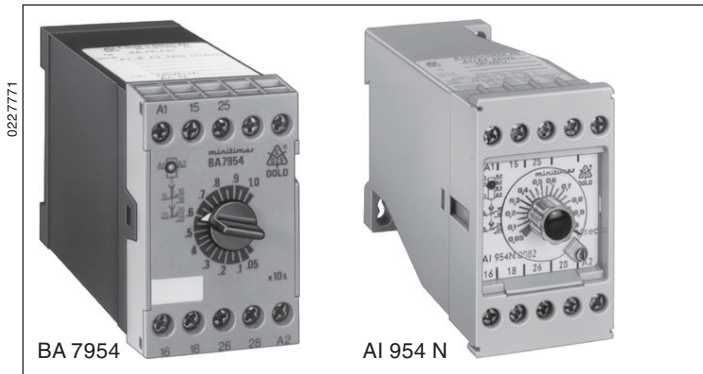


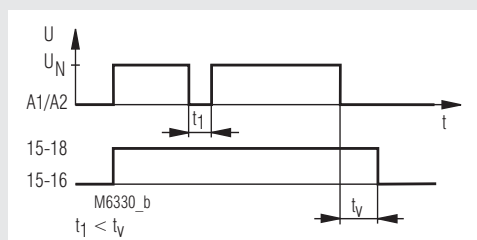
Time control technique

Timer BA 7954, AI 954N release delay minitimer

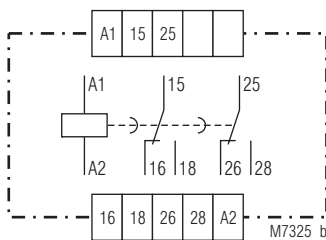


- According to IEC/EN 61 812-1
- Delay up to 300 s
- Repeat accuracy <math>< \pm 1 \%</math>
- Without auxiliary voltage
- For 2-wire proximity sensors
- With 1 or 2 changeover contacts
- Width 45 mm

Function diagram



Circuit diagram



BA 7954.82, AI 954 N.0082

Approvals and marking



* see variants

Indication

LED: on when operating voltage applied

Technical data

Time circuit

Time ranges: 0,05 ... 1 s 0,15 ... 3 s
 0,5 ... 10 s 1,5 ... 30 s
 5 ... 100 s 15 ... 300 s

Time setting: stepless, on absolute scale

Repeat accuracy: $\leq \pm 1 \%$

Min. setting time: 25 ms

Attention!
 Time faults when min. setting time <math>< 10 \%</math>. When setting time longer, the fault will be less.

Voltage influence: $< \pm 1 \%$
Temperature influence $< 0,3 \% / K$

Input

Nominal voltage U_N : AC 24, 42, 110, 127, 230, 240 V
 DC 24 V

DC 48 V*: ZWS 20 SL 390 Ω 20 W
 DC 60 V*: ZWS 20 SL 640 Ω 20 W
 DC 110 V*: ZWS 20 SL 1,5 k Ω 20 W
 DC 220 V*: ZWS 35 SL 3,3 k Ω 35 W

*) with external series resistor
 The series resistors have to be used together with DC 24 V-devices. The series resistor has to be connected to (+).

Voltage range: 0,8 ... 1,1 U_N

Permissible residual current: $\leq 2,5$ mA

Nominal consumption: AC 3 VA

DC 48 60 110/127 220 V
 3,0 3,5 6,5 13,0 W

Nominal frequency: 50 / 60 Hz

Recovery time: ≥ 25 ms

Output

Contacts:

BA 7954.81, AI 954 N.0081: 1 changeover contact, delayed

BA 7954.82, AI 954 N.0082: 2 changeover contacts, delayed

Operate time of the contacts: ≤ 25 ms

Thermal current I_{th} : 5 A

Technical data

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: 2,5 x 10⁵ switching cycles

Permissible switching frequency:

6000 switching cycles / h

Short-circuit strength

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

Mechanical life: > 10 x 10⁶ 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 60664-1

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: Thermoplast with V0 behaviour

according to UL subject 94

Vibration resistance: Amplitude 0,35 mm

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

Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1

Terminal arrangement: DIN 46 199-5

Terminal designation: EN 50 005

Wire connection: 2 x 2,5 mm² solid or

2 x 1,5 mm² stranded wire with sleeve

DIN 46 228-1/-2/-3/-4

Wire fixing: Flat terminals with self-lifting

clamping piece IEC/EN 60 999-1

Mounting: DIN rail IEC/EN 60 715

Weight: 260 g

Dimensions

Width x height x depth

BA 7954: 45 x 73 x 133 mm

AI 954N: 45 x 77 x 127 mm

Standard types

BA 7954.82 AC 230 V 50 / 60 Hz 0,5 ... 10 s

Article number: 0024075 stock item

- Nominal voltage U_N: AC 230 V
- Time range: 0,5 ... 10 s
- Width: 45 mm

Variant

Ordering example for variant

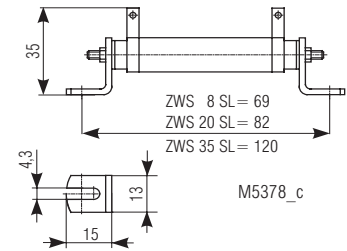
AI 954 N .0082 / _ _ AC 230 V 50 / 60 Hz 100 s

Timerangemax.value
Nominalv frequency
Nominal voltage
Variant, if required
Contacts
Type

Accessories

ZWS 20 SL, ZWS 35 SL:

Series resistors



for BA 7954:
ET 4762-5

Adaptor

for AI 954 N:
K 70-34

Transparent cover