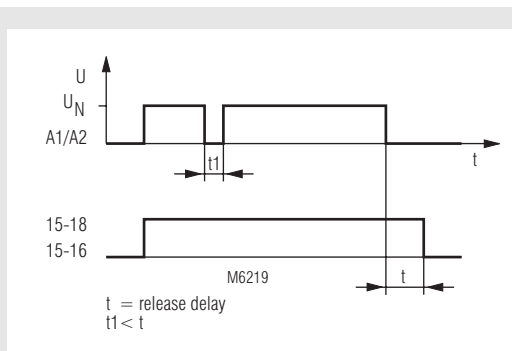


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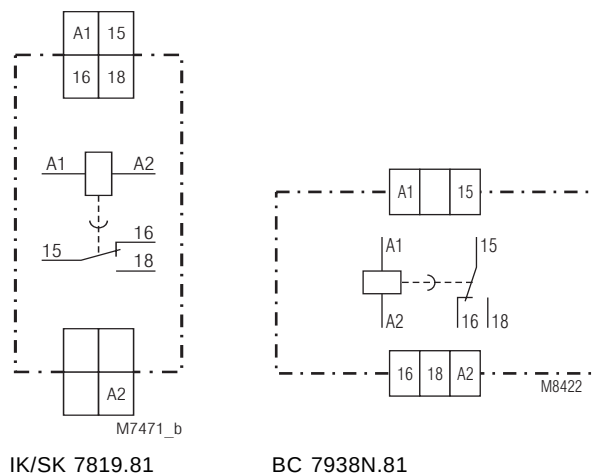


- According to DIN EN 61 812-1
- **Devices available in 3 enclosure versions:**
 - IK 7819:** depth 58 mm, with terminals at the bottom for installation systems and industrial distribution systems according to DIN 43 880
 - SK 7819,**
 - BC7938N:** depth 98 mm, with terminals at the top for cabinets with mounting 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



Circuit diagram



IK/SK 7819.81

BC 7938N.81

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

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:

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

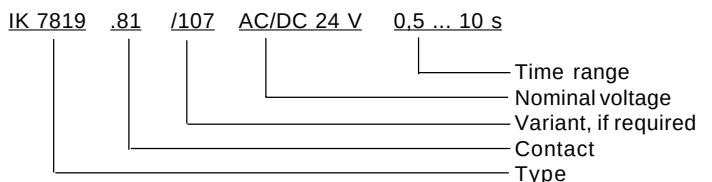
Output

Contacts:	1 changeover contact
Thermal current I_{th}:	5 A

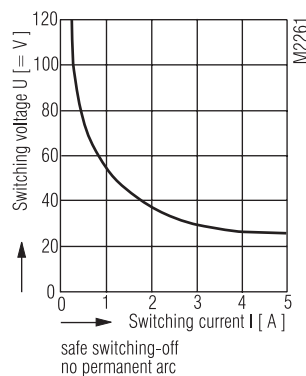
Technical data	
Output nominal voltage:	AC 250 V DC see limit curve for arc-free operation
Switching capacity to AC 15	
NO contact:	3 A / AC 230 V EN 60 947-5-1
NC contact:	1 A / AC 230 V EN 60 947-5-1
Electrical life to AC 15 at 1 A, AC 230 V:	≥ 1,5 x 10 ⁵ switching cycles EN 60 947-5-1
Short circuit strength max. fuse rating:	4 A gL 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 / contamination level:	4 kV / 2 IEC 60 664-1
EMC Electrostatic discharge:	
IK/SK 7819:	6 kV (contact discharge)EN 61000-4-2
BC 7938N:	8 kV (air) EN 61 000-4-2
HF irradiation:	10 V / m EN 61 000-4-3
Fast transients:	4 kV EN 61 000-4-4
Surge voltages between wires for power supply:	2 kV EN 61 000-4-5
between wire and ground:	4 kV EN 61 000-4-5
Interference suppression:	Limit value class B EN 55 011
Degree of protection:	Housing: IP 40 EN 60 529 Terminals: IP 20 EN 60 529
Housing:	Thermoplastic with V0 behaviour according to UL subject 94
Vibration resistance:	Amplitude 0,35 mm frequency 10 ... 55 Hz EN 60 068-2-6 20 / 060 / 04 EN 60 068-1
Climate resistance:	EN 50 005
Terminal designation:	
Wire connection:	
IK/SK 7819:	2 x 2,5 mm ² solid or 2 x 1,5 mm ² stranded ferruled DIN 46 228-1/-2/-3
BC 7938N:	1 x 4 mm ² solid or 2 x 1,5 mm ² stranded ferruled 1 x 2,5 mm ² stranded ferruled (isolated) DIN 46 288-1/-2/-3/-4
Wire fixing:	
IK/SK 7819:	Flat terminals with self-lifting clamping piece EN 60 999
BC 7938N:	Plus-minus terminal screws M3,5 Box terminal with wire protection DIN rail EN 50 022
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
Variant	
IK 7819.81/107:	to be used in voltage system changeover control IX 9100 0,5 or 15 sec according to VDE 0107 for medically used rooms. See also project folder P1 "Medically used rooms"

Ordering example for variant



Characteristics



Limit curve for arc-free operation