

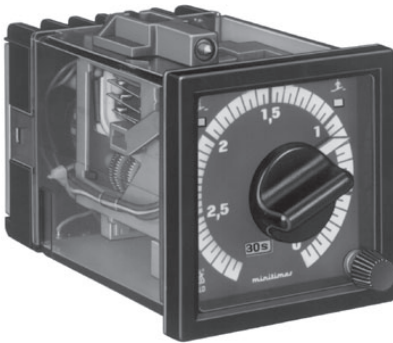
0258303



AA 7610



EC 7610



EF 7610



EH 7610

- 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



\* siehe Varianten

For the existing GL certificate DOLD has not demanded for an extension. There has not been made any changes on the product since then.

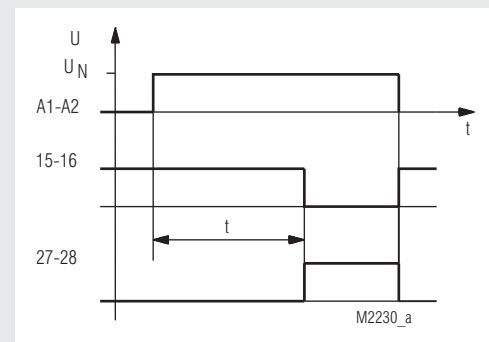
### Application

Time dependent controls

### Indications

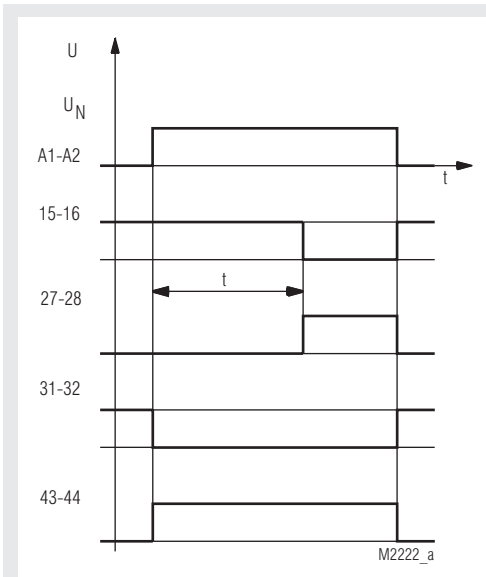
Time display: via red pointer at device-scale  
Switch position display: via sign

### Function diagram

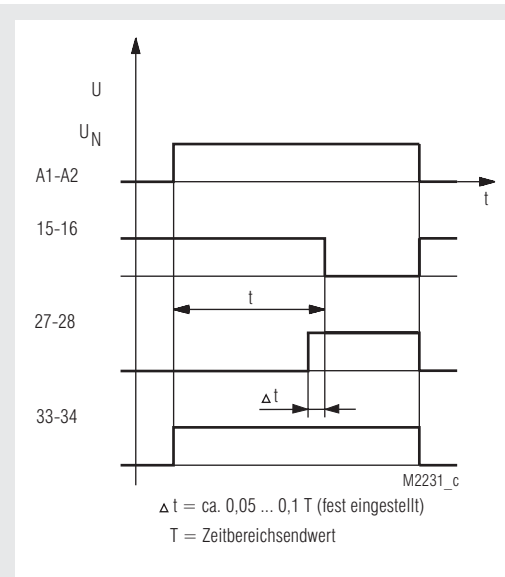


AA 7610.21

### Function diagrams

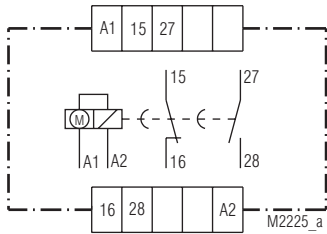


EF 7610.24

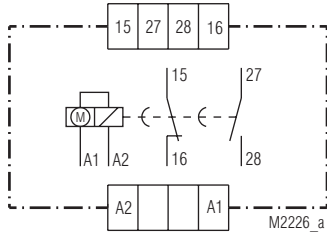


AA 7610.22/034

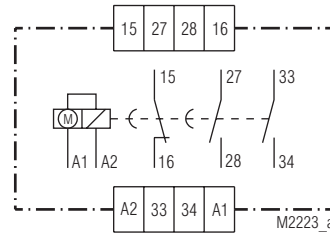
## Circuit diagrams



AA 7610.21

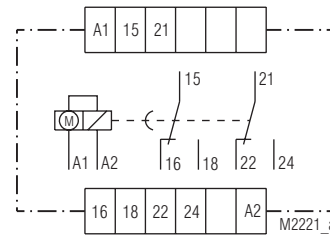


AA 7610.22

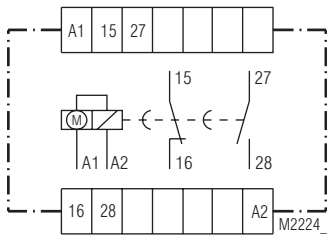


EC 7610.21

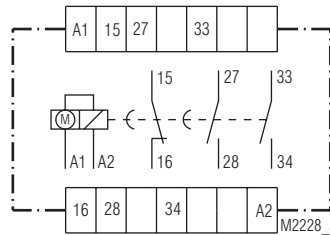
EC 7610.22



EF 7610.24



EF 7610.32



EH 7610.21

EH 7610.22

## Technical data

### Time circuit

<b>Time ranges:</b>	0,2 ... 6 s 2 ... 60 s 0,2 ... 6 min 2 ... 60 min 0,2 ... 6 h 2 ... 60 h
<b>Time setting:</b>	infinite via black setting pointer on absolute scale
<b>Recovery time:</b>	< 150 ms
<b>Repeat accuracy:</b>	< ± 0,5 % of the max. scale value (± 1 % at range 6 s)

### Input

<b>Nominal voltage <math>U_N</math>:</b>	AC 24, 110, 127, 230, 240 V
<b>Voltage range:</b>	0,8 ... 1,1 $U_N$
<b>Nominal consumption:</b>	5 VA
<b>Nominal frequency:</b>	50 / 60 Hz
<b>Frequency range:</b>	± 5 %

### Output

#### Contacts

AA 7610.21, EC 7610.21 u. EH 7610.21:	1 NC contact, delayed 1 NO contact, delayed
AA 7610.22, EC 7610.22 u. EH 7610.22:	1 NC contact, delayed 1 NO contact, delayed 1 NO instantaneous contact

## Technische Daten

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

<b>Operate time of contacts:</b>	< 35 ms
<b>Release time:</b>	< 60 ms
<b>Thermal current <math>I_{th}</math>:</b>	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
<b>Electrical life</b>	IEC/EN 60 947-5-1
to AC 15 at 3 A, AC 230 V:	1 x 10 <sup>5</sup> switching cycles
to AC 15 at 1 A, AC 230 V:	5 x 10 <sup>5</sup> switching cycles
<b>Permissible switching frequency:</b>	3 000 switching cycles / h
<b>Short circuit strength</b>	
<b>max. fuse rating:</b>	10 A gL IEC/EN 60 947-5-1
<b>Mechanical life:</b>	> 30 x 10 <sup>6</sup> switching cycles or > 15 000 h

## General Data

<b>Operating mode:</b>	Continuous operation	
<b>Temperature range:</b>	- 20 ... + 55°C	
<b>Clearance and creepage distances</b>		
rated impuls voltage / pollution degree:	4 kV / 2	IEC 60 664-1
<b>EMC</b>		
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
<b>Degree of protection:</b>	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
<b>Housing:</b>	
<b>Vibration resistance:</b>	Amplitude 0.35 mm frequency 10...55Hz, IEC/EN 60 068-2-6
<b>Climate resistance:</b>	20 / 055 / 04; A/B/C IEC/EN 60 068-1
<b>Terminal designation:</b>	EN 50 005
<b>Wire connection:</b>	2 x 2.5 mm <sup>2</sup> solid or 2 x 1.5 mm <sup>2</sup> stranded wire with sleeve DIN 46 228-1/-2/-3/-4
<b>Wire fixing:</b>	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1

<b>Mounting</b>	
AA 7610:	DIN rail IEC/EN 60 715

### Flush mounting

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

### 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 <sup>+1</sup> mm

## Standard type

AA 7610.21 AC 230 V 50/60 Hz 60 min

Article number: 0000661 Lagergerät

• Ausgang: 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 <sup>1)</sup>

AA 7610.\_\_\_/60: with CSA-approval

EC 7610.22/034: According to VDE 0116  
with pre contact <sup>1)</sup>

EC 7610.\_\_\_/60: with CSA-approval

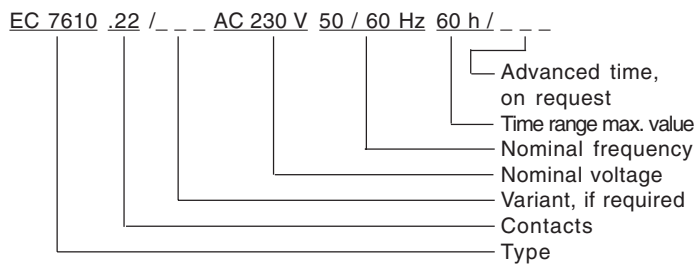
EF 7610.32/100: no-voltage safe

EH 7610.22/034: According to VDE 0116  
with pre contact <sup>1)</sup>

EH 7610.\_\_\_/60: with CSA-approval

<sup>1)</sup> The delayed NO contact (27-28) is used for the application. This contact switches earlier than the other contacts, while the advanced time is fixed and independent of the adjusted time delay. (see function diagram AA 7610.22/034)

## Bestellbeispiel für Varianten



## Accessories

### for EC 7610:

ZS 700.06: lockable cover

ET 7001.407.034: plug-in-socket for EC 7616.21

### for EF 7610:

ZS 700.07: lockable cover

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

### for EH 7610:

ZS 407-140: lockable cover

