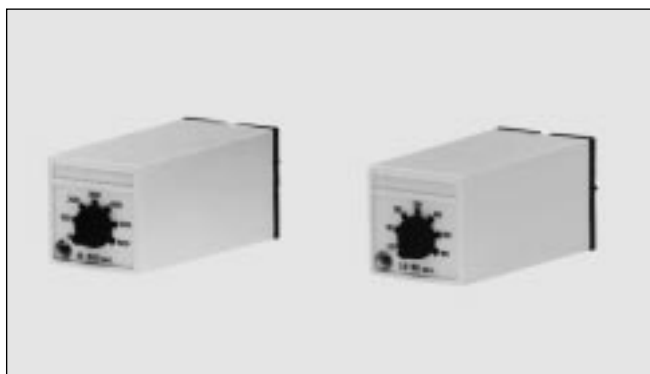


# Timers

## Symmetrical Recycler

### Types C 101, C 201, C 108, C 208, C 111, C 211, C 118, C 218

CARLO GAVAZZI



- Time ranges: 0.15 s to 600 s
- Automatic start
- C .0.: Starts with OFF-time  
C .1.: Starts with ON-time
- Knob-adjustable time within range
- Oscillator-controlled time circuit
- Repeatability deviation:  $\leq 1\%$
- Output: 10 A SPDT or 8 A DPDT relay
- Plug-in type module
- Scantimer housing
- LED-indication for relay on
- AC or DC power supply

## Product Description

Mono-function, plug-in, symmetrical, ON/OFF miniature recyclers up to 600 s (10 min) covering 3 individual time ranges. Optional ON- or OFF-

time period first. This economical relay is often used in lighting systems such as advertising signs, etc.

## Ordering Key

**C 108 024 600**

Function \_\_\_\_\_  
Output \_\_\_\_\_  
Type \_\_\_\_\_  
Power supply \_\_\_\_\_  
Time range \_\_\_\_\_

## Type Selection, OFF-Time Period First

Plug	Output	Time ranges	Supply: 24 VAC/DC	Supply: 120 VAC	Supply: 220 VAC
Circular 8 pin	SPDT	0.15- 6 s	C 108 024 006	C 108 120 006	C 108 220 006
		1.5 - 60 s	C 108 024 060	C 108 120 060	C 108 220 060
		15 - 600 s	C 108 024 600	C 108 120 600	C 108 220 600
Circular 11 pin		0.15- 6 s	C 101 024 006	C 101 120 006	C 101 220 006
		1.5 - 60 s	C 101 024 060	C 101 120 060	C 101 220 060
		15 - 600 s	C 101 024 600	C 101 120 600	C 101 220 600
Circular 8 pin	DPDT	0.15- 6 s	C 208 024 006	C 208 120 006	C 208 220 006
		1.5 - 60 s	C 208 024 060	C 208 120 060	C 208 220 060
		15 - 600 s	C 208 024 600	C 208 120 600	C 208 220 600
Circular 11 pin		0.15- 6 s	C 201 024 006	C 201 120 006	C 201 220 006
		1.5 - 60 s	C 201 024 060	C 201 120 060	C 201 220 060
		15 - 600 s	C 201 024 600	C 201 120 600	C 201 220 600

## Type Selection, ON-Time Period First

Plug	Output	Time ranges	Supply: 24 VAC/DC	Supply: 120 VAC	Supply: 220 VAC
Circular 8 pin	SPDT	0.15- 6 s	C 118 024 006	C 118 120 006	C 118 220 006
		1.5 - 60 s	C 118 024 060	C 118 120 060	C 118 220 060
		15 - 600 s	C 118 024 600	C 118 120 600	C 118 220 600
Circular 11 pin		0.15- 6 s	C 111 024 006	C 111 120 006	C 111 220 006
		1.5 - 60 s	C 111 024 060	C 111 120 060	C 111 220 060
		15 - 600 s	C 111 024 600	C 111 120 600	C 111 220 600
Circular 8 pin	DPDT	0.15- 6 s	C 218 024 006	C 218 120 006	C 218 220 006
		1.5 - 60 s	C 218 024 060	C 218 120 060	C 218 220 060
		15 - 600 s	C 218 024 600	C 218 120 600	C 218 220 600
Circular 11 pin		0.15- 6 s	C 211 024 006	C 211 120 006	C 211 220 006
		1.5 - 60 s	C 211 024 060	C 211 120 060	C 211 220 060
		15 - 600 s	C 211 024 600	C 211 120 600	C 211 220 600



## Time Specifications

<b>Time ranges</b>	0.15- 6 s 1.5 - 60 s 15.0 - 600 s	<b>Repeatability deviation</b>	≤ 1%
<b>Time range accuracy</b>	0 to +10% on max. min. actual time ≤ min. set time	<b>Time variation</b> Within rated power supply and ambient temperature	≤ 0.05%/V ≤ 0.2%/°C
		<b>Reset</b> Time and/or relay	Power supply interruption min. 250 ms

## Output Specifications

	C 108, C 101, C 118, C 111	C 208, C 201, C 218, C 211
<b>Output</b>	SPDT relay	DPDT relay
Basic electrical insulation	250 VAC (rms) (contact/electronics)	250 VAC (rms) (contacts/elec., contact/contact)
<b>Contact ratings</b> (AgCdO)	μ (micro gap)	μ (micro gap)
Resistive loads	AC 1 10 A/250 VAC (2500 VA) DC 1 1 A/250 VDC (250 W) or 10 A/25 VDC (250 W)	8 A/250 VAC (2000 VA) 0.4 A/250 VDC (100 W) 4 A/25 VDC (100 W)
Small inductive loads	AC 15 2.5 A/230 VAC DC 13 5 A/24 VDC	2.5 A/230 VAC 5 A/24 VDC
<b>Mechanical life</b>	≥ 30 x 10 <sup>6</sup> operations	≥ 30 x 10 <sup>6</sup> operations
<b>Electrical life</b> AC 1	≥ 2.5 x 10 <sup>5</sup> operations (at max. load)	≥ 2.5 x 10 <sup>5</sup> operations (at max. load)
<b>Operating frequency</b>	≤ 7200 operations/h	≤ 7200 operations/h
<b>Insulation voltages</b>		
Rated insulation voltage	≥ 2.0 kVAC (rms) (contact/electronics)	≥ 2.0 kVAC (rms) (contact/electronics)
Rated transient protection volt.	4 kV (1.2/50 μs) (contact/electronics) (IEC 60664)	4 kV (1.2/50 μs) (contact/electronics) (IEC 60664)

## Supply Specifications

<b>Power supply AC types</b>	Installation cat. III (IEC 60664)
Rated operational voltage through pins 2 & 10 220 or pins 2 & 7 120 024	220 VAC + 15/- 20%, 45 to 65 Hz 120 VAC + 15/- 20%, 45 to 65 Hz 24 VAC + 15/- 20%, 45 to 65 Hz
Dropout tolerance	≥ 10 ms
Rated insulation voltage	None
Rated transient protection volt.	4 kV (1.2/50 μs) @ 220 VAC 2.5 kV (1.2/50 μs) @ 120 VAC 800 V (1.2/50 μs) @ 24 VAC (line/neutral)
<b>Power supply DC type</b>	Installation cat. III (IEC 60664)
Rated operational volt. 024	24 VDC + 15/- 20% (pin 2 pos.)
Rated insulation voltage	None
Rated transient protection volt.	800 V (1.2/50 μs)
<b>Consumption</b> AC supply DC supply	60 mA @ 50 Hz/70 mA @ 60 Hz 1 W
<b>Power ON delay</b>	≤ 200 ms
<b>Power OFF delay</b>	≥ 250 ms

## General Specifications

<b>Indication for</b> Output ON	LED. red
<b>Environment</b>	
Degree of protection	IP 20 B
Pollution degree	2 (IEC 60664)
Operating temperature	-20° to +50°C (-4° to +122°F)
Storage temperature	-50° to +85°C (-58° to +185°F)
<b>Weight</b>	85 g
<b>Approvals</b>	UL, CSA



Mode of Operation

**Example 1**  
(Types C .0.)  
**OFF-time period first**  
The time period starts when power supply is applied.

At the end of the first set time period, the relay operates. At the end of the second set time period (equal to the first), the relay releases.

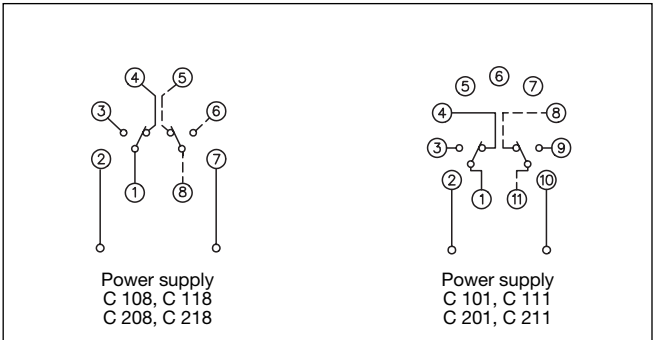
This sequence is repeated until power supply is interrupted. If power supply is disconnected, the time is reset and a recovery period of 250 ms should be allowed before the recycler is ready for reactivation.

**Example 2**  
(Types C .1.)  
**ON-time period first**  
The relay operates and the time period starts immediately when power supply is applied.

At the end of the first set time period, the relay releases. At the end of the second set time period (equal to the first), the relay operates again.

This sequence is repeated with equal intervals until power supply is interrupted. If power supply is interrupted, the time is reset and a recovery period of 250 ms should be allowed before the recycler is ready for reactivation.

Wiring Diagrams



Time Setting

Knob-adjustable on scale in seconds.

Accessories

Sockets◊	S 408, S 411
Hold down spring◊	HF
Mounting rack	SM 13
Socket cover	BB4
Potentiometer lock	PL 1

For further information refer to "Accessories".

Operation Diagram

