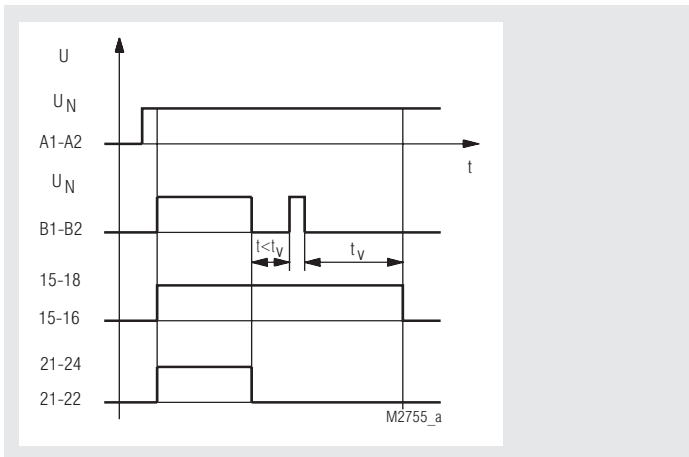
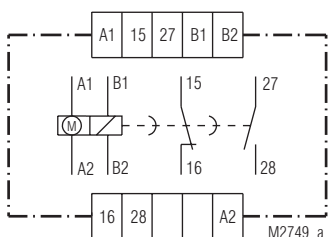


Function Diagrams

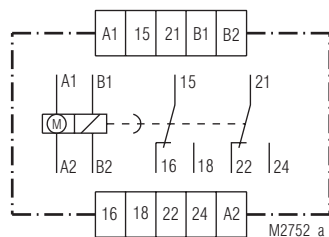


AA 7666.32, EF 7666.32

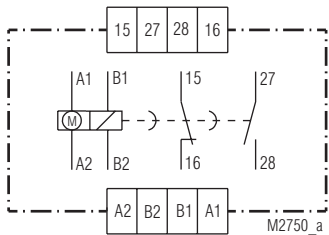
Circuit Diagrams



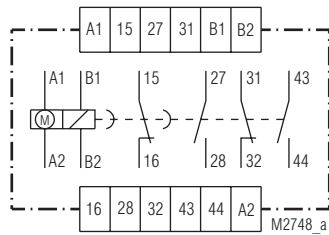
AA 7666.21



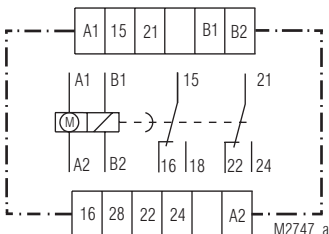
AA 7666.32



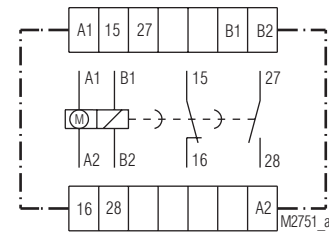
EC 7666.21



EF 7666.24



EF 7666.32



EH 7666.21

Technical Data

Time circuit

Time ranges:

6-range models
 0.15 ... 3 s 1.5 ... 30 s 15 ... 300 s
 0.4 ... 10 s 4 ... 100 s 40 ... 1000 s
 or
 0.15 ... 3 s 0.15 ... 3 min 0.15 ... 3 h
 1.5 ... 30 s 1.5 ... 30 min 1.5 ... 30 h
 or
 0.2 ... 6 s 0.2 ... 6 min 0.2 ... 6 h
 2 ... 60 s 2 ... 60 min 2 ... 60 h
 infinite with black (white) setting pointer
 on absolute scale

Time setting:

Recovery time:

< 150 ms

Repeat accuracy:

$\leq \pm 0.5\%$ of max. scale value

(at 3 and 6 s $\leq \pm 1\%$)

EH 7666, DC-version:

$\leq \pm 3\%$ of the max. scale value

Technical Data

Input

Nominal voltage U_N :

AC 24, 42, 110, 127, 230, 240 V

Special voltages

AA 7666:

AC 12, 400, 415 V

EH 7666:

DC 12, 24, 48, 60*, 110*, 230* V

* with external series resistance

Voltage range:

0.8 ... 1.1 U_N

Nominal consumption:

AC 7 VA

DC 12 V 5 W

DC 24 V 5 W

DC 48 V 7 W

DC 60 V 10 W

DC 110 V 13 W

DC 230 V 18 W

Nominal frequency:

50 / 60 Hz to e selected

Frequency range:

$\pm 5\%$ f_N

Frequency influence:

reverse proportional

Output

Contacts

AA 7666.21,

EC 7666.21,

EF 7666.21,

EH 7666.21:

1 NC contact, delayed

1 NO contact, delayed

1 NO contact, instantaneous

1 NC contact, instantaneous

1 NC contact, delayed

1 NO contact, delayed

EF 7666.24:

1 changeover contact, delayed

1 changeover contact, instantaneous

< 35 ms

< 60 ms

4 A

EF 7666.32:

Operate time of contacts:

Release time:

Thermal current I_{th} :

Switching capacity

to AC 15:

3 A / AC 230 V

IEC/EN 60 947-5-1

Electrical life

to AC 15 at 3 A, AC 230 V:

1 x 10⁵ switching cycles

to AC 15 at 1 A, AC 230 V:

5 x 10⁵ switching cycles

IEC/EN 60 947-5-1

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 10⁶ 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

inputs:

4 kV / 2

IEC 60 664-1

in-/output:

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

AA 7666:

Housing: IP 40

Terminals: IP 20

EC 7666, EH 7666:

Housing-front: IP 40

Housing: IP 30

Terminals: IP 10

EF 7666:

Housing-front: IP 65

Housing:

Thermoplast with V0 behaviour

according to UL subject 94

Vibration resistance:

Amplitude 0.35 mm

frequency 10...55Hz, IEC/EN 60 068-2-6

Technical Data

Climate resistance:	20 / 055 / 04; A/B/C	IEC/EN 60 068-1
Terminal arrangement:	DIN 46 199-5	
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 7666:	DIN rail	IEC/EN 60 715
EC 7666, EF 7666, EH 7666:	flush mounting	
Weight		
AA 7666:	320 g	
EC 7666:	320 g	
EF 7666:	400 g	
EH 7666:	450 g	

Dimensions

Width x height x depth

AA 7666:	45 x 77 x 127 mm
EC 7666:	48 x 72 x 120 mm
EF 7666:	72 x 72 x 128 mm
EH 7666:	96 x 96 x 138 mm

Front panel cut-out

EC 7666:	44 x 67 mm
EF 7666:	67 x 67 mm
EH 7666:	ø 91 ⁺¹ mm

Front surface

EC 7666:	48 x 72 mm
EH 7666:	72 x 72 mm
EH 7666:	96 x 96 mm

Standard Type

AA 7666.32 AC 230 V 50/60 Hz 0.15 s ... 30 h	
Article number:	0025127 stock item
• Time range:	0.15 s ... 30 h
• Nominal voltage U _N :	AC 230 V
• Output:	1 changeover contact, delayed 1 changeover contact, instantaneous
• Width:	45 mm

Ordering Example

AA 7666 .32 AC 230 V 50 / 60 Hz 30 h	
AA 7666	Type
.32	Contact
AC 230 V	Nominal voltage
50 / 60 Hz	Nominal frequency
30 h	Time-range max. value

Accessories

for EC 7666:

ZS 700.06:	Lockable cover Article number: 0004057
ET 7001.407.034:	Plug-in-socket for EC 7666.21 Article number: 0004072

for EF 7666:

ZS 700.07:	Lockable cover Article number: 0004058
ET 7616-0-22:	Sealing ring for sealing at the front side Article number: 0045909

