

PRODUCT ADVICE SHEET

Model VZ-ISNSE

POWER SENSE MODULE

For Remote activation of Fans, Fan Timers and BMS modules / circuits



FEATURES

- **Operation**
 - ⇒ When load is $> \sim 2.0$ amps, potential free relay contact closes.
 - ⇒ When current $< \sim 1.5$ amps, relay contact opens.
- **Triggers run-on timers** “Looks like” a light circuit
- **High load currents** up to 15 amps and fits in series with neutral or active line of load
- **Does not require power supply.** No active or neutral required for operation – uses load current to generate internal power supply for operation.
- **Energy friendly.** Zero current draw in standby.
- **Quick and Easy connections.** Internal terminals & cable strain relief behind lid enable easy wiring.
- **High Power Control Capability.** Can switch independent control functions up to 1200VA 5A resistive or inductive.
- **Full isolation** between load and control ensures safety, isolation and minimisation of electrical noise.
- **C Bus / BMS system compatible**
- **Reliable KISS Philosophy.** Practical Australian design and manufacturing know-how using tried and tested technology. NO complicated setting procedures or programming.

SPECIFICATIONS

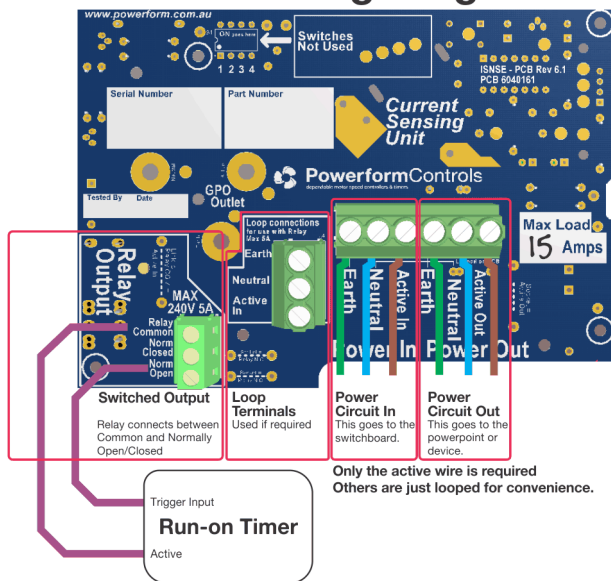
VZ-ISNSE Load Sense Module

OPERATION and TYPICAL APPLICATION	Acts as a fully isolated trigger or control of a secondary circuit based on the load current / power level. “Looks like” a standard run-on timer and activates based on a minimum current being exceeded. Used typically as an add-on module in bathroom and laundry applications to enable remote fan activation and run-on during high humidity activities such as operation of a clothes drier or washing machine. Can be used to trigger a C-Bus module or HPM Icontrol I/O module for load monitoring in BMS systems.
RATINGS	Control Input: load sensing in series with one line of AC load (neutral or active). Load sense range 1.5 – 15 amps AC. ON $\sim 2.0A$, OFF $\sim 1.5A$ (+/- 25%) Output: Isolated Normally Open/Normally Closed Relay contacts. Max 240 VAC 1200VA 5A inductive or resistive. Supply Variation: 190 – 275 VAC. Max ambient temperature: 50°C. Max power consumption: < 1VA when relay ON.
STANDBY and SAFETY	Control output is fully isolated from input load circuit. Fail safe circuit draws no power on standby. Fully insulated enclosure does not require earth.
ACCURACY	Tolerance and accuracy +/- 25%. All units are factory tested to ensure they meet this specification
CONNECTIONS	Internal terminal blocks to UL94-V0 on printed circuit board Load Input: 2.5/4 mm ² terminals rated 300 VAC 30A. Trigger Output: 1.5/2.5 mm ² terminals rated 300 VAC 10A.
ENCLOSURE	IP40 Blue bulkhead enclosure made of 94V0 ABS or Polycarbonate. Can be mounted by screwing the back cover to a surface. Top cover is held on by two screws, allowing access to the internal terminals. Integrated cable strain relief can be used with breakouts on the side of the box or the cables can be routed via the bottom plate or sides. Dimensions (mm) 152L x 108W x 60D
RELIABILITY	This product is proudly designed and fully manufactured in Australia for Fantech. It is designed and built for a long service life in commercial applications with appropriate quality control throughout manufacture and a commitment to continuous improvement of the product line.
ORDERING	VZ-ISNSE load sense set to operate at 2.0A . Max load 15A.
OPTIONS Min order quantities apply	Specific Control Current: Can specify switching point current 0.8–10 amps. Model VZ-ISNSE-X where X = “current in amps” Low hysteresis Control Current: OFF point at approx 50% of ON current. Special manufacture. eg ON 0.7A OFF 0.35A

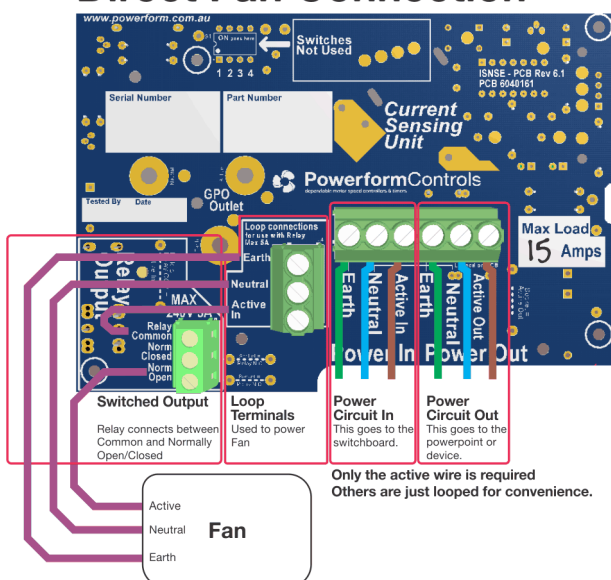
Guidelines for installing Fantech VZ-ISNSE Load Monitor



General Wiring Diagram



Direct Fan Connection



CAUTION: The inside of the module must be considered *live* and *dangerous* at all times. Before the lid is removed the power both to the LOAD and CONTROL circuit MUST be isolated OFF. If you are unsure of any aspect of the contents of this product advice sheet, connection, wiring, application or operation, please contact Fantech.

OBJECTIVE / APPLICATION The Fantech VZ-ISNSE module enables the monitoring of a minimum load current or power of a LOAD and switching a separate independent CONTROL circuit or device if the load current / power increases above ~2.0 amps (1.5 –2.0) or the specific set-point value. A typical application is where a bathroom fan assisted air extraction system is activated / deactivated whenever a laundry dryer is in operation. The module may be used on its own to switch a fan or trigger a run-on timer or trigger a BMS system or module.

LOAD RATINGS and POWER SUPPLY REQUIREMENTS

The VZ-ISNSE module can monitor one or more inductive or resistive loads provided the maximum current and power ratings are not exceeded. The unit is simply inserted in series with either the active or neutral line to the load (usually a 10 or 15A power socket). The unit does not need a separate active or neutral connection to operate as it derives its own power supply via the current flowing through it. The isolated potential free relay contacts for the output are rated up to 1200 VA 250 VAC 5 amps inductive or resistive.

PLACEMENT and ACCESS The module may be mounted in a wall cavity behind or next to a wall power socket, in a ceiling or a switch board. The unit must be mounted in a dry reasonably clean environment. **Make sure that the unit is accessible for service or replacement.**

CONNECTIONS

Load: 2.5 or 4 mm² cable should be used in accordance with AS/NZS3000 to place the unit in series with either the active or neutral line of the load and connected to the C1 and C2 terminals.

If the unit is connected in series with the Neutral then this must be connected to the “Active” terminals—these are the ones that measure the current. In this case the word “Active” in the labels “Active In” and “Active Out” must be made unreadable (eg by using a marker pen)

Control Output: The potential free relay contacts are via the **Relay Common** and **Normally Open** terminals. Single wire control output can be invoked by fitting a link between Relay Common and one of the provided loop terminals (effectively connects the output relay to load line “Active In” and thus provides single wire control output. A normally closed contact (NC) is also provided.



GOODS AND WARRANTY

1. When supplying goods to a consumer, the following mandated statement applies:
"Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure."
2. The benefits of this warranty are in addition to any rights and remedies imposed by Australian State and Federal legislation that cannot be excluded. Nothing in this warranty is to be interpreted as excluding, restricting or modifying any State or Federal legislation applicable to the supply of goods and services which cannot be excluded, restricted or modified.
3. Subject to the conditions and limitation below, the Company warrants products of its manufacture to be free of defects in workmanship and/or materials at the time of delivery to the Buyer.
4. Any part, assembly or portion thereof found to be defective within one year from the date of commissioning or eighteen (18) months from date of shipment from our factory, whichever is the sooner, unless expressly stated otherwise in the Company's Publications or Literature, will be repaired or exchanged F.O.B factory.
5. The Company reserves the right to replace defective parts of the goods with parts and components of similar quality, grade and composition where an identical component is not available.
6. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.
7. Goods or parts that have been returned for repair (except where the repair is as a result of the Company's failure to comply with the statutory guarantees in the ACL) or warranty assessment are deemed to have been abandoned by the Buyer if not collected within 30 days after the Company has notified the Buyer in writing of the warranty assessment outcome or the completed repair.
8. The Company reserves the right to dispose or otherwise deal with an abandoned product or part at its discretion.
9. This warranty does not apply if:
 - (i) the goods have not been paid for by the Buyer as per the credit terms provided; or
 - (ii) the goods have not been installed in accordance with AS NZS 3000/2000 Australian/New Zealand Wiring rules; or
 - (iii) the goods have been misused or neglected.
10. The Company assumes no responsibility under this warranty for the labour costs involved in the removal of defective parts, installation of new parts or service charges related thereto.
11. If a fault covered by this warranty occurs, the Buyer must first contact the Company at the contact address listed below.
12. Any warranty claim must be accompanied by:
 - (i) proof of purchase;
 - (ii) written details of the alleged defect; and
 - (iii) appropriate documentation (such as installation and maintenance records etc).
13. The Company shall have the option of requiring the return of the defective part (transportation prepaid by the Buyer) to establish the claim.
14. The Company makes no warranties or representations other than set out in this clause 7.
15. The repair or exchange of the goods or part of the goods, is the absolute limit of the Company's liability under this express warranty.



FANTECH
Intelligent Ventilation

Fantech Contacts

Head Office

Victoria - Melbourne

A.B.N. 11 005 434 024
 Ph: +61 (3) 9554 7845
 Fax: +61 (3) 9554 7833
 Email: info@fantech.com.au

Australia

Adelaide (08) 8294 0530
 Brisbane (07) 3299 9888
 Darwin (08) 8947 0447
Melbourne H.O. (03) 9554 7845
 Perth (08) 9209 4999
 Sydney (02) 8811 0400

New Zealand

Auckland H.O. (09) 444 6266
 Christchurch (03) 379 8622
 Wellington (04) 566 0532

Asia

For agents in the Asian region
 call (603) 7846 0340
 or visit www.eltafantechasia.com

www.fantech.com.au