

**SC-610**  
Flip flop relay without memory

**SC-611**  
Flip flop relay with memory

**SLIMLINE**  
MONITORING RELAYS



## Application Examples

- The direction control of conveyor lines.
- The re-direction of counting pulses to a counter.
- Change-over control for duty cycling of pumps.
- Generator set battery cycling during start-up.

## Features

- Many power supply options.
- Direct connection of a NPN sensor (SC-611)
- 10A SPDT or a 5A DPDT relay.

### ORDERING CODE

TYPE	MODEL	VOLTAGE	POWER SUPPLY	RELAY CONTACTS
SC	610	230V	AC	SP

SEE PAGE 94 FOR ORDERING OPTIONS

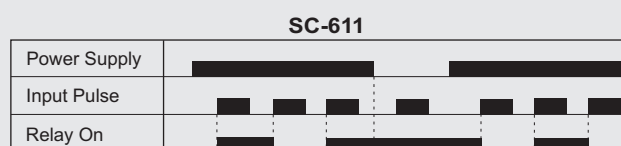
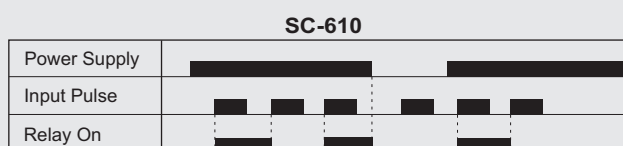
## Description of Operation

The unit is ready to operate when power is connected to pins 2 and 10.

**SC-610 (Without memory):** On power-up the relay will be de-energised. When an input is received between pins 5 and 7 the relay will energise. On each subsequent input received, the relay will change its state (toggle). When power is removed, the relay will de-energise.

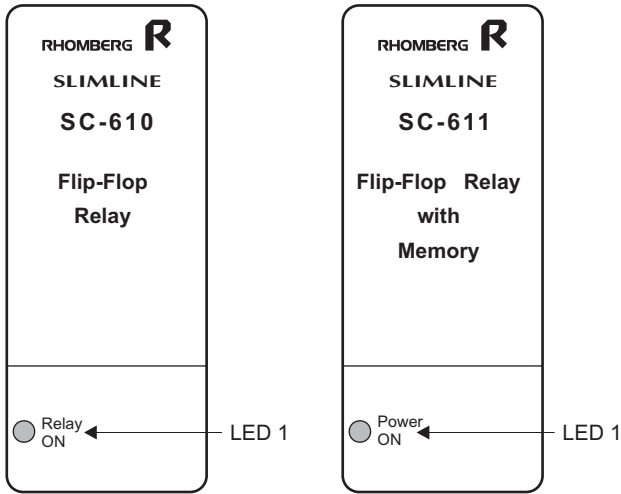
**SC-611 (With memory):** On power-up the relay will be in the state it was in when power was removed. Each input received subsequently on pin 5 and 7 will cause the relay to change its state (toggle). When power is removed the relay remains in its last state.

## Operational Diagrams





## Description of Controls



LED1: **SC-610**: The LED will illuminate when the relay is on.

**SC-611**: The LED will illuminate when power is applied to unit.

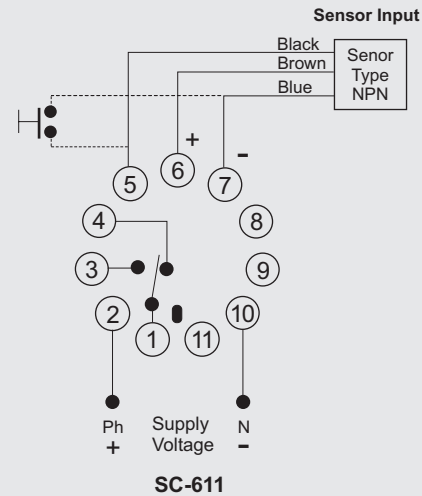
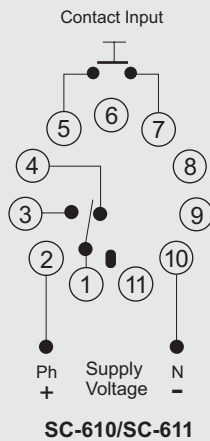
## Wiring and Connection

Power Supply	
Phase/Positive	2
Neutral/Negative	10

Relay Contacts	
Normally open	1+3
Normally closed	1+4

Pulse Input (SC-610)	
Connect contact between pin 5 and pin 7.	

Pulse Input (SC-611)	
Connect positive lead (brown) to pin 6.	
Connect NPN output lead (black) to pin 5.	
Connect negative lead (blue) to pin 7.	



*Note: For further information on sensors refers to our Detector catalogue.*

## Technical Specifications

### POWER SUPPLY

AC: Supply voltage: 12, 24, 110, 230, 400, ±15%  
Isolation (reset to power supply): 2kV  
Power consumption: 3VA (approx.)

DC: Supply voltage: 12, 24, 48, 60, 110V ±15%  
Isolation: no galvanic isolation  
Power consumption: 100mA for 12V and 24V  
30mA for 48V and higher

### INPUT

SC-610	SC-611
Short circuit current: 8.5mA	Short circuit current: 1mA
Open Circuit Voltage: 8.2V	Open Circuit Voltage: 8.2V
Input reset speed: 20 milliseconds.	Input reset speed: 10 milliseconds.

**12V DC Output:**  
Voltage tolerance: 10-15V DC.  
Source Current: 50mA (max.).

*Additional information in Section J, page 131.*