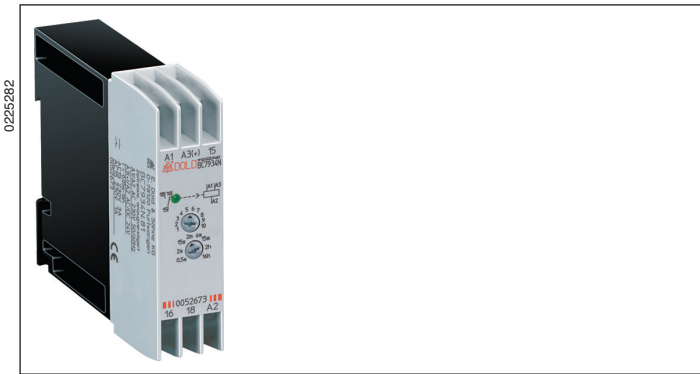


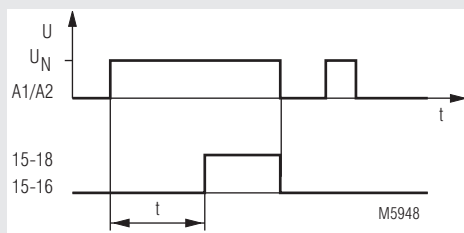
Time Control Technique

MINITIMER Time Relay With Operate Delay BC 7934N



- According to IEC/EN 61 812-1
- 8 switching ranges 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
- 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

Function Diagram



Approvals and Markings



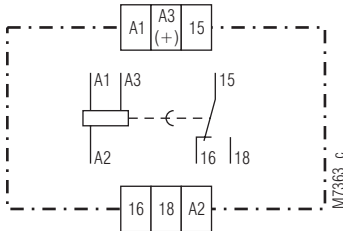
Applications

Time-dependent controllers

Indicators

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

Circuit Diagrams



Connection Terminals

Terminal designation	Signal designation
A1, A3(+), A2	Operating voltage
15, 16, 18	Changeover contact

Technical Data

Time Circuit

Time ranges:	8 switching ranges
	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 (Operating voltage):	AC/DC 24 V ¹⁾ + AC 230 V ²⁾ AC/DC 24 V ¹⁾ + AC 110 ... 127 V ²⁾ AC/DC 24 V ¹⁾ + AC 42 V ²⁾
	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
Nominal frequency:	50 / 60 Hz
Frequency range:	± 5 % f_N
Release voltage:	15 % U_N

Output

Contacts:	1 changeover contact
Contact material:	AgNi
Measured nominal voltage:	AC 250 V
Thermal current I_{th}:	4 A
Switching capacity 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
Electrical life to AC 15 at 1 A, AC 230 V:	1.5 x 10 ⁵ switching cycles IEC/EN 60 947-5-1
Permissible switching frequency:	36 000 switching cycles / h
Short circuit strength max. fuse rating:	4 A gG / gL IEC/EN 60 947-5-1
Mechanical life:	10 ⁸ switching cycles

General Data

Operating mode:	Continuous operation
Temperature range Operation:	- 20 ... + 60 °C
Storage:	- 25 ... + 70 °C
Relative air humidity:	95 % at 40 °C
Altitude:	< 2.000 m
Clearance and creepage distances overvoltage category / pollution degree:	4 kV / 2 (basis insulation) IEC 60 664-1
Overvoltage category:	III
Insulation test voltage, type test:	2.5 kV; 1 min
EMC Electrostatic discharge:	6 kV (contact) IEC/EN 61 000-4-2 8 kV (air) IEC/EN 61 000-4-2
HF irradiation 80 MHz ... 2,7 GHz:	20 V/m IEC/EN 61 000-4-3
Fast transients:	4 kV IEC/EN 61 000-4-4
Surge voltages between A1/A2:	2 kV IEC/EN 61 000-4-5
between A3(+)/A2:	0,5 kV IEC/EN 61 000-4-5
between A1, A2/PE:	4 kV IEC/EN 61 000-4-5
HF-wire guided:	20 V IEC/EN 61 000-4-6
Interference suppression:	Limit value class B EN 55 011

Technical Data

Degree of protection

Housing:	IP 40	IEC/EN 60 529
Terminals:	IP 20	IEC/EN 60 529

Housing:

Thermoplastic with V0 behaviour according to UL subject 94

Vibration resistance:

Amplitude 0.35 mm IEC/EN 60 068-2-6
frequency 10 ... 55 Hz

Climate resistance:

20 / 060 / 04 IEC/EN 60 068-1

Terminal designation:

EN 50 005

Wire connection:

Cross section: 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

Insulation of wires
or sleeve length:

10 mm

Wire fixing:

Terminal screws M 3.5

Box terminal with wire protection

Fixing torque:

0.8 Nm

Mounting:

DIN rail IEC/EN 60 715

Weight:

80 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 7934N .81 AC/DC 24 + AC 230 V 0.05 s ... 16 h

