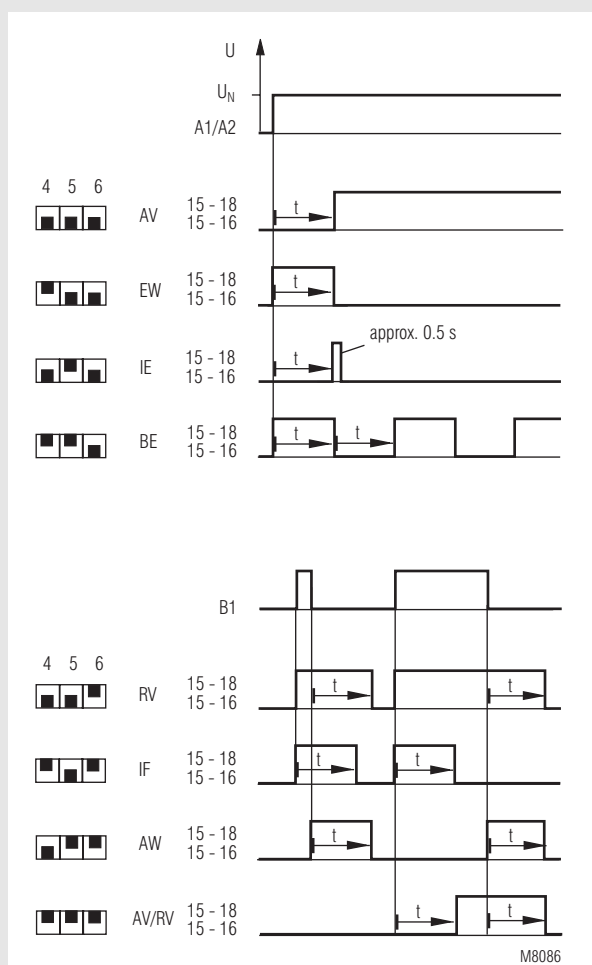


0221574



- According to IEC/EN 61 812-1
- Programmable via DIP switches for
 - operate delay (AV)
 - fleeting make (EW)
 - delayed fleeting action (IE)
 - Flash function, starting with On (BE)
 - release delay (RV)
 - pulse extender (IF)
 - fleeting break (AW)
 - operate and release delay (AV / RV)
- 8 time ranges from 0,05 s ... 10 h
- Remote control potentiometer connection Z1 - Z2, 10 KΩ for all time ranges
- 2 changeover contacts
- Voltage range 24 ... 240 V AC/DC
- LED indicators for power supply and contact position
- Width 22,5 mm

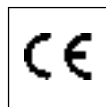
Function diagram



4 ... 6 = Position of DIP-switches

- | | |
|--------------------------------------|-----------------------------------|
| AV = Operate delay | RV = Release delay |
| EW = Fleeting make | IF = Pulse extender |
| IE = Delayed fleeting action | AW = Fleeting break |
| BE = Flasher relay, starting with On | AV/RV = Operate and release delay |

Approvals and marking



Application

Time-dependent controls

Indicators

- | | |
|------------|---|
| upper LED: | on, when supply connected, flashes during time delay |
| lower LED: | on, when output relay active (contact 15 - 18 closed) |

Notes

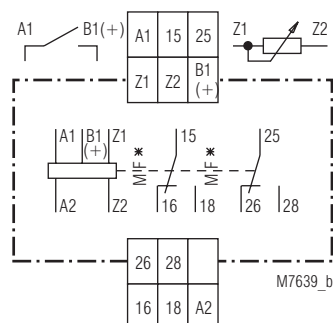
The functions RV, IF, AW, AV/RV can be controlled via the control input B1 (+) as shown in the connection example. The time sequence can be interrupted by closing the control contact S2 in the case of the functions AV, EW, IE, BE. The time sequence is continued again when control contact F2 is opened.

When function "operate delay" is selected the output contact can be switched on during time delay for test purposes. To do this DIP-switch 4 must be set to on. Is this switch set to off again during time delay, the output relay opens.

The device is delivered with a wire link between Terminals Z1-Z2. An external potentiometer (10 KW) can be connected to these terminals. In this case the link has to be removed and the setting on the relay has to be put to minimum. To connect a remote potentiometer this link must be removed and the potentiometer is connected to Z1-Z2. Also the built in Potentiometer must be set to min. time. The wiring between potentiometer and relay should not be disconnected, because the timing is then disabled.

If not external remote potentiometer is connected, the link must be connected to Z1-Z2.

Circuit diagram



Technical data**Time circuit**

Time ranges: 8 time ranges can be programmed on the front panel via the switches 1, 2, 3

0 = switch down
1 = switch up

DIP-switch			Time ranges
1	2	3	
0	0	0	0,05 ... 1 s
1	0	0	0,15 ... 3 s
0	1	0	0,5 ... 10 s
1	1	0	1,5 ... 30 s
0	0	1	5 ... 100 s
1	0	1	15 ... 300 s
0	1	1	1,5 ... 30 min
1	1	1	0,5 ... 10 h

Time setting: Continuous, 1:20 on relative scale
Recovery time: approx. 50 ms
Repeat accuracy: $\pm 0,5\%$
Voltage influence: $< 1\%$
Temperature influence: $< 0,1\% / K$

Input

Nominal voltage U_N : AC/DC 24 ... 240 V
Voltage range: AC 18 ... 264 V
 A1/A2, B1/A2: DC 18 ... 300 V
Release voltage (A1/A2)
 AC 50 Hz: 6 V or 0,5 mA
 DC: 7 V
Minimum closing time of control contact B1(+): 20 ms
Release voltage B1 (+): approx. AC/DC 10 V
Nominal power consumption
 AC 24 V: 0,6 VA
 AC 240 V: 3,6 VA
 DC 24 V: 0,7 W
 DC 240 V: 1,2 W
Nominal frequency: 50 ... 400 Hz

Output

Contacts
 MK 7850.82: 2 changeover contacts
Thermal current I_{th} : 2 x 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
Electrical life IEC/EN 60 947-5-1
 to AC 15 at 3 A, AC 230 V: 2 x 10⁵ switching cycles
Short-circuit strength
max. fuse rating: 6 A gL IEC/EN 60 947-5-1
Mechanical life: $> 20 \times 10^6$ switching cycles

General data

Operating mode: Continuous operation
Temperature range: - 20 ... + 60 °C
Clearance and creepage distances
 overvoltage category / contamination level: 4 kV / 3 IEC 60 664-1
EMC
 Electrostatic discharge: 8 kV (air) IEC/EN 61 000-4-2
 HF irradiation: 10 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: 2 kV IEC/EN 61 000-4-5
 between wire and ground: 4 kV IEC/EN 61 000-4-5
 Interference suppression: Limit value Class A 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

Technical data

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
Wire connection: 2 x 1,5 mm² solid or 2 x 1,0 mm² stranded wire with sleeve DIN 46 228/-1/-2/-3/-4
Wire fixing: Flat terminals with self-lifting clamping piece IEC/EN 60 999-1
Mounting: DIN rail IEC/EN 60 715
Weight: 150 g

Dimensions

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

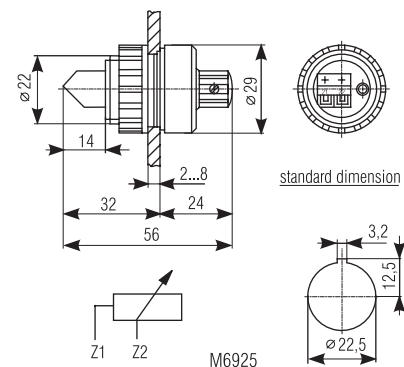
Standard type

MK 7850.82/200 AC/DC 24 ... 240 V
 Article number: 0041520 stock item
 • Output: 2 changeover contacts
 • Nominal voltage U_N : AC/DC 24 ... 240 V
 • Time ranges: from 0,05 s ... 10 h
 • Width: 22,5 mm

Accessories

ET 4752-143: Marking plate
 AD 3: External potentiometer 10 k Ω

The external potentiometer is used for remote setting of the time delay. The internal potentiometer of the timer must be set to min. time delay



Connection example

