# TMR 48 analogue timers

- Multi-function or mono-function
- Multi-range from 0.02 s to 300 h
- Multi-voltage 12 to 240 VDC / 24 to 240 V AC
- Time setting displayed on dial
- 2 changeover relays 5 A / 250 VAC
- Display of power and output states by 2 LEDs
- Housing 48 x 48 mm

## Specifications

<table>
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<tr>
<th>Type</th>
<th>Functions</th>
<th>Relay outputs</th>
<th>Max. breaking current</th>
<th>Supply voltage</th>
<th>Connection</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>TMR 48 U</td>
<td>A, B, C, W, G, Ac, Bw</td>
<td>2 timed changeover</td>
<td>5 A / 250 VAC</td>
<td>12 → 240 VDC</td>
<td>Plug-in 11 way</td>
<td>88 886 016</td>
</tr>
<tr>
<td>TMR 48 A</td>
<td>A</td>
<td>2 timed changeover</td>
<td>5 A / 250 VAC</td>
<td>12 → 240 VDC</td>
<td>Plug-in 8 way</td>
<td>88 886 106</td>
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<tr>
<td>TMR 48 X</td>
<td>A1, A2, H1, H2, Q1, Q2, D-U</td>
<td>2 changeover or 1 timed</td>
<td>5 A / 250 VAC</td>
<td>12 → 240 VDC</td>
<td>Plug-in 8 way</td>
<td>88 886 116</td>
</tr>
<tr>
<td>TMR 48 L</td>
<td>L, Li, G, Gi</td>
<td>2 timed changeover</td>
<td>5 A / 250 VAC</td>
<td>12 → 240 VDC</td>
<td>Plug-in 11 way</td>
<td>88 886 516</td>
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</tbody>
</table>

## Accessories

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Code</th>
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</thead>
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<tr>
<td>11-pin connector base</td>
<td>25 622 080</td>
</tr>
<tr>
<td>8-pin connector base</td>
<td>25 622 130</td>
</tr>
<tr>
<td>Spring clips (packet of 2)</td>
<td>79 237 740</td>
</tr>
</tbody>
</table>

## General characteristics

- Supply voltage Un
  - 12 → 240 VDC
  - 24 → 240 V AC
- Operating range
  - ± 10 % DC supply
  - ± 15 % / ± 10 % AC supply
- Frequency
  - 50 / 60 Hz
- Power consumption
  - 4.8 VA / 230 VAC
  - 2.5 VA / 110 VAC
  - 1.1 VA / 24 VAC
  - 0.5 W / 24 VDC
  - 0.8 W / 12 VDC
- Timing ranges (14 available options)
  - 0.02 → 1.2 s
  - 0.05 → 3 s
  - 0.2 → 12 s
  - 0.3 → 30 s
  - 2 → 120 s
  - 5 → 300 s
- Repetition accuracy
  - ± 0.5 % of full scale at 25°C (typical with constant parameters)
- Temperature drift according to CEI/EN 61812
  - ± 0.05 % of full scale
- Display accuracy
  - ± 0.5 % of full scale at 25°C
- Minimum pulse duration START
  - 25 ms
- Minimum pulse duration HESE1
  - 60 ms
- Minimum pulse duration HESE2
  - 60 ms
- Mechanical life (operations)
  - 30 x 10⁷
- Function and use
  - Display of output state by 2 LEDs
    - Green : power ON, flashing during timing
    - Yellow : ON output ON, OFF output OFF
  - Operating temperature range (°C)
    - -20 → 65
  - Storage temperature range (°C)
    - -40 → +70
  - Breakdown voltage
    - 2 KV
  - Protection class (IEC 60529) - Panel-mounted
    - IP 50
  - Protection class (IEC 60529) - Casing
    - IP 40
  - Material housing
    - self-extinguishing
  - Weight (g)
    - 140

To order, see page 6
Dimensions
35 mm DIN rail base with clips 79 237 739

Panel cut-out

TMR 48 U / A / X / L

Connections

TMR 48 U

TMR 48 A

TMR 48 X

TMR 48 L

Curves

Function A (TMR 48 A)
Delay on energisation

Function A1
Delay on energisation

Function A2
Delay on energisation

Function H1
Timing on energisation

Function H2
Timing on energisation

Function Q1
Star-delta

For more information www.crouzet.com
Function Q2
Star-delta 2

Function D-Di
Cyclic timing: symmetric recycler

Function A (TMR 48 U)
Delay on energisation

Function B
Timing on impulse

Function C
Timing after impulse - Delay off with constant supply

Function W
Timing after impulse on control contact

Function G
Cyclic function

Function Ac
Timing after closing and opening of control contact

Function Bw
Pulse output (adjustable)

Function L/Li - G/Gi
Cyclic timing: asymmetrical recycler