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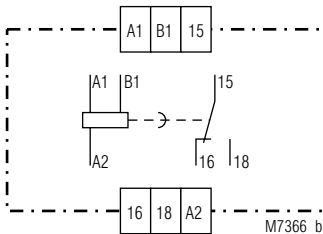


- According to DIN EN 61 812-1
- Time ranges between 0,05 s and 10 h
- Settable release delay
- With auxiliary voltage
- Wide voltage range AC 110 ... 240 V
- Control input operated with nominal voltage, No voltage free contact necessary
- LED indicator for status of contact
- 1 changeover contact
- 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



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
(Control input B1)

Min. closing time: 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

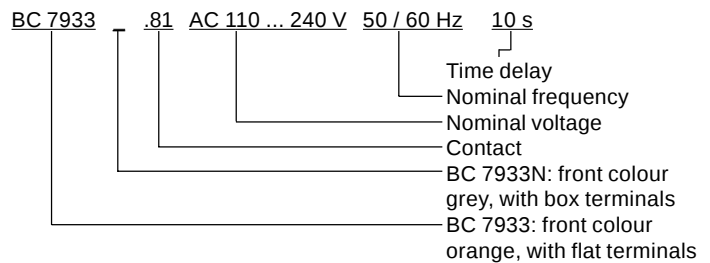
Reset voltage: (Control input B1)
≥ 15 % U_N

Technical data	
Output	
Contacts:	
BC 7933.81, BC 7933N.81:	1 changeover contact
Thermal current I_m:	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 x 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 EN 60 068-2-6 frequency 10 ... 55 Hz
Climate resistance:	20 / 060 / 04 EN 60 068-1
Terminal designation:	EN 50 005
Wire connection	
BC 7933:	1 x 4 mm ² solid or 2 x 1,5 mm ² stranded wire with sleeve DIN 46 228-1/-2
BC 7933N:	1 x 4 mm ² solid or 1 x 2,5 mm ² stranded ferruled (isolated) or 2 x 1,5 mm ² stranded ferruled (isolated) DIN 46 228-1/-2/-3/-4 or 2 x 2,5 mm ² 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



Connection example

