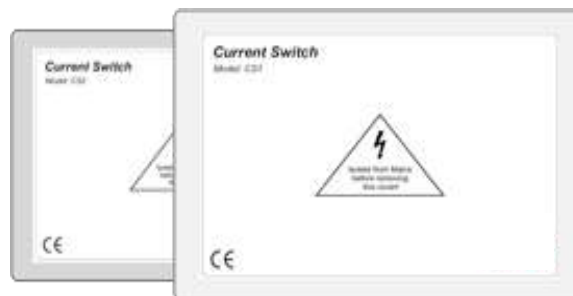




## CS1 / CS2

Current Switches



## User Guide



Please read this guide carefully and retain for future use.

## Table of contents

1	General information .....	3
2	Installation .....	4
3	Specification .....	4
4	Wiring .....	5
5	Typical Current Switch Device Example .....	6
6	Maintenance .....	6
7	Manufacturer's Warranty .....	8

## 1 General information

The Merlin CS1 & CS2 Current Switch is to be used in conjunction with the Merlin range of kitchen ventilation interlock systems and can be used as an alternative to air pressure differential switches.

### AC Current Switch Device

The AC current switches activate a normally open (NO) contact closure via a solid state switch whenever the monitored primary circuit current exceeds a pre-set level.

The live wire running between the fan controller and the fan loops through the current switch device until the [ON] light has illuminated. The more times the wire is wrapped through the loop, the more sensitive the current switch becomes.

The current monitors can be wired back to the Merlin range by way of low voltage cables.



### Important Warning Statements

Please take the time to thoroughly read this user's guide which should be retained for future reference.

This device requires a continual supply of electrical power – it will not work without power.

Your device has been fully tested and inspected and with proper use, will provide years of reliable service.

Your product should reach you in perfect condition, if you suspect it is damaged, contact your supplier.



#### **Information on waste disposal for consumers of electrical & electronic equipment. (EEE)**

When this product has reached the end of its life it must be treated as Waste Electrical & Electronics Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used.

Please contact your supplier or local authority for details of recycling schemes in your area.

## 2 Installation

Remove the front cover of Current Monitor to access the current switches.

*Ensure the output circuit to be switched is within the device/s switch rating - see specification.*

The current switch device/s requires that the live to be monitored be disconnected and routed through the centre of the device and looped at least once.

The conductor may be looped more than once through the sensor to multiply the sensitivity but this also divides the maximum currents.

Connect the switch circuit to the two screw terminals. The switches are not polarity sensitive and operate as a 'dry contact'. The screws terminals on the top are low voltage only.

The output switch of all units is normally open, when the monitored current exceeds the trip value as set by the multi-turn adjustment, the switch will close.

The status LED will light (RED) to indicate a closed switch.

The power LED (GREEN) will indicate circuit power whenever there is sufficient current flowing in the conductor to operate the device circuitry, typically 1 Amp minimum.

All devices are factory set at the minimum switch point.

To increase the set-point, while the monitored load is on, turn the adjustment until the output turns off as indicated by the status LED. Then turn the adjustment back until the (RED) LED comes back on to indicate a closed switch. The adjustment should be turned slightly back past this point to ensure normal line current variations do not cause false conditions.

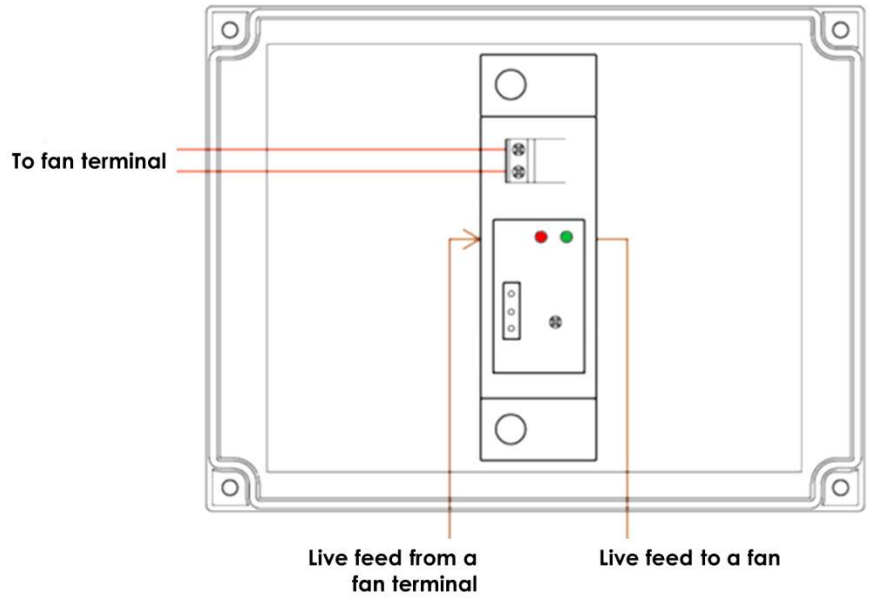
## 3 Specification

### AC Current Switch Device- CSW-NO-ASD

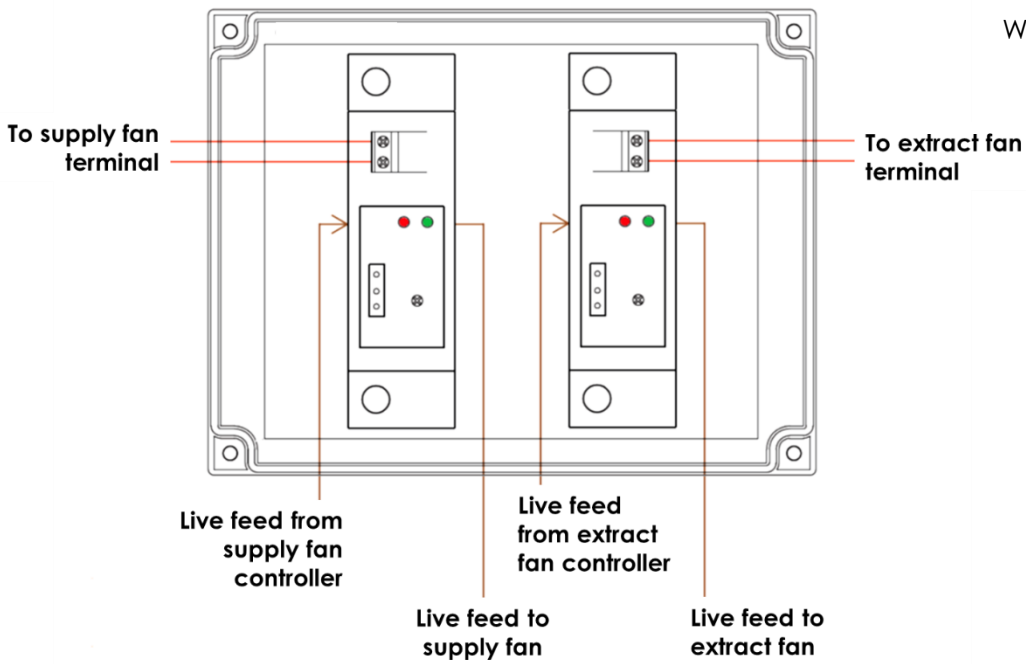
Power Supply:	None – Self Powered
Set-point:	0.5A...200A
Output Switch:	0.3A @ 135V ac/dc
Hysteresis:	<2% FS max
Response Time:	<200mS
Dimensions (mm):	61 x 90 x 25
Enclosure Material:	UL 94V-0 flammability rated ABS
Conductor Hole Diameter (mm):	19mm
Operating Temperature:	-25°C to 70°C
Certification:	CE / UL / RoHS

# 4 Wiring

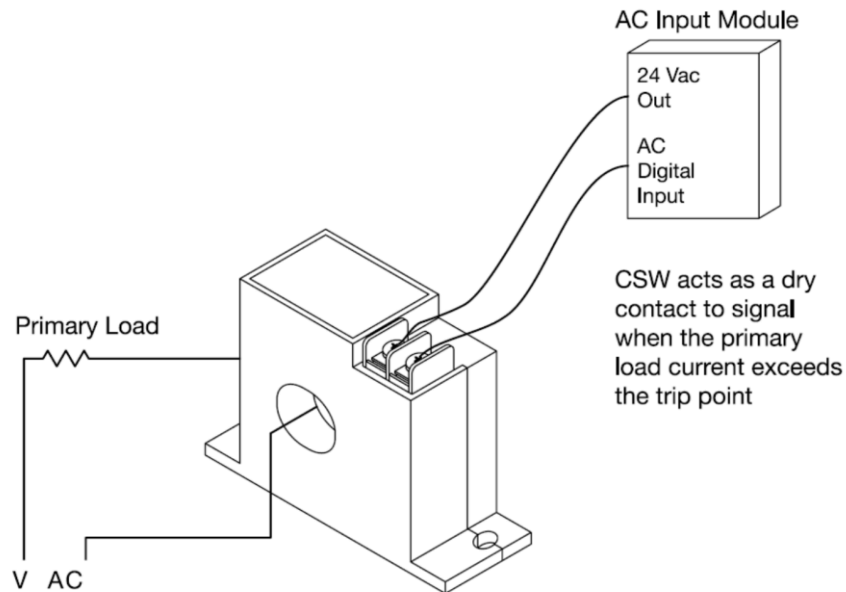
Wiring Diagram **CS1**



Wiring Diagram **CS2**



## 5 Typical Current Switch Device Example



## 6 Maintenance

To keep your device in good working order, you must follow these steps:

- ✓ DO carefully remove any accumulated dust from the outer enclosure once a month.
- \* NEVER use detergents or solvents to clean your device – this may permanently or temporarily damage the gas sensing elements.
- \* NEVER spray air fresheners, hair spray, paint or other aerosols near the device.



## 7 Manufacturer's Warranty

### 3 Year Limited Warranty

**Warranty coverage:** The manufacturer warrants to the original consumer purchaser, that this product will be free of defects in material and workmanship for a period of three (3) years from date of purchase. The manufacturer's liability hereunder is limited to replacement of the product with repaired product at the discretion of the manufacture. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material or workmanship. This warranty extends to the original consumer purchaser of the product only.

**Warranty disclaimers:** Any implied warranties arising out of this sale, including but not limited to the implied warranties of description, merchantability and intended operational purpose, are limited in duration to the above warranty period. In no event shall the manufacturer be liable for loss of use of this product or for any indirect, special, incidental or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent or consequential damage of any kind resulting from gas leakage, fire or explosion. This warranty does not affect your statutory rights.

**Warranty Performance:** During the above warranty period, your product will be replaced with a comparable product if the defective product is returned together with proof of purchase date. The replacement product will be in warranty for the remainder of the original warranty period or for six months – whichever is the greatest.

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