Timers
Asymmetrical Multi Recycler
Type ECC

- **Microprocessor - based quartz timer**
- **Triple function timer**
- **Asymmetrical recycler (ON or OFF first)**
- **One shot time function**
- **Time range 0.1 s to 100 h**
- **Automatic start (ON or OFF time first)**
- **Separately knob adjustable time setting for T1 & T2**
- **Separately knob selection of time range for T1 & T2**
- **Repeatability deviation: ≤ 0.5%**
- **Output: 5A SPDT**
- **For mounting on DIN-rail in accordance with DIN/EN 50 022**
- **22.5 mm Euronorm housing**
- **LED-indication for relay and power supply ON**
- **Combined AC and DC power supply**

Product Description

Triple-function timer, combined asymmetrical recycler and one shot time function with individual selection of time ranges (T1 & T2) from 0.1 s to 100 h. For mounting on DIN-rail. For use in many different applications eg. lubricating machines or switching on and off electrical loads.

Ordering Key

ECC C T23

Housing
Function
Type
Output
Power supply

Type Selection

Mounting	Output	Supply: 24 VAC/DC & 115-230 VAC
For DIN-rail	SPDT	**ECC C T23**

Time Specifications

Time ranges	
T1 & T2 (individually adjustable)	
Selectable by rotary switches	0.1 - 1 s 1 - 10 s 10 - 100 s 0.1 - 1 m 1 - 10 m 10 - 100 m 0.1 - 1 h 1 - 10 h 10 - 100 h
Accuracy	
Time range accuracy	≤ 5%
Repeatability deviation	≤ 0.5%
Time variation	
Within rated ambient temperature	≤ 0.05%/°C
Reset	
Time and relay	Power supply interruption ≥ 200 ms

Output Specifications

Output		SPDT relay
Rated insulation voltage		250 VAC (contact/elect.)
Contact ratings (AgCdO)		µ (micro gap)
Resistive loads	AC 1	5 A, 250 VAC
	DC 1	5 A, 24 VDC
Small inductive loads	AC 15	2 A, 250 VAC
	DC 13	3 A, 24 VDC
Mechanical life		≥ 40 x 10^6 operations
Electrical life		≥ 10^5 operations (at max. load)
Operating frequency		≤ 7200 operations/h
Dielectric strength		
Dielectric voltage		2 kVAC (rms)
Rated impulse withstand volt.		4 kV (1.2/50 µs)

Supply Specifications

Power supply AC types	Overvoltage cat. III (IEC 60664) (IEC 60038)
Rated operational voltage through term. A1 & A2 T23	115-230 VAC, -10/+15%
frequency	50/60 Hz, -5/+5 Hz
through term. A2 & A3 T23	24 VAC/DC, -10/+15%
frequency	50/60 Hz, -5/+5 Hz
Voltage interruption	≤ 40 ms
Dielectric voltage	none
Rated impulse withstand voltage A1 & A2	4 kV (1.2/50 µs)
A2 & A3	800 V (1.2/50 µs)
Rated operational current	25 mA @ 24 VDC 40 mA @ 24 VAC 30 mA @ 115 VAC 60 mA @ 230 VAC

General Specifications

EMC	Electromagnetic Compatibility
Immunity	acc. to IEC 60801-4 acc. to IEC 60801-5
Power ON delay	≤ 300 ms
Power OFF delay	≥ 200 ms
Indication for	
Power supply ON	LED, green
Output ON	LED, yellow
Environment	
Degree of protection	IP 20
Pollution degree	3
Operating temperature	-10° to +50°C (-14° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)
Weight	200 g
Screw terminals	
Tightening torque	Max. 0.5 Nm acc. to IEC 60947
Approvals	UL, CSA
CE-marking	Yes

Mode of Operation

No connections between Y1-Y2-Y3
OFF-time period first
The time period begins when power supply is applied. At the end of the first time period (T1), the relay operates.

When the second time period (T2) has expired, the relay releases.

This sequence continues until power supply is interrupted for at least 200 ms.

Connection between Y1-Y3
ON-time period first
The relay operates and the time period begins when power supply is applied. At the end of the first time period (T1), the relay releases.

When the second time period (T2) has expired, the relay operates.

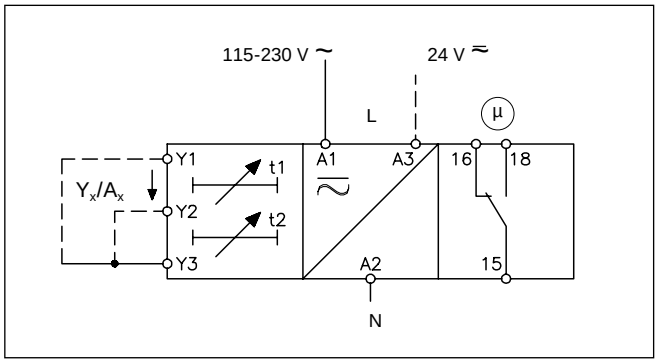
This sequence continues until power supply is interrupted for at least 200 ms.

Connection between Y2-Y3
One shot time function
The time period begins when power supply is applied. At the end of the first time period (T1), the relay operates.

When the second time period (T2) has expired, the relay releases.

The relay will stay OFF until power supply is interrupted for at least 200 ms, and the sequence will be repeated.

Wiring Diagram



Time Setting

Selection of time range (T1)
Upper knob:
10-position rotary switch.

Time setting (T1)
2nd upper knob:
Knob-adjustable on relative scale 1-10.

Selection of time range (T2)
2nd lower knob:
10-position rotary switch.

Time setting (T2)
Lower knob:
Knob-adjustable on relative scale 1-10.

Operation Diagram