









- Programmable Time Relays
- 8 independently configurable time blocks with timing range 100ms...100h,
- Low power consumption 2.5 VA 1.5 W high energy efficiency,
- Installation design DIN 35mm,
- Width 17.5mm,
- For industrial applications,
- In accordance with PN EN 61812-1



### Technical data

Output circuit		MTR17116	MTR17208
Contact arrangement		1 form C	2 form C
Rated voltage	V AC	250/	
Switching current range AC1	A/V AC	16/250	8/250
DC1	A/V DC	16/24	8/24
Switching load range AC1	VA	4 000	2 000
Contact resistance	mΩ	≤ 100 max.(at 1A 6 VDC)	
Max. rated current 6	Α	12	
Input circuit			
Supply voltage U <sub>n</sub>			
AC/DC (AC:50-60Hz)	V	12240	
Tolerance		0,81,1U <sub>n</sub> (9,6264V)	
Rated consumption A	C VA	≤ 2,5	
D	c w	≤ <b>1</b> .5	
Rated frequency	Hz	4763	
Control input S			
<ul> <li>Min. trigger level S-A2 ( sensitivity) •</li> </ul>		0,7	U <sub>n</sub>
<ul> <li>Min. control pulse length</li> </ul>	ms	AC: ≥ 90	DC: ≥ 45
<ul> <li>Loadable</li> </ul>		yes	
Rated surge voltage	V	1 000	
Max. line length	m	10	
Insulation			
Insulation rated voltage	V AC	250	
Rated surge voltage	V	2 500 1,2/50μs	
Overvoltage category		III	
Dielectric strength			
<ul><li>Input - output</li></ul>	V AC	4 000 1 000	
Open contact			
General data			
Electrical life AC1		≥ 1,5 x 10 <sup>5</sup> operations	
at 1000 VA resistive load			
Mechanical life		≥ 3 x 10 <sup>7</sup> o	<u> </u>
Dimensions (L x W x H) / Weight	mm/g	90 x 17,5 x 66 / 53g	90 x 17,5 x 66 / 57g
Ambient temperature / storage temperature	°C	-40+55 /	-20+70
IP rating		IP20	
Relative humidity	%	to 85	
Shock resistance	g	15	
Vibration resistance	mm	0,35 1055Hz	
Time module data			
Functions		0	
Time ranges		1s, 10s, 1m, 10m, 1h, 10h, 100h	
Timing adjustment		smooth 0,11,0 x time range	
Setting external accuracy	%	5	
Repeatability	%	0,5	
Recovery time	ms	≤ 100	

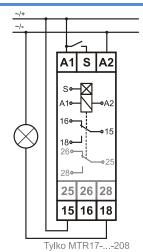


- Using the Programmable Time Relays we can choice each program from the 21 allowable functions, Selecting them from the functions which you can find into the TimProg applications folders. The functions are organized by:
  - Timing functions,
  - Timing functions depending external signal,
  - Counting Functions.

#### Description

The programmable timer is designed for applications in automation and control. Universal power supply allows you to connect to any source of AC or DC voltage from 12 to 240V. It is equipped with eight independently configurable time blocks, 9 conditional blocks and 18 changes' sections in the executive relay R. The universal software structure provides an easy and quick way to configure the timing and sequencing functions defined by the user, giving the possibility of implementation of schemes unavailable in the typical time relays. Loading the program to the relay is performed via USB using PC applications. Relay status and time countdown information is indicated by two

#### **Connections**



#### Mounting

Relays are designed for direct mounting on 35 mm rail mount acc. to PN-EN 60715. Operational position - any.

Connections: max. cross section of the cables:  $1 \times 2.5 \text{ mm2} / 2 \times 1.5 \text{ mm2} (1 \times 14 / 2 \times 16 \text{ AWG})$ , length of the cable deinsulation: 6,5 mm, max. tightening moment for the terminal: 0,6 Nm.





#### PC programming software - TimProg applications

Programmable relays MTR17-TPA-U240-XXX are universal timing circuits, in which implemented time function is defined by the user and loaded into the programmable relay using the TimProg applications.



#### Application options TimProg:

Edition of starting values configuration, operations on R relay, conditional jumps and time blocks.

Relay's software loading and reading current work status preview- current stage, contact S state, The R relay state and currently measured times value.

Prepared program simulation with possible stepping, available without connecting the relay.

Recording and reading from the time function disc defined by user.

Export settings to text file in order to prepare documentation.

Service/Manual in English and Polish.

Download the TimProg software for free from our webpage: <a href="http://www.dobry-czas.pl/Media/DocMTR17/TimProg-program-do-obslugi-przekaznikow-programowalnych">http://www.dobry-czas.pl/Media/DocMTR17/TimProg-program-do-obslugi-przekaznikow-programowalnych</a> so you will always have it updated.

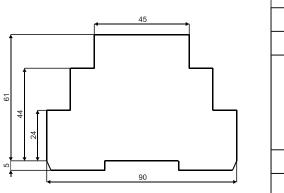
#### Programming

# Programmable Time Relays including standard time functions, it also includes a programming mini-USB cable connection. With the PC programming software, the user will be able to set up his own complex functions by nesting and mixing different timing and functions, making it possible to develop complex programmed solutions. In the Functions catalogue you will find ready time functions available for other Dobry Czas Sp. z o.o. products.

## Advantages use Programmable Time Relays in industrial automations instead PLC's.

- Supply voltage multivoltage 12 V AC/DC 230V AC/DC,
- Output 1 relay output 1 or 2 over contacts. Controlling directly the charges,
- Input 1 input signal multivoltage,
- There are very suitable to general industrial automations with 1 input and 1 output direct to relay,
- Programming language is easy. Allow to program by a PC with a easy and intuitive software,
- Wide 17,5 mm
- Low cost,

# Dimensions





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