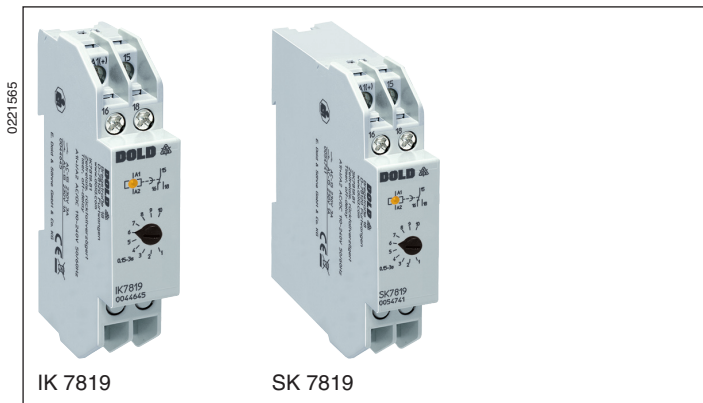


MINITIMER Timer, Off-delay IK 7819, SK 7819

Translation
of the original instructions



Your Advantages

- No-voltage safe
- Delay of 0.05 ... 300 s
- Wide voltage range

Features

- Power OFF-delay relay according to EN 61812-1
- 1 changeover contact
- LED indicator for operation
- Devices available in 2 enclosure versions:
 - IK 7819: Depth 58 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43880
 - SK 7819: Depth 98 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Width 17.5 mm

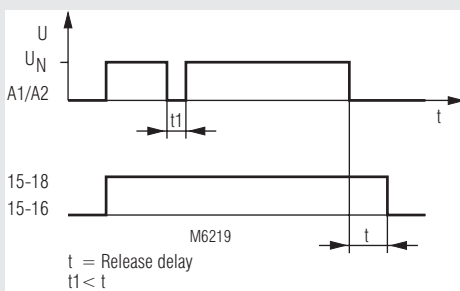
Product Description

The IK 7819 resp. SK 7819 of the MINITIMER series is a compact, release-delayed timing relay designed for precise control tasks in industrial applications. It enables a reliable delay when switching off loads and is ideal for use in control and automation systems.

Approvals and Markings



Function Diagram



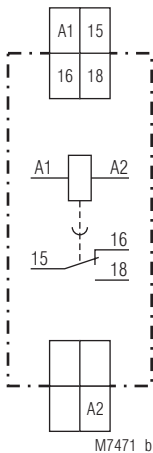
Application

Time-dependent controllers

Notes

A change of the settings for time range will be valid immediately. Please note, that a change of time range or time setting during elapse of time can lead to unintended switching of the output contacts.

Circuit Diagrams



IK/SK 7819.81

Connection Terminals

Terminal designation	Signal description
A1	L / +
A2	N / -
15, 16, 18	Changeover contact

Technical Data	
Time ranges:	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s 1.5 ... 30 s 5 ... 100 s 15 ... 300 s
Time setting:	Infinite on relative scale
Recovery time:	100 ms
Repeat accuracy:	≤ 1 % of end of scale value
Min. on-time at time range 15 ... 300 s:	AC/DC 24 V - 300 ms AC/DC 42 V - 250 ms AC/DC 80 V - 200 ms
Temperature influence:	< 0.1 % / K

Input

Nominal voltage U_N:	AC/DC 24 V AC/DC 42 ... 60 V AC/DC 110 ... 240 V
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Voltage range:

For AC/DC 24 V	
with 48 % residual ripple:	AC / DC 20.5 ... 27 V
With ≤ 10 % residual ripple:	DC 20.5 ... 30 V
For AC/DC 42 ... 60 V	
with 48 % residual ripple:	AC / DC 30 ... 66 V
With ≤ 10 % residual ripple:	DC 30 ... 80 V
With AC/DC 110 ... 240 V	
with 48 % residual ripple:	AC / DC 60 ... 264 V
With ≤ 10 % residual ripple:	DC 60 ... 300 V
Release voltage:	> 10 % U_N

Nominal consumption

for AC/DC 24 V:	0.05 VA / W
For AC/DC 60 V:	0.12 VA / W
For AC/DC 240 V:	0.4 VA / W

Nominal frequency:

50/60 Hz

Frequency range:

± 5 %

Switch-on current

for AC/DC 24 V: 0.6 A

For AC/DC 60 V: 0.7 A

For AC/DC 240 V: 1.1 A

Output

Contacts:	1 changeover contact
Contact material:	AgNi
Measured nominal voltage:	AC 250 V DC (see arc limit curve)
Thermal current I_{th}:	5 A

Switching capacity

to AC 15	
NO contact:	3 A / AC 230 V IEC/EN 60947-5-1
NC contact:	1 A / AC 230 V IEC/EN 60947-5-1
Electrical life	IEC/EN 60947-5-1

to AC 15 at 1 A, AC 230 V: ≥ 1.5 x 10⁵ switching cycles

Permissible switching frequency:

72000 switching cycles / h

Short circuit strength

max. fuse rating: 4 A gG / gL IEC/EN 60947-5-1

Mechanical life: > 10⁸ switching cycles

Technical Data	
General Data	
Operating mode:	Continuous operation
Temperature range:	
Operation:	- 20 ... + 60 °C
Storage:	- 25 ... + 65 °C
Relative air humidity:	95 % at 40 °C
Altitude:	≤ 2000 m
Clearance and creepage distances	
Rated impulse voltage / pollution degree:	4 kV / 2 (basis insulation) IEC 60664-1 III
Overvoltage category:	III
Insulation test voltage, type test:	2.5 kV; 1 min
EMC	
Electrostatic discharge:	6 kV (contact) IEC/EN 61000-4-2 8 kV (air) IEC/EN 61000-4-2
HF-irradiation	
80 MHz ... 1 GHz:	12 V / m IEC/EN 61000-4-3
1 GHz ... 2.7 GHz:	10 V / m IEC/EN 61000-4-3
Fast transients:	4 kV IEC/EN 61000-4-4
Surge voltages between wires for power supply:	2 kV IEC/EN 61000-4-5
Between wire and ground:	4 kV IEC/EN 61000-4-5
HF-wire guided:	10 V IEC/EN 61000-4-6
Interference suppression:	Limit value class B EN 55011
Degree of protection	
Housing:	IP 40 IEC/EN 60529
Terminals:	IP 20 IEC/EN 60529
Housing: Thermoplastic with V0 behaviour according to UL subject 94	
Vibration resistance: Amplitude 0.35 mm frequency 10 ... 55 Hz IEC/EN 60068-2-6 20 / 060 / 04 IEC/EN 60068-1	
Climate resistance:	
Terminal designation: EN 50005	
Wire connection: DIN 46228-1/-2/-3/-4	
Cross section:	2 x 2.5 mm ² solid or 2 x 1.5 mm ² stranded ferruled
Stripping length:	10 mm
Wire fixing:	Flat terminals with self-lifting clamping piece IEC/EN 60999-1
Fixing torque:	0.8 Nm
Mounting:	DIN rail IEC/EN 60715
Weight	
IK 7819:	70 g
SK 7819:	89 g
Dimensions	
Width x height x depth	
IK 7819:	17.5 x 90 x 58 mm
SK 7819:	17.5 x 90 x 98 mm

Standard Type

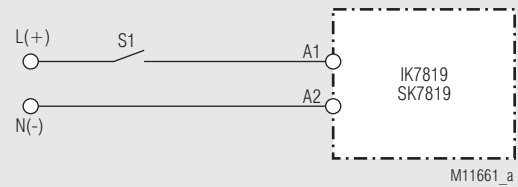
IK 7819.81 AC/DC 110 ... 240 V 0.15 ... 3 s

- Article number: 0044645
- Output: 1 changeover contact
 - Nominal voltage U_N : AC/DC 110 ... 240 V
 - Time range: 0.15 ... 3 s
 - Width: 17.5 mm

SK 7819.81 AC/DC 110 ... 240 V 0.15 ... 3 s

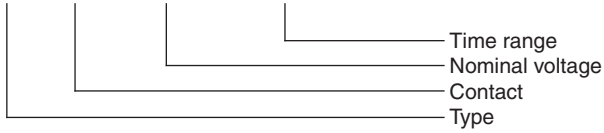
- Article number: 0054741
- Output: 1 changeover contact
 - Nominal voltage U_N : AC/DC 110 ... 240 V
 - Time range: 0.15 ... 3 s
 - Width: 17.5 mm

Connection Example

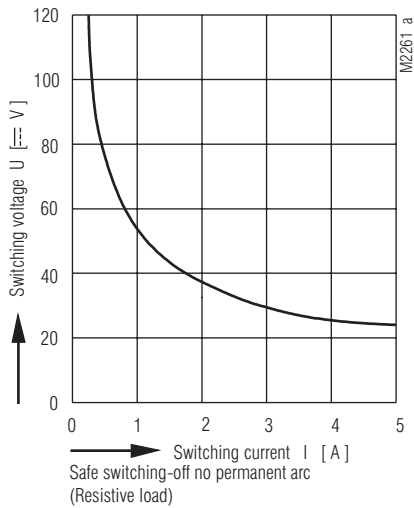


Ordering Example

IK 7819 .81 AC/DC 24 V 0.5 ... 10 s



Characteristic



Arc limit curve

