24 x 48 Hour CTR24 non-backlit model Part number 87622170

- Display : 8-digit LCD, height 8 mm
- Built-in module for voltage inputs 10 →260 VAC/DC (2224-2324)
- 4 timing ranges : 99,999.99 hrs - 99,999.59 hrs - 999,999.9 s - 9,999 hrs 59 min 59 s
- Powered by a lithium battery, service life 8 years
- Reset on panel or external with inhibition option
- Backlit model (2323-2333-2324)
- Accessories for 50 x 25 mm cut-out

### Part numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Type</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>87622170</td>
<td>2224</td>
<td>Hour counter, voltage input</td>
</tr>
</tbody>
</table>

### Specifications

#### Physical details and protection

- Backlighting : 24 VDCs 20 % 50 mA
- Connection by 8 screw terminals at rear of casing
- Connection capacity : 1.5 mm²
- Fixed using bracket
- Degree of protection front face : IP 65
- Temperature limits use (°C) : -10 →+60
- Temperature limits stored (°C) : -20 →+70
- Breakdown voltage : EN 610110-1 : 2000 V / 50 Hz / 1 min.
- Conformity to standards : EN 61000-6-2 - EN 55011 class B
- Minimum altitude : 2000 m
- Certifications : UL - cULus (pending) - CE
- Weight (g) : 50

#### Operating characteristics

- Function : Hour counter
- Display : 8-digit LCD
- Height digits (mm) : 8
- Time ranges :
  - 0 →99 999.99 h
  - 0 →99 999.59 h
  - 0 →9 999 999.9 s
  - 0 →9 999 h 59 min 59 s
- Time base : Crystal controlled (Accuracy ± 100)
- Input 2223-2323
  - Start/stop input by PNP or dry contact (terminals 2-6)
  - Low level : 0 →-0.7 VDC
  - High level : 4 →30 VDC PNP
  - Min time closed : > 100 ms
  - Input impedance : 100 kΩ PNP
- Input 2233-2333
  - Start/stop input by PNP or dry contact (terminals 2-6)
  - Low level : 0 →-0.7 VDC
  - High level : 3 →30 VDC
  - Minimum time closed : > 100 ms
  - Input impedance : 1 MΩ
- Reset to zero - External 2223-2323 & 2233-2333
  - Volt-free contact or open collector (terminals 3-6)
  - Minimum time closed : 50 ms
- Input 2224-2324
  - One start/stop input Two voltage levels (terminals 3-6)
  - Voltage - Terminals 1-2 : 10 →260 VAC/DC
  - Input impedance : 160 KΩ
  - Minimum pulse time DC : 100 ms
  - Minimum pulse time AC : 100 ms
  - Low level : 0 →-2 VAC/DC
  - High level : 10 →260 VAC/DC
- Reset to zero - External 2224-2324
  - Voltage - Terminals 2-3
  - Minimum pulse time : 16 ms
  - Low level : 0 →-2 VAC/DC
  - High level : 10 →260 VAC/DC

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
Reset to zero - Panel

Reset via
Inhibited: Terminals 4-6 not connected
Active: Terminals 4-6 connected

Supply
1 lithium battery - Life (years)
8

Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptor for 50 x 25 mm cut-out - Fixed with screws</td>
<td>26546843</td>
</tr>
<tr>
<td>Adaptor for 50 x 25 mm cut-out - Fixed with clips</td>
<td>26546844</td>
</tr>
<tr>
<td>DIN rail adaptor</td>
<td>26546840</td>
</tr>
<tr>
<td>Clip-fixing kit (supplied with the product)</td>
<td>26546848</td>
</tr>
</tbody>
</table>

Dimensions (mm)

CTR24

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
<table>
<thead>
<tr>
<th>Nº</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seal</td>
</tr>
<tr>
<td>2</td>
<td>Fixing yoke</td>
</tr>
</tbody>
</table>

### Dimensions (mm)

**Panel cut-out**

- Dimensions: 45 +0.6
- 22.2 +0.3

**4 appliances**

- Dimensions: 45 +0.6
- 22.2 +0.3
- 30

**26546843 - Adaptor for 50 x 25 mm cut-out - Fixed with screws**

- Dimensions: 56
- 40
- 32
- 25x50

**26546844 - Adaptor for 50 x 25 mm cut-out - Fixed with clips**

- Dimensions: 1
- 4

*Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected*
Accessory supplied with the counter

**Dimensions (mm)**

| 26546840 - DIN rail adaptor |

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Width</td>
<td>53</td>
</tr>
<tr>
<td>Height</td>
<td>28</td>
</tr>
<tr>
<td>Depth</td>
<td>40</td>
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</table>

Accessory supplied with the counter

**Connections**

2223-2323

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
**Legend**

<table>
<thead>
<tr>
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<th>Legend</th>
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<tbody>
<tr>
<td>1</td>
<td>NC</td>
</tr>
<tr>
<td>2</td>
<td>Start/Stop input</td>
</tr>
<tr>
<td>3</td>
<td>Reset input 100 ms</td>
</tr>
<tr>
<td>4</td>
<td>Enable panel reset</td>
</tr>
<tr>
<td>5</td>
<td>Mode 1 (Time selection)</td>
</tr>
<tr>
<td>6</td>
<td>0 V common/ (BL - only 23xx)</td>
</tr>
<tr>
<td>7</td>
<td>Mode 2 (Time selection)</td>
</tr>
<tr>
<td>8</td>
<td>Backlighting option + 24 VDC (only 2323)</td>
</tr>
</tbody>
</table>

**Connections**

2223-2323

Start/Stop input Transistor PNP
**Connections 2233-2333**

<table>
<thead>
<tr>
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<tr>
<td>7</td>
<td>Mode 2 (Time selection)</td>
</tr>
<tr>
<td>8</td>
<td>Backlighting option + 24 VDC (only 2333)</td>
</tr>
</tbody>
</table>

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected.
Start/Stop or reset input NPN - Transistor

Connections
2233-2333

Start/Stop or reset input PNP - Transistor

Connections
2233-2333

Start/Stop or reset input NPN - Transistor

Connections
2224-2324

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected.
Start/Stop or reset input NPN - Transistor

<table>
<thead>
<tr>
<th>№</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Start/Stop input</td>
</tr>
<tr>
<td>2</td>
<td>AC/DC common</td>
</tr>
<tr>
<td>3</td>
<td>Reset input</td>
</tr>
<tr>
<td>4</td>
<td>Enable panel reset</td>
</tr>
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<td>5</td>
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<td>7</td>
<td>Mode 2 (Time selection)</td>
</tr>
<tr>
<td>8</td>
<td>Backlighting option +24 VDC (only 2324)</td>
</tr>
</tbody>
</table>

Connections

2224-2324

Start/Stop or reset input - Contact supplied with power

Connections

2224-2324

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected
Start/Stop or reset input PNP Transistor or 3-wire PNP proximity sensor for leakage current detector < 1 mA

Start/Stop or reset input NPN Transistor or 3-wire NPN proximity sensor for leakage current detector < 1 mA

Start/Stop or reset input: 2-wire proximity sensor R=470 Ω/2 W for 2-wire leakage current detector ≤ 1 mA

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected.
Start/Stop or reset input: 2-wire proximity sensor R=470 ±/2 W for 2-wire leakage current detector ≤ 1 mA

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected.