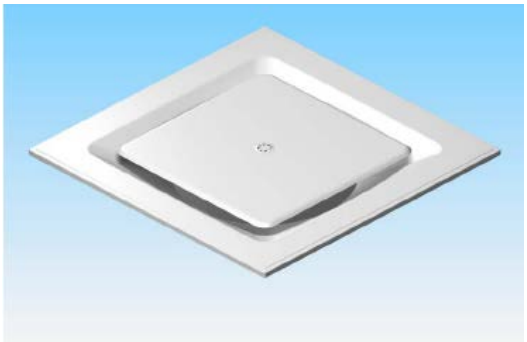
Electronically Controlled Variable Air Volume Ceiling Diffuser

INSTALLATION & MAINTENANCE INSTRUCTIONS

Introduction

The Rickard electronically controlled VAV ceiling diffuser users an energy efficient electric actuator to drive a control disc in response to a signal received from a thermostat.





The Electrically controlled VAV diffuser is one part of a system that requires a number of additional products that are not included with the diffuser itself. Please ensure all required components are ordered prior to installation.

Included Components

1x Electronic VAV Ceiling Diffuser including Interface board
1x 6m Grey 4 pin Minifit Slave Cable (Power/Control)

Additional Required Components

1x Power Supply - Termination Resistors included (Powers up to 15 diffusers)
1x Master controller add on (Either a Wall Stat or On Board Controller per Zone)
1x Change Over Sensor (Allows diffuser to switch between heating to cooling mode)
1x USB interface and Software

System Design (Refer to INST-RICKDESGUIDE for further details and examples)

A network of up to 60 diffusers can be connected to one Master Communications Modual via four Powersupplies with 15 diffusers each connected to each. The diffusers are broken down into zones (often by room/office) which must contain at least 1 master diffuser. A master diffuser has either a wall stat or on board controller installed. A wall stat will measure the temperature in the environment and allow temperature adjustment. A on board controller will measure temperature at the diffuser and must be set up using the USB interface and software. Both master devices can be installed on a diffuser so that all options are available.



Wiring and Controls

The diffuser is supplied with a interface board on its rear that allows diffusers to be daisy chained together by the provided Minifit slave cable. There are also connections for a Wall Stat for room controller and a Change Over Sensor for switching from heating to cooling mode (these will need to be ordered separately).

Installation and Access

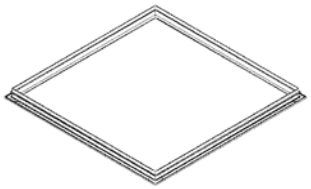
1. Installation of this product should be carried out by appropriately qualified persons.

2. A system design should be known prior to installation. Refer to INST-RICKDESGUIDE for detailed explanation and instructions of master/slave diffusers, wiring/control/sensing set ups, system limitations, and system architecture.

3. Run all required cabling from the diffuser locations to the Power Supply and Master Communications Module (if required). Run Wall Stat cabling from diffuser location to Wall Stat location.

4. If required install the on board master controller and change over sensor to the diffuser.

5. The Electronic diffuser can be mounted in:
   - Drop-in exposed tee ceilings
   - Plastered ceilings
   - Baffled ceilings

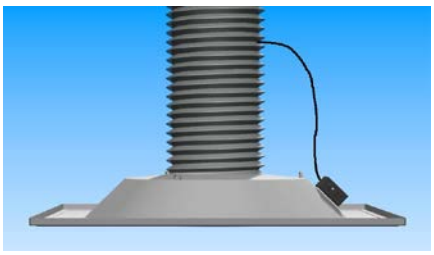


Some installations may require a T-frame (shown above) which is an optional extra.

6. Connect the flexible duct to the inlet and place the diffuser onto the ceiling tee bars or fix it to the ceiling using a concealed fixing method and **remove plastic shipping tab from rear of diffuser**. Connect the Wall Stat cable if required.

7. If a Change Over Sensor is fitted insert the sensor into the flexible duct, seal, and secure. If a diffuser is the last in the chain, fit one of the termination resistors supplied with the power supply to complete the series.





8. To access the inside of the diffuser from below, unclip the trim from the tile by rotating the trim plate anti-clockwise. The trim plate with the actuator and control disc mounted on it may then be accessed and will hang from the safety wire while adjustments are made.

Note: To protect the diffuser from dust and scratches, it is often beneficial to install the diffuser without removing it from the plastic bag. The bag may then be cut away when all building work is complete.

Setup and Adjustment

Refer to INST-RICKSOFTGUIDE for system set up and commissioning.

Maintenance

The Rickard Thermal diffuser requires no routine preventative maintenance. Any dust on the face of the diffuser can be removed with a damp cloth and mild detergent.

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.

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