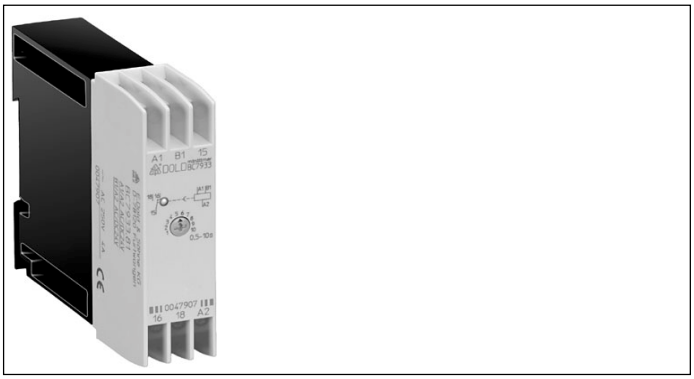
Time relay BC 7933, BC 7933N, release delay minitimer

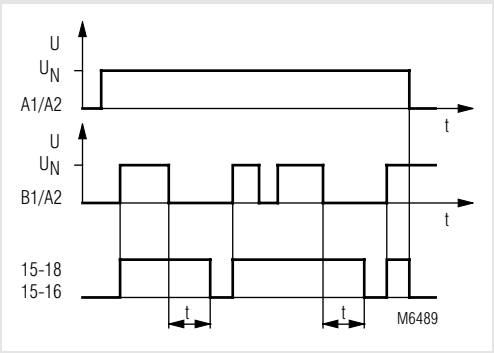
BC 7933N with Box terminals

0225284

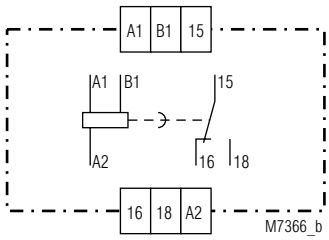


- According to DIN EN 61 812-1
- Time ranges between 0,05 s and 10 h
- Settable release delay
- With auxiliary voltage
- Wide voltage range AC 110 ... 240 V
- Control input operated with nominal voltage, No voltage free contact necessary
- LED indicator for status of contact
- 1 changeover contact
- BC 7933N, Wire connection: also 2 x 1,5 mm² stranded ferruled (isolated), DIN 46 228-4 or 2 x 2,5 mm² stranded ferruled DIN 46 228-1/-2/-3
- Width 22,5 mm

Function diagram



Circuit diagram



Approvals and marking

CE

Applications

Time-dependent control circuits

Indicators

yellow LED:	on, when output relay activated (contact 15 - 18 closed)

Notes

The relay needs a supply voltage continuously connected to A1-A2. At relays with auxiliary supply < AC 180 V the control input must not be operated before the auxiliary supply is present for at least 150 ms. In this case also the recovery time after time delay is 150 ms.

Technical data

Time circuit

Time ranges:	0,05	...	1 s	0,5 ...	10 m
	0,15	...	3 s	1,5 ...	30 m
	0,5	...	10 s	0,15 ...	3 h
	1,5	...	30 s	0,5 ...	10 h
	5	...	100 s		
	15	...	300 s		

Time setting:	infinitely variable 1:20
Min. closing time:	(Control input B1) AC: 15 ms DC: 5 ms
Recovery time:	< 50 ms
Repeat accuracy:	≤ 0,5 % + 10 ms
Voltage influence:	≤ 1 %
Temperature influence:	≤ 0,25 % / K

Input

Nominal voltage U_N:	(A1/A2 and B1/A2) AC 110 ... 240 V AC 42 V AC/DC 24 V
Voltage range:	AC: 0,8 ... 1,1 U_N DC: 0,9 ... 1,25 U_N
Nominal consumption:	AC: 4 VA DC: 0,4 W
Nominal frequency:	AC: 50 / 60 Hz
Frequency range:	AC: 45 ... 65 Hz
Reset voltage:	(Control input B1) ≥ 15 % U_N

Technical data

Output

Contacts:		
BC 7933.81, BC 7933N.81:	1 changeover contact	
Thermal current I_{th}:	4 A	
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 contact life		EN 60 947-5-1
to AC 15 at 1 A, AC 230 V:	$1,5 \times 10^5$ switching cycles	
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:	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:	1 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
Climate resistance:	20 / 060 / 04	EN 60 068-1
Terminal designation:	EN 50 005	
Wire connection		
BC 7933:	1 x 4 mm² solid or 2 x 1,5 mm² stranded wire with sleeve DIN 46 228-1/-2	
BC 7933N:	1 x 4 mm² solid or 1 x 2,5 mm² stranded ferruled (isolated) or 2 x 1,5 mm² stranded ferruled (isolated) DIN 46 228-1/-2/-3/-4 or 2 x 2,5 mm² stranded ferruled DIN 46 228-1/-2/-3	
Wire fixing:		
BC 7933:	Flat terminals with self-lifting clamping piece DIN 46 206 and DIN 57 609 / VDE 0609	
BC 7933N:	Terminal screws M 3,5 Box terminal with wire protection	
Mounting:	DIN rail	EN 50 022
Weight:	80 g	

Dimensions

Width x height x depth:	22,5 x 84 x 97 mm

Standard type

BC 7933N.81 AC 110 ... 240 V 50/60 Hz 0,5 ... 10 s

Article number:	0052777
• Front colour grey, with box terminals	
• Output:	1 changeover contact
• Nominal voltage U_N:	AC 110 ... 240 V
• Time range:	0,5 ... 10 s
• Width:	22,5 mm

Ordering example

BC 7933 _ .81 AC 110 ... 240 V 50 / 60 Hz 10 s

- 10 s: Time delay
- 50 / 60 Hz: Nominal frequency
- AC 110 ... 240 V: Nominal voltage
- .81: Contact
- _: BC 7933N: front colour grey, with box terminals
- BC 7933: BC 7933: front colour orange, with flat terminals

Connection example