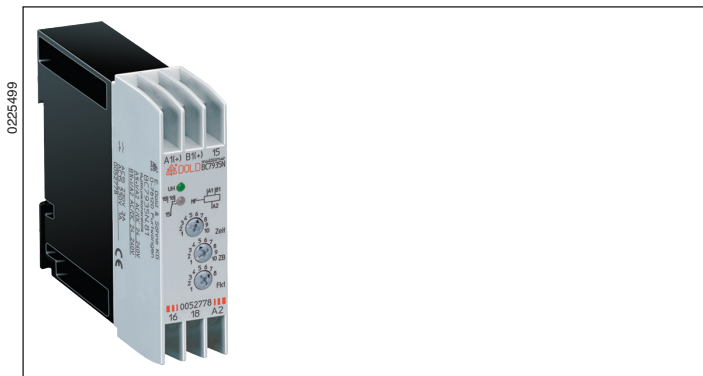


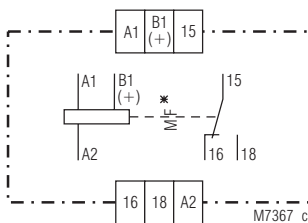
## MULTITIMER Multifunction Relay BC 7935N

Translation  
of the original instructions



- According to IEC/EN 61812-1
- 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 mm<sup>2</sup> stranded ferruled (isolated), DIN 46228-1/-2/-3/-4 or 2 x 2.5 mm<sup>2</sup> stranded ferruled DIN 46228-1/-2/-3
- Width 22.5 mm

### Circuit Diagram



### Approvals and Markings



### Applications

Time-dependent controllers

### Indicators

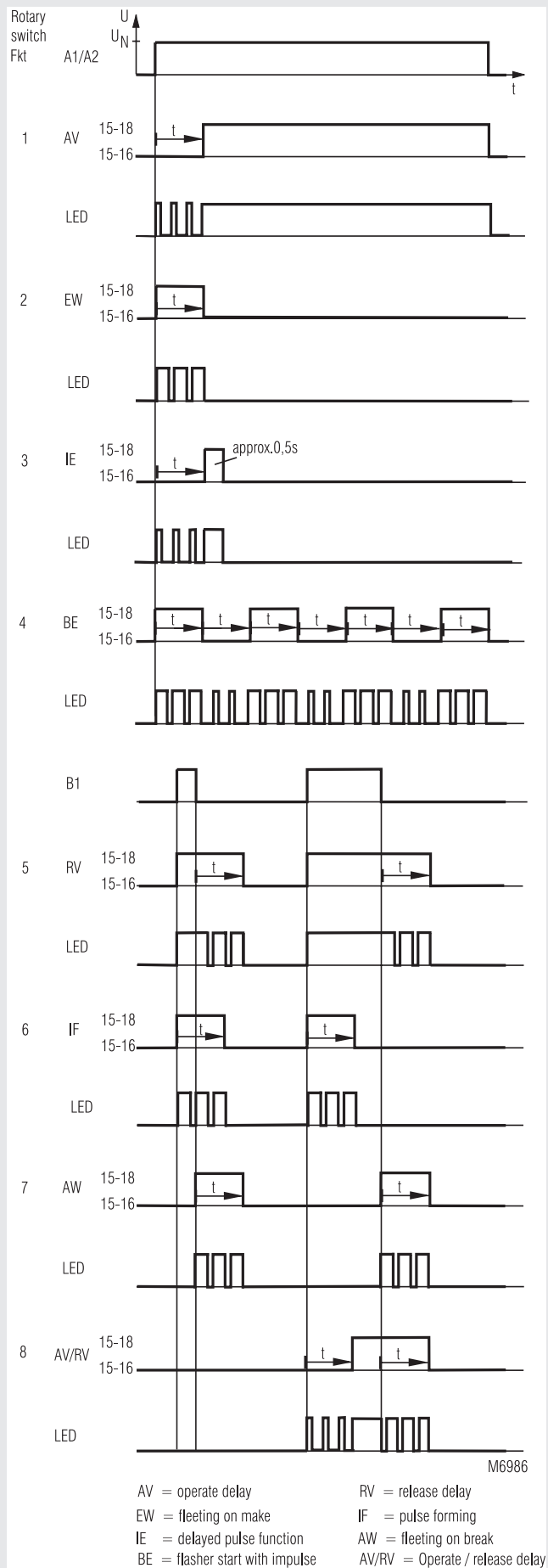
Green LED:	On, when supply connected.
Yellow LED:	On, when output relay active. Flashes during time delay, pulse-pause-ratio indicates the state of the output relay (see Function Diagramm).

### 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

## Function Diagram



## Technical Data

### Time Circuit

<b>Time ranges:</b>	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)	
<b>Time setting:</b>	Infinitely variable 1:20	
<b>Recovery time:</b>	50 ms	
<b>Repeat accuracy:</b>	2 %	
<b>Voltage influence:</b>	≤ 1 %	
<b>Temperature influence:</b>	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

### Output

#### Contacts:

1 changeover contact

#### Thermal current $I_{th}$ :

4 A

#### Switching capacity

To AC 15:

3 A / AC 230 V

IEC/EN 60947-5-1

#### Electrical life

To AC 15 at 1 A, AC 230 V:

Typ. 150 000 switching cycles

IEC/EN 60947-5-1

#### Short circuit strength

#### Max. fuse rating:

4 A gG / gL

IEC/EN 60947-5-1

#### Mechanical life:

10<sup>8</sup> switching cycles

### General Data

#### Operating mode:

Continuous operation

#### Temperature range:

0 ... + 60°C

#### Clearance and creepage distances

Rated impulse voltage /  
pollution degree:

4 kV / 2

IEC 60664-1

#### EMC

Electrostatic discharge:

8 kV (air)

IEC/EN 61000-4-2

HF irradiation:

10 V/m

IEC/EN 61000-4-3

Fast transients:

2 kV

IEC/EN 61000-4-4

Surge voltages

Between

wires for power supply:

1 kV

IEC/EN 61000-4-5

Between wire and ground:

2 kV

IEC/EN 61000-4-5

Interference suppression:

Limit value class B

EN 55011

#### Degree of protection

Housing:

IP 40

IEC/EN 60529

Terminals:

IP 20

IEC/EN 60529

#### Housing:

Thermoplastic with V0 behaviour  
to UL subject 94

#### Vibration resistance:

Amplitude 0.35 mm IEC/EN 60068-2-6  
frequency 10 ... 55 Hz

#### Climate resistance:

0 / 060 / 04

IEC/EN 60068-1

#### Terminal arrangement:

DIN 46199-5

#### Terminal designation:

EN 50005

## Technical Data

<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 46228-1/-2/-3/-4 or 2 x 2.5 mm <sup>2</sup> stranded ferruled DIN 46228-1/-2/-3
<b>Wire fixing:</b>	Terminal screws M 3.5 Box terminal with wire protection
<b>Mounting:</b>	DIN rail IEC/EN 60715
<b>Weight:</b>	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 mm

## Ordering Example

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

## Connection Examples

