

CIM1, CIM1R (Railway)

Time relay with mechanical changeover output contact
8 time functions + stepping function, ON-OFF switch, 50 ms ... 60 h,
DIN Rail mounting according to DIN 43 880



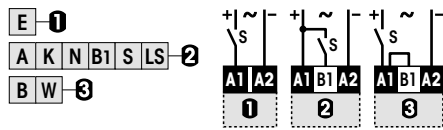
Type: CIM1/UC24-240V

Sophisticated multifunction time relay, 1 changeover power contact with zero crossing switching (50/60 Hz), 8 time functions, stepping function and service function ON/OFF, time ranges: 50 ms ... 60 h, multifunction LED state indicator, suitable for any time-control application and also staircase lighting, Light-switch neon lamp current absorption on input B1, Manual switching function for maintenance, emergency, etc., 16.6 Hz power supply applications. Railway version available.

| | |
|---|-------------------------------------|
| Maximum contact load | 16 A / 250 V AC-1 384 W DC-1 |
| Recommended minimum contact load | 10 mA / 10 V |

Time functions and related connection diagrams (Function diagrams: refer to page 152)

The functions are selectable by rotary switch



LED function table:

| LED | Relay | Time run |
|----------------|-------|----------|
| OFF | OFF | NO |
| Continuous ON | ON | NO |
| Short blinking | OFF | YES |
| Long blinking | ON | YES |

Time data

| | |
|--|---|
| 7 partial time ranges, t_{max} (rotary switch) | 0.6, 6, 60 s / 6, 60 min / 6, 60 h |
| Fine adjustment range (rotary knob) | $t_{min} \dots t_{max}$: 0.5 ... 6 |
| Time range tolerance | t_{min} : -5 % ... +0 % / t_{max} : -0 % ... +5 % |
| Repetition accuracy | ± 0.1 % or DC: 2 ms / AC: 10 ms |
| Response time, power on, on A1 | ≤ 45 ms |
| Min. trigger pulse on B1 | 20 ms (AC / DC) |
| Reset time B1 (AC/DC) | ≤ 30 ms |
| Voltage failure buffering (50 / 60 Hz) | ≥ 20 ms |

Contacts

| | |
|--|----------------------------------|
| Material CIM1 / CIM1R / Type | AgNi / 1 CO, micro disconnection |
| Rated operational current at 40 °C / 60 °C | 16 A / 13 A |
| Max. inrush current | 30 A |
| Max. switching voltage AC-1 | 250 V |
| Max. AC load AC-1 (Fig.1) | 4 kVA |
| Max. DC load DC-1 30 V / 250 V (Fig.2) | 240 W / 85 W |

Power supply- and control input

| | |
|--|-----------------------------------|
| Nominal voltage (A1, B1) | 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 | ≤ 0.5 mA |
| AC Neon lamp residual current into B1 | ≤ 10 mA |
| Trigger threshold voltage on B1, AC / DC | 15 / 17 V |

Insulation

| | |
|---|--------------------|
| Test voltage open contact | 1 kVrms 1 minute |
| Test voltage between contacts and control input | 2.5 kVrms 1 minute |

General Specifications

| | |
|--|---|
| Ambient temperature storage /operation | -40 ... 85 °C / -40 ...60 °C (Railway: -46 °C) |
| Mechanical life of contact | 30 x 10 ⁶ operations |
| Conductor cross section | Stranded wire 2.5 mm ² , 2 x 1.5 mm ² |
| 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
Railway

CIM1/UC24-240V
CIM1R/UC24-240V



Connection diagram

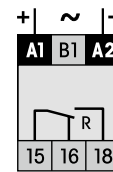


Fig.1 AC voltage endurance

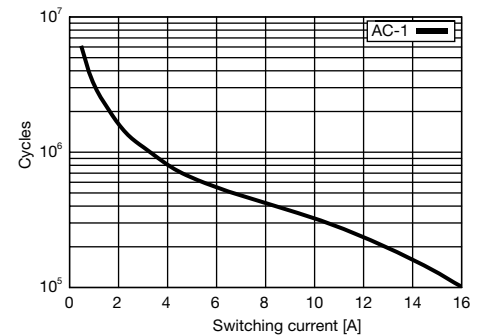
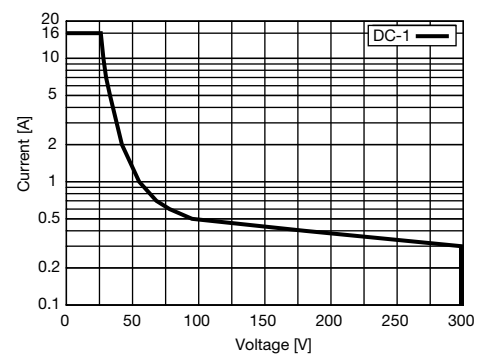
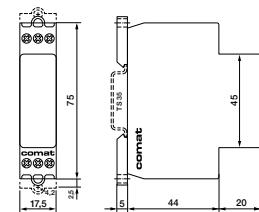


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

EN 50155, EN 60730

