC/EN 60 715   |                   |
| <b>Weight:</b>                                 | 150 g  |                   |

## Dimensions

**Width x height x depth:** 22,5 x 82 x 99 mm

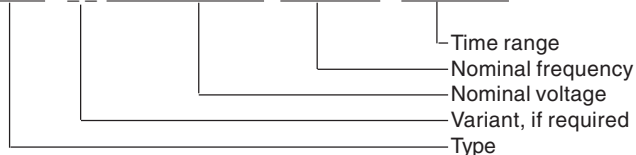
## Standard type

|                                    |                                |            |
|------------------------------------|--------------------------------|------------|
| MK 9908 AC 220 ... 240 V           | 0,5 ... 10 s                   |            |
| Article number:                    | 0044923                        | stock item |
| • Output:                          | 2 changeover contacts, delayed |            |
| • Nominal voltage U <sub>N</sub> : | AC 220 ... 240 V               |            |
| • Time range:                      | 0,5 ... 10 s                   |            |
| • Width:                           | 22,5 mm                        |            |

## Variants

### Ordering example of variants

MK 9908 / \_ AC 220 ... 240 V 50 / 60 Hz 15 ... 300 s



## Accessories

ET 4752-143:

Making plate

AD 3:

External potentiometers

|          |       |        |
|----------|-------|--------|
| 0,05 ... | 1 s   | 1 MΩ   |
| 0,15 ... | 3 s   | 2,2 MΩ |
| 0,5 ...  | 10 s  | 10 MΩ  |
| 1,5 ...  | 30 s  | 20 MΩ  |
| 5 ...    | 100 s | 20 MΩ  |
| 15 ...   | 300 s | 20 MΩ  |

Degree of protection front side:

IP 60

