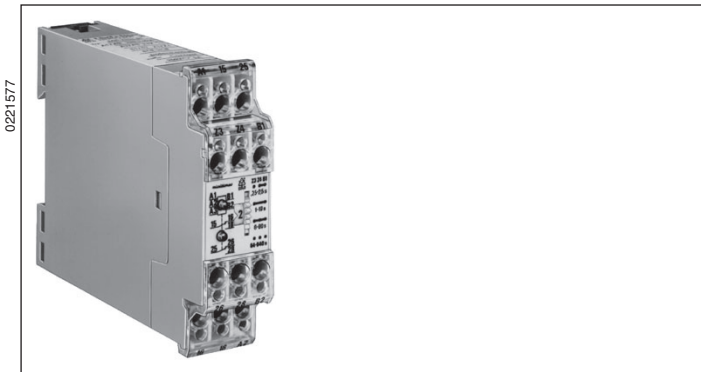
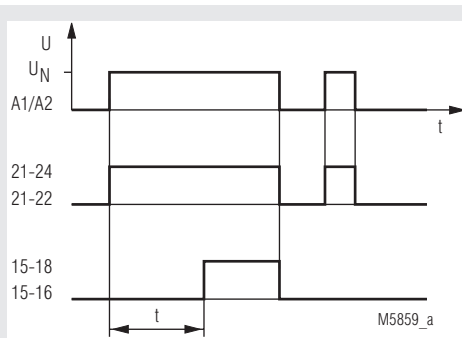


## MINITIMER Time Relay With Operate Delay MK 7858



- According to IEC/EN 61 812-1
- Delay of 0.25 ... 640 s or min.
- 4 switchable time ranges
- Repeat accuracy  $\leq \pm 0.5 \%$
- Can be controlled with 2-wire initiators at terminals A1-A2, residual current  $\leq 5 \text{ mA}$
- Available as 2-voltage version
- Available with instantaneous contact
- 2 changeover contacts
- 2 LED displays for power supply and contact position
- Width 22.5 mm

### Function Diagram



### Approvals and Markings



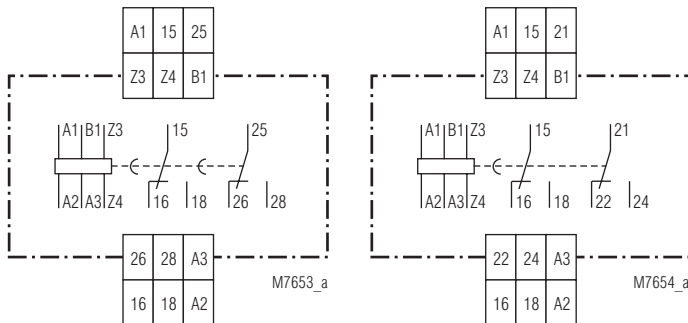
### Application

Time-dependent controllers

### Indicators

upper LED: on, when supply connected  
lower LED: on, when output relay energized

### Circuit Diagram



MK 7858.82/024

MK 7858.32/024

### Connection Terminals

Terminal designation	Signal designation
A1, A3(+), A2	Operating voltage
Z3, Z4, B1	Control inputs for programming of the time ranges
15, 16, 18	1. Wechslerkontakt (verzögert)
25, 26, 28	MK7858.82/024 2. Wechslerkontakt (verzögert) MK7858.32/024
21, 22, 24	2. Wechslerkontakt (Sofortkontakt)

## Technical Data

### Time circuit

**Time ranges:** 4 time ranges can be programmed externally via terminals Z3-Z4-B1

Bridge Z3 Z4 B1	Device with seconds ranges	Device with minutes ranges
0 0—0	0.25 - 2.5 s	0.25 - 2.5 min
0—0	1 - 10 s	1 - 10 min
0—0—0	8 - 80 s	8 - 80 min
0 0 0	64 - 640 s	6 - 640 min

**Time setting:** stepless  
**Recovery time**  
tw 50 / 100: 40 ms  
**Repeat accuracy:**  $\leq \pm 0.5\%$  of set value  
**Voltage influence:**  $\leq 1\%$   
**Temperature influence:**  $< 0.1\%$  / K

### Input

**Nominal voltage  $U_N$ :** 2-voltage version  
AC/DC 24 V<sup>1)</sup> + AC 110 ... 127 V<sup>2)</sup>  
AC/DC 24 V<sup>1)</sup> + AC 230 V<sup>2)</sup>  
<sup>1)</sup> at terminals A3 - A2  
<sup>2)</sup> at terminals A1 - A2

**Voltage range:** AC 0.8 ... 1.1  $U_N$   
DC 0.9 ... 1.25  $U_N$

**Nominal consumption**  
MK 7858.82/024: AC 230 V 8.5 VA DC 24 V 1 W  
MK 7858.32/024: AC 230 V 9.5 VA DC 24 V 1 W

**Nominal frequency:** 50 / 60 Hz

**Frequency range:**  $\pm 5\%$   $f_N$

**Release voltage:** 15%  $U_N$

**Permissible residual current:** 5 mA

### Output

**Contacts**  
MK 7858.82/024: 2 delayed changeover contacts  
MK 7858.32/024: 1 delayed changeover contact  
1 non-delayed changeover contact

**Contact material:** AgNi 0.15 $\mu$ , gold plated  
**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  
**Electrical life** IEC/EN 60 947-5-1  
to AC 15 at 3 A, AC 230 V: 5 x 10<sup>5</sup> switching cycles

**Permissible operating frequency:** 3 000 switching cycles / h

**Short circuit strength**  
**max. fuse rating:** 6 A gG / gL IEC/EN 60 947-5-1  
**Mechanical life:** 30 x 10<sup>6</sup> switching cycles

### General Data

**Operating mode:** Continuous operation  
**Temperature range**  
Operation: - 20 ... + 60 °C  
Storage: - 20 ... + 60 °C  
**Altitude:** < 2,000 m  
**Clearance and creepage distances**  
rated impulse voltage / pollution degree: 4 kV / 3 IEC 60 664-1  
**EMC**  
Electrostatic discharge: 4 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: 10 V / m IEC/EN 61 000-4-3  
Fast transients: 4 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  
HF-wire guided: 10 V IEC/EN 61 000-4-6  
Interference suppression Limit value class B EN 55 011

## Technical Data

### 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

20 / 60 / 04 IEC/EN 60 068-1

**Climate resistance:**

**Terminal designation:** EN 50 005

**Wire connection:** 2 x 1.5 mm<sup>2</sup> solid or 2 x 1.0 mm<sup>2</sup> 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

**Fixing torque:** 0.4 Nm

**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 7858.82/024 AC/DC 24 V + AC 220 ... 240 V 640 s

Article number: 0039447

• Output: 2 changeover contacts, delayed

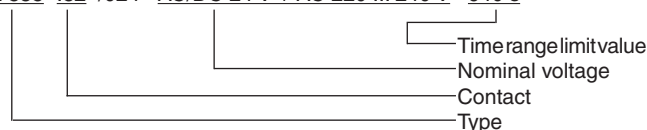
• Nominal voltage  $U_N$ : AC/DC 24 V + AC 220 ... 240 V

• Time ranges: 0.25 ... 640 s

• Width: 22.5 mm

### Order Example

MK 7858 .82 /024 AC/DC 24 V + AC 220 ... 240 V 640 s



### Accessories

ET 4752-143: Marking plate  
Article number: 0043203

### Safety Remark

- when operating the unit the general standards for electrostatic endangered part have to be observed