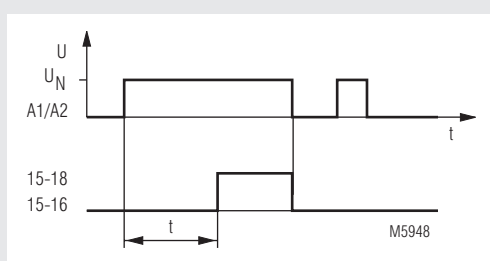


## VARITIMER Multi Range Time Relay With Operate Delay IK 7814, SK 7814



- According to IEC/EN 61 812-1
- 4 time ranges up to 640 min.
- Repeat accuracy  $\leq 1\%$
- LED indicator for contact position
- 1 changeover contact
- **Devices available in 2 enclosure versions:**
  - IK 7814:** depth 58 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
  - SK 7814:** depth 98 mm, with terminals at the top for cabinets with mounting plate and cable ducts
- Width 17.5 mm

### Function Diagram



### Approvals and Marking



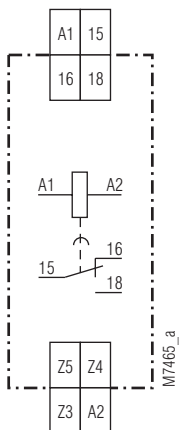
### Application

Time-based control equipment

### Indication

LED: on when the output relay is activated (contact 15 - 18 is closed)

### Circuit Diagram



IK 7814, SK 7814

### Technical Data

#### Time circuit

#### Time ranges:

4 time ranges can be programmed externally via the terminals Z3 - Z4 - Z5

Bridge Z3 Z4 Z5	Unit with second ranges	Unit with minute ranges
0 0—0	0.25 - 2.5 s	0.25 - 2.5 min
0—0—0	1 - 10 s	1 - 10 min
0—0—0	8 - 80 s	8 - 80 min
0 0 0	64 - 640 s	6 - 640 min

#### Time setting:

Infinitely variable, on relative scale

#### Recovery time

tw 50 / 100: < 60 ms

#### Repeat accuracy:

0.1 %

#### Voltage influence:

$\leq 1\%$  at 0.8 ... 1.1  $U_N$

#### Temperature influence:

0.05 % / K

### Input

#### Nominal voltage $U_N$ :

AC/DC 12 V, AC/DC 24 V, AC 110 ... 127 V, AC 220 ... 240 V

#### Voltage range:

0.8 ... 1.1  $U_N$  with AC and DC 48 % residual ripple  
0.9 ... 1.25  $U_N$  in battery operating mode

#### Release voltage:

15 %  $U_N$

#### Nominal consumption:

AC/DC 24 V 0.6 W  
AC 230 V 50 Hz 3.5 VA  
AC 240 V 50 Hz 4 VA

#### Nominal frequency:

50 / 60 Hz

#### Frequency range:

$\pm 5\%$

## Technical Data

### Output

### Contacts

IK 7814.81, SK 7814:	1 changeover contact
<b>Thermal current <math>I_{th}</math>:</b>	10 A at 45°C ambient temperature
<b>Switching capacity</b> at 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
<b>Glow lamp load:</b>	1200 W
<b>Electrical life:</b>	IEC/EN 60 947-5-1
AC 15 at 3 A, AC 230 V:	5 x 10 <sup>5</sup> switching cycles
<b>Permissible switching frequency:</b>	6 000 switching cycles/h
<b>Short circuit strength</b>	
max. fuse rating:	10 AgL IEC/EN 60 947-5-1
max. line circuit breaker:	B16
<b>Mechanical life:</b>	> 30 x 10 <sup>6</sup> switching cycles

## General Data

<b>Nominal operating mode:</b>	Continuous operation
<b>Temperature range:</b>	- 20 ... + 60°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 61 000-4-3
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
Interference suppression:	Limit value class B EN 55 011
<b>Degree of protection</b>	
Housing:	IP 40 IEC/EN 60 529
Terminals:	IP 20 IEC/EN 60 529
<b>Housing:</b>	Thermoplastic with V0 behaviour according to UL Subj. 94
<b>Vibration resistance:</b>	Amplitude 0.35 mm frequency 10 ... 55 Hz, IEC/EN 60 068-2-6
<b>Climate resistance:</b>	20 / 060 / 04 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 ferruled 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>	DIN rail IEC/EN 60 715
<b>Weight</b>	
IK 7814:	75 g
SK 7814:	94 g

## Dimensions

<b>Width x height x depth:</b>	
IK 7814:	17.5 x 90 x 58 mm
SK 7814:	17.5 x 90 x 98 mm

## Standard Type

IK 7814.81 AC 220 ... 240 V	0.25 ... 640 s
Article number:	0031959
• Output:	1 changeover contact
• Nominal voltage $U_N$ :	AC 220 ... 240 V
• Time range:	0.25 ... 640 s
• Width:	17.5 mm
SK 7814.81 AC 220 ... 240 V	0.25 ... 640 s
Article number:	0054739
• Output:	1 changeover contact
• Nominal voltage $U_N$ :	AC 220 ... 240 V
• Time range:	0.25 ... 640 s
• Width:	17.5 mm

## Ordering Example

IK 7814	.81	AC 230 ... 240 V	50 / 60 Hz	640 s	
					Time range
					max. value
					Nominal frequency
					Nominal voltage
					Contacts
					Type