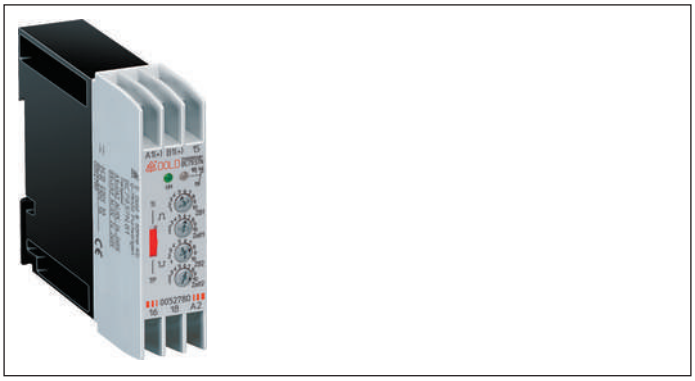
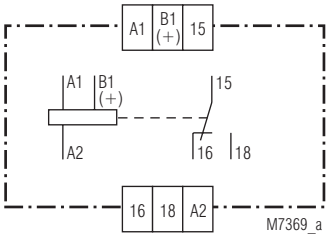
MINITIMER
Cyclic Timer
BC 7937N

0226191



- According to IEC/EN 61 812-1
- With 10 time ranges from 0.05 s ... 300 h
- Impulse and break time separately adjustable
- Selectable start with impulse or break
- AC/DC 24 ... 240 V
- Control input for interruption of the time elapse
- LED indication for voltage supply and contact position
- Flashing function during elapse of time
- 1 changeover contact
- Wire connection: also 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
- Width 22.5 mm

Circuit Diagram



Approvals and Marking

CE

Applications

Time-dependent controllers

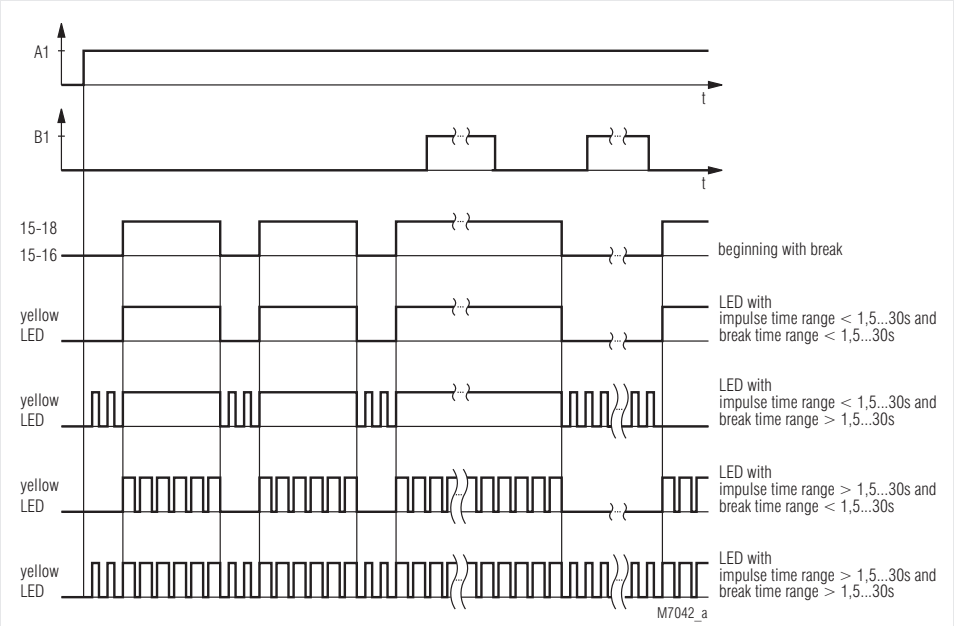
Indication

green LED:	on, when supply connected
yellow LED:	see Function Diagramm

Notes

When changing the time ranges for impulse / break the device must be reset by disconnecting the supply voltage. By energising control input B1 the time elapse is stopped. E.g. activating control input B1 during timing of T_{impuls} for the time B1 the output is energized for T_{impuls} and T_{B1}.

Function Diagram



All technical data in this list relate to the state at the moment of edition. We reserve the right for technical improvements and changes at any time.

Technical Data

Time circuit

Time ranges:	1) 0.05 ... 1 s	7) 1.5 ... 30 min	
	2) 0.15 ... 3 s	8) 15 ... 300 min	
	3) 0.5 ... 10 s	9) 1.5 ... 30 h	
	4) 1.5 ... 30 s	10) 15 ... 300 h	
	5) 5 ... 100 s		
	6) 15 ... 300 s		
	selectable via time-range-switch (ZB)		
Time setting:	infinite variable via potentiometer (Zeit)		
Recovery time:	≤ 50 ms		
Repeat accuracy:	≤ 2 %		
Voltage influence:	≤ 1 %		
Temperature influence:	≤ 0.05 % / K		

Input

Nominal voltage U_N		
(A1/A2 and B1/A2):	AC/DC 24 ... 240 V, DC 12 V	
Voltage range:	0.8 ... 1.1 U_N	
Nominal consumption:		
at AC 240 V:	4 VA	
at DC 240 V:	1.33 W	
Nominal frequency:	50 / 60 Hz	
Release voltage:	AC: ≥ 15 % U_N	
	DC: ≥ 5 % U_N	

Output

Contacts:	1 changeover contact	
Thermal current I_{th}:	4 A	
Switching capacity		
to AC 15:	3 A / AC 230 V	IEC/EN 60 947-5-1
to DC 13:	2 A / DC 24 V	IEC/EN 60 947-5-1
Electrical life		IEC/EN 60 947-5-1
to AC 15 at 1 A, AC 230 V:	typ. 150 000 switching cycles	
to DC 13 at 1 A, DC 24 V:	typ. 100 000 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:	0 ... + 60°C	
Clearance and creepage distances		
rated impuls voltage / pollution degree:	4 kV / 2	IEC 60 664-1
EMC		
Electrostatic discharge:	6 kV (air)	IEC/EN 61 000-4-2
HF irradiation:	10 V/m	IEC/EN 61 000-4-3
Fast transients:	2 kV	IEC/EN 61 000-4-4
Surge voltages between		
wired for power supply:	1 kV	IEC/EN 61 000-4-5
between wire and ground:	2 kV	IEC/EN 61 000-4-5
HF wire guided:	10 V	IEC/EN 61 000-4-6
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 to UL subject 94	
Vibration resistance:	Amplitude 0.35 mm frequency 10 ... 55 Hz	IEC/EN 60 068-2-6
Climate resistance:	0 / 060 / 04	IEC/EN 60 068-1
Terminal designation:	EN 50 005	
Wire connection:	1 x 4 mm² solid or	
	1 x 2.5 mm² stranded ferruled (isolated) or	
	2 x 1.5 mm² stranded ferruld (isolated) DIN 45 228-1/-2/-3/-4 or	
	2 x 2.5 mm² stranded ferruled DIN 46 228-1/-2/-3	

Technical Data

Wire fixing:	Terminal screws M 3.5	
	Box terminal with wire protection	
Mounting:	DIN rail	IEC/EN 06 715
Weigth:	110 g	

Dimensions

Width x height x depth: 22.5 x 84 x 97 mm

Standard Type

BC 7937N.81 AC/DC 24 ... 240 V 50/60 Hz
Article number: 0052780

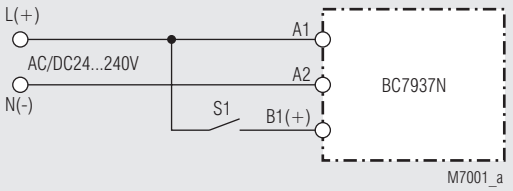
- Front colour grey, with box terminals
- Output: 1 changeover contact
- Nominal voltage U_N: AC/DC 24 ... 240 V
- Width: 22.5 mm

Ordering Example

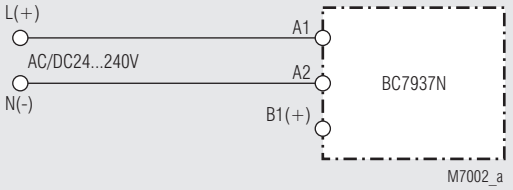
BC 7937N .81 AC/DC 24 ... 240 V 50 / 60 Hz

- 50 / 60 Hz — Nominal frequency
- AC/DC 24 ... 240 V — Nominal voltage
- .81 — Contacts
- BC 7937N — Type

Connection Examples



Connection example with control contact S1 for interruption of the time elapse



Connection example without control contact

Adjustment Facilities

