

Time Control Technique

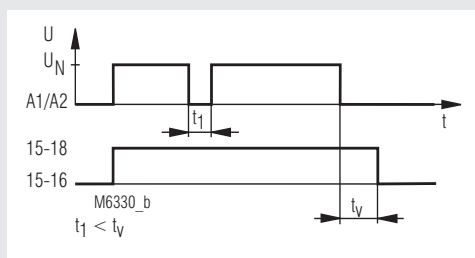
MINITIMER

Timer, release delay
BA 7954, AI 954N

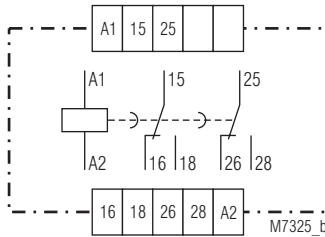


- According to IEC/EN 61 812-1
- Delay up to 300 s
- Repeat accuracy $< \pm 1 \%$
- Without auxiliary voltage
- For 2-wire proximity sensors
- With 1 or 2 changeover contacts
- Width 45 mm

Function Diagram



Circuit Diagram



BA 7954.82, AI 954 N.0082

Approvals and Marking



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 $< 10 \%$. 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: ≤ 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

Technical Data

Thermal current I_{th}:	5 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:	2.5 x 10 ⁵ switching cycles	IEC/EN 60 947-5-1
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 10 ⁶ switching cycles	

General Data

Operating mode:	Continuous operation	
Temperature range:	- 20 ... + 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: between wire and ground:	1 kV 2 kV	IEC/EN 61 000-4-5 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 IEC/EN 60 068-1
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 mm ² solid or 2 x 1.5 mm ² 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

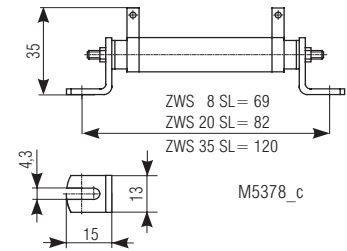
Ordering example for variant

AI 954 N	.0082	/	_	AC 230 V	50 / 60 Hz	100 s	
							Time range max. value
							Nominal 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