CIM13, CIM13R (Railway)

Time relay with DC solid-state output
8 time functions and stepping function, ON-OFF switch, 50 ms … 60 h
DIN Rail mounting according to DIN 43 880

Type: CIM13/UC24-240V
Sophisticated multifunction time relay, 1 transistor output, 8 time functions, stepping function and service function ON/OFF, time ranges from 50 ms … 60 h, multifunction LED state indicator, suitable for any time-control application and also staircase-light control, light-switch neon lamp current absorption on input B1, manual switching function for maintenance, emergency, etc., 16.6 Hz applications. Railway version available.

Maximum contact load 4 A / 30 V
Recommended minimum contact load 1 mA

Time functions and related connection diagrams (Function diagrams: refer to page 130)
The functions are selectable by rotary switch

LED function table:

<table>
<thead>
<tr>
<th>LED</th>
<th>Relay</th>
<th>Time run</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>OFF</td>
<td>NO</td>
</tr>
<tr>
<td>Continuous ON</td>
<td>ON</td>
<td>NO</td>
</tr>
<tr>
<td>Short blinking</td>
<td>OFF</td>
<td>YES</td>
</tr>
<tr>
<td>Long blinking</td>
<td>ON</td>
<td>YES</td>
</tr>
</tbody>
</table>

Time data
- Partial time ranges, \( t_{\text{max}} \) (rotary switch): 0.6, 6, 60 s / 6, 60 min / 6, 60 h
- Fine adjustment range (rotary knob): \( t_{\text{min}} \) … \( t_{\text{max}} \) 0.5 s … 6
- Time range tolerance: \( t_{\text{max}} \): -5 % … +0 % / \( t_{\text{max}} \): -0 % … +5 %
- Repetition accuracy: \( \pm 0.1 \% \) or DC: 2 ms / AC: 10 ms
- Response time, power on, on A1: \( \leq 45 \) ms
- Min. trigger pulse on B1: 20 ms (AC / DC)
- Reset time B1 (AC/DC): \( \leq 30 \) ms
- Voltage failure buffering (50 / 60 Hz): \( \geq 20 \) ms

Output
- Type: MOS FET
- Rated operational current (Fig. 1): 4 A
- Max. inrush current (10 µs): 40 A
- Max. switching voltage: 30 V
- Leakage current: < 10 µA

Power supply- and control input
- Nominal voltage (UC = AC / DC): UC 24-240 V (UC = AC / DC)
- Operating voltage range: UC 19 … 250 V
- Power consumption: approx. 1 W
- Frequency range: 15 … 60 Hz
- Allowed DC residual current into B1: \( \leq 0.5 \) mA
- AC Neon lamp residual current into B1: \( \leq 10 \) mA
- Trigger threshold voltage on B1, AC / DC: 15 / 17 V

Insulation
- Test voltage between output and control input: 2.5 kVrms 1 minute

General Specifications
- Ambient temperature storage /operation: -40 … 85 °C / -40 … 60 °C (Railway: -70 °C)
- Conductor cross section: Stranded wire 2.5 mm², 2 x 1.5 mm²
- Ingress protection degree: IP 20
- Max. Screw torque: 0.4 Nm
- Housing material / Weight: Lexan / 70 g

Standard types
- UC (AC/DC), 15…60 Hz: CIM13/UC24-240V
- Railway: CIM13R/UC24-240V

Technical approvals, conformities
EN 50155; EN 60730

This issue replaces all previous issues. Availability, errors and specifications subject to change without notice.