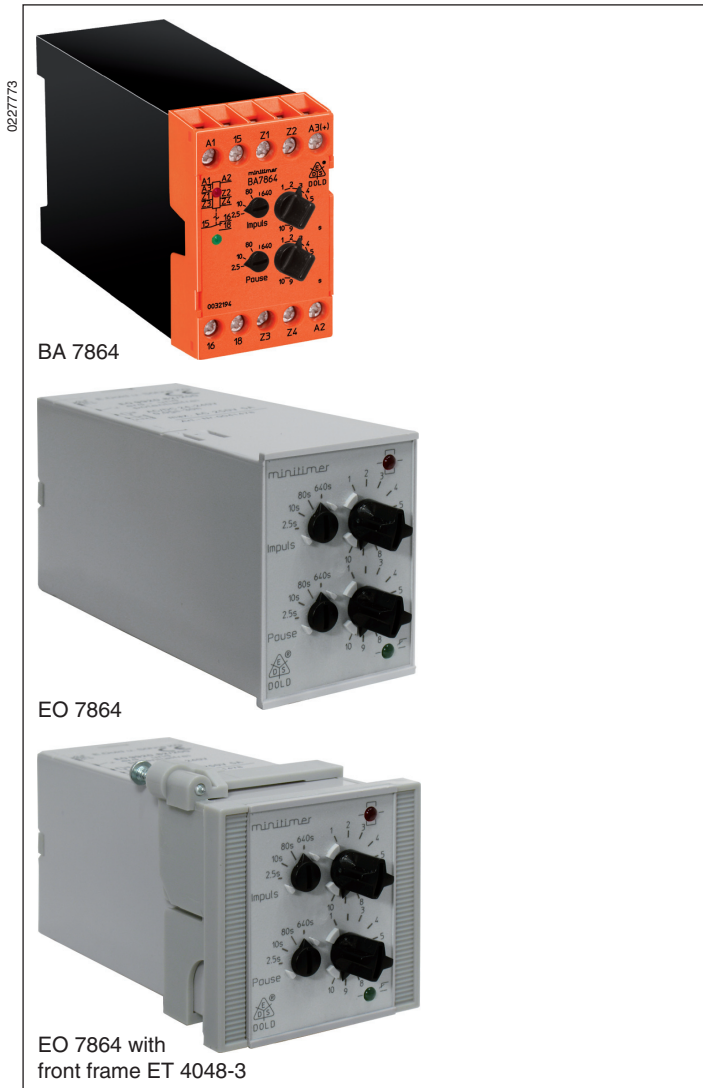


## MINITIMER Pulse Control Timer BA 7864, EO 7864



- According to IEC/EN 61 812-1
- Time range up to 32 h
- Separate setting of impulse- and space time
- For impulse- and space time 4 time ranges each
- Repeat accuracy  $< \pm 0.5 \%$
- Setting on relative scale
- Dual-voltage-version
- Programmable for start with impulse or space
- LED indication for operation and contact position
- BA 7864 available with remote potentiometer contact Z1-Z2, Z3-Z4
- EO 7864 with 11-pole socket
- Available with 1 or 2 changeover contacts, or semiconductor output (BA 7864)
- BA 7864: width 45 mm
- EO 7864: front size 35 x 48 mm

### Approvals and Marking



### Application

Time dependent controls

### Indication

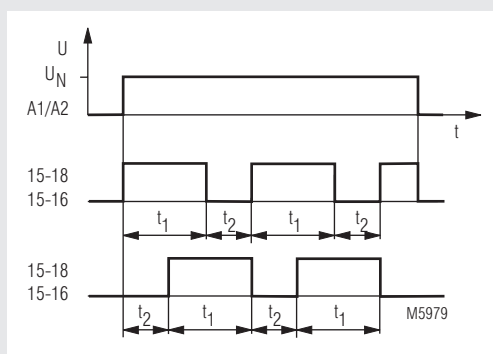
red LED: on when operating voltage applied  
green LED: on when output relay activated

### Notes

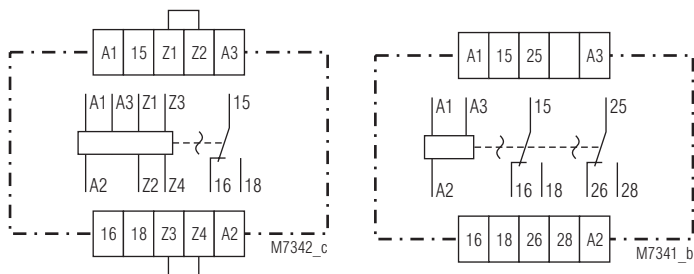
By an external bridge via terminals 6-7 of the plug-in-socket the EO 7864 can be programmed for the start with space.

The BA 7864.- - starts with impulse, whereas the special version of the device BA 7864.- -/010 starts with space. For the variants BA 7864.81 and BA 7864.81/010 a remote setting of the impulse- or space time is possible via two external variable resistors.

### Function Diagram

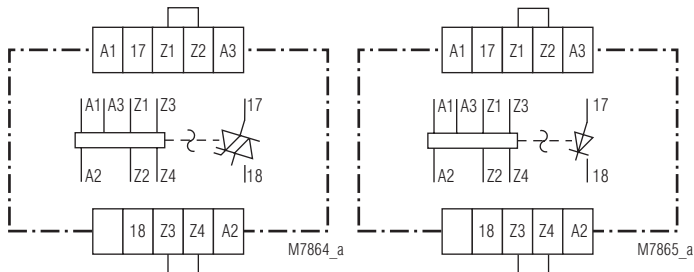


## Circuit Diagrams



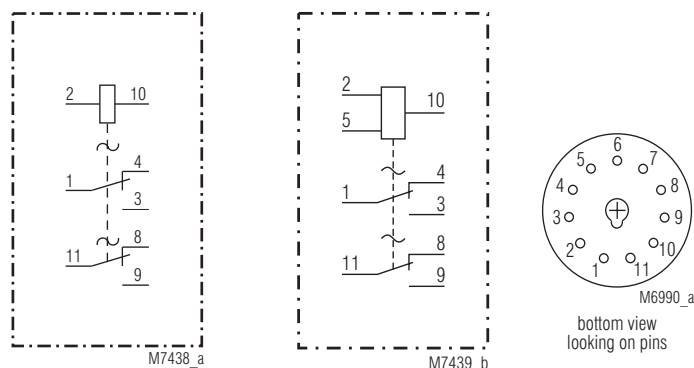
BA 7864.81

BA 7864.82



BA 7864.91

BA 7864.95



EO 7864.82  
(single-voltage version)

EO 7864.82  
(dual-voltage version)

## Technical Data

### Time circuit

#### Time range:

impulse and space separately adjustable in 4 steps:

0.25 ... 2.5 s	or	0.25 ... 2.5 min
1 ... 10 s		1 ... 10 min
8 ... 80 s		8 ... 80 min
64 ... 640 s		64 ... 640 min

or	0.75 ... 7.5 min
	3 ... 30 min
	24 ... 240 min
	3.2 ... 32 h

other combinations of these time ranges for impulse or space, on demand.  
for impulse and space separately infinite on relative scale (1:10)

#### Time setting:

#### Recovery time:

#### Operate time:

#### Release time:

#### Remote setting

BA 7864.81:

AD 3 1 M $\Omega$   
(2 pieces, for impulse- and space time)

#### Repeat accuracy:

#### Voltage influence:

#### Temperature range:

<  $\pm 0.5$  % of the scale max. value  
< 1 % over the whole voltage range  
< 0.1 % / K

## Input

### Nominal voltage $U_N$ :

AC/DC 24, 42 V  
AC/DC 24<sup>1)</sup> + AC 110 ... 127 V<sup>2)</sup>  
AC/DC 24<sup>1)</sup> + AC 220 ... 240 V<sup>2)</sup>  
<sup>1)</sup> to terminals A3-A2 or terminals 5-10  
<sup>2)</sup> to terminals A1-A2 or terminals 2-10

## Technical Data

### Voltage range

AC/DC 24 V and AC/DC 42 V: AC and DC (residual ripple  $\leq 20$  %)

0.8 ... 1.2  $U_N$   
DC (residual ripple = 48 %)

0.8 ... 1.1  $U_N$

AC 110 ... 127 V and

AC 220 ... 240 V:

### Nominal consumption:

0.8 ... 1.1 $U_N$	
AC 24 V	0.7 VA
AC 42 V	1.2 VA
AC 110 V	2.5 VA
AC 230 V	5 VA
DC 24 V	0.6 W
DC 42 V	1.2 W

### Nominal frequency:

50 / 60 Hz

## Relay Output

### Contacts

BA 7864.81:

1 changeover contact

BA 7864.82:

2 changeover contacts

EO 7864.81:

1 changeover contact

EO 7864.82:

2 changeover contacts

### Thermal current $I_{th}$ :

### Switching capacity

to AC 15:

5 A / AC 230 V IEC/EN 60 947-5-1

### Electrical life

to AC 15 at 3 A, AC 230 V:

1.5 x 10<sup>5</sup> switching cycles

### Short circuit strength

### max. fuse rating:

5 A gL IEC/EN 60 947-5-1

### Mechanical life:

> 30 x 10<sup>6</sup> switching cycles

## Solid state output

### BA 7864.91:

Switching voltage:

Triac

Switching current:

AC 12 ... 275 V

### BA 7864.95:

Switching voltage:

Transistor

Switching current:

DC 15 ... 30 V

5 A

## General Data

### Operating mode:

Continuous operation

### Temperature range:

- 20 ... + 60 °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:

2 kV

IEC/EN 61 000-4-4

Surge voltages:

1 kV

IEC/EN 61 000-4-5

Interference suppression:

Limit value class B

EN 55 011

### Degree of protection

Housing:

IP 40

IEC/EN 60 529

Terminals:

IP 20

IEC/EN 60 529

### 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

20 / 060 / 04 IEC/EN 60 068-1

### Climate resistance:

### Wire connection:

BA 7864:

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

EO 7864:

via plug-in-socket suitable to the  
11-pole socket according to  
IEC 67-1-18 a

### Wire fixing:

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

### Weight

BA 7864:

200 g

EO 7864:

110 g

## Technical Data

### Dimensions

#### Width x height x depth

BA 7864:	45 x 73 x 133 mm
EO 7864:	35 x 48 x 109 mm
Front-panel cut-out	
EO 7864:	45 <sup>+0.6</sup> x 45 <sup>+0.6</sup> mm

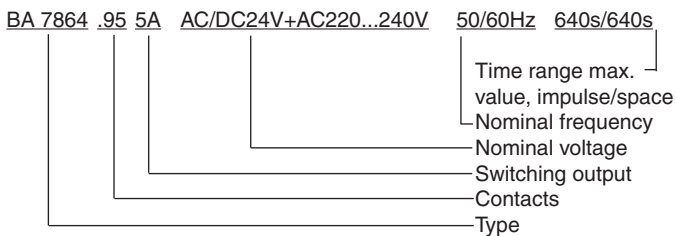
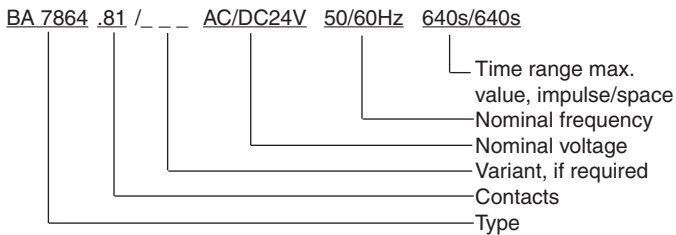
### Standard Types

BA 7864.81	AC/DC 24 V + AC 220 ... 240 V	640 s On / 640 s Off
Article number:	0032194	stock item
• Output:	1 changeover contact	
• Nominal voltage U <sub>N</sub> :	AC/DC 24 V + AC 220 ... 240 V	
• Time setting for impulse and space:	0.25 ... 640 s	
• Width:	45 mm	
EO 7864.82	AC/DC 24 V + AC 220 ... 240 V	640 m On / 640 m Off
Article number:	0032222	stock item
• Output:	2 changeover contacts	
• Nominal voltage U <sub>N</sub> :	AC/DC 24 V + AC 220 ... 240 V	
• Time setting for impulse and space:	0.25 ... 640 m	
• Front size:	35 x 48 mm	

### Variants

BA 7864. __ /010:	start with space
BA 7864.81/100:	programmable, start with space, when X3, X4 bridged

### Ordering examples for variants



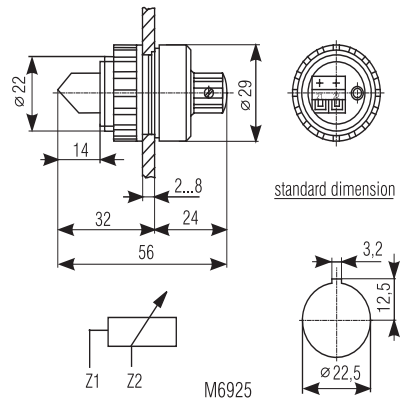
## Accessories

for BA 7864.81:  
AD 3:

External variable resistor 1 MΩ

Degree of protection  
front side:

IP 60



for EO-version:  
for DIN rail mounting:  
ET 4048-21:  
ET 4048-22:  
for flush mounting:  
ET 4048-13:  
ET 4048-3:

plug-in socket without fixing clamp  
plug-in socket with fixing clamp

plug-in adapter  
front frame

