



# ES-CI Control Interface Installation Guide

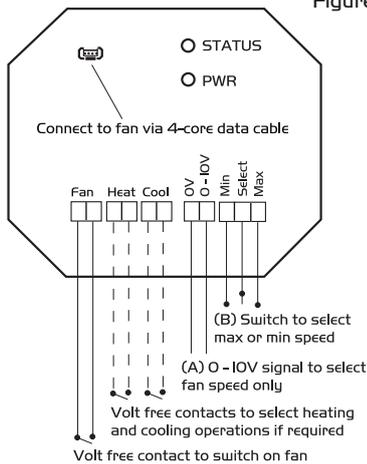
## ES-CI Control Interface

Designed to interface the Ecosmart range of fans to sensors and stats controls. It can also replace the user control where a semi-automatic means of starting an Ecosmart AHU system is required. The unit is supplied with a pre-plugged IO-metre length of communications cable. Longer lengths are available if required.

## Installation

Remove the plastic cover and mark through the fixing hole positions onto the mounting surface. Drill and secure the unit using appropriate wallplugs, screws etc.

Figure 1.



## Wiring

All wiring connections to ES-CI are SELV. Please refer to notes below and Figure 1. regarding the installation of cables.

Connect the control to the fan using the 10m long 4-core data cables provided. Longer lengths are available.

Connect a pair of volt-free contacts across the 'FAN' terminals select the fan operation. Additional volt-free contacts should be connected across the 'HEAT' and 'COOL' terminals to select heating or cooling function if the fan unit is fitted with heating and cooling components. The functions are selected when the contacts are closed. The 'FAN' function must first be selected before heating and cooling function could be selected. (See Figure 1).

## Fan speed selection

Use either option A or B to select the fan speed, (A) O-IOV signal from BMS or (B) simple trickle or boost selection by a changeover switch. If both are connected, only the O-IOV signals will be used unless this signal is at OV.

When using option A (O-IOV input), the input signal is interpreted to fan speed steps as shown in Figure 2.

## LED indications

**PWR** - Green when the control is connected to the fan and SELV power is available.

**Status** - Green when the system is health.  
Amber when communication is lost.  
Red when a fault is present.

## Data cable installation

A 4-core SELV data cable is used to connect devices such as sensors to the fan and the interconnection between fans. Do not run the data cable in the same conduit as the mains cables and ensure that there is a 50mm separation between the data cable and other cables. The maximum cable run between any two devices is 300m when it is installed in accordance to the instructions.

Please note that a maximum total data cable length used in any system must be less than 1000m. Keep the number of cable joints to a minimum to ensure the best data transmission efficiency between devices.

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| Input voltage (V) | Fan speed  |
|-------------------|--|
| 0 - 0.375         | Auto - speed govern by an Ecosmart sensor e.g. ES-RH |
| 0.375 - 1.25      | Speed 1 (Minimum speed - commissioning setting)      |
| 1.25 - 2.25       | Speed 2  |
| 2.25 - 3.25       | Speed 3  |
| 3.25 - 4.25       | Speed 4  |
| 4.25 - 5.25       | Speed 5  |
| 5.25 - 6.25       | Speed 6  |
| 6.25 - 7.25       | Speed 7  |
| 7.25 - 8.25       | Speed 8  |
| 8.25 - 9.25       | Speed 9  |
| 9.25 - 10.0       | Speed 10 (Maximum speed - commissioning setting)     |

Figure 2. Fan speed selection.

With the exception of OV and IOV, avoid sending signals at the end of the voltage bands since the result may not be as predicted. If an appropriate Ecosmart sensor is not fitted and the fan speed is set to Auto, it will run at minimum speed.

## Other low voltage cables

### installation, e.g. O-IOV signals.

Follow the same guideline as per data cable above but keep the cable length to 50 metres maximum.

## Maintenance

The unit does not require any maintenance. However, for optimum performance, it is advisable to remove any accumulated dust with a low power vacuum cleaner.

NOTE: Installation and Maintenance of the equipment must be as directed in the instructions provided with the unit.

## Warranty

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining 4 years covers replacement parts only. The labour element is subject to full, free and safe access to the equipment as recommended by CDM regulations.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuair International Sales office for further details.

## After Sales Enquiries

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.