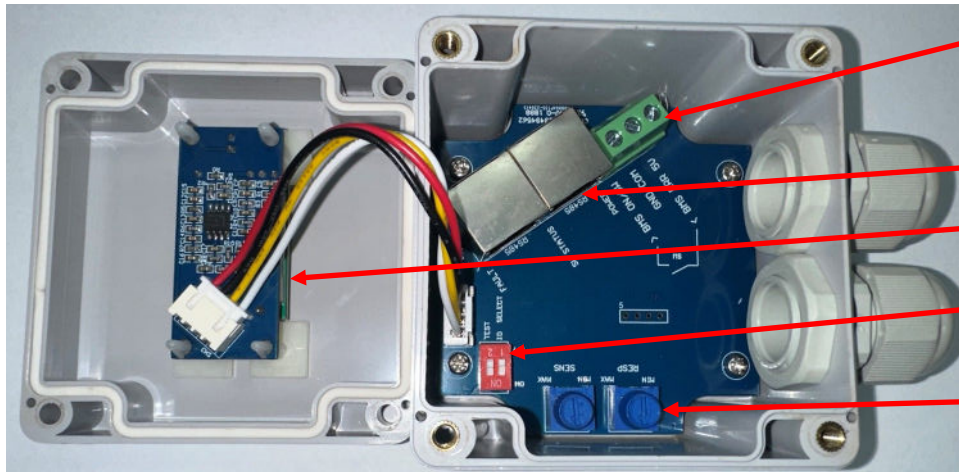


COMMERCIAL HEATER ENVIRONMENTAL SENSOR

CHES INSTALLATION AND OPERATING MANUAL



Volt free external switch & BMS error report

RJ45 Connections

Motion sensor

DIP Switches

Sensitivity and Response settings

Introduction

Environmental sensors offer 4 functions; remote temperature measuring, motion detection, error reporting and an external remote or boost switch connection. All functions are fully programmable and can be associated with any heaters in the system. Up to two environmental sensors can be connected to the heaters when used together with a CHMC controller. Each system can have a maximum of 8 heaters. Please see page 6 of CHMC instructions for further details.

Installing the CHES

To connect the CHES to the CH heater, simply plug in the RJ45 connector into one of the ports inside the CHES and the other end into the CH heater.

Microwave Occupancy Sensor

There are two knobs within the CHES that allow you to change the Sensitivity and Response settings. When setting this it is advisable to use the walk test feature. This is enabled by switching DIP switch 1 to the On position. The blue LED will now light up when movement is detected. When no movement is detected for 5 seconds, the LED will switch off.

Remote or Boost Switch

The CHES can be connected to any remote switch via the volt free external input. This can be configured as either a boost function or an Off control switch. The boost function simply boosts the temperature for a set duration. If using this feature a push button style switch must be used.

The Off control will deactivate the heating completely. A common use for this would be to enable a key switch to lock off the heating. The connection is volt free and is normally open. This can be seen in the picture above. This switch can be tested by switching the DIP switch 1 to the On position. An orange light on the RJ45 port will then illuminate when the switch is active and then go off once it is de-activated.

BMS error reporting

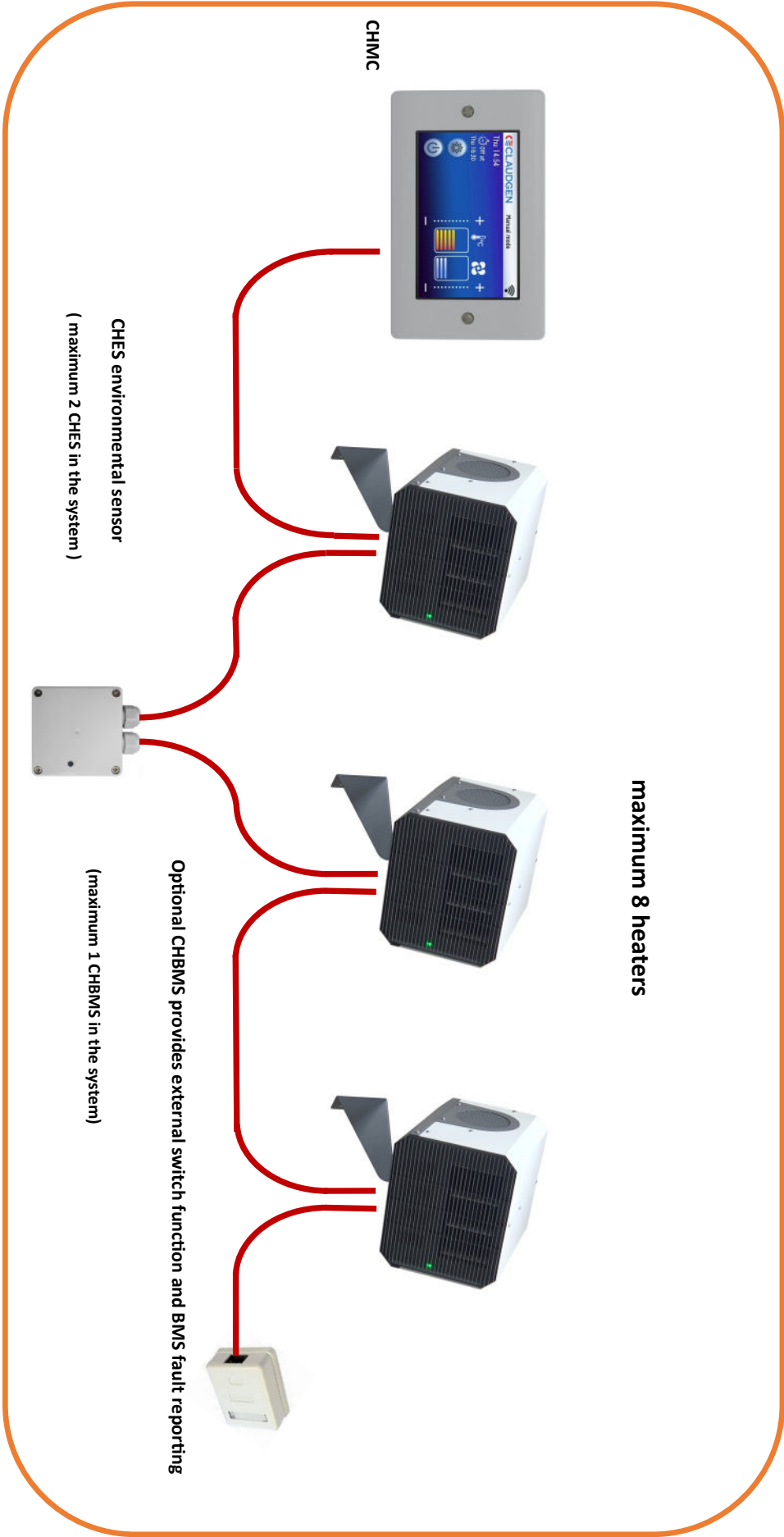
The CHES can provide error reporting to a BMS system. When no error is detected, there will be 5V between GND and BMS ERR 5V ports. When an error in any of the connected heaters is detected, there will be 0V.

MCBMS

If only fault reporting for BMS or remote switching is required a MCBMS can be used.

The MCBMS offers 2 functions; BMS error reporting and an external remote or boost switch connection. When used as a switch, the MCBMS must be used in conjunction with a CHMC controller and CH heaters.

Typical Installation Diagram.



Declaration Of Conformity

In accordance with UK Government Guidance.

WE HEREBY CERTIFY THAT THE APPLIANCES DETAILED HEREON HAVE BEEN INSPECTED AND TESTED, AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING UK STATUTORY INSTRUMENTS WHERE APPLICABLE:

Electrical Equipment (Safety) Regulations 2016 SI. 2016 1101

Electromagnetic Compatibility Regulations 2016 SI. 2016 No. 1091

Radio Equipment Regulations 2017 SI. 2017 No. 1206

The Ecodesign for Energy Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019. SI. 2010 2617

The Restriction of use of Certain Hazardous Substances. SI. 2012 No. 3032

The Waste Electrical and Electronic Equipment Regulations 2013. SI. 2013 No. 2013

Security Requirements for 'Connectable Products' PTSI ACT 2022

Transposed standards used:

- **BS EN 55014 (2006)**
- **BS EN 301 489.1 & .3**
- **BS EN 300 220.1 & .2**
- **BS EN 60 730.2.9**
- **BS EN 60335.1 (2012)**
- **BS EN 60335.2.30 (2009)**
- **ETSI BS EN 303 645**

PART NUMBER OF APPLIANCE

NAME OF RESPONSIBLE PERSON:

POSITION:

DATE:

CHES

DAVID O'SULLIVAN

OPERATIONS MANAGER

24/06/24



FM 12671

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