

## MINITIMER Timer, On delayed MK 9906N/600



0272762

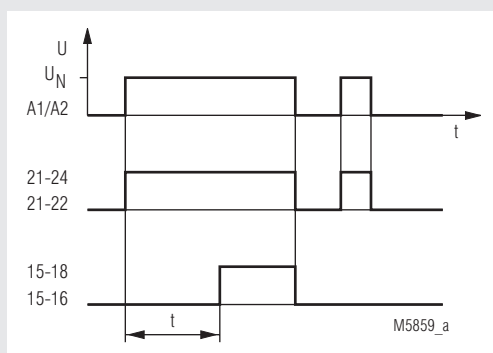
### Your Advantages

- For different time ranges
- Simplified storage
- High accuracy

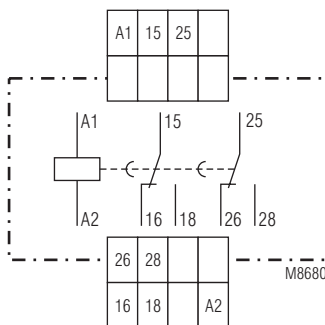
### Features

- According to IEC/EN 61 812-1
- Delay from 0.05 s ... 100 h
- Repeat accuracy  $\leq \pm 0.5\%$
- Setting on absolute scale
- LED indicators for operation and state of contacts
- Controlled with 2-wire initiators
- 2 changeover contacts
- Wire connection: also 2 x 1.5 mm<sup>2</sup> stranded ferruled, or 2 x 2.5 mm<sup>2</sup> solid DIN 46 228-1/-2/-3/-4
- As option with pluggable terminal blocks for easy exchange of devices
  - with screw terminals
  - or with cage clamp terminals
- Width: 22.5 mm

### Function Diagram



### Circuit Diagrams



MK 9906N.82/600

### Approvals and Markings



### Application

Time-dependent controllers

### Indications

upper LED:	on when supply connected
lower LED:	on, when corresponding output relay is active (contact 15 - 18 closed)

### Technical Data

#### Time circuit

<b>Time ranges:</b>	0.05 ... 1 s	0.5 ... 10 min
	0.15 ... 3 s	1.5 ... 30 min
	0.5 ... 10 s	3 ... 60 min
	1.5 ... 30 s	0.15 ... 3 h
	3 ... 60 s	0.5 ... 10 h
	5 ... 100 s	1.5 ... 30 h
	15 ... 300 s	5 ... 100 h

<b>Time setting:</b>	Stepless, setting on absolute scale
<b>Recovery time</b>	
tw 50 / 100:	40 ms
<b>Repeat accuracy:</b>	$\leq \pm 0.5\%$ end of scale value
<b>Voltage influence:</b>	$\leq 1\%$
<b>Temperature influence:</b>	$< 0.1\% / K$

### Input

<b>Nominal voltage <math>U_N</math>:</b>	AC/DC 24 V, AC 110 ... 127 V AC/DC 24 V, AC 230 ... 240 V
<b>Voltage range:</b>	AC 0.8 ... 1.1 $U_N$ DC 0.9 ... 1.25 $U_N$
<b>Nominal consumption:</b>	AC 230 V DC 24 V DC 42 V 8.5 VA 1 W 1 W
<b>Nominal frequency:</b>	50 / 60 Hz
<b>Frequency range:</b>	$\pm 5\% f_N$
<b>Release voltage:</b>	15% $U_N$
<b>Permissible residual current:</b>	5 mA

## Technical Data

### Output

<b>Contacts:</b>	2 changeover contacts	
<b>Release time:</b>	30 ms	
<b>Thermal current <math>I_{th}</math>:</b>	5 A	
<b>Switching capacity</b> 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
<b>Electrical life</b> to AC 15 at 3 A, AC 230 V:	5 x 10 <sup>5</sup> switch. cycles IEC/EN 60 947-5-1	
<b>Permissible switching frequency:</b>	6 000 switching cycles / h	
<b>Short circuit strength</b> <b>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> rated impulse voltage / pollution degree:		
Input / Output:	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 voltage between wires for power supply: between wire and ground: HF-wire guided: Interference suppression:	1 kV 2 kV 10 V	IEC/EN 61 000-4-5 IEC/EN 61 000-4-5 IEC/EN 61 000-4-6
<b>Degree of protection</b>	Limit value class B	EN 55 011
Housing:	IP 40	IEC/EN 60 529
Terminals:	IP 20	IEC/EN 60 529
<b>Housing:</b>	Thermoplastic with V0 behaviour according to UL subject 94	
<b>Vibration resistance:</b>	Amplitude 0.35 mm, Frequency 10 ... 55 Hz, IEC/EN 60 068-2-6 20 / 060 / 04 IEC/EN 60 068-1 EN 50 005	
<b>Climate resistance:</b>	DIN 46 228-1/-2/-3/-4	
<b>Terminal designation:</b>		
<b>Wire connection</b> <b>Screw terminals</b> <b>(integrated):</b>	1 x 4 mm <sup>2</sup> solid or 1 x 2.5 mm <sup>2</sup> stranded ferruled (isolated) or 2 x 1.5 mm <sup>2</sup> stranded ferruled (isolated) or 2 x 2.5 mm <sup>2</sup> solid	

Insulation of wires or sleeve length:	8 mm	
<b>Plug in with screw terminals</b> max. cross section for connection:	1 x 2.5 mm <sup>2</sup> solid or 1 x 2.5 mm <sup>2</sup> stranded ferruled (isolated)	
Insulation of wires or sleeve length:	8 mm	
<b>Plug in with cage clamp terminals</b> max. cross section for connection:	1 x 4 mm <sup>2</sup> solid or 1 x 2.5 mm <sup>2</sup> stranded ferruled (isolated)	
min. cross section for connection:	0.5 mm <sup>2</sup>	
Insulation of wires or sleeve length:	12 ±0.5 mm	
<b>Wire fixing:</b>	Plus-minus terminal screws M 3.5 box terminals with wire protection or cage clamp terminals	
<b>Mounting:</b>	DIN rail	IEC/EN 60 715
<b>Weight:</b>	140 g	

### Dimensions

<b>Width x height x depth</b>	
MK 9906N:	22.5 x 90 x 97 mm
MK 9906N PC/600:	22.5 x 111 x 97 mm
MK 9906N PS/600:	22.5 x 104 x 97 mm

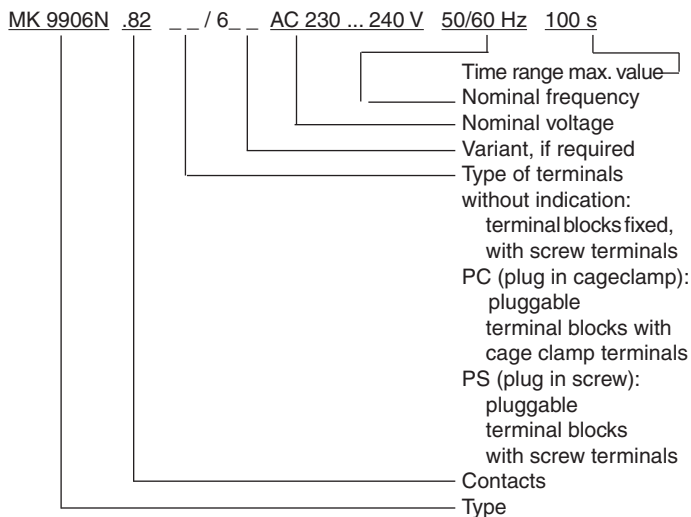
## Standard Type

MK 9906N.82/600	AC 220 ... 240 V	1.5 ... 30 s
Article number:	0056017	
• Output:	2 Wechsler	
• Nominal voltage $U_N$ :	AC 220 ... 240 V	
• Width:	22.5 mm	

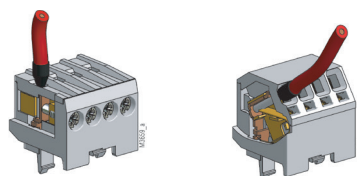
## Variants

MK 9906N.82/608:	DC 24 V, 2 changeover contacts inrush current: ≤ 100 mA, typ. at DC 24 V: 80 mA recovery time: $t_w$ 50/100: ≤ 20 ms (suitable to be controlled by reed contacts)
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## Ordering example for variants



## Options with Pluggable Terminal Blocks



Screw terminal (PS/plugin screw)      Cage clamp (PC/plugin cage clamp)

## Notes

Removing the terminal blocks with cage clamp terminals

1. The unit has to be disconnected.
2. Insert a screwdriver in the side recess of the front plate.
3. Turn the screwdriver to the right and left.
4. Please note that the terminal blocks have to be mounted on the belonging plug in terminations.

