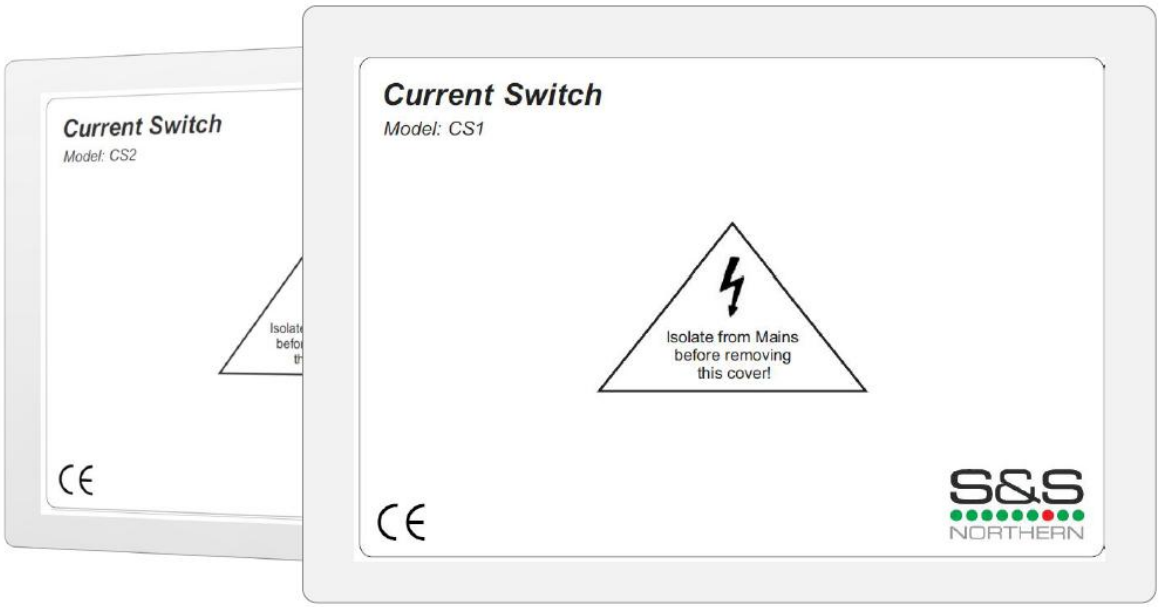
Gas Safety Products

Merlin CS1 & CS2 – Current Switch



Installation & Operation and Maintenance

Read these instructions carefully before operating or servicing

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*** The unit should be installed by a competent person only ***

*** The unit should be stored in cool, dry conditions ***

*** If the unit is found to be damaged – Contact us ***

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 two low voltage cables.

Visit our website, snsnorthern.com for more information.

2 Installation

AC Current Switch Device

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 technical 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.

3 Operation

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.

3. Operation Cont…

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.

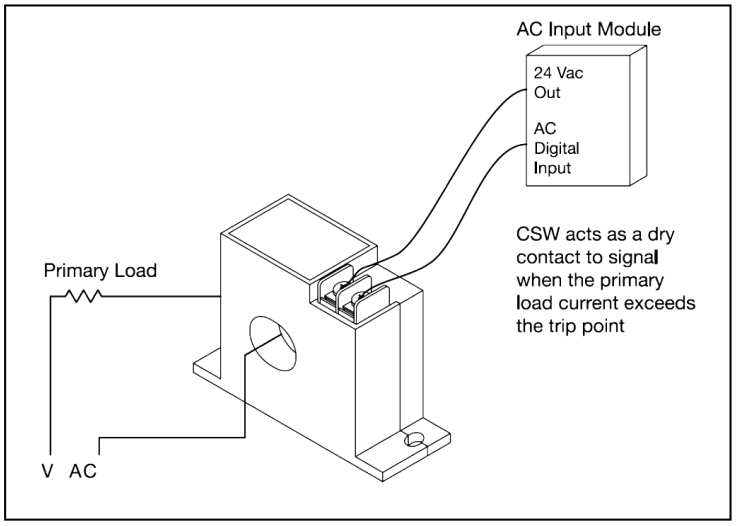
4 Technical Specification

AC Current Switch Device– CSW-NO-ASD

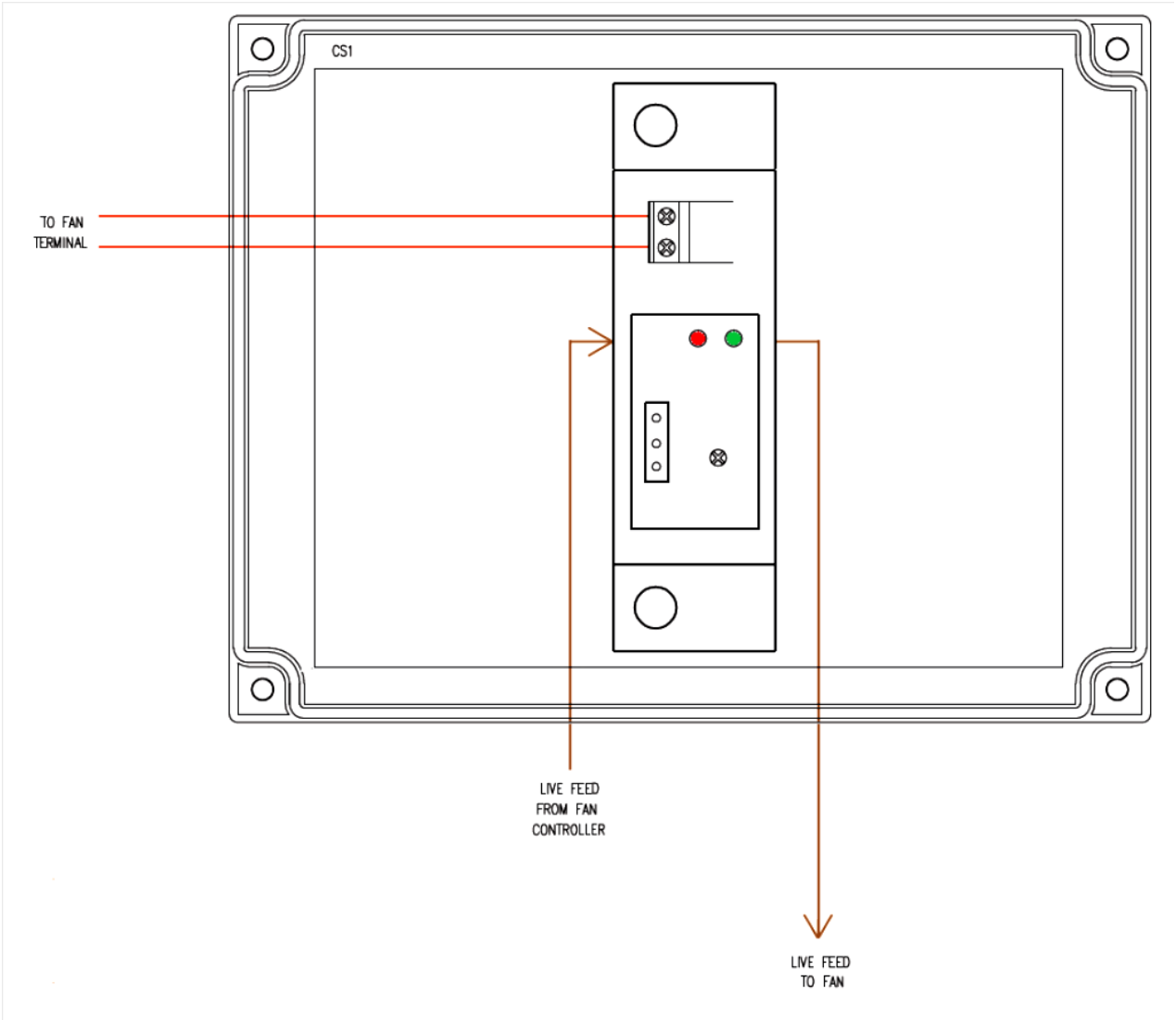
Power Supply:	None – Self Powered
Set-point:	0.5A…200A
Output Switch:	0.3A @ 135V ac/dc
Hysteresis:	<2% FS max
Response Time:	<200mS
Dimensions (mm):	61 x 90 x 25
Enclosure Material:	UL 94V-0 flammability rated ABS
Conductor Hole Diameter (mm):	19mm
Operating Temperature:	-25°C to 70°C
Certification: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

Wiring Diagram

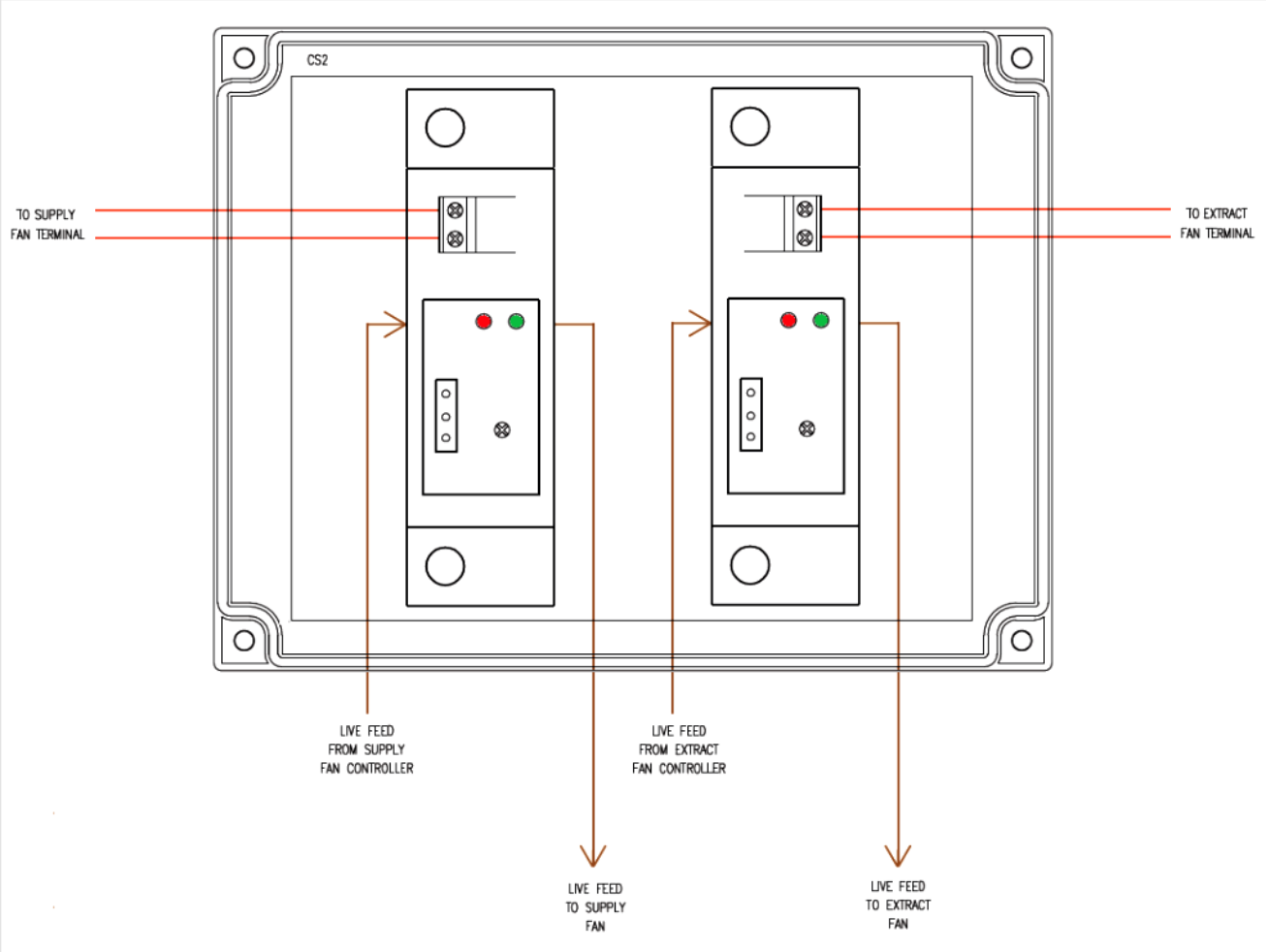
Typical Current Switch Device Example



Wiring Diagram *CS1*



Wiring Diagram *CS2*



Please note, Mains wires and low voltage wires should not be run in the same conduit as per the **LOW VOLTAGE DIRECTIVE**

INFORMATION ON WASTE DISPOSAL FOR CONSUMERS OF ELECTRICAL & ELECTRONIC EQUIPMENT

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.

CONTACT US:

S&S Northern Head Office
Tel: +44(0) 1257 470 983
Fax: +44(0) 1257 471 937
www.snsnorthern.com
info@snsnorthern.com

South East Division
Tel: +44(0) 1702 291 725
Fax: +44(0) 1702 299 148
south@snsnorthern.com