



## trio + heating

The first smart thermostat that's smart about energy and the first in-home display that's smart about heating



### Product overview

Trio + Heating is a cost-effective solution which combines geo's market-leading SMETS-compliant in-home display with unique, energy-aware smart heating control functionality.

With an easy-to-use app for iOS and Android, voice control via Amazon Alexa and Google Assistant, and a simple user interface on the display device, it provides the consumer with unparalleled understanding of their whole home energy consumption as well as control over their heating and hot water, which account for most of a typical UK household's energy consumption and spend.

In addition to the features provided by other market-leading smart thermostats, including multi-zone heating control, weather compensation, schedules and efficiency modes which deliver typical energy savings of up to 12.5%, the product's awareness of energy consumption and cost information from the smart meter enables it to provide personalised insights and customer energy saving advice that other smart thermostats simply cannot deliver.

Trio + Heating can be installed by a competent smart meter installer during a smart meter installation visit, significantly reducing the cost of providing a smart heating solution to the consumer (compared to the typical retrofit approach requiring a separate installation visit). This radically changes the return on investment equation for energy retailers interested in providing smart heating as a value-added service as a way to attract or retain customers.

### Technical specification

- SMETS1 & SMETS2 compliant in-home display (IHD)
- Pre-pay and credit modes for electricity and gas
- 3.5" capacitive colour touch screen, 320 by 480 pixels
- Wi-Fi connectivity (2.4 GHz)
- ZigBee SEP connectivity to smart meters (2.4 GHz)
- Legato 868 MHz connectivity to smart thermostat devices (temperature sensor, boiler control switch, electric heating control switch)
- Firmware "over-the-air" (OTA) upgradeable
- Compliant with SMETS 2 enhanced pre-payment (PPMID)

### System components

- Trio Touchscreen In Home Display
- Boiler control switch (heating and/or hot water)
- Underfloor heating controller (electric underfloor heating systems)
- Room temperature sensor
- App (for iOS and Android)
- Voice control (Amazon Alexa and Google Assistant)



## Key features and benefits

### For consumers:

#### Making energy visible

At the core of the Trio + Heating product is geo's popular Trio in-home display, which makes energy data from electricity and gas smart meters visible and understandable.

#### Heating control via device, app and voice

The Trio + Heating product enables users to control their heating and hot water the way they want - via the simple user interface on the display, the easy-to-use app or via voice.

#### Smart heating = lower bills

geo's proven smart heating technology, including weather compensation, approach timing and away mode have been proven to reduce energy consumption relating to heating and hot water by up to 12.5%.

#### The first smart thermostat that's smart about energy

Trio + Heating is the first product that combines smart heating control with data from UK smart meters. Unlike other smart thermostats, which can only tell the user how long their heating has been on (which is misleading, given that modern modulating boilers are at their most efficient when they are on for long periods at a low setting, not when they are on for short bursts at a high setting!), Trio + Heating enables users to see how much their heating and hot water actually costs, in pounds and pence.

### For energy retailers:

#### A safe choice

At the core of the Trio + Heating product is geo's popular Trio in-home display, which has already been deployed in volume in the UK market. It is uniquely compatible with all major SMETS1 and SMETS2 ecosystems, both in credit and pre-pay mode. The smart heating components are from geo's Cosy product, which launched in 2014 and has been deployed successfully in volume in the UK and European market since.

#### Increased engagement and retention

Trio + Heating helps consumers understand and manage the cost of their heating and hot water, which together account for most of their energy spend. Consumers who appreciate this valuable service from their energy retailer are less likely to switch to other suppliers and more likely to be receptive to other value-added services.

#### A sensible add-on to energy supply

The Trio + Heating solution, which is directly connected to the smart meters provided by the energy retailer and has access to tariffs, consumption and cost information, is a logical add-on to the energy supply relationship the energy retailer has with the consumer.

#### A smart way to meet regulatory requirements

Offering Trio + Heating instead of a simple IHD will be an incentive for consumers to sign up for a smart meter installation (and to keep the appointment), improving take-up rates of smart meters and reducing cancelled appointments, which helps the utility meet its obligations and reduces costs.