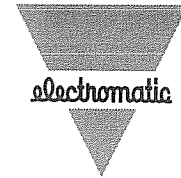
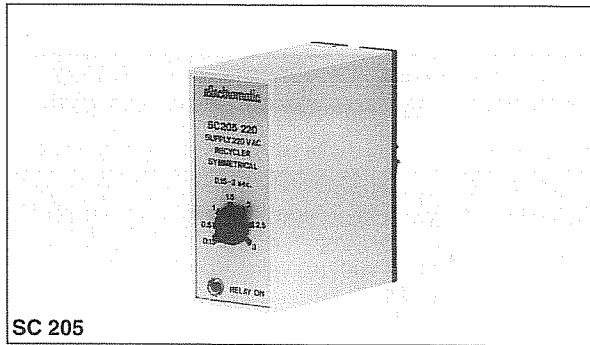


# Symmetrical Recycler Types SC 105, SC 205



RECYCLER



- Time ranges: 0.15 s to 600 s
- Automatic start (ON or OFF first)
- Equal ON- and OFF-time periods
- 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
- S-housing
- LED-indication for relay on
- AC or DC power supply

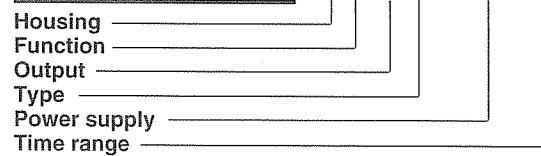
## Product Description

Mono-function, plug-in symmetrical ON/OFF recyclers up to 600 s (10 min) covering 5 individual time ranges. Optional ON-

or OFF-time period first. Often used in applications where items have to be divided onto two conveyor belts.

## Ordering Key

**SC 105 024 3S**

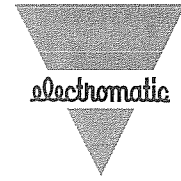


## Type Selection

Plug	Output	Time ranges	Supply: 24 VAC	Supply: 115 VAC	Supply: 230 VAC	Supply: 24 VDC
Circular ○	SPDT	0.15- 3 s	SC 105 024 3S	SC 105 115 3S	SC 105 230 3S	SC 105 724 3S
		0.8 - 18 s	SC 105 024 18S	SC 105 115 18S	SC 105 230 18S	SC 105 724 18S
		3 - 60 s	SC 105 024 60S	SC 105 115 60S	SC 105 230 60S	SC 105 724 60S
		8 - 180 s	SC 105 024 180S	SC 105 115 180S	SC 105 230 180S	SC 105 724 180S
		30 - 600 s	SC 105 024 600S	SC 105 115 600S	SC 105 230 600S	SC 105 724 600S
Circular ○	DPDT	0.15- 3 s	SC 205 024 3S	SC 205 115 3S	SC 205 230 3S	SC 205 724 3S
		0.8 - 18 s	SC 205 024 18S	SC 205 115 18S	SC 205 230 18S	SC 205 724 18S
		3 - 60 s	SC 205 024 60S	SC 205 115 60S	SC 205 230 60S	SC 205 724 60S
		8 - 180 s	SC 205 024 180S	SC 205 115 180S	SC 205 230 180S	SC 205 724 180S
		30 - 600 s	SC 205 024 600S	SC 205 115 600S	SC 205 230 600S	SC 205 724 600S

## Time Specifications

<b>Time ranges</b>	0.15 - 3 s 0.8 - 18 s 3 - 60 s 8 - 180 s 30 - 600 s	<b>Repeatability deviation</b>	$\leq 1\%$
<b>Time range accuracy</b>	0 to +10% on max. min. actual time $\leq$ min. set time	<b>Time variation</b> Within rated power supply and ambient temperature	$\leq 0.05\%/V$ $\leq 0.2\%/^{\circ}C$
		<b>Reset</b> Time and/or relay	power supply interruption min. 300 ms



## Output Specifications

	SC 105	SC 205
<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 (Ag-CdO)</b>	$\mu$ (micro gap)	$\mu$ (micro gap)
Resistive loads	10 A/250 VAC (2500 VA)	8 A/250 VAC (2000 VA)
	1 A/250 VDC (250 W)	0.4 A/250 VDC (100 W)
	10 A/25 VDC (250 W)	4 A/25 VDC (100 W)
Small inductive loads	2.5 A/230 VAC	2.5 A/230 VAC
	5 A/24 VDC	5 A/24 VDC
<b>Mechanical life</b>	$\geq 30 \times 10^6$ operations	$\geq 30 \times 10^6$ operations
<b>Electrical life</b>	AC 1 $\geq 2.5 \times 10^6$ operations (at max. load)	$\geq 2.5 \times 10^6$ operations (at max. load)
<b>Operating frequency</b>	$\leq 7200$ operations/h	$\leq 7200$ operations/h
<b>Insulation voltages</b>		
Rated insulation voltage	$\geq 2.0$ kVAC (RMS) (contact/electronics)	$\geq 2.0$ kVAC (RMS) (contact/electronics)
Rated transient protection volt.	4 kV (1.2/50 $\mu$ s) (contact/electronics) (IEC 664)	4 kV (1.2/50 $\mu$ s) (contact/electronics) (IEC 664)

## Supply Specifications

<b>Power supply AC types</b>	installation cat. III (IEC 664)
Rated operational voltage through pins 2 & 10	230 230 VAC $\pm 15\%$ , 45 to 65 Hz
	115 115 VAC $\pm 15\%$ , 45 to 65 Hz
	024 24 VAC $\pm 15\%$ , 45 to 65 Hz
Dropout tolerance	$\geq 40$ ms
Rated insulation voltage	$\geq 2.0$ kVAC (RMS) (supply/elec.)
Rated transient protection volt.	4 kV (1.2/50 $\mu$ s) (line/neutral)
<b>Power supply DC type</b>	installation cat. III (IEC 664)
Rated operational voltage	724 24 VDC $\pm 15\%$ (pin 2 pos.)
Rated insulation voltage	none
Rated transient protection volt.	800 V (1.2/50 $\mu$ s) + / -
<b>Consumption</b>	
AC supply	2.5 VA
DC supply	1.5 W

## General Specifications

<b>Power-on delay</b>	$\leq 200$ ms
<b>Power-off delay</b>	$\geq 300$ ms
<b>Indication for Output ON</b>	LED, red
<b>Environment</b>	
Pollution degree	IP 20 B
Operating temperature	2 (IEC 664)
Storage temperature	-20 to +50°C (-4 to +122°F)
	-50 to +85°C (-58 to +185°F)
<b>Weight</b>	AC/DC types 200 g/125 g
<b>Approvals</b>	UL, CSA, SEV

## Mode of Operation

### Example 1

#### 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.

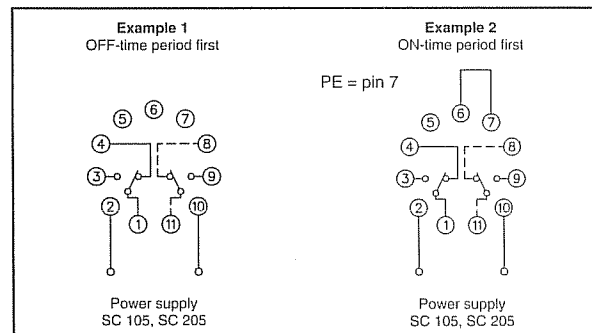
This sequence continues with equal OFF- and ON-time periods, until power supply is interrupted.

### Example 2

#### ON-time period first

Interconnect pins 6 and 7. The relay operates and the time period starts 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 continues with equal ON- and OFF-time periods until power supply is interrupted.

## Wiring Diagrams



## Operation Diagram

