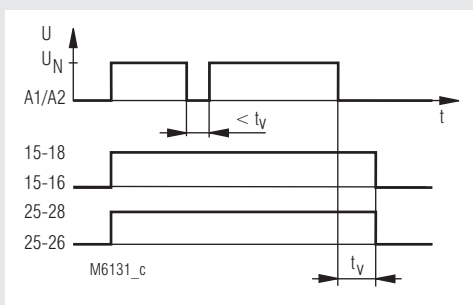


MINITIMER Timer, Release Delay MK 7873N



- According to IEC/EN 61 812-1
- Release delay, without control signal
- No-voltage safe
- Delay up to 300 s
- Repeat accuracy $\leq \pm 0.5 \%$
- No recovery time
- With large voltage range AC/DC 24 ... 240 V
- LED display for power supply
- 2 changeover contacts
- Wire connection: also 2 x 1.5 mm² stranded ferruled, or 2 x 2.5 mm² solid DIN 46 228-1/-2/-3/-4
- With pluggable terminal blocks for easy exchange of devices
 - With screw terminals
 - Or with cage clamp terminals
- Width 22.5 mm

Function Diagram



Approvals and Markings



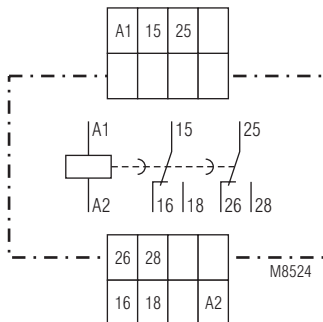
Application

Time dependent controls for industrial and railway applications.

Indicators

LED: on, when supply connected

Circuit Diagram



MK 7873N.82

Connection Terminals

Terminal designation	Signal description
A1, A2	Operating voltage
15, 16, 18, 25, 26, 28	Changeover contacts

Technical Data			
Time circuit			
Time ranges:	0.05 ... 1 s	0.15 ... 3 s	
	0.5 ... 10 s	1.5 ... 30 s	
	5 ... 100 s	15 ... 300 s	
Time setting:	steppless		
Minimum switch-on time of the control input			
for DC 24 V:	150 ms		
for UC 220 V:	25 ms		
Recovery time			
tw 50 / 100:	0		
Repeat accuracy:	≤ ± 0.5 % of set value		
Voltage influence:	≤ 0.5 %		
Temperature influence:	< 0.2 % / K		
Input			
Nominal voltage U _N : (Operating voltage):	AC/DC 24 ... 240 V		
Voltage range:	AC 19.2 ... 264 V		
	DC 21.6 ... 300 V		
Nominal consumption			
Effective power:	0.8 W		
Frequency range:	45 ... 400 Hz		
Release voltage:	10 V		
Output			
Contacts:	2 delayed changeover contacts		
Contact material:	AgSnO ₂ + 0.2 µm Au		
Measured nominal voltage:	AC 250 V		
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:	1 A / AC 230 V	IEC/EN 60 947-5-1	
to DC 13 at 0.1 Hz:	1 A / DC 24 V	IEC/EN 60 947-5-1	
Electrical life	IEC/EN 60 947-5-1		
at AC 230 V, 6 A, cos φ = 1:	8 x 10 ⁵ switching cycles		
Permissible operating frequency:			
for time ranges ≤ 10 s:	1 400 switching cycles / h		
for time ranges ≥ 30 s:	700 switching cycles / h		
Short circuit strength			
max. fuse rating:	6 A gG / gL	IEC/EN 60 947-5-1	
Mechanical life:	30 x 10 ⁶ switching cycles		
General Data			
Operating mode:	Continuous operation		
Temperature range:			
Operation:	- 20 ... + 60°C		
Storage:	- 25 ... + 60°C		
Relative air humidity:	93 % at 40°C		
Altitude:	< 2,000 m		
Clearance and creepage distances			
rated impulse voltage / pollution degree:	4 kV / 2 (basis insulation) IEC 60 664-1		
Overvoltage category:	III		
Insulation test voltage, type test:	2.5 kV; 1 min		
EMC			
Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2	
HF-irradiation			
80 MHz ... 1 GHz:	12 V / m	IEC/EN 61 000-4-3	
1 GHz ... 2.7 GHz:	5 V / m	IEC/EN 61 000-4-3	
Fast transients	2 kV	IEC/EN 61 000-4-4	
Surge voltages between			
wires for power supply:	1 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	
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		
Climate resistance:	20 / 060 / 04 IEC/EN 60 068-1		
Terminal designation:	EN 50 005		

Technical Data	
Wire connection	DIN 46 228-1/-2/-3/-4
Screw terminals (integrated):	
1 x 4 mm ² solid or	
1 x 2.5 mm ² stranded ferruled or	
2 x 1.5 mm ² stranded ferruled or	
2 x 2.5 mm ² solid	
Insulation of wires or sleeve length:	
8 mm	
Plug in with screw terminals	
max. cross section	
for connection:	
1 x 2.5 mm ² solid or	
1 x 2.5 mm ² stranded ferruled	
Insulation of wires or sleeve length:	
8 mm	
Plug in with cage clamp terminals	
max. cross section	
for connection:	
1 x 4 mm ² solid or	
1 x 2.5 mm ² stranded ferruled	
min. cross section	
for connection:	
0.5 mm ²	
Insulation of wires or sleeve length:	
12 ±0.5 mm	
Wire fixing:	
Plus-minus terminal screws M 3.5	
box terminals with wire protection or	
cage clamp terminals	
0.8 Nm	
Fixing torque:	
Mounting:	DIN rail IEC/EN 60 715
Weight:	132 g

Dimensions	
Width x height x depth:	
MK 7873N:	22.5 x 90 x 97 mm
MK 7873N PC:	22.5 x 111 x 97 mm
MK 7873N PS:	22.5 x 104 x 97 mm
Classification to DIN EN 50155	
Vibration and shock resistance:	Category 1, Class B IEC/EN 61 373
Ambient temperature:	T1 compliant
	T2, T3 and TX with operational limitations
Protective coating of the PCB:	No

UL-Data	
Switching capacity:	
Ambient temperature 60°C:	Pilot duty B300
	5A 250Vac G.P.
	5A 24Vdc G.P.
Wire connection:	
Screw terminals fixed:	60°C / 75°C copper conductors only
Plug in screw:	AWG 20 - 12 Sol/Str Torque 0.8 Nm
	AWG 20 - 14 Sol Torque 0.8 Nm
	AWG 20 - 16 Str Torque 0.8 Nm
Plug in cage clamp:	AWG 20 - 12 Sol/Str

 **Technical data that is not stated in the UL-Data, can be found in the technical data section.**

Standard Type

MK 7873N.82/61 AC/DC 24 ... 240V 1.5 ... 30 s

Article number: 0054462

- Output: 2 changeover contacts
- Nominal voltage U_N : AC/DC 24 ... 240 V
- Time range: 1.5 ... 30 s
- Width: 22.5 mm

Variant

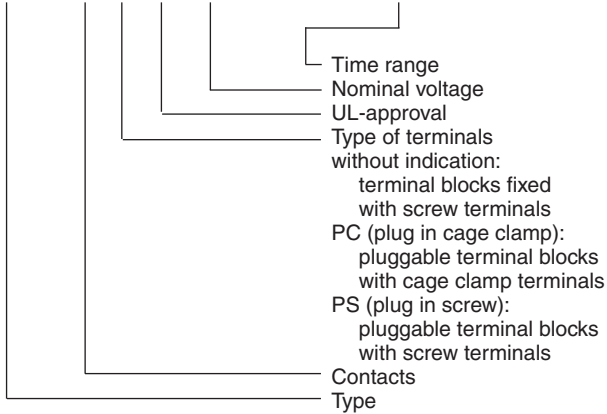
MK 7873N.82/300 AC/DC 24 ... 240 V 1.5 ... 30 min

Article number: 0060240

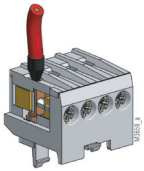
- Output: 2 changeover contacts
- Nominal voltage U_N : AC/DC 24 ... 240 V
- Time range: 1.5 ... 30 min
- Width: 22.5 mm

Ordering Example

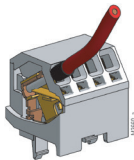
MK 7873N .82 _ _ /61 AC/DC 24 ... 240 V 5 ... 100 s



Options with Pluggable Terminal Blocks



Screw terminal
(PS/plug in screw)



Cage clamp
(PC/plug in 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.

