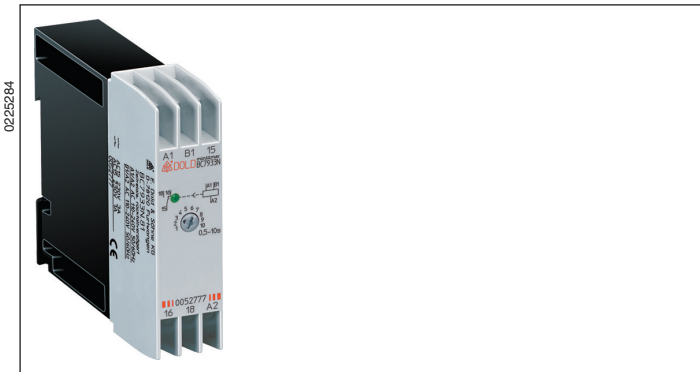
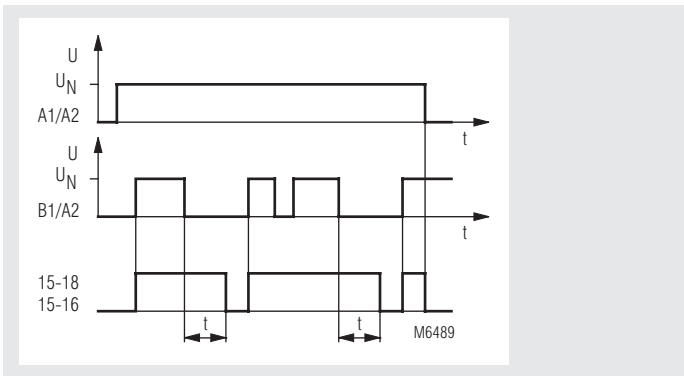


## MINITIMER Timer, Release Delay BC 7933N



- According to IEC/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
- Wire connection: also 2 x 1.5 mm<sup>2</sup> stranded ferruled (isolated), DIN 46 228-1/-2/-3/-4 or 2 x 2.5 mm<sup>2</sup> stranded ferruled DIN 46 228-1/-2/-3
- Width 22.5 mm

### Function Diagram



### Approvals and Markings



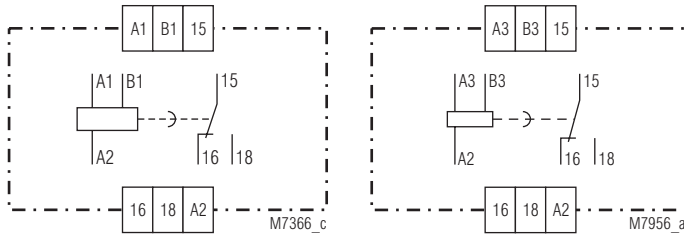
### Applications

Time-dependent control circuits

### Indicators

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

### Circuit Diagram



BC 7933N

BC 7933N/200

### 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

<b>Time ranges:</b>	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

## Technical Data

### Input

<b>Nominal voltage <math>U_N</math>:</b>	(A1/A2 and B1/A2) AC 110 ... 240 V AC 42 V AC/DC 24 V
<b>Voltage range:</b>	AC: 0.8 ... 1.1 $U_N$ DC: 0.9 ... 1.25 $U_N$
<b>Nominal consumption:</b>	AC: 4 VA DC: 0.4 W
<b>Nominal frequency:</b>	AC: 50 / 60 Hz
<b>Frequency range:</b>	AC: 45 ... 65 Hz
<b>Reset voltage:</b>	(Control input B1) $\geq 15\% U_N$

### Output

<b>Contacts:</b>	1 changeover contact
<b>Thermal current <math>I_{th}</math>:</b>	4 A
<b>Switching capacity</b> 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
<b>Electrical contact life</b> to AC 15 at 1 A, AC 230 V:	1.5 x 10 <sup>5</sup> switching cycles
<b>Short circuit strength</b> <b>max. fuse rating:</b>	4 A gL IEC/EN 60 947-5-1
<b>Mechanical life:</b>	10 <sup>8</sup> switching cycles

### General Data

<b>Operating mode:</b>	Continuous operation
<b>Temperature range:</b>	- 20 ... + 60°C
<b>Clearance and creepage</b> <b>distances</b> rated impulse voltage / pollution degree:	4 kV / 2 IEC 60 664-1
<b>EMC</b> Electrostatic discharge:	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:	1 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
<b>Degree of protection</b> Housing:	IP 40 IEC/EN 60 529
Terminals:	IP 20 IEC/EN 60 529
<b>Housing:</b>	Thermoplastic with V0 behaviour according to UL subject 94
<b>Vibration resistance:</b>	Amplitude 0.35 mm IEC/EN 60 068-2-6 frequency 10 ... 55 Hz
<b>Climate resistance:</b>	20 / 060 / 04 IEC/EN 60 068-1
<b>Terminal designation:</b>	EN 50 005
<b>Wire connection:</b>	1 x 4 mm <sup>2</sup> solid or 1 x 2.5 mm <sup>2</sup> stranded ferruled (isolated) or 2 x 1.5 mm <sup>2</sup> stranded ferruled (isolated) DIN 46 228-1/-2/-3/-4 or 2 x 2.5 mm <sup>2</sup> stranded ferruled DIN 46 228-1/-2/-3
<b>Wire fixing:</b>	Terminal screws M 3.5 Box terminal with wire protection
<b>Mounting:</b>	DIN rail IEC/EN 60 715
<b>Weight:</b>	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

## Variante

BC 7933N.81/200:	Special terminal designation: A3 corresponds A1, B3 corresponds B1
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## Ordering example for variant

BC 7933N .81 / _ _ _ AC 110 ... 240 V 50 / 60 Hz 10 s
Time delay
Nominal frequency
Nominal voltage
Variant, if required
Contact
Type

## Connection Example

