Latching Relay
MK 8852

Translation of the original instructions

0226825

Your Advantage
- Energy saving, no holding capacity required
- Manual switching by manual actuator possible
- Switching position visible from outside

Features
- According to IEC/EN 60947-5-1
- Setting input A1 - A2
- Reset input A3 - A2
- Storage function
- Switch position indication
- Manual operation
- DIN rail mounting
- Width 22.5 mm

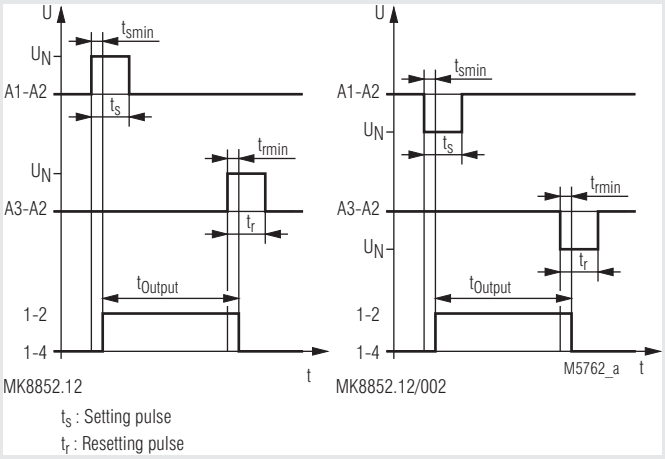
Product Description

The latching relay MK 8852 is suitable for use in systems in which the switching states of the contacts must be reliable mainteined even in the event of power failures. It contains a bistable relay equipped with two coils, which permanentely maintains its switching state after pulse triggering. The latching relay is designed for pulse operation, although continuous operation is also permissible in the event of a fault. Switching of the contacts can be achieved by pulse control of the other second relay coil. The switching position of the contacts can be changed manually, with the manual actuator on the front of the device, which also serves as a contact position indicator.

Approvals and Markings

CE

Function Diagram



Notes

Impulse conversion into a permanent function. (A pulse input s leading to a continuous function output).

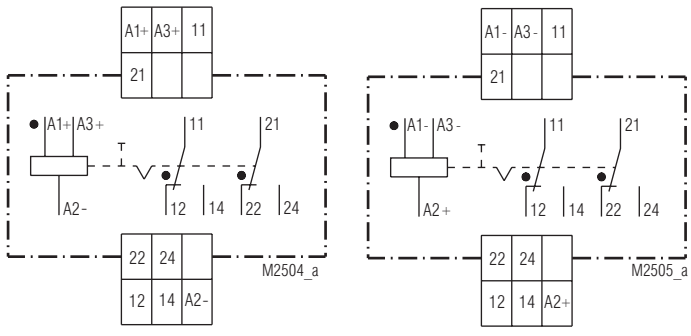
Latching relays are designed for pulse operation.

In case of cyclic pulsed operation, the recommended pulse duration for t_s and t_r are within 0.03 ... 2 s each. A pulse-interval-ratio of 25 % duty cycle is recommended. In no case the permissible operating frequency may be exceeded. For single pulse operation pulse times of > 2 s are possible. A recovery time (min off time between 2 impulses) of > 6 s is required.

In case of a failure a continuous control is possible.

Simultaneous energization of A1 and A3 ist not allowed!

Circuit Diagrams



MK 8852.12 MK 8852.12/002

Connection Terminals

Terminal designation	Signal description
A1	Setting input AC/DC (setting pulse)
A2	Reference potential (earth connection)
A3	Reset input AC/DC
11, 12, 14; 21, 22, 24	Changeover contacts

Technical Data

Input

Operating mode:	Impulse operation
Nominal voltage U_N:	AC / DC 24 V, 30 ... 80 V, 96 ... 150 V, 180 ... 240 V
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption:	1.35 W
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 %
Min. pulse duration ($\hat{=} t_{s\,min}$ and $t_{r\,min}$):	30 ms

Output

Contacts		
MK 8852.12:	2 changeover contacts	
Measured nominal voltage:	AC 250 V	
Operate time of contacts:	10 ms (typical)	
Release time of contacts:	10 ms (typical)	
Thermal current I_{th}:	6 A (permissible continuous current)	
Switching capacity		IEC/EN 60947-5-1
To AC 15:	4 A / AC 230 V	
	5 A / AC 230 V at 0.1 Hz	
To DC 13:	2 A / DC 24 V	
	0.2 A / DC 110 V	
	0.1 A / DC 230 V	
Electrical life		IEC/EN 60947-5-1
At 6 A, AC 230 V cos φ = 1:	> 1 x 10^5 switch. cycl.	IEC/EN 60947-5-1
To AC 15 at 4 A, AC 230 V:	> 1 x 10^5 switch. cycl.	IEC/EN 60947-5-1
To DC 13 at 1 A, AC 24 V:	> 1 x 10^5 switch. cycl.	IEC/EN 60947-5-1
Permissible switching frequency:	3600 switching cycles / h	
Short-circuit strength		
max. fuse range	6 A gG / gL	IEC/EN 60947-5-1
Mechanical life:	10 x 10^6 switching cycles	

General Data

Temperature range		
Operation:	- 25 ... + 50 °C	
Lagerung:	- 25 ... + 50 °C	
Altitude:	≤ 2000 m	
Clearance and creepage distances		
Rated insulation voltage:	AC 250 V	
Rated impulse voltage / pollution degree:	4 kV / 2	IEC 60664-1
EMC		
Electrostatic discharge:	8 kV (air)	IEC/EN 61000-4-2
HF irradiation		
80 MHz ... 2.7 GHz:	10 V/m	IEC/EN 61000-4-3
Fast transients:	4 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
HF-wire guided:	10 V	IEC/EN 61000-4-6
Interference suppression:	Limit value class B	EN 55011
Degree of protection		
Housing:	IP 40	IEC/EN 60529
Terminals:	IP 20	IEC/EN 60529
Housing:	Thermoplast 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:	25 / 50 / 04	IEC/EN 60068-1
Terminal designation:	EN 50005	
Wire connection:	2 x 2.5 mm^2 solid or 2 x 1.5 mm^2 stranded wire with sleeve DIN 46228-1/-2/-3 2 x 1.0 mm^2 stranded wire with sleeve DIN 46228-1/-2/-3/-4	
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:	120 g	

Dimensions

Width x height x depth:	22.5 x 82 x 102 mm

Standard Type

MK 8852.12 AC/DC 24 V

Article number:	0056441
• Output:	2 changeover contacts
• Nominal voltage U_N:	AC/DC 24 V
• Width:	22,5 mm

Variant

MK 8852.12/002:	For DC operation observe reversed polarity on input (see Function Diagramm)

Ordering example for variant

MK 8852 .12 /_ _ _ AC/DC 24 V 50 / 60 Hz

- 50 / 60 Hz — Nominal frequency
- AC/DC 24 V — Nominal voltage
- /_ _ _ — Variant, if required
- .12 — Contacts
- MK 8852 — Type