

## R-ISW CURRENT SWITCH



### Current switches for AC loads.

The units are DIN rail mounted in a circuit breaker sized housing and are designed to automatically switch on a secondary load or alarm when a primary load current is detected. E.g. turn on an extractor fan in an internal bathroom/laundry, when a lighting or washing machine load is detected.

Two different primary load current inputs are available, terminals with a 16A rating or a 6.5mm diameter through hole for 30A circuits.

The basic R-ISW has a current set point of 200mA and an off-delay of 5 minutes.

A programmable version, the R-ISW-A has an adjustable set point 50mA to 200mA (default) and a selectable off-delay of 1 minute, 5 minutes (default) or disabled.

Order codes:	<b>R-ISW-16A</b>	Terminal input, 16A circuit. Trip 200mA, 5 minute off-delay.
	<b>R-ISW-30A</b>	Through hole input, 30A circuit. Trip 200mA, 5 minute off-delay.
	<b>R-ISW-A-16A</b>	Terminal input, 16A circuit. Selectable trip and selectable off-delay.
	<b>R-ISW-A-30A</b>	Through hole input, 30A input. Selectable trip and selectable off-delay.
	<b>R-ISW-L-16A</b>	Terminal input, 16A circuit. Trip 200mA, 5 minute off-delay. Gold plated relay contacts.
	<b>R-ISW-L-30A</b>	Through hole input, 30A circuit. Trip 200mA, 5 minute off-delay. Gold plated relay contacts.
	<b>R-ISW-LA-16A</b>	Terminal input, 16A circuit. Selectable trip and selectable off-delay. Gold plated relay contacts.
	<b>R-ISW-LA-30A</b>	Through hole input, 30A input. Selectable trip and selectable off-delay. Gold plated relay contacts.

### Specifications

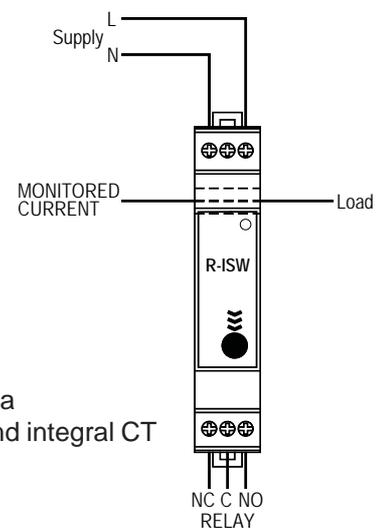
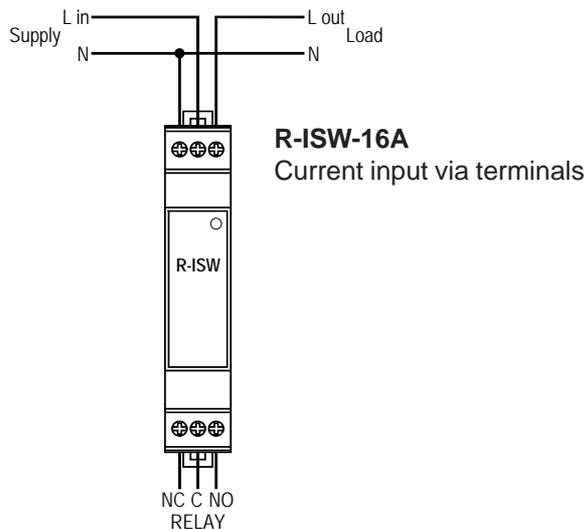
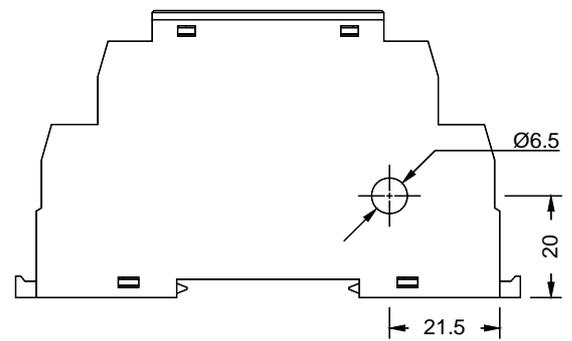
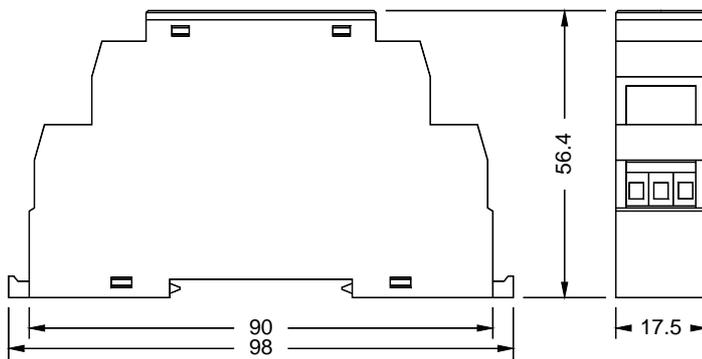
<b>Input</b>	Single phase alternating current
Set point	: R-ISW basic version 200mA current trip : R-ISW-A version settable current trip from 50mA to 200mA (default) : R-ISW-L version gold plated relay contacts
Maximum current	: R-ISW-16A terminal version, 16A continuous : R-ISW-30A through hole version, limited by 6.5mm cable aperture
<b>Hysteresis</b>	: Approximately 10% of set point
<b>Output</b>	Single pole change over relay contacts
Contact rating	: AC1 (non-inductive) 2500VA, 10A 250Vac : AC15 (inductive) 500VA, 2A 250Vac : DC1 30V/10A, 110V/0.3A, 220V/0.12A
Contact material	: AgSnO <sub>2</sub> for resistive and capacitive loads with inrush currents <100A
Gold contact option	: AgNi + Au (5um) contacts, 1.5W 24V resistive load : Minimum switching load 1mW, 0.1V/1mA
<b>Off Delay (other delay times on request)</b>	: Basic unit 5 minutes : R-ISW-A settable from 0, 1 & 5 minutes (default)
<b>Supply</b>	: 220-240Vac ±10% 1.5VA idle, 3VA active
<b>Temperature</b>	Operating : -10°C to +20°C to +50°C Storage : -20°C to +70°C
<b>EMC Compliance</b>	: AS/NZS 61000.6.3:2012
<b>Housing</b>	DIN rail mounted grey polyamide, flame retardant UL 94 V0.
<b>Terminals</b>	Rising clamp, nicked copper alloy clamp and tin plated copper alloy terminal Suitable for up to 2.5mm <sup>2</sup> stranded conductor

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## R-ISW CURRENT SWITCH

### Housing Dimensions and Connections



### R-ISW-A operation.

To familiarise yourself with the LED sequences involved in the setting up of the R-ISW, it is recommended the user press and hold the button down and run through all the set up stages until the LED flashes rapidly at which point the unit has been reset to factory default settings. This takes approximately 20 seconds.

The push button on the R-ISW-A can be used to display the selected off delay and current set point, manually turn the relay on or off, set up operating parameters or return the unit to default settings.

The LED flash sequence and flash rate are used to indicate the operating state of the relay and also the various options when selecting operating parameters. In the idle state the LED briefly flashes on every second and while active the LED will be on, briefly flashing off. During the delay off period the LED will flash at a faster rate.

The current operating parameters are indicated by momentarily pushing the button. Firstly a number of flashes indicate the selected off delay and secondly a number of slower flashes indicate the selected current set point.

The off delay flashes correspond to: 1 - off delay disabled, 2 - 1 minute off delay and 3 - 5 minute (default) off delay.

The set point flashes range from 1 to 7, 1 being 50mA through to 7 being 200mA (default), approx. 25mA/step.

### Testing the unit/manual operation

Press and hold the button on. The LED will stop flashing and after 1 second will come on solid. and then release. This will toggle the state of the relay. Note the relay will return to the correct state relative to the current level and trip point after off delay period has expired.

### Set up procedure

#### Set time delay

Hold button until the LED is on with a single flash off. Off delay disabled.

Hold button until the LED is on with a double flash off. Off delay is 1 minute.

Hold button until the LED is on with a triple flash off. Off delay is 5 minutes (default).

#### Set current level

Hold the button until the LED is flashing on and off consistently. Release the button and then push the button for the amount of times you require for the current level. The current range is from 1 to 7. 1 = 50mA, 7 = 200mA, steps of 25mA.

#### Default setting

Hold the button until the LED is rapidly flashing on and off. The unit has been reset to factory defaults, 200mA and 5 minute off delay.

## R-ISW CURRENT SWITCH

### Operation.

The push button on the front of the R-ISW can be used to display the currently selected operating parameters, manually turn the relay on or off, set up operating parameters or return the unit to default settings.

The LED flash sequence and flash rate are used to indicate the operating state of the relay and also the various options when selecting operating parameters. In the idle state the LED will briefly flash on every second and while active (relay on) the LED will be on and briefly flash off every second. During the delay off period the LED will flash at a faster rate.

### Push button operation.

**The currently selected operating parameters** can be indicated by momentarily pushing the button. Firstly a number of flashes indicate the selected off delay and secondly a number of slower flashes indicate the selected current set point.

The off delay flashes correspond to:

- 1 - off delay disabled
- 2 - 1 minute off delay
- 3 - 5 minute off delay (default)

The set point flashes range from 1 to 7.

1 being 50mA through to 7 being 200mA (default), approximately 25mA/step.

**To manually toggle the relay state** push the button for greater than 1 second. After the push button has been held for 1 second the LED will turn on, releasing the push button at this time will toggle the state of the relay. If the relay is off when the button is pushed the relay will turn on and release after the selected off delay period if the current remains below the set point. If the relay is on when the button is pressed the relay will release. After the selected off delay period the relay will turn on again if the current is above the set point. If the off delay is disabled the relay will default to 1 minute off delay during manual toggle operations.

**To set the off delay time**, the push button is held on for approximately 2 seconds. When the push button is held down for greater than 2 seconds the LED will change from being steady on to briefly flashing off. The LED will start with briefly flashing off once and will slowly increment the number of times it flashes off. Releasing the button during this time selects the off delay, the number of times the LED briefly flashes off corresponds to the selected off delay. After the set point has been selected the LED will indicate the currently selected operating parameters.

**To set the current set point**, the push button is held on for approximately 8 seconds or past the delay off setting sequence. When the push button is held on for greater than 8 seconds the LED will change to flashing on and off. At this point the button is released and the LED will turn off. The required set point is then entered by pressing the push button the corresponding number of times, the LED will turn on and off as the push button is pushed. After the set point has been entered the LED will indicate the currently selected operating parameters.

**To set the default values** hold the button on for approximately 12 seconds, past the delay off setting sequence and the current set point entry sequence, the LED will start rapidly flashing on and off which indicates the default settings have been selected, off delay 1 minute and 200mA current trip point.

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