



- Multifunction modern timers
- 7 functions, 7 time ranges
- Universal supply of 12V AC/DC to 240V AC/DC
- Low power consumption <2.5VA or <1.5W
- high energy efficiency
- Installation design DIN 35mm
- Width 17.5mm
- For building and industrial applications
- In accordance with PN-EN 61812-1



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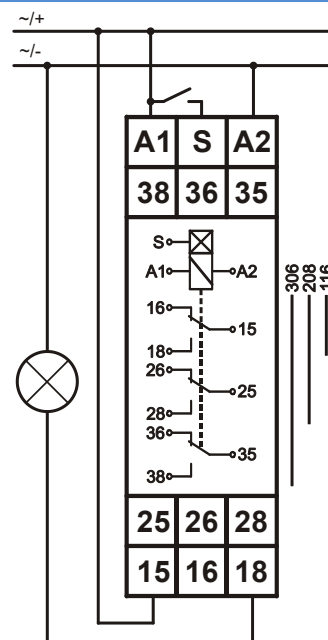
Technical data

Description

Output circuit		MTR17-...-116	MTR17-...-208	MTR17-...-306
Contact arrangement		1 form C	2 form C	3 form C
Rated voltage	V AC	250/400		
Switching current range AC1	A/V AC	16/250	8/250	6/250
DC1	A/V DC	16/24	8/24	6/24
Switching load range AC1	VA	4 000	2 000	1 500
Contact resistance	mΩ	≤ 100		
Max. rated current ③	A	12		
Input circuit				
Supply voltage U _n AC/DC (AC:50-60Hz)	V	12...240		
Tolerance		0,8...1,1U _n (9,6...264V)		
Rated consumption	AC VA	≤ 2,5		
	DC W	≤ 2		
Rated frequency	Hz	47...63		
Control input S		0,7U _n		
▪ Min. trigger level S-A2 (sensitivity) ①		AC: ≥ 90 DC: ≥ 45		
▪ Min. control pulse length	ms	yes		
▪ Loadable		yes		
Rated surge voltage	V	1 000		
Max. line length	m	10		
Insulation				
Insulation rated voltage	V AC	250		
Rated surge voltage	V	4 000 1,2/50μs		
Overvoltage category		III		
Dielectric strength				
▪ Input - output	V AC	4 000		
▪ Open contact		1 000		
General data				
Electrical life AC1 at 1000 VA resistive load	cycles	≥ 1,5 x 10 ⁵		≥ 5 x 10 ⁴
Mechanical life	cycles	≥ 3 x 10 ⁷		≥ 10 ⁷
Dimensions (L x W x H) / Weight	mm / g	90 x 17,5 x 66 / 53g	90 x 17,5 x 66 / 57g	90 x 17,5 x 66 / 70g
Ambient temperature / storage temperature	°C	-40...+55 / -20...+70		
IP rating		IP20		
Relative humidity	%	85		
Shock resistance	g	15		
Vibration resistance	mm	0,35 10...55Hz		
Time module data				
Functions		TA, TB, TC/TD, TF, TG, TI, TJ		
Time ranges		1s, 10s, 1m, 10m, 1h, 10h, 100h		
Timing adjustment		smooth 0,1...1,0 x time range		
Setting accuracy	%	5 ②		
Repeatability	%	0,5 ②		
Recovery time	ms	≤ 100		

Multifunction time relays are particularly accurate in reaching the time limit even over long periods of time. With the universal supply of 12V AC/DC to 240V AC/DC and different functions it is possible to find solutions even to the most challenging problems. The brain chip of your application-specific miniature controller is the ideal solution for realizing custom control applications within minimum space at low-cost.

Connections



Mounting

Relays are designed for direct mounting on 35mm rail according to PN-EN 60715 in any operational position. Connections: max. cross section of the cables: 1x2,5 mm²/2x1,5 mm² (1x14/2x16 AWG), deinsulation length: 6,5 mm. Maximum tightening moment for the terminal: 0,6Nm.

- ① The control input S is activated by connection to A1 terminal via the external control contact S.
- ② For first range setpoint (1s) setting accuracy and repeatability are smaller than the given ones in technical parameters (significant influence of the relay operating time, processor start-time, and the moment of supply switching as referred to the AC). Calculated from the final range values, for the setting direction from minimum to maximum.
- ③ Maximum rated current together of all the relay contacts.

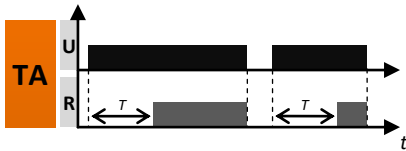


Attention

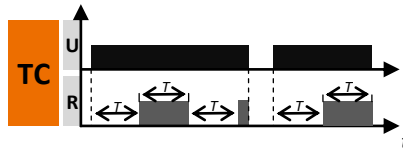


Read and understand these instructions before installing, operating or maintaining the equipment. Never carry out work on live parts! Danger of fatal injury! The product must not be used in case of obvious damage. To be installed by an authorized person.

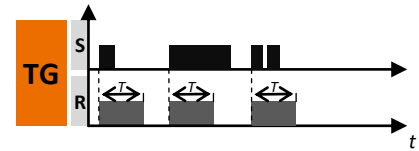
Time functions



ON delay (TA) - on applying the supply voltage U the set interval T begins - off-delay of the output relay R. After the interval T has lapsed, the output relay R switches on and remains on until supply voltage U is interrupted.



Symmetrical cyclical operation pause first (TC) - Applying the supply voltage U starts the cyclical operation from the T interval - switching the output relay R off followed by switching on the output relay R for the interval T. The cyclical operation lasts until the supply voltage U is interrupted.

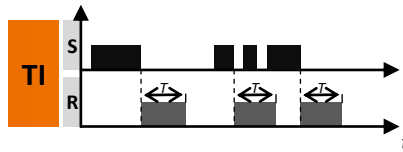


Single shot for the set interval triggered by closing of the control contact S (TG) - the input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches the output relay R on for the set interval T. After the interval T has lapsed, the output relay R is switched off. In the course of the interval T, any opening of the control contact S does not affect the function to be performed. The output relay R may be switched on again for the set interval, after the interval T has lapsed, by closing the control contact S again.

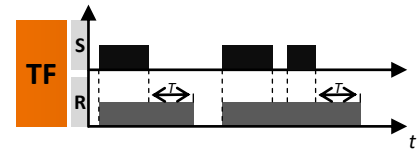
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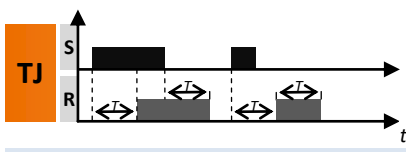
ON for the set interval (TB) - applying the supply voltage U immediately switches the output relay R on for the set interval T. After the interval T has lapsed, the output relay R switches off.



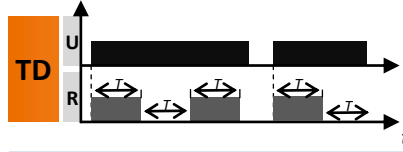
ON for the set interval triggered with the control contact S (TI) - the input of the time relay is supplied with voltage U continuously. Closing of the control contact S does not start the interval T, and it does not change the position of the output relay R. Opening of the control contact S immediately switches on the output relay R for the set time. After the interval T has lapsed, the output relay R switches off. Opening and closing of the control contact S in the course of the interval T does not affect the function to be performed. The output relay R may be switched on again for the set interval with another closing and opening of the control contact S.



OFF delay with the control contact S (TF) - the input of the time relay is supplied with voltage U continuously. Closing of the control contact S immediately switches on the output relay R. Opening of the control contact S starts the set time of the delayed switching off of the output relay R. After the interval T has lapsed, the output relay R switches off. If the control contact S is closed during the interval T, the already measured time is reset, and the output relay R is switched on again. The OFF delay of the output relay R will start when the control contact S is opened again.

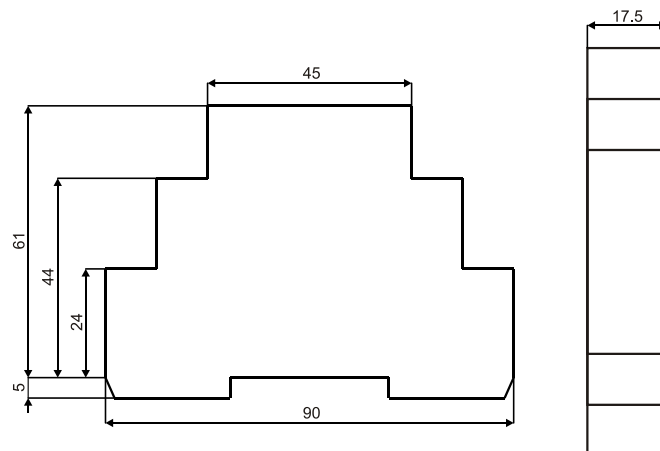


ON and OFF delay with the control contact S (TJ) - the input of the time relay is supplied with voltage U continuously. Closing of the control contact S starts the interval T - on-delay of the output relay R. After the interval T has lapsed, the output relay R switches on. Opening of the control contact S begins further measurement of the interval T - off-delay of the output relay R, and after the interval has lapsed, the output relay switches off. In case the time for which the control contact S is closed in the course of measurement of the on-delay of the output relay R is shorter than the set interval T, the output relay R will switch on after the set interval T, and the output relay R will remain in on position for the interval T. When the output relay R is in on position, closing of the control contact S does not affect the function to be performed.



Symmetrical cyclical operation pulse first (TD) - applying the supply voltage U starts the cyclical operation from switching on the output relay R for the set interval T. After the interval T has lapsed, the output relay R switches off for the interval T. The cyclical operation lasts until the supply voltage U is interrupted.

Dimensions



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