

MINITIMER

Timer, On Delayed

AA 7610, EC 7610, EF 7610, EH 7610

02569003



AA 7610



EC 7610



EF 7610



EH 7610

- According to IEC/EN 61 812-1
- Delay up to 60 h
- Repeat accuracy $\leq \pm 0.5\%$
($\leq \pm 1\%$ at range 6 s)
- Time display
- Delayed and instantaneous contact
- As option no-voltage safe version
- AA 7610: 45 mm
- EC 7610: front surface 48 x 72 mm
- EF 7610: front surface 72 x 72 mm
- EH 7610: front surface 96 x 96 mm

Approvals and Marking



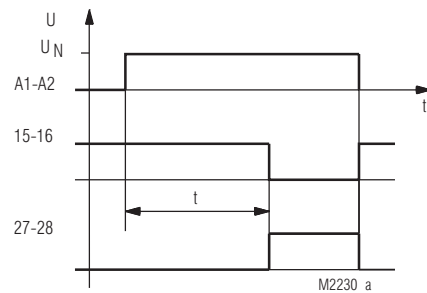
Application

Time dependent controls

Indications

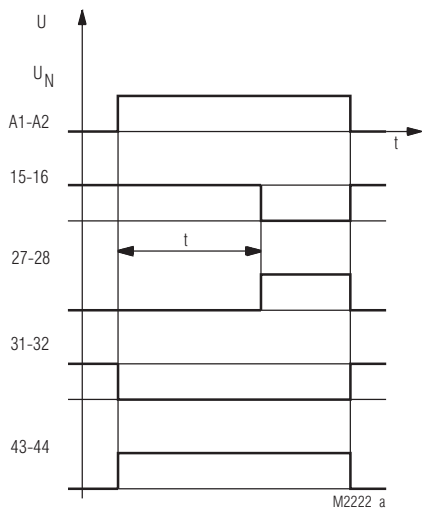
Time display: via red pointer at device-scale
Switch position display: via sign

Function Diagram

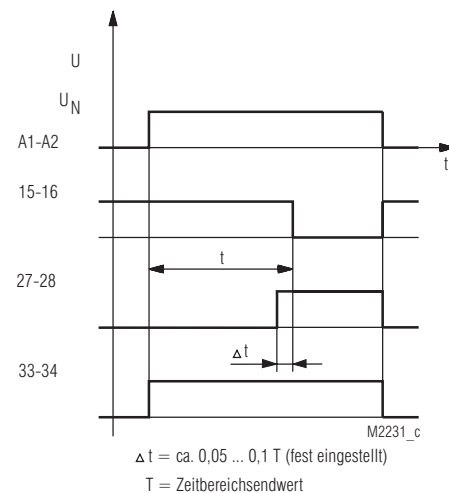


AA 7610.21

Function Diagrams



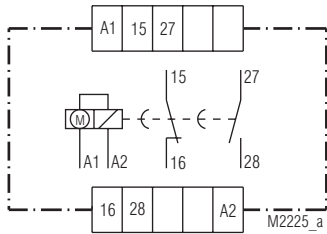
EF 7610.24



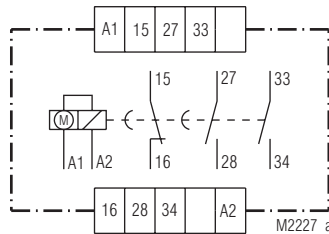
AA 7610.22/034

$\Delta t = \text{ca. } 0,05 \dots 0,1 T$ (fest eingestellt)
 $T = \text{Zeitbereichsendwert}$

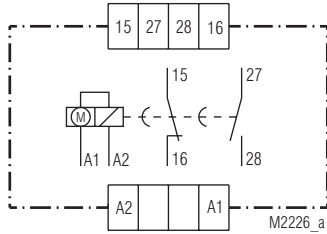
Circuit Diagrams



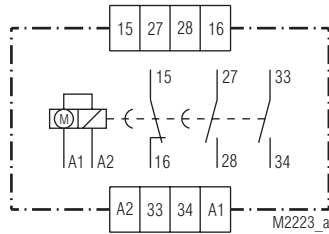
AA 7610.21



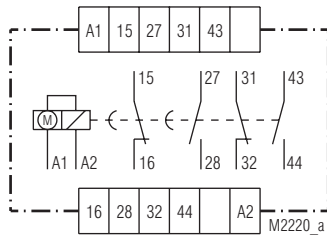
AA 7610.22/034



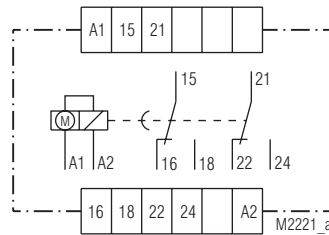
EC 7610.21



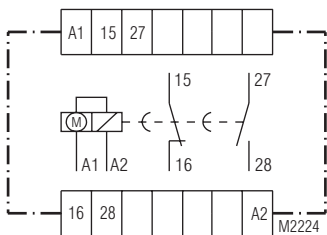
EC 7610.22/034



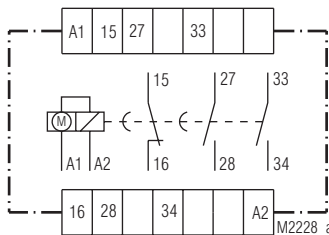
EF 7610.24



EF 7610.32



EH 7610.21



EH 7610.22/034

Technical Data

Time circuit

Time ranges:	0.2 ... 6 s 2 ... 60 s 0.2 ... 6 min 2 ... 60 min 0.2 ... 6 h 2 ... 60 h
Time setting:	infinite via black setting pointer on absolute scale
Recovery time:	< 150 ms
Repeat accuracy:	< ± 0.5 % of the max. scale value (< ± 1 % at range 6 s)

Input

Nominal voltage U_N:	AC 24, 110, 127, 230, 240 V
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption:	5 VA
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 %

Output

Contacts

AA 7610.21, EC 7610.21 u.

EH 7610.21:	1 NC contact, delayed 1 NO contact, delayed
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Technical Data

EF 7610.24:	1 NC contact, delayed 1 NO contact, delayed 1 NC contact, instantaneous 1 NO contact, instantaneous
EF 7610.32:	1 C/O contact, delayed 1 C/O contact, instantaneous

Operate time of contacts:	< 35 ms
Release time:	< 60 ms
Thermal current I_{th}:	4 A (10 A at 20°C and U_N)

Switching capacity

to AC 15:	3 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:	1 x 10 ⁵ switching cycles	
to AC 15 at 1 A, AC 230 V:	5 x 10 ⁵ switching cycles	
Permissible switching frequency:	3 000 switching cycles / h	
Short circuit strength		
max. fuse rating:	10 A gL	IEC/EN 60 947-5-1
Mechanical life:	> 30 x 10 ⁶ switching cycles or > 15 000 h	

General Data

Operating mode:	Continuous operation
Temperature range:	- 20 ... + 55°C
Clearance and creepage distances	
rated impuls voltage / pollution degree:	4 kV / 2 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:	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
Degree of protection:	IEC/EN 60 529

EC 7610, EF 7610, EH 7610:	Housing -front side: IP 40 Housing: IP 30 Klemmen: IP 10 Housing: IP 40 Terminals: IP 20 Thermoplast with V0-behaviour according to UL Subject 94
AA 7610:	Housing: IP 40 Terminals: IP 20 Thermoplast with V0-behaviour according to UL Subject 94
Housing:	
Vibration resistance:	Amplitude 0.35 mm frequency 10...55Hz, IEC/EN 60 068-2-6
Climate resistance:	20 / 055 / 04; A/B/C IEC/EN 60 068-1
Terminal designation:	EN 50 005
Wire connection:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² 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	
AA 7610:	DIN rail IEC/EN 60 715

Flush mounting

EC 7610, EF 7610, EH 7610:	2 clamps with screws
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Weight:

AA 7610:	320 g
EC 7610:	500 g
EF 7610:	400 g
EH 7610:	460 g

Dimensions

Width x height x depth

AA 7610:	45 x 77 x 125 mm
EC 7610:	48 x 72 x 120 mm
EF 7610:	72 x 72 x 128 mm
EH 7610:	96 x 96 x 138 mm

Front panel cut-out

EC 7610:	44 x 67 mm
EF 7610:	67 x 67 mm
EH 7610:	ø 91 ⁺¹ mm

Standard Type

AA 7610.21 AC 230 V 50/60 Hz 60 min

Article number: 0000661 stock item

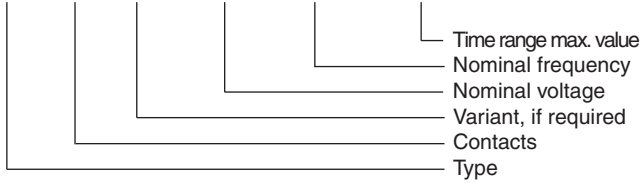
- Output: 1 NC contact, delayed
1 NO contact, delayed
- Nominal voltage U_N : AC 230 V
- Time range: 2 ... 60 min
- Width: 45 mm

Variants

- AA 7610.22/034: According to VDE 0116
with pre contact: delayed, closing
- EC 7610.22/034: According to VDE 0116
with pre contact: delayed, closing
- EF 7610.32/100: no-voltage safe
- EH 7610.22/034: According to VDE 0116
with pre contact: delayed, closing

Ordering example for variants

EC 7610 .22 / - - - AC 230 V 50 / 60 Hz 60 h



Accessories

for EC 7610:

ZS 700.06: Lockable cover
Article number: 0004057

ET 7001.407.034: Plug-in-socket for EC 7610.21
Article number: 0004072

for EF 7610:

ZS 700.07: Lockable cover
Article number: 0004058

ET 7616-0-22: Sealing ring for sealing
at the front side
Article number: 0045909

