# **Inscreed Cable System**

## Overview

The Warmup Inscreed Cable System is designed for use within a screeded floor construction. The variable spacing of the cable available during design and installation allows the system power to be tailored to the properties requirements.

The Inscreed Cable system is extremely versatile. Its spacing can be varied to tailor the heat input into a floor to match its required heat load. This makes it ideal for screeds as thin as 50mm laid over insulation when a responsive system is required, as well as thicker, bonded screeds where the floor construction is to be used as a storage heater. For retrofit installations where the subfloor is already in place, it is recommended that one of the other Warmup Electric UFH Systems is selected based on requirements. They can all be installed directly between an insulation layer and the floor finish layer to create a system with a very quick response to heating demands.

### FLOOR CONSTRUCTION

- 1 Floor finish
- 2 Tile adhesive or levelling compound
- $3 \ge 30$ mm Bonded Screed
- 4 Warmup Inscreed Cable
- 5 Warmup Inscreed Rails
- 6 Screed/Concrete Slab
- 7 Moisture Control Layer
- 8 Rigid Insulation

9 DPM

10 Subfloor







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# **Technical Data**

TECHNICAL DATA - Inscreed Cable		
OPERATING VOLTAGE	220 - 240v: 50Hz	
IP RATING	IPX7	
CABLE THICKNESS	6mm	
AVERAGE OUTPUT RATING	100 to 210W/m <sup>2</sup>	
INNER INSULATION	ETFE	
OUTER INSULATION	PVC	
MIN. INSTALLATION TEMP	5°C	
CONNECTION	3m LONG "COLDTAIL" CONNECTION	



### **Features**

- Once installed within a screed, this system is suitable for any underfloor heating compatible floor finish, which can be easily lifted and replaced as desired without any risk of damaging the heating system.
- The slower heat up and cool down time of the Inscreed Cable System makes it particularly suited to the creation of a storage heating system.
- Can be installed directly on top of the Warmup Cement Coated Insulation boards covered with minimum 50mm screed
- VDE Approved and CE marked meeting the highest safety standards for ultimate piece of mind CE



10 Year Warranty & SafetyNet Installation Guarantee SAFET



# Technical Data

					Inscreed Heate	er (WIS)		
PRODUCT	SPACING 200mm 100W/m <sup>2</sup>	SPACING 133mm 150W/m <sup>2</sup>	SPACING 100mm 200W/m <sup>2</sup>	HEATER LENGTH	POWER (W)	LOAD (A)	RESISTANCE (Ω)	RESISTANCE BANDS (Ω)
CODE	н	EATED AREA (n	n²)					(11)
WIS180	1.8	1.2	0.9	9.0	180	0.78	293.9	279.2 - 308.6
WIS280	2.8	1.9	1.4	14.0	280	1.22	188.9	179.5 - 198.3
WIS390	3.9	2.6	2.0	19.5	390	1.70	135.6	128.8 - 142.4
WIS500	5.0	3.3	2.5	25.0	500	2.17	105.8	100.5 - 111.1
WIS650	6.5	4.3	3.3	32.5	650	2.83	81.4	77.3 - 85.5
WIS760	7.6	5.1	3.8	38.0	760	3.30	69.6	66.1 - 73.1
WIS1000	10.0	6.7	5.0	50.0	1000	4.35	52.9	50.3 - 55.6
WIS1200	12.0	8.0	6.0	60.0	1200	5.22	44.1	41.9 - 46.3
WIS1460	14.6	9.7	7.3	73.0	1460	6.35	36.2	34.4 - 38.0
WIS1550	15.5	10.3	7.8	77.5	1550	6.74	34.1	32.4 - 35.8
WIS1770	17.7	11.8	8.9	88.5	1770	7.70	29.9	28.4 - 31.4
WIS2070	20.7	13.8	10.4	103.5	2070	9.00	25.6	24.3 - 26.9
WIS2600	26.0	17.3	13.0	130.0	2600	11.30	20.3	19.3 - 21.3
WIS3140	31.4	20.9	15.7	157.0	3140	13.65	16.8	16.0 - 17.6
WIS3370	33.7	22.5	16.9	168.5	3370	14.65	15.7	14.9 - 16.5

**NOTE:** All spacings have been based on square areas for calculation purposes. Therefore actual spacing will vary according to the shape of the area to be heated. All spacings should be measured from the centre of the wire.

# WARMUP COMPONENTS

### **Insulation Boards**

Warmup<sup>®</sup> Insulation Boards are a water resistant, insulated tile backer board made of extruded polystyrene, faced on both sides with a fibreglass mesh embedded into a thin cement polymer mortar.

They have high thermal insulation properties for energy efficiency and an added benefit of sound absorption.

INSBOARD - TECHNICAL SPECIFICATIONS					
MODEL	THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	WEIGHT (kg)	R VALUE (m².K/W)
INSBOARD6MM	6	600	1250	1.95	0.16
INSBOARD(PK1)	10	600	1250	2.22	0.28
INSBOARD20MM	20	600	1250	2.48	0.58
INSBOARD50MM	50	600	1250	3.26	1.50



Warmup Insulation Boards have zero Ozone Depletion Potential (ODP) and a Global Warming Potential (GWP) of less than 5

### **Fixing Rails**

The fixing rails are suitable for the inscreed heater only. They are secured to the insulation board or the concrete subfloor using fixing nails or adhesive and should be evenly spread across the floor at 0.75m intervals.

The fixing rails hold the cable in place at set spacings depending on the wattage/m<sup>2</sup> required.

TECHNICAL DATA	
COMPOSITION	GLAVANIZED STEEL
ZINC COATING	185GSM
THICKNESS	0.4mm
WIDTH	21mm
LENGTH	25m
CLIP SPACING - CABLE TO CABLE	25mm



### Thermostat



**4iE**<sup>®</sup> SMART WIFI THERMOSTAT For Central Heating and Underfloor Heating Systems

Connected to the internet by WiFi, it can be controlled from a smart phone, tablet or computer as well as its own touchscreen interface. It learns how homeowners use their heating and the unique way each zone reacts. It uses this knowledge to suggest ways to save energy, such as what temperature should be set when the area is not in use and when the heating can be turned off earlier with no noticeable impact on comfort.

Personalise your 4iE with uploadable photo backgrounds and changeable, textured overlays.



SmartGeo<sup>TM</sup> Always at the right temperature automatically, and up to 25% lower energy usage. Just like magic.



EasySwitch<sup>TM</sup> Always on the best tariff, automatically. Saving on average £210.



Easy to use Simple and secure set up using WiFi, with 24/7 technical support.

# 4iE<sup>™</sup> Smart WiFi Thermostat

# Overview

The 4iE is designed to look great in contemporary and traditionally styled homes. Connected to the internet by WiFi, it can be controlled from a smartphone, tablet or computer as well as its own touchscreen interface. It learns how homeowners use their heating and the unique way each zone reacts.

It uses this knowledge to suggest ways to save energy, such as what temperature should be set when the area is not in use and when the heating can be turned off earlier with no noticeable impact comfort.

The 4iE offers many features and benefits that make it stand out from other smart thermostats, offering important advantages to the homeowner and trade professional.







## **Features**

- 4iE can be programmed via your smartpone, tablet or computer using the MyWarmup app
- The 4iE can be set to learn your schedule and program the heating itself
- Offers energy saving advice and could save you on average £210 on UK energy bill by finding you better energy deals
- WarmApps such as traffic alerts and transport delays available on the 4iE
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind  $CE^{BEAB}$



3yr Warranty with option to upgrade to Lifetime Warranty

# **Technical Specifications**

4iE - TECHNICAL SPECIFICATIONS		
INPUT VOLTAGE	230V +/- 15% at 50Hz	
MAX LOAD	16A (3680W)	
DIMENSIONS	(H/W/D): 90 x 120 x 18mm (from wall)	
SENSORS	AIR & FLOOR (AMBIENT)	
SENSOR TYPE	NTC10K 3m LONG (CAN BE EXTENDED TO 50m)	
IP RATING	IP33	
INSTALLATION DEPTH	35mm BACK BOX	
DISPLAY SIZE	3.5" FULL COLOUR TOUCHSCREEN	
COMPATIBILITY	IDEAL FOR ELECTRIC & HYDRONIC UNDERFLOOR HEATING UP TO 16A. COMBI & SYSTEM BOILERS WITH SWITCH LIVE (230VAC) INPUT	
Er-P CLASS	IV	



# 3iE<sup>™</sup> Energy-Monitor Thermostat



## Overview

The world's first fully interactive, touch technology, energymonitor thermostat features an easy-to-use interface, eliminating complicated instruction manuals. The display shows recorded energy consumption usage, so

Innovative

First thermostat with a 2.4" full colour screen and integrated touch technology – patents pending.

Beautifully crafted fashion colour fascia with chrome edging are perfectly in tune with the modern home environment.

### Interactive

Clear graphical display makes any adjustment quick and easy.

Choose the display style that suits you best – wide choice of screen themes.

### Intelligent

Proportional Adaptive Function ensures the room does not over-heat, reducing wasted energy whilst also protecting the components inside. The Early Start algorithm learns how long it takes to warm the room and activates the heating so it's up to temperature at the right time.

energy efficiency.

#### Installation

The 3iE<sup>™</sup> Energy-Monitor Thermostat should be installed by a certified electrician only, using Warmup's installation instructions.

### **Energy Efficient**

that users know the exact underfloor heating costs. Up to

10 programmable periods can be set each day to maximise

Unrivalled accurate floor temperature control means no wasted energy - reducing the costs associated with over-heating.

Graphical energy monitor shows exactly how much energy is being used and when.

AEM<sup>™</sup> prompts you to choose the best and most efficient temperature for each room, maximising energy efficiency.

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## **Features**

- Active Energy Management<sup>™</sup> prompts user to save up to 10% on utility bills
- Easy-to-use interface eliminates complicated manuals
- Unrivalled accurate floor temperature control of +/- 0.5°C, significantly reduces energy wastage
- 10 programmable periods per day for efficient energy usage
- Stylish range of colours to suit any decor
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind CE (BEAB)



3yr Warranty with option to upgrade to Lifetime Warranty



## **Technical Specifications**

3iE - TECHNICAL SPECIFICATIONS		
INPUT VOLTAGE	230V +/- 15% at 50Hz	
MAX LOAD	16A (3680W)	
DIMENSIONS	(H/W/D): 90 x 113 x 19mm (from wall)	
SENSORS	AIR & FLOOR (AMBIENT)	
SENSOR TYPE	NTC10K 3m LONG (CAN BE EXTENDED TO 50m)	
IP RATING	IP20/(IP 32 WITH OPTIONAL GASKET)	
INSTALLATION DEPTH	35mm BACK BOX	
DISPLAY SIZE	2.4" FULL COLOUR	
COMPATIBILITY	IDEAL FOR ELECTRIC & HYDRONIC UNDERFLOOR HEATING	
Er-P CLASS	IV	



# Tempo<sup>™</sup> Digital Thermostat



### Overview

The Tempo thermostat enables end users to choose the time as easily as they would with a watch or clock and quickly set their programs – heat on when they want it and off when they do not need it.

#### Better

Easy-to-use interface and intuitive design.

With Tempo, end users can simply program their settings to suit individual requirements, warmer when they are at home, lower when they are away or asleep.

#### Faster

Set-up takes just minutes to get right the first time. It will help avoid wasting energy and achieve savings on utility bills.

Suitable with all Warmup underfloor heating systems, the tempo thermostat allows you to control the temperature of your underfloor heating to give you comfort, warmth and luxury to match your specific needs.

#### Smarter

Its Proportional Adaptive Function ensures the room does not over-heat, reducing wasted energy whilst also protecting the components inside.

The Early Start algorithm learns how long it takes to warm the room and activates the heating so it's up to temperature at the right time.

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## Features

- Stylish and contemporary design
- Clear screen displaying program details
- Proportional Adaptive Learning
- Easy control with dial and sliders
- Available in Porcelain White and Piano Black
- BEAB Approved and CE marked meeting the highest safety standards for ultimate piece of mind CE (BEAB



3yr Warranty with option to upgrade to Lifetime Warranty 



# **Technical Specifications**

TEMPO - TECHNICAL SPECIFICATIONS		
INPUT VOLTAGE	230V +/- 15% at 50Hz	
MAX LOAD	16A (3680W)	
DIMENSIONS	(H/W/D): 90 x 113 x 23mm (from wall)	
BATTERY BACKUP	3 MONTHS (CR2032 BATTERY PROVIDED)	
SENSORS	AIR & FLOOR	
SENSOR TYPE	NTC10K 3m LONG (CAN BE EXTENDED TO 50m)	
IP RATING	IP20	
INSTALLATION DEPTH	35mm BACK BOX	
DISPLAY SIZE	45 X 50mm	
COMPATIBILITY	IDEAL FOR ELECTRIC & HYDRONIC UNDERFLOOR HEATING	
Er-P CLASS	IV	

