



## Optional Extras

### KEY FEATURES

- Soft-Start – up to 30% extended lamp life.
- Variable Control – allows the user to find the perfect comfort level.
- Simple Installation – able to be connected directly with a 13A plug, up to a 3kW load.
- Energy Saving – automated system, only heating when required.
- Temperature Monitoring – if the ambient is above the preset temperature then the controller remains switched off.



# TECHNICAL SPECIFICATION

## **Main Unit**

Mains Voltage	230Vac +/- 10% 50 Hz
Max Load at 20°C Ambient	6 kW
Power Consumption	50mA
PIR Set Time Period	5 Minutes
Temperature Set point	5°C to 25°C
Factory Set Temperature Trip Point	20°C
Gland Diameter	Max. cable entry - 2.5mm <sup>2</sup>
2 Lamp Installation	Must be fitted in parallel
Ambient Operating Temperature Range	-20°C to 30°C
IP Rating	IP65
Unit's Max. Operating Temperature	65°C
Dimensions	W=280mm D=200mm H=80mm 'D' inclusive of Glands

## **PIR Movement Sensor** (optional)

Operating Voltage	12V DC
Direction	90° Adjustable
Detect	18 Metres

## **Outdoor Temperature Sensor** (optional)

Dimensions	W=115mm D=110mm H=55mm
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## **APPLICATION & FEATURES**

The INFRESCO controller has been designed to offer a complete control solution to your outdoor heating area with people comfort and energy saving being the focal points. It has been designed specifically to work with infrared heaters (e.g. garden heating and lighting), or any application where high in-rush current is an issue (e.g. using its soft start feature) with a maximum rating of up to 6kW.

The controller has ten variable incremental settings, allowing you to find the optimum comfort level in your specific area. With the optional energy saving features, once the controller is switched on and set, it will automatically manage the heating system. The optional temperature sensor monitors the ambient temperature only allowing the heaters to switch on once the temperature has dropped below the set point. An optional Passive InfraRed sensor (PIR) will detect the movement required for the heater to switch on but only when needed saving energy. With the addition of a 'soft-start' function which gradually switches the heater load on, which can add up to an additional 30% life to your heater lamp and making installation easier.

An optional remote control handset (for VR models) allows remote variable power adjustment and switch off.

## **INSTALLATION**

### **INFRESCO UNIT (guidelines)**

The unit is designed to be wall mounted with the cable glands facing downwards. Fixing centres are provided to pre-drill mounting holes to suit. No additional holes should be drilled into the enclosure. It may be necessary to use 'stand-off' pillars to aid cooling – see SAFETY FIRST section. The PCB must not be removed from the heatsink/enclosure.

*NOTE: Not complying with any of these rules may invalid warranty*

### **Push button operation (see also INSTALLATION CIRCUIT section – Front panel)**

To adjust the power output levels from power up:-

- Sustained pressure on the 'UP' arrow will result in the power output stepping through the power levels from '0 to 9' then 'F' (fully on).
- Sustained pressure on the 'DOWN' arrow will result in the power output stepping through the power levels from 'F' to '0' (zero).
- A momentary press of the 'UP' arrow will result in the output going immediately to 'F' (fully on)
- A momentary press of the 'DOWN' arrow will result in the output going immediately to '0' (zero)

### **Display Features**

- Display shows 't': The controller is turned off as the ambient temperature is above the trip level set by TEMP. SET.
- Display shows 'F': The controller is set to full output.
- Display 'decimal point' pulses: The PIR input is waiting to be enabled i.e. no movement.
- Display decimal point fully on: The unit is in standby mode. Pressing the remote control power button will toggle the power on and off. You can check to see if the remote control is transmitting by observing the decimal point flashing rapidly.

### **PIR SENSOR USE (Guidelines)**

#### **Commissioning (Only applicable if you are using a Temperature sensor or PIR when installing controller)**

**NOTE 1: The PIR takes 60 seconds to activate before detection can occur.**

**NOTE 2: The PIR continues to monitor the area and will reset to the set time every time it detects movement.**

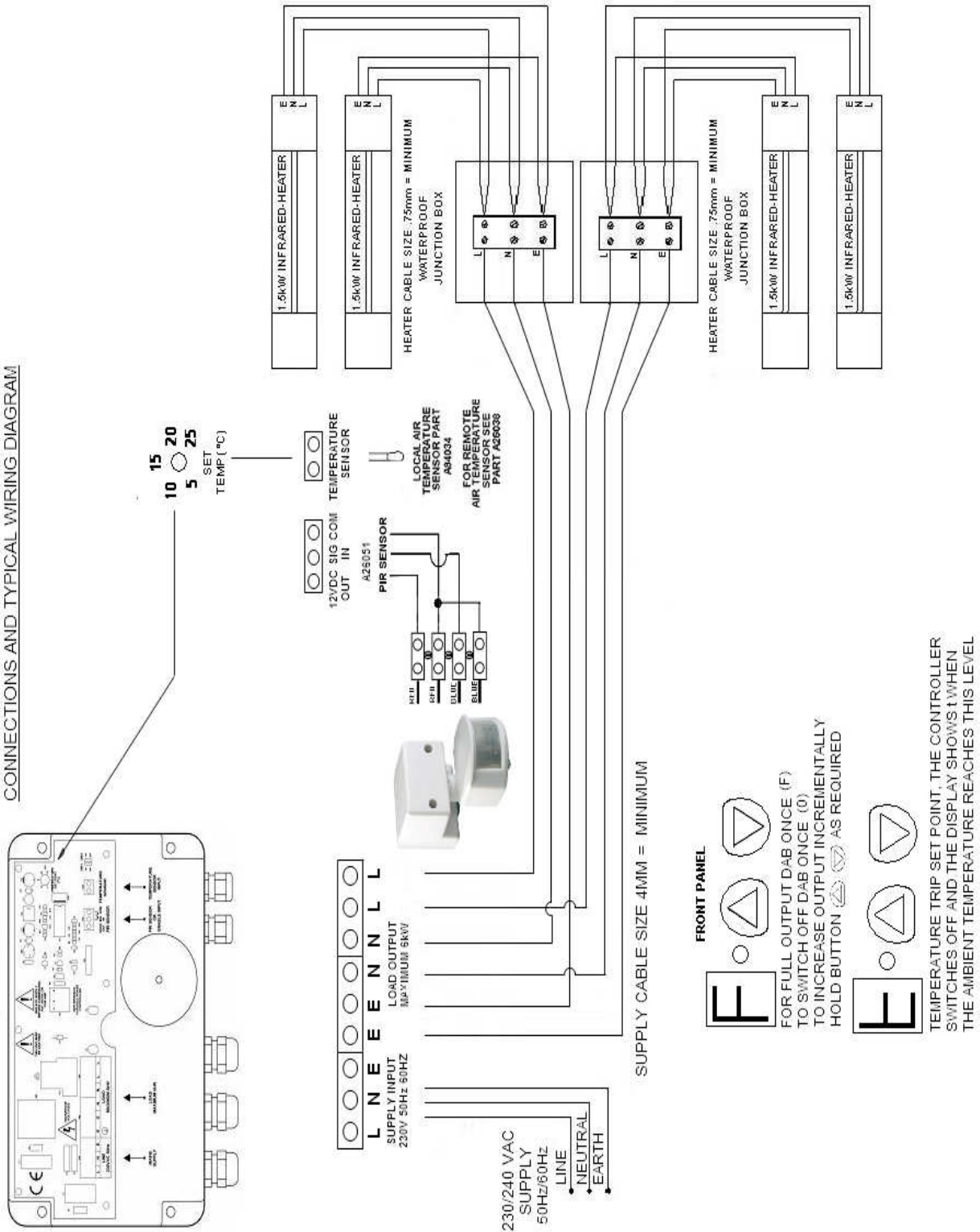
Before testing ensure the wiring is correct, the temperature trip point SET TEMP cermet is set to 20°C (default factory setting). The PIR time-on is fixed to 5 minutes (nonadjustable).

The expected detection area can now be tested by walking, crossing in various directions to ensure coverage is as expected.

- A. On initial switch 'ON' if the enable link (SIG IN / COM) is missing the unit will operate normally for a period of 30 seconds before the output switches 'OFF'.
- B. If the unit is operating and the enable link (SIG IN /COM) is removed the unit will continue to operate for 5 minutes before the output switches 'OFF'. If the link is not replaced then on re-applying the power then the controller will operate as in 'A' above.

# INSTALLATION CIRCUIT

CONNECTIONS AND TYPICAL WIRING DIAGRAM



# RECOMMENDATION & SAFETY REQUIREMENTS

## SUPPORTING DATASHEETS FOR PRODUCTS AND APPLICATIONS

Other documents, which may be appropriate for your applications, are available on request.

<u>CODE</u>	<u>IDENTITY</u>	<u>DESCRIPTION</u>
X10726	ILS	Local Temperature Sensor
X10727	IRS	Outdoor Temperature Sensor
X10728	PIR	12V PIR
X10729	VR-H	Remote Handset
X10213	ITA	Interaction: Uses for phase angle and for burst fire control.
X10255	SRA	Safety requirements: Addressing the Low Voltage Directive (LVD) including, Thermal data/cooling, Live parts warning Earth requirements and Fusing recommendations.
X10378	ILR	Inductive loads remedy sheet for use with Phase angle controllers.
P01.1	COS	UAL Conditions of sale.

### **NOTE:**

It is recommended that installation and maintenance of this equipment should be carried out by suitably qualified personnel, with reference to the current edition of the I.E.E. Wiring Regulations BS7671. The regulations contain important requirements regarding the safety of electrical equipment.



#### **WARNING**

It is important that the Infresco controller is not mounted directly to any flammable material i.e. wood.

It is recommended that the heatsink be spaced off the mounting wall using pillars to aid in heat dissipation



**Not for general**

**ROHS**  
COMPLIANT

## PRODUCT APPLICATION

Any application where high in-rush current is an issue or control is required. Typical uses are infrared heating lamps e.g. garden lighting.



Typical use for Infresco S 6kW

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