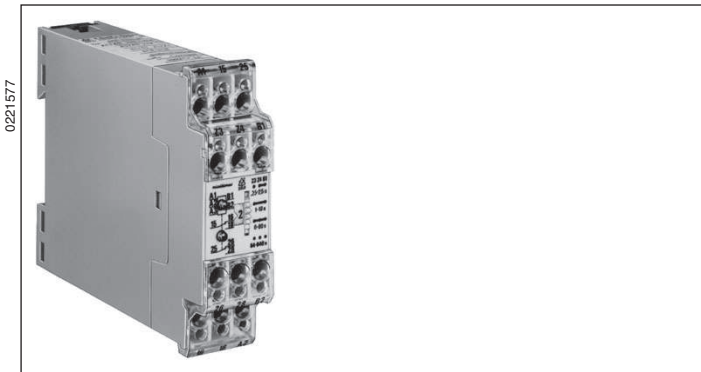
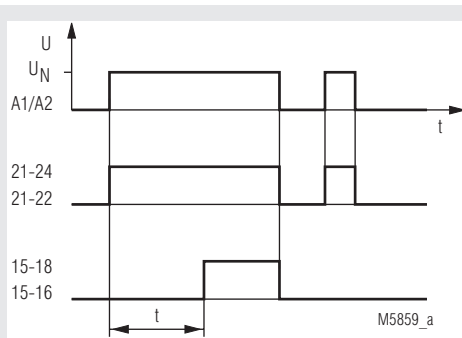


MINITIMER Time Relay With Operate Delay MK 7858



- 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 ≤ 5 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



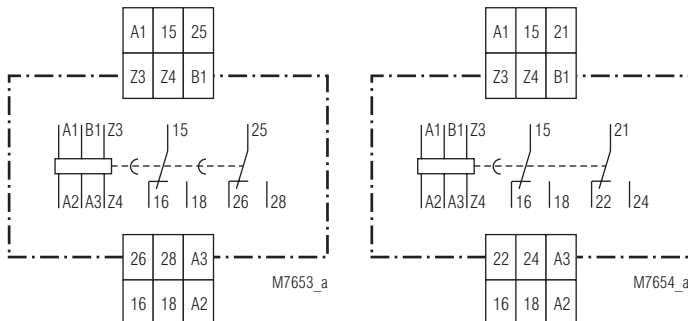
Application

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 V¹⁾ + AC 110 ... 127 V²⁾
AC/DC 24 V¹⁾ + AC 230 V²⁾
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

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 μ , 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 10⁵ 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 10⁶ 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

Climate resistance: 20 / 60 / 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

Fixing torque: 0.4 Nm

Mounting: DIN rail IEC/EN 60 715

Weight: 150 g

Dimensions

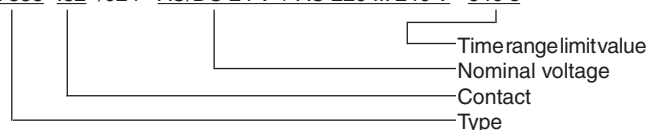
Width x height x depth: 22.5 x 82 x 99 mm

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