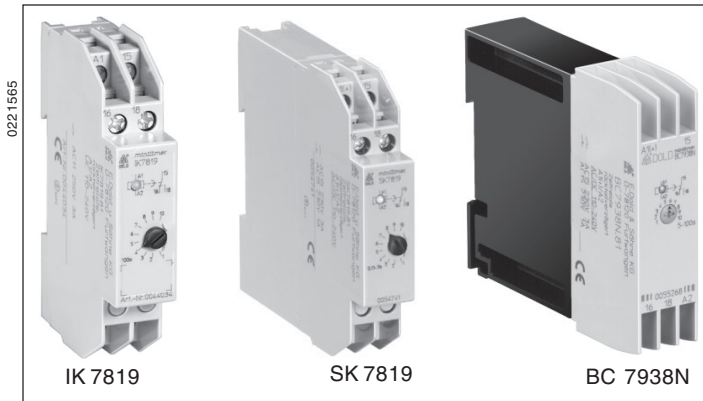


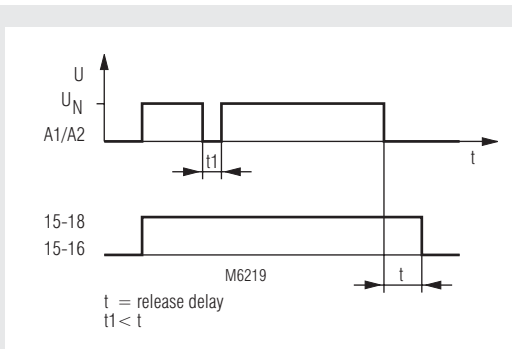
Time-delay relay IK 7819, SK 7819, BC7938N release delay type minitimer



022 1565

- According to IEC/EN 61 812-1
- **Devices available in 3 enclosure versions:**
 - IK 7819:** depth 58 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - SK 7819,**
 - BC7938N:** depth 98 mm, with terminals at the top for cabinets with mousing plate and cable duct
- 1 changeover contact
- Delay of 0,05 ... 300 s
- Wide voltage range
- Repeat accuracy $\leq 1\%$
- Without auxiliary voltage
- LED indicator for operation
- IK/SK 7819: width 17,5 mm
- BC 7938N: width 22,5 mm

Function diagram



Approvals and marking



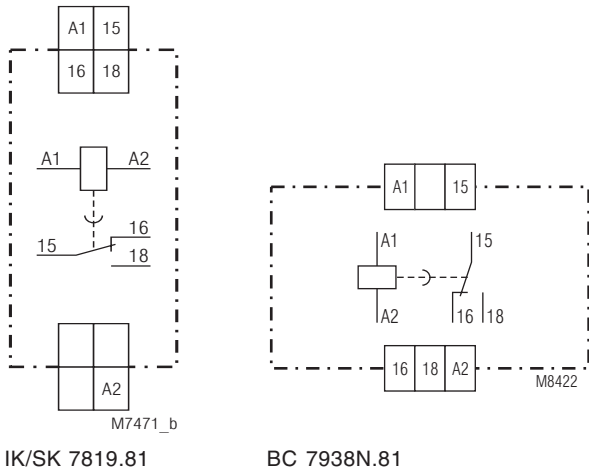
Applications

Time-dependent controllers

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:	$\leq 1\%$ 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:	$< 0,1\% / K$

Circuit diagram



IK/SK 7819.81

BC 7938N.81

Input

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

Voltage range:	
for AC/DC 24 V:	
with 48 % residual ripple	AC / DC 20,5 ... 27 V
with $\leq 10\%$ residual ripple	DC 20,5 ... 30 V
for AC/DC 42 ... 60 V:	
with 48 % residual ripple	AC / DC 30 ... 66 V
with $\leq 10\%$ residual ripple	DC 30 ... 80 V
for AC/DC 110 ... 240 V:	
with 48 % residual ripple	AC / DC 60 ... 264 V
with $\leq 10\%$ residual ripple	DC 60 ... 300 V

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
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

Technical data

Output

Contacts: 1 changeover contact
Thermal current I_{th} : 5 A
Output nominal voltage: AC 250 V
DC see limit curve for arc-free operation

Switching capacity to AC 15

NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1
NC contact: 1 A / AC 230 V IEC/EN 60 947-5-1

Electrical life IEC/EN 60 947-5-1
to AC 15 at 1 A, AC 230 V: $\geq 1,5 \times 10^5$ switching cycles

Short circuit strength

max. fuse rating: 4 A gL IEC/EN 60 947-5-1
Mechanical life: $> 10^8$ switching cycles

General data

Operating mode: Continuous operation
Temperature range: -20 ... +60 °C

Clearance and creepage distances

overvoltage category /
pollution degree: 4 kV / 2 IEC 60 664-1

EMC

Electrostatic discharge:
IK/SK 7819: 6 kV (contact) IEC/EN 61 000-4-2
BC 7938N: 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

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: Thermoplastic with V0 behaviour
according to UL subject 94

Vibration resistance: Amplitude 0,35 mm
frequency 10 ... 55 Hz IEC/EN 60 068-2-6

Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1

Terminal designation: EN 50 005

Wire connection:
IK/SK 7819: 2 x 2,5 mm² solid or
2 x 1,5 mm² stranded ferruled
DIN 46 228-1/-2/-3/-4

BC 7938N: 1 x 4 mm² solid or
2 x 1,5 mm² stranded ferruled
1 x 2,5 mm² stranded ferruled
(isolated)
DIN 46 228-1/-2/-3/-4

Wire fixing:
IK/SK 7819: Flat terminals with self-lifting
clamping piece IEC/EN 60 999-1

BC 7938N: Plus-minus terminal screws M3,5
Box terminal with wire protection
DIN rail IEC/EN 60 715

Mounting:

Weight
IK 7819: 70 g
SK 7819: 89 g
BC 7938N: 105 g

Dimensions

Width x height x depth

IK 7819: 17,5 x 86 x 58 mm
SK 7819: 17,5 x 86 x 98 mm
BC 7938N: 22,5 x 84 x 98 mm

Standard type

IK 7819.81 AC/DC 110 ... 240 V 0,15 ... 3 s
Article number: 0044645 stock item

• 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

BC 7938N.81 AC/DC 110 ... 240 V 0,5 ... 10 s

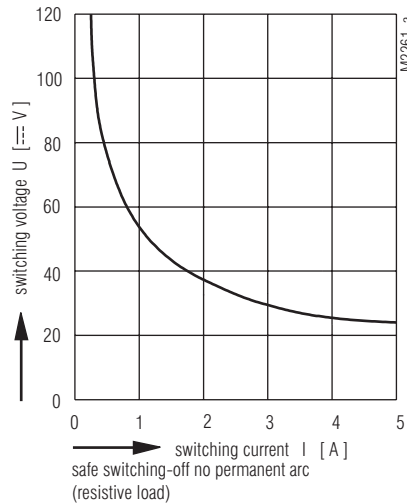
Article number: 0055774
• Front color grey, with box terminals
• Output: 1 changeover contact
• Nominal voltage U_N : AC/DC 110 ... 240 V
• Time range: 0,5 ... 10 s
• Width: 22,5 mm

Ordering example

IK 7819 .81 AC/DC 24 V 0,5 ... 10 s



Characteristics



Limit curve for arc-free operation