

# 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**



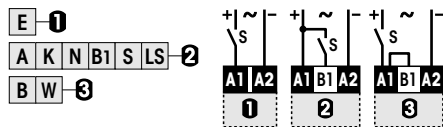
## Type: CIM1/UC24-240V

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 130)

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	$\pm 0.1$ % 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

## 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)	<b>UC 24-240 V (UC = AC / DC)</b>
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 open contact	1 kVrms 1 minute
Test voltage between contacts and control input	2.5 kVrms 1 minute

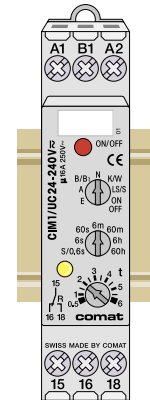
## General Specifications

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

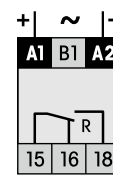


Fig.1 AC voltage endurance

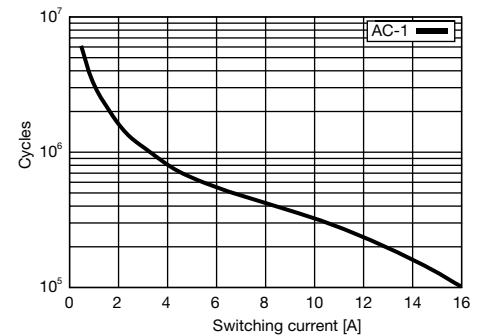
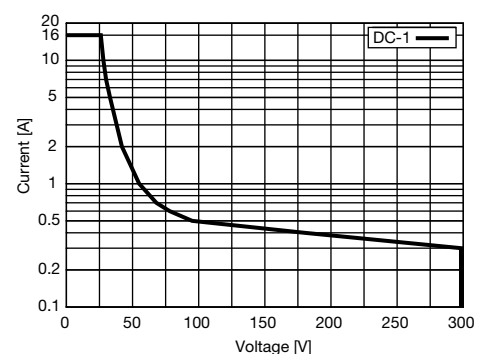
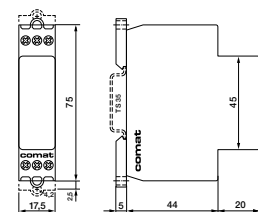


Fig. 2 DC load limit curve



## Dimensions [mm]



## Technical approvals, conformities

EN 50155, EN 60730

