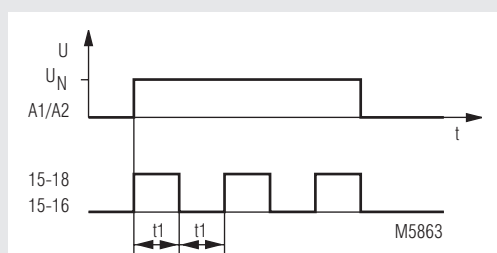


MINITIMER Flasher Relay BA 7981



- According to IEC/EN 61 812-1
- Impulse time up to 3 s settable
- Repeat accuracy $< \pm 3 \%$
- Setting on absolute scale
- Start with impulse
- LED display for operation and contact position
- Available with 1 or 2 changeover contacts, as well as with semiconductor output
- Width 45 mm

Function Diagrams



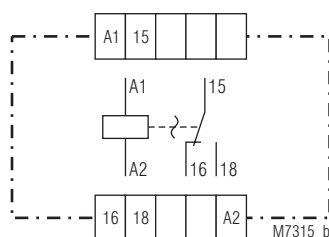
Approvals and Marking



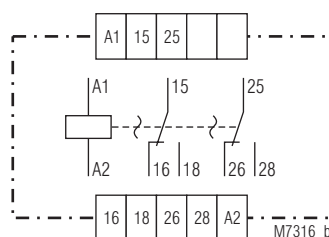
Application

Time dependent controls

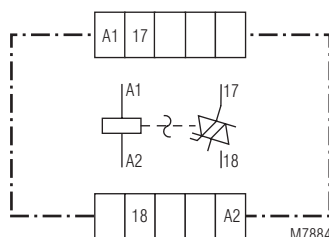
Circuit Diagrams



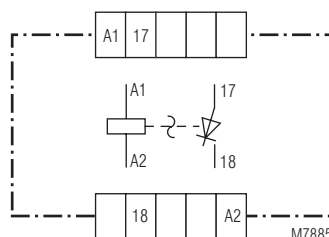
BA 7981.81



BA 7981.82



BA 7981.91



BA 7981.95

Indication

- upper LED: on when supply connected
- lower LED: on, when corresponding output relay is active

Notes

When DC-connection, pay attention to the correct polarity

Technical Data	
Time circuit	
Impulse time:	0.3 ... 3 s $\hat{=}$ 100 ... 10 Imp./min.
Pulse duty factor:	1 : 1
Time setting:	infinite external setting
Repeat accuracy:	< $\pm$ 3 %
voltage influence:	< $\pm$ 1 %
Temperature influence:	< 0.4 % / K

Input

Nominal voltage U_N:	AC 24, 42, 110, 127, 230, 240 V DC 24 V residual ripple $\leq$ 48 % with polarity protection
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption:	AC 24 42 110 127 230 240 V without load 0.8 1.8 5 5 10 10 VA DC 24 V 0.8 W
Nominal frequency:	50 / 60 Hz

Output

Contacts	
BA 7981.81:	1 changeover contact
BA 7981.82:	2 changeover contacts
Release time of the contacts:	50 ms
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:	$\geq$ 2,5 x 10 ⁵ Schaltsp. IEC/EN 60 947-5-1
Permissible switching frequency:	depends on the flasher frequency
Short circuit strength	
max. fuse rating:	6 A fast, 4 A slow IEC/EN 60 947-5-1
Mechanical life:	> 30 x 10 ⁶ switching cycles

Semiconductor Outputs

BA 7981.91:	Triac
Switching voltage:	AC 12 ... 275 V
Output current:	4 A
BA 7981.95:	Transistor
Switching voltage:	DC 0 ... 30 V
Output current:	5 A

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 (ESD):	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 voltage between wires for power supply:	2 kV	IEC/EN 61 000-4-5
between wire and ground:	4 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 Frequenz 10 ... 55 Hz, 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	

Technical Data	
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
Mounting:	DIN rail IEC/EN 60 715
Weight:	250 g
Dimensions	

Width x height x depth: 45 x 73 x 133 mm

Standard Type

BA 7981.81	AC 230 V	50/60 Hz	0,3 ... 3 s	
Article number:	0022425			stock item
• Output:	1 changeover contact			
• Nominal voltage U_N :	AC 230 V			
• Impulse time:	0,3 ... 3 s			
• Width:	45 mm			

Ordering Example

BA 7981	.95	5 A	AC 230 V	50 / 60 Hz	
					Nominal frequency
					Nominal voltage
					Output current
					Contacts
					Type