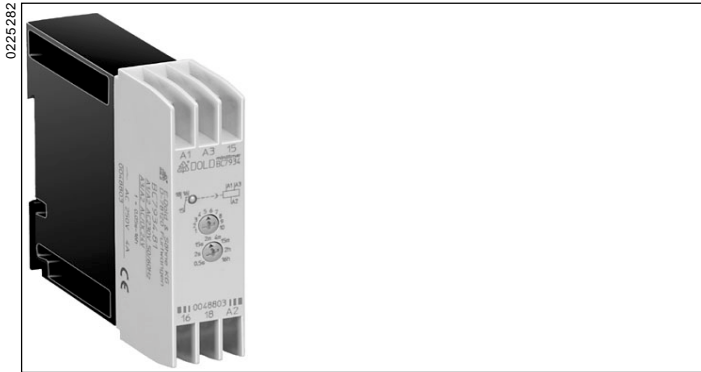


Time control technique

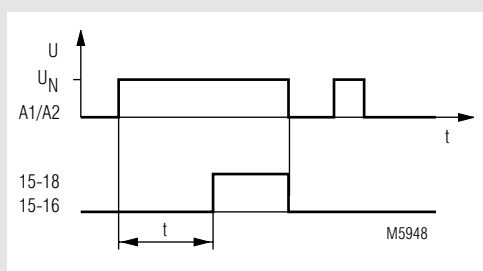
Multi range time relay BC 7934, BC 7934N operate delay minitimer

BC 7934N with Box terminals



- According to DIN EN 61 812-1
- 8 time ranges in one device from 0,05 s ... 16 h
- Infinite variable delay on every range 1 : 10
- Dual-voltage design as standard (e.g. AC 230 V + AC/DC 24 V)
- LED indicator for contact position
- 1 changeover contact
- BC 7934N, 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



Approvals and marking



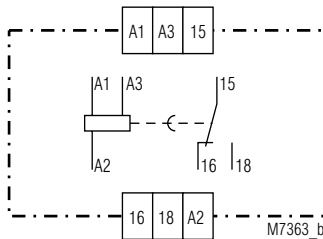
Applications

Time-dependent controllers

Indications

LED: on when output relay activated (contacts 15 - 18 are closed)

Circuit diagram



Technical data

Time circuit

Time ranges: 8 ranges in one device selected by stepping switch:
 0,05 ... 0,5 s 0,4 ... 4 min.
 0,2 ... 2 s 1,5 ... 15 min.
 1,5 ... 15 s 0,2 ... 2 h
 0,2 ... 2 min. 1,6 ... 16 h

Time setting: infinitely variable 1:10

Recovery time: ≤ 100 ms

Repeat accuracy: ≤ 0,5 % + 10 ms

Voltage influence: ≤ 1 %

Temperature influence: ≤ 0,25 % / K

Input

Nominal voltage U_N: AC/DC 24 V¹⁾ + AC 230 V²⁾
 AC/DC 24 V¹⁾ + AC 110 ... 127 V²⁾
 AC/DC 24 V¹⁾ + AC 42 V²⁾

¹⁾ on terminals A3-A2

²⁾ on terminals A1-A2

Voltage range: 0,8 ... 1,1 U_N with AC
 0,9 ... 1,25 U_N with DC

Nominal consumption: AC: 4 VA
 DC: 0,4 W

Frequency range: 45 ... 64 Hz at AC

Release voltage: ≥ 15 % U_N

Output

Contacts: BC 7934.81, BC 7934N.81: 1 changeover contact
 4 A

Thermal current I_{th}: 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 life EN 60 947-5-1

to AC 15 at 1 A, AC 230 V: 1,5 x 10⁵ switching cycles

Short circuit strength

max. fuse rating: 4 A gL EN 60 947-5-1

Technical data

Mechanical life: 10⁸ 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: 2 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 7934: 1 x 4 mm² solid or
2 x 1,5 mm² stranded wire with sleeve
DIN 46 228-1/-2/-3

BC 7934N: 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:

BC 7934: Flat terminals with self-lifting
clamping piece DIN 46 206 and
DIN 57 609 / VDE 0609

BC 7934N: Terminal screws M 3,5
Box terminal with wire protection

Mounting: DIN rail EN 50 022

Weight: 85 g

Dimensions

Width x height x depth: 22,5 x 84 x 97 mm

Standard type

BC 7934N.81 AC/DC 24 V + AC 230 V 16 h

Article number: 0052673

- Front colour grey, with box terminals
- Output: 1 changeover contact
- Nominal voltage U_N: AC/DC 24 V + AC 230 V
- Time ranges: from 0,05 s ... 16 h
- Width: 22,5 mm

Ordering example

BC 7934 .81 AC/DC 24 + AC 230 V 0,05 s ... 16 h

Time range end value
Nominal voltage
Contacts
BC 7934N: front colour
grey, with box terminals
BC 7923: front colour
orange, with flat terminals