MULTITIMER
Multifunction Relay
BC 7935N

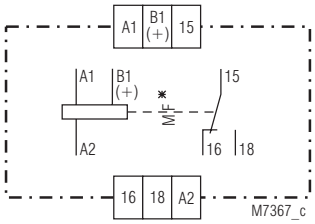
DOLD

0225499



- According to IEC/EN 61 812-1
- 8 functions selectable by rotational switch:
  - AV - operate delay
  - EW - fleeting on make
  - IE - delayed pulse function
  - BE - flasher start with impulse
  - RV - release delay
  - IF - pulse forming
  - AW - fleeting on break
  - AV/RV - operate / release delay
- With 10 time ranges up to 300 h selectable by rotational switch
- Time addition via control input B1 for the functions AV, EW, IE, BE
- Time ranges up to 300 h
- AC/DC 24 ... 240 V
- 1 changeover contact
- LED indicators for voltage supply and contact position, flashing function during elapse of time
- 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

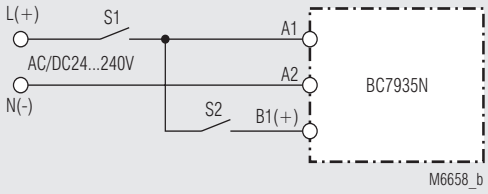
Circuit Diagrams

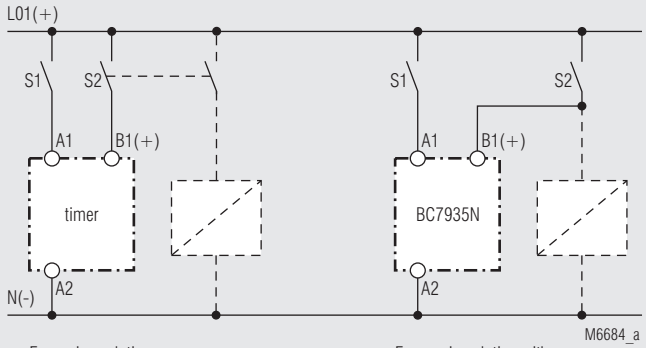


Approvals and Marking

CE

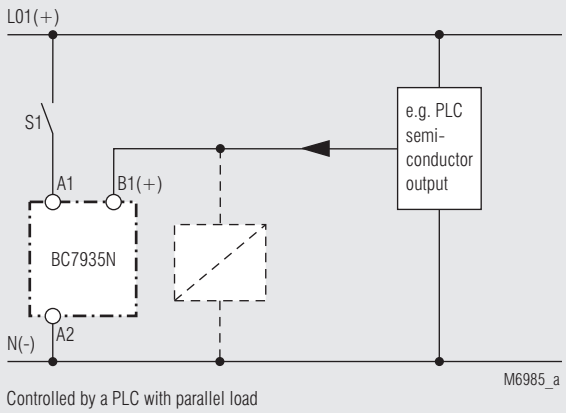
Connection Examples





Expensive solution to operate an additional parallel load

Economic solution with DOLD BC7935N



Controlled by a PLC with parallel load

Applications

Time-dependent controllers

Indicators

green LED:	on, when supply connected.
yellow LED:	on, when output relay active. Flashes during time delay, pulse-pause-ratio indicates the state of the output relay (see Function Diagramm).

Notes

The functions RV, IF, AW, AV/RV have to be controlled by input B1(+) according to the connection Diagram.
At the functions AV,EW,IE, BE the timing cycle can be stopped by closing S2 (see Diagram). When opening S2 the timing cycles continues.

Technical Data

Time circuit

Time ranges:	0.05 ... 1 s	1.5 ... 30 min
	0.15 ... 3 s	15 ... 300 min
	0.5 ... 10 s	1.5 ... 30 h
	1.5 ... 30 s	15 ... 300 h
	5 ... 100 s	
	15 ... 300 s	
	selectable by switch (ZB)	
Time setting:	infinitely variable 1:20	
Recovery time:	50 ms	
Repeat accuracy:	2 %	
Voltage influence:	≤ 1 %	
Temperature influence:	0.05 % / K	

Input

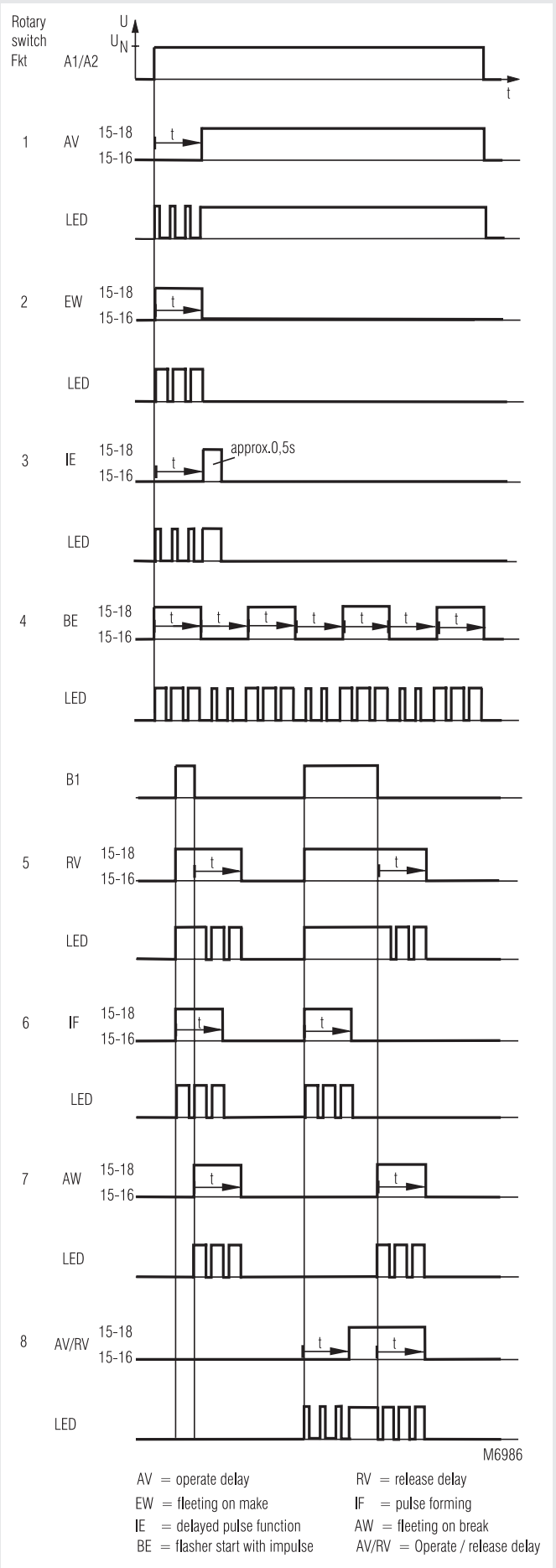
Nominal voltage U_N
A1 / A2, B1(+) / A2: AC/DC 24 ... 240 V, DC 12 V
Voltage range: 0.8 ... 1.1 U_N
Nominal consumption:

AC		DC	
24 V	240 V	24 V	240 V
1.1 VA	4.1 VA	0.93 W	1.95 W

Nominal frequency: 50 / 60 Hz
Release voltage: AC: ≥ 15 % U_N, DC: ≥ 5 % U_N
Min. ontime of control input B1: AC 30 ms, DC 10 ms

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.

Function Diagram



Technical Data

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
Electrical life		IEC/EN 60 947-5-1
to AC 15 at 1 A, AC 230 V:	typ. 150 000 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:	8 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		
wires for power supply:	1 kV	IEC/EN 61 000-4-5
between wire and ground:	2 kV	IEC/EN 61 000-4-5
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 arrangement:	DIN 46 199-5	
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 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:	Terminal screws M 3.5 Box terminal with wire protection	
Mounting:	DIN rail	IEC/EN 60 715
Weight:	105 g	

Dimensions

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

Standard Type

BC 7935N.81 AC/DC 24 ... 240 V 50/60 Hz

Article number:	0052778
• Front colour grey, with box terminals	
• Output:	1 changeover contact
• Nominal voltage U_N:	AC/DC 24 ... 240 V
• Width:	22.5 m

Ordering Example

BC 7935N .81 AC/DC 24 ... 240 V 50 / 60 Hz

- 50 / 60 Hz: Nominal frequency
- AC/DC 24 ... 240 V: Nominal voltage
- .81: Contacts
- BC 7935N: Type