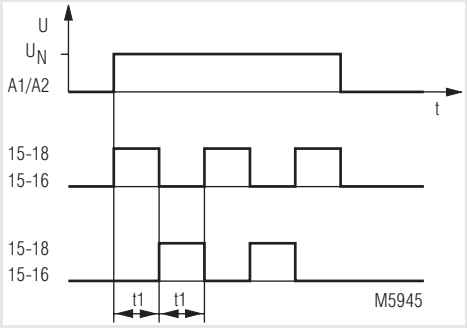
MINITIMER
Flasher Relay
MK 7851

Translation of the original instructions

DOLD

- According to IEC/EN 61812-1
- Adjustable flashing frequency, impulse time up to 300 s
- Repeat accuracy < ± 0.5 %
- Adjustable on absolute scale
- Start with impulse
- Available start with space
- Dual-voltage version
- LED indication for operation and contact position
- 2 changeover contacts
- Width 22.5 mm

Function Diagram



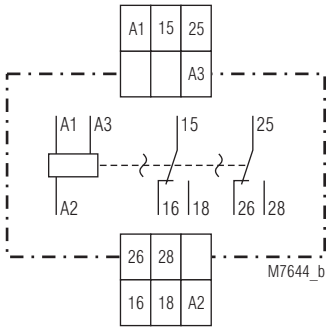
Approvals and Markings

CE

Indicators

Upper LED:	On, when supply connected
Lower LED:	On, when output relay active (contact 15-18 closed)

Circuit Diagram



MK 7851

Connection Terminals

Terminal designation	Signal description
A1, A2, A3	Operating voltage
15, 16, 18 25, 26, 28	2 changeover contacts, delayed

Technical Data

Time circuit

Time ranges:	0.05 ... 1 s = 600...30 Impulses/min
	0.15 ... 3 s
	0.5 ... 10 s
	1.5 ... 30 s
	3 ... 60 s
	5 ... 100 s
	15 ... 300 s
Pulse duty factor:	1:1
Time setting:	Steppless on absolute scale
Recovery time	
tw 50 / 100:	< 40 ms
Repeat accuracy:	< ± 0.5 % of the max. scale value
Voltage influence:	≤ 1 %
Temperature influence:	< 0.1 % / K

Input

Nominal voltage U_N:	AC/DC 24 V[1)] + AC 110 ... 127 V[2)]
	AC/DC 24 V[1)] + AC 230 ... 240 V[2)]
	AC/DC 24 V[1)] + AC/DC 42 V[2)]
	[1)] at terminals A3 - A2
	[2)] at terminals A1 - A2
Voltage range:	AC 0.8 ... 1.1 U_N
	DC 0.9 ... 1.25 U_N
Release voltage:	15 % U_N
Permissible residual current:	5 mA
Nominal consumption:	AC 230 V DC 24 V
	8.5 VA 1 W
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 % f_N

Output

Contacts:	2 changeover contacts	
Contact material:	$AgSnO_2$	
Measured nominal voltage:	AC 250 V	
Release time:	Approx. 30 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:	5 x 10^5 switching cycles	
Permissible siwtching frequency:	6000 switching cycles / h	
Short circuit strength		
Max. fuse rating:	4 A gG / gL	
Mechanical life:	> 30 x 10^6 switching cycles	

General Data

Operating mode:	Continuous operation	
Temperature range		
Operation:	- 20 ... + 60 °C	
Storage:	- 25 ... + 70 °C	
Relative air humidity:	95 % at 40 °C	
Altitude:	< 2000 m	
Clearance and creepage distances		
Rated impulse voltage/ pollution degree:	4 kV / 2 (basis insulation)	IEC 60664-1
Overvoltage category:	III	
Insulation test voltage, type test:	2.5 kV; 1 min	
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61000-4-2
HF irradiation		
80 MHz ... 1 GHz:	10 V / m	IEC/EN 61000-4-3
1 GHz ... 2.5 GHz:	3 V / m	IEC/EN 61000-4-3
2.5 GHz ... 2.7 GHz:	1 V / m	IEC/EN 61000-4-3
Fast transients:	2 kV	IEC/EN 61000-4-4
Surge voltages		
Between		
wires for power supply:	1 kV	IEC/EN 61000-4-5
Between wire and ground:	2 kV	IEC/EN 61000-4-5
HF-wire guided:	10 V	IEC/EN 61000-4-6
Interference suppression:	Limit value class B	EN 55011

Technical Data

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^2 solid or stranded wire with sleeve DIN 46228-1/-2/-3/-4	
Insulation of wires or sleeve length:	8 mm	
Wire fixing:	Flat terminals with self-lifting clamping piece	IEC/EN 60999-1
Fixing torque:	0.4 Nm	
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 7851 AC/DC24V + AC220...240V 50/60Hz 0.5 ... 10 s

Article number:	0044846
• Output:	2 changeover contacts
• Nominal voltage U_N:	AC/DC 24 V + AC 220 ... 240 V
• Time range:	0.5 ... 10 s
• Width:	22.5 mm

Variant

MK 7851.82/124:	Start with space

Accessories

ET 4752-143:	Marking plate Article number: 0043203