CM3
Time relay with two mechanical changeover output contacts
7 time functions, ON-OFF function, 50 ms ... 60 h
DIN Rail mounting according to DIN 43 880

Type: CM3/... V R
Multifunction time relay, 7 time functions, time ranges: 50 ms ... 60 h, multifunction LED state indicator, ON / OFF switching function for maintenance, emergency, etc., suitable for railway applications

Maximum contact load 5 A / 250 V AC-1 150 W DC-1
Recommended minimum contact load 10 mA / 10 V

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
7 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 ... 6
Time range tolerance $t_{\text{min}}$: -5 % ... +0 % / $t_{\text{max}}$: -0 % ... +5 %
Repetition accuracy ± 0.1 % or DC: 2 ms / AC: 10 ms
Response time, power on, on A1 ≤ 25 ms
Min. trigger pulse on B1 35 ms (AC / DC)
Reset time B1 (AC/DC) ≤ 40 ms
Voltage failure buffering ≥ 15 ms

Contacts
Type 2 CO, micro disconnection
Material AgNi
Rated operational current 5 A
Max. inrush current 25 A
Max. switching voltage AC-1 250 V
Max. AC load AC-1 (Fig.1) 1250 VA
Max. DC load DC-1, 30 V / 250 V (Fig.2) 150 W / 75 W

Power supply and control input
Nominal voltage DC 12-24 V DC 24-48 V / AC 24-240 V
Operating voltage range 9.6 ... 28.8 V DC 19 ... 60 V AC 19 ... 250 V
Power consumption approx. 1.3 W approx. 1.3 W
Frequency range - 45 ... 63 Hz
Control current into B1 ≤ 13.8 mA ≤ 6 mA
Allowed residual current into B1 ≤ 4.5 mA ≤ 1.5 mA
Trigger threshold voltage on B1 5.8 ... 6.5 V DC 13 ... 18 V AC 11 ... 15 V
Inrush current B1, $\tau$ = 0.4 ms ≤ 2.6 A ≤ 2.6 A

Insulation
Test voltage open contact 1 kVrms 1 minute
Test voltage between poles 2.5 kVrms 1 minute
Test voltage between contacts and control input 2.5 kVrms 1 minute

General Specifications
Ambient temperature storage /operation -40 ... 80 °C / -25 ... 60 °C
Mechanical life of contacts 15 x 10⁶ operations
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 / 72 g

Standard types
DC CM3/DC12-24V R
DC, AC 45...63 Hz CM3/DC24-48V/AC24-240V R

EN 50155, EN 60730