

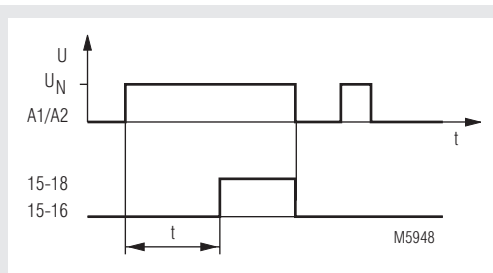
MINITIMER

Digital Time Relay, on delayed
EC 9621



- According to IEC/EN 61 812-1
- For delay up to 99.99 h
- Repeat accuracy $< \pm 0.5 \%$
- LED indicators for power supply and state of contact
- As option with time progression indication
- As option 1 or 2 changeover contacts or semiconductor outputs
- 48 x 72 mm front surface

Function Diagram



Approval and Marking



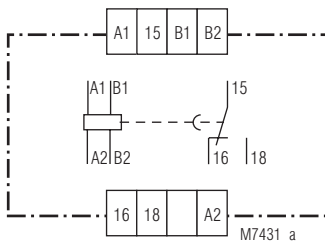
Application

Time dependent controls

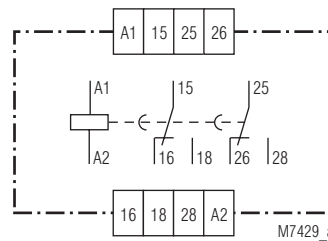
Indicators

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

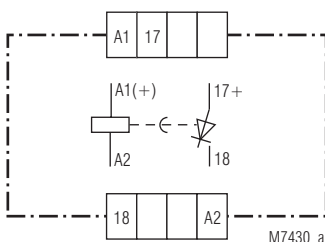
Circuit Diagrams



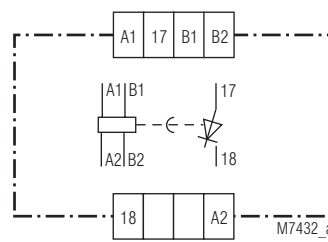
EC 9621.81/05



EC 9621.82



EC 9621.95



EC 9621.95/05

Technical Data

Time circuit

Time range:
2 decades
0.01 ... 0.99 s
0.1 ... 9.9 s
1 ... 99 s
0.1 ... 9.9 min
1 ... 99 min
0.1 ... 9.9 h
1 ... 99 h

4 decades
0.001 ... 9.999 s
0.01 ... 99.99 s
0.1 ... 999.9 s
0.01 ... 99.99 min
0.1 ... 999.9 min
0.01 ... 99.99 h

Time setting:
digital on decaded
pre-selection switch

Recovery time:
20 ms

Repeat accuracy:
 $\leq \pm 0.5 \%$ of full scale value

Temperature and voltage influence:
max. $\pm 0.025 \%$ of the pre-selected time over the complete temperature and voltage range

Input

Nominal voltage U_N :
AC 24, 42, 110, 127, 230, 240 V
DC 24 V

Voltage range:
0.8 ... 1.1 U_N

Nominal consumption:
AC 3 VA
DC 1.5 W

Nominal frequency:
50 / 60 Hz

Frequency range:
 $\pm 5 \%$

Technical Data

Output

Contacts

EC 9621.81:	1 changeover contact
EC 9621.82:	2 changeover contacts
EC 9621.95:	1 transistor output

Release time of the

contacts: 10 ms

Thermal current I_{th} : 10 A

Switching capacity

according to AC 15

NO contact:	10 A / AC 230 V	IEC/EN 60 947-5-1
NC contact:	5 A / AC 230 V	IEC/EN 60 947-5-1

Electrical life

acc. to AC 15 bei 3 A, AC 230 V:	1 C/O contact: 2.5×10^5 switching cycles
	2 C/O contact: 0.5×10^5 switching cycles

Switching capacity of

semiconductor outputs:

switching voltage:	14 ... 31.2 V
switching current:	max. 130 mA
voltage drop:	1.5 V
max. residual current:	0.1 mA

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

Temperaturr range: - 20 ... + 60°C

Clearance and creepage distance

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

EMC

Electrostatic discharge (ESD): 6 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

Surge voltage

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

Enclosure:

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 46 288-1/-2/-3/-4

Wire fixing:

Flat terminals with self-lifting clamping
piece IEC/EN 60 999-1

Weight:

260 g

Dimensions

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

Front panel cut-out: 44 x 67 mm

Standard Type

EC 9621.81/03 AC 230 V 50 / 60 Hz 99 h

Article number: 0006477

• Output: 1 changeover contact

• Nominal voltage U_N : AC 230 V

• Set time delay: 99 h

• Front surface: 48 x 72 mm

Variants

EC 9621. __ /03: time progression indication with
10-level LED chain

EC 9621. __ /05: An additional control possibility contains
by a logic voltage.

By the galvanic separation of logic input
a direct control over gates are possible .
The input can be controlled with
DC-voltage by DC 10 V to 32 V.

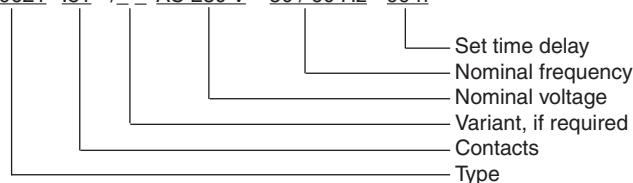
Signal voltages under DC 7 V are detected
as „L-Signal“ and voltages over DC 10 V
are detected as „H-Signal“.

Time delay can be started or deleted
by the control voltage or by the
auxiliary voltage.

This version can be supplied only with
a contact or a semiconductor output

Ordering example for variants

EC 9621 .81 / _ _ AC 230 V 50 / 60 Hz 99 h



Accessories

ET 7001.404.034: Plug-in-socket for digital-time-relays

EC 9621.81, EC 9621.82

ET 9620-11:

Plug-in-socket for digital-time-relays

EC 9621.95

ZS 700.06:

Cover