

Repeat cycle timer module CT36

1 Features

- Multiple power supply voltages
- Can be combined with several output relays
- 7 repeat cycle functions: I, P
- 7 time ranges from 50 ms to 60 h
- Time lapse monitoring by LED
- Available as railway version



2 General description

The repeat cycle timer module CT36 is an electronic repeat cycle timer and part of the modular ComatReleco CT-System. The pulse generator functions (I, P; pulse resp. pause beginning) can be set in partial time ranges from 50 ms to 60 hours.

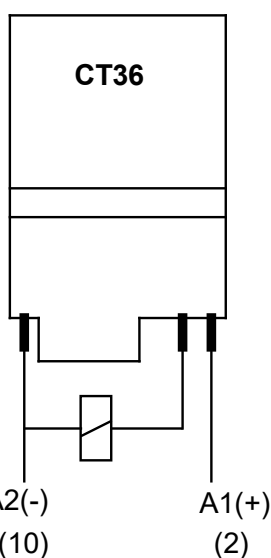
The module is available in 2 different voltage ranges for UC24-48V and UC110-240V. The triggering is effected by the socket connection A1(2) - A2(10).

Technical specification is subject to change without previous notice

3 Order designation

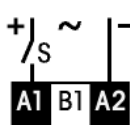
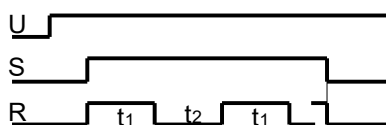
ComatReleco CT module	CT36/UC24-48V CT36R/UC24-48V CT36/UC110-240V	Railway version
Accessories:	C12B0, CS-155 FS-C FS-R	System socket Front cover for relays of the C30 series Front cover for relays of the C3 series

4 Connection diagram



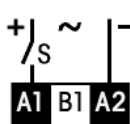
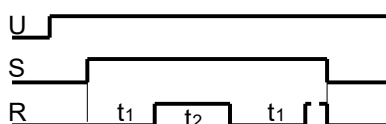
5 Function descriptions

5.1 Pulse generator (I), pulse start



By triggering (S) \uparrow , the output is alternating switched ON for time t_1 and switched OFF for time t_2 . The output impulse stops with the triggering (S) \downarrow .

5.2 Pulse generator (P), interval start



By triggering (S) \uparrow , the output is alternating switched OFF for time t_1 and switched ON for time t_2 . The output impulse stops with the triggering (S) \downarrow .

6 Specifications

6.1 General data

6.1.1 Mechanical data

Case	Module case suitable to Comat system socket
Height over socket	51 mm (without front cover)
Width	34 mm
Connection	Plug-In connection to Comat socket C12B0, CS-155
Protection type	IP40 (plugged in)
Case material	Lexan EXL9330
Weight	25 g incl. front cover
Fastening	Plug-In connection to socket, the front cover conjoins relay and module
Electrical connection	Contact spring MS (tinned) for contacts in socket
Vibration and shock proof	EN 61373

6.1.2 Ambient conditions

Storage temperature	-40 °C ... +85 °C
Operating temperature	-40 °C ... +60 °C
Relative humidity	10 % ... +95 % (not condensed)

6.2 Electrical data

Type	../UC24-48V	../UC110-240V
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6.2.1 Power supply U_B (A1 – A2)

Nominal operating voltage (AC/DC)	24...48 V	110...240 V
Operating voltage (AC/DC)	19...60 V	82...265 V
Current consumption	6...12 mA	4...8 mA
Inductive parallel load	2.5 kV // 50mWs / 2,5 Hz	

6.2.2 Output (relay driver)

Switching current	150 mA	50 mA
Voltage drop	$\leq 1,5$ V	$\leq 2,5$ V
Residual current	≤ 150 μ A	≤ 150 μ A

6.3 Time response

6.3.1 Time ranges

The time adjustment is done separately for t_1 and t_2 . The time range is selected via rotary knob, the fine tuning is effected by potentiometer. Time ranges:

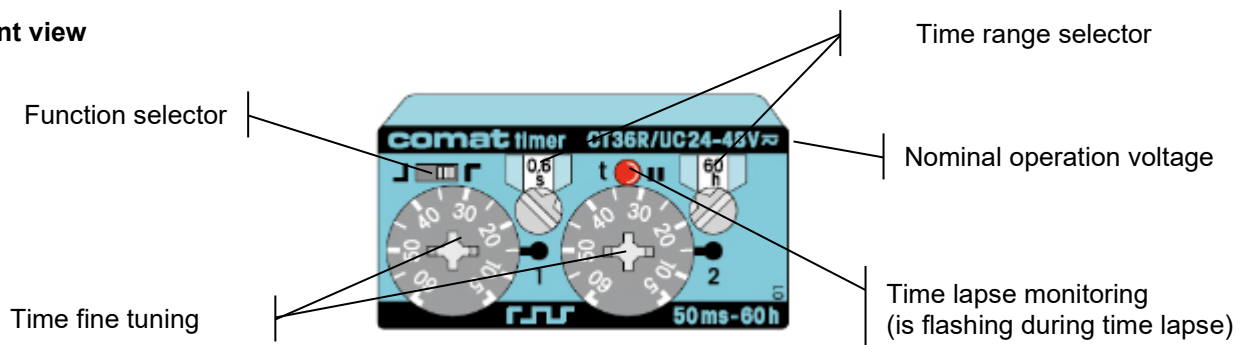
50 ms	600 ms	(Indication 0.6 s)
0.5 s	6 s	(Indication 6 s)
5 s	60 s	(Indication 60 s)
0.5 min	6 min	(Indication 6 m)
5 min	60 min	(Indication 60 m)
0.5 h	6 h	(Indication 6 h)
5 h	60 h	(Indication 60 h)

6.3.2 Other time data

Repetition accuracy	≤ 20 ms
Temperature stability	0.1 %/°C ≤ 2 % from -25 °C to +60 °C
Voltage stability	≤ 1 % over the operating range
Switch-on delay DC	< 20 ms
Switch-on delay AC	< 25 ms
Reset time power supply (AC/DC)	≤ 150 ms
Power failure security 50/60Hz	≥ 20 ms
Tolerance range	
t_{\min}	-20 % ... +0 %
t_{\max}	-0 % ... + 25%


7 Application hints

7.1 Front view



7.2 DIP switch position – Function setting

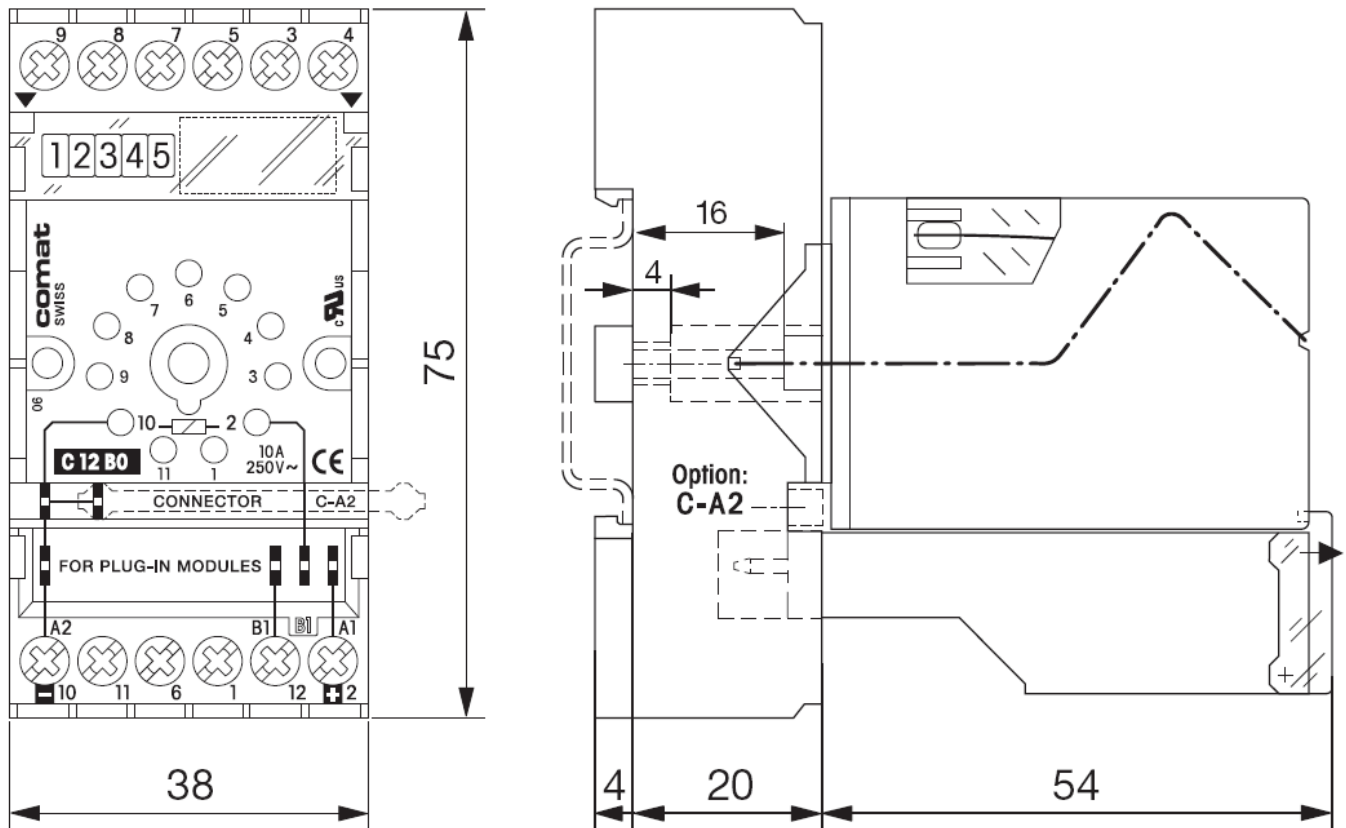
Pulse start (I) 

Interval start (P) 

7.3 Application note

When used in combination with the module, the relay does not need any free-wheeling diode or RC elements. This function is integrated in the timer module.

8 Dimensions



9 Standards

Interference immunity

Burst EN 61000-4-4

Surge EN 61000-4-5

ESD EN 61000-4-2

Conformity, Identification

CE

Approval

UL