

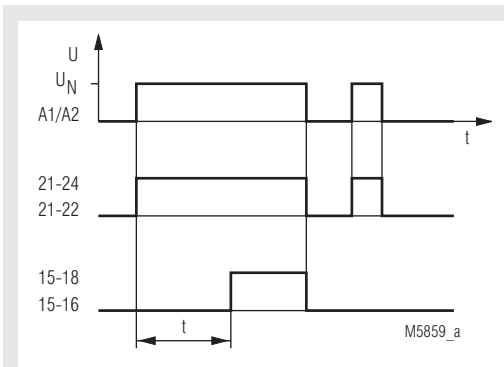
MINITIMER

Digital Time Relay, on delayed EC 7801



- According to IEC/EN 61 812-1
- For delay up to 9999 min.
- Repeat accuracy $< \pm 1 \%$
- LED indicators for power supply and state of contact
- 1 changeover contact
- As option with second C/O as instantaneous contact
- As option 2, 3 or 4 decades
- 48 x 72 mm front surface

Function Diagram



Approval and Marking



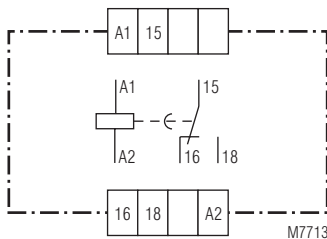
Application

Time dependent controls

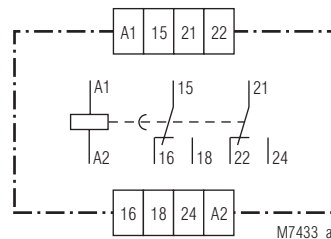
Indicators

LED left: on when supply connected
LED right: on, when corresponding output relay is active

Circuit Diagrams



EC 7801.81



EC 7801.32

Technical Data

Time circuit

Time range:

2 decades
0.01 ... 0.99 s
0.1 ... 9.9 s
1 ... 99 s
0.01 ... 0.99 min
0.1 ... 9.9 min
1 ... 99 min
3 decades
0.01 ... 9.99 s
0.1 ... 99.9 s
1 ... 999 s
0.01 ... 9.99 min
0.1 ... 99.9 min
1 ... 999 min

Time setting:

4 decades
0.01 ... 99.99 s
0.1 ... 999.9 s
1 ... 9999 s
0.01 ... 99.99 min
0.1 ... 999.9 min
1 ... 9999 min
digital on decade
pre-selection switch

Recovery time:

20 ms

Repeat accuracy:

$\pm 1 \%$ + 10 ms

Voltage influence:

$\leq 0.5 \%$ at 0.8 ... 1.1 U_N

Temperature influence:

$\leq 0.1 \%$ / K

Technical Data

Input

Nominal voltage U_N:	AC 24, 42, 110, 127, 230, 240 V DC 24 V with polarity protection
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption:	AC 3.5 VA DC 2.5 W
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 %

Output

Contacts

EC 7801.81:	1 changeover contact, delayed
EC 7801.32:	1 changeover contacts instantaneous 1 changeover contact, delayed

Thermal current I_{th} :

Switching capacity

according 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

acc. to AC 15 at 3 A, AC 230 V: 2.5×10^6 switching cycles IEC/EN 60 947-5-1

Permissible switching

frequency: 6 000 switching cycles / h

Short circuit strength

max. fuse rating: 4 A gL IEC/EN 60 947-5-1

Mechanical life:

30×10^6 switching cycles

General Data

Nominal operating mode: continuous operation

Temperatur range: - 20 ... + 60°C

Clearance and

creepage distance

rated impuls voltage /

pollution degree: 4 kV / 2 IEC 60 664-1

EMC

Electrostatic discharge (ESD): 8 kV (air) IEC/EN 61 000-4-2

HF irradiation: 10 V/m IEC/EN 61 000-4-3

Fast transients: 4 kV IEC/EN 61 000-4-4

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 VO behaviour

according to UL subject 94

Vibration resistance: Amplitude 0.35 mm IEC/EN 60 068-2-6

frequency 10 ... 55 Hz

Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1

Terminal designation: EN 50 005

Wire connection:

2 x 2.5 mm² solid or

2 x 1.5 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

Flush mounting:

2 clamps with screws

Weight:

340 g

Dimensions

Width x height x depth: 48 x 72 x 120 mm

Front panel cut-out: 44 x 67 mm

Standard Type

EC 7801.81 AC 230 V 50/60 Hz 1 ... 999 s

Article number: 0034652

• Output: 1 changeover contact

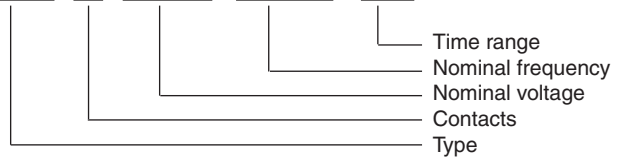
• Nominal voltage U_N : AC 230 V

• Time range: 1 ... 999 s

• Width: 48 x 72 mm front surface

Ordering Example

EC 7801 .81 AC 240 V 50 / 60 Hz 999 h



Accessories

ZS 700.06: Cover