RAIO®

INTRODUCTION

RAIO®, is the next generation infrared heating panels. With RAIO, you can heat energy efficiently and without fossil fuel.

RAIO infrared heating panel's radically innovative design makes it slarter than convection heating and more energy efficient than traditional infrared panels.

While traditional convection heating only effects the temperature of the air, RAIO can heat objects in the room with its pleasant infrared radiation. Due to the wide emission of radiant heat, the room will be heated homogeneously.

On the infrared heating market, RAIO is the only heating panel that uses a combination with the innovative graphene technology for unprecedented efficient - and therefore highly reliable, environmentally friendly - comfort and exceptionally high efficiency.
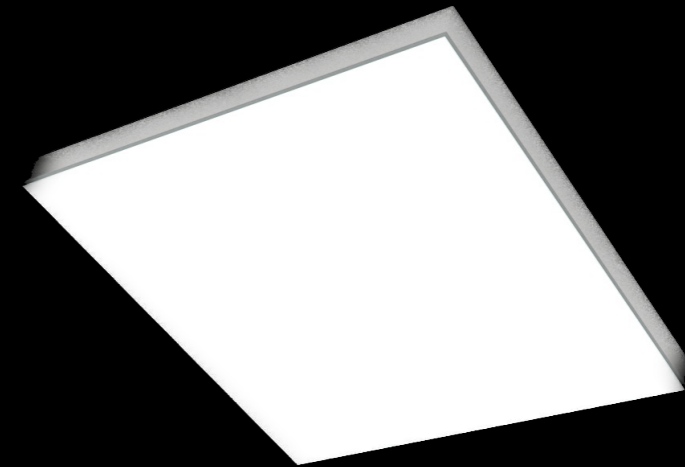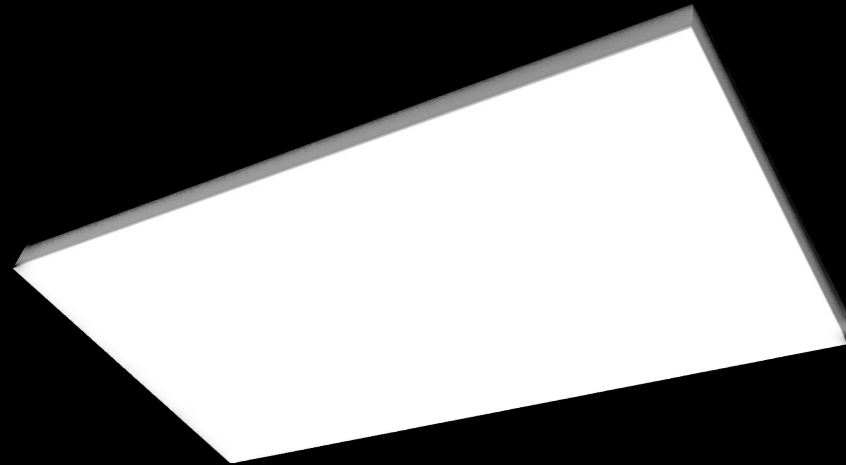
RAIO can be used as a main or auxiliary heater and increases comfort as a practicel bathroom heater. In addition, RAIO saves space when mounted on the ceiling. Simply attach RAIO to a ceiling of wall to comfortably heat the entire room.

RAIO heats your room faster and more evenly, while significantly reducing your energy consumption.
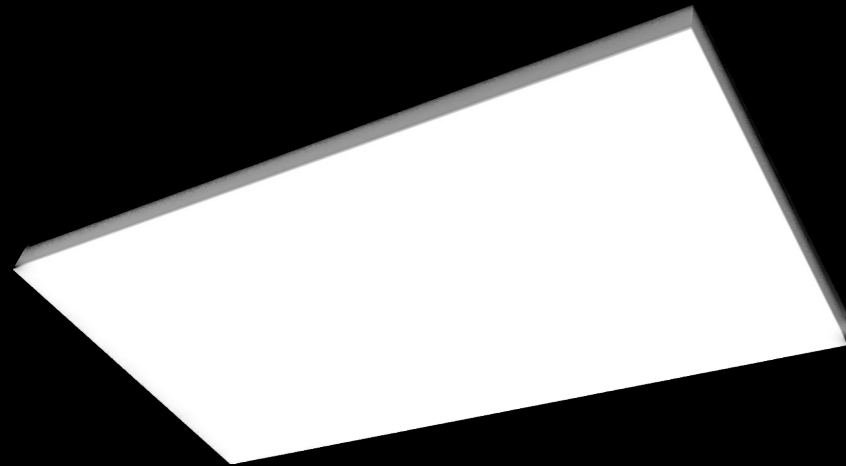
RAIO®
HEATING PANELS

RAIO 1

RAIO 1 ◦ SURFACE MOUNTED

WEIGHT AND DIMENSIONS
13,3 KG ◦ 119,3 X 59,3 X 5,06 CM (L X W X H)

COLOUR
White

MATERIALS
Housing RAIO: aluminum
Mounting frame: powdercoated aluminum
Glass: safetyglass 0,38 cm

MOUNTABLE
against ceiling (maximum 3,5m high)
or on the wall (minimum 1,2m high in public places)

HEATING AREA
18 m^2 to 20 m^2
(depending on the transmission calculation)

ELECTRICAL SPECIFICATIONS
900 Watts ◦ 4 Amps ◦ 230 Volts

SAFETY
RAIO is in compliance with the relevant Union harmonization legislation Low Voltage Directive 2014/35/EU; EMC directive 2014/30/EU; RoHS directive 2011/65/EU. Whereby the following relevant harmonized standards or technical specifications have been apllied:
◦ EN 60335-1:2012+A13:2017+AC:2014
◦ EN 60335-2-30:2009+A11:2012+AC2010+AC2014
◦ EN 55014-1:2006+A2:2011
◦ EN 55014-:1997+A2:2008; EN 50581:2012

CLASSIFICATION IP54
◦ EN 60529: 1991 + A1:2000 + A2:2013
◦ IEC 60529:1989 + A1:1999 + A2:2013

RAIO 1 BI

RAIO 1 BI ◦ BUILD-IN

APPLICATION IN PLASTERBOARD CEILING

WEIGHT AND DIMENSIONS
13,3 kg ◦ 120,6 X 60,6 X 5,06 cm (L X W X H)

COLOUR
White

MATERIALS
Housing RAIO: aluminum
Mounting frame: powdercoated aluminum
Glass: safetyglass 0,38 cm

MOUNTABLE
against ceiling (maximum 3,5m high)
◦ Equipped with stopper for finishing
◦ Front side similar to finish

HEATING AREA
18 m² to 20 m²
(depending on the transmission calculation)

ELECTRICAL SPECIFICATIONS
900 Watts ◦ 4 Amps ◦ 230 Volts

SAFETY
RAIO is in compliance with the relevant Union harmonization legislation Low Voltage Directive 2014/35/EU; EMC directive 2014/30/EU; RoHS directive 2011/65/EU. Whereby the following relevant harmonized standards or technical specifications have been apllied:
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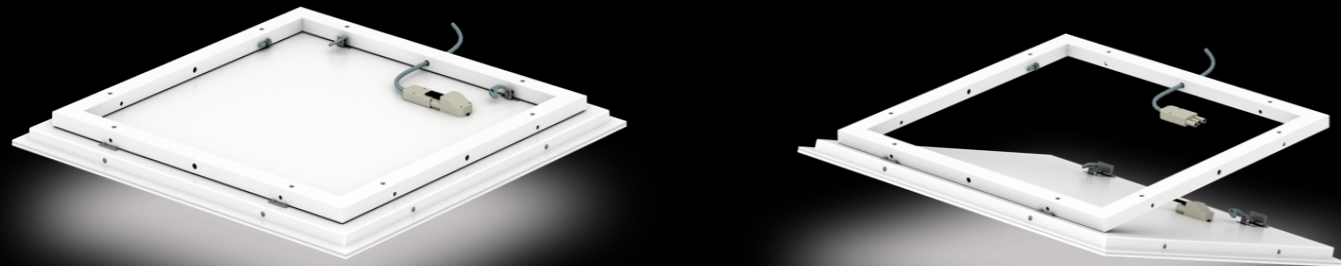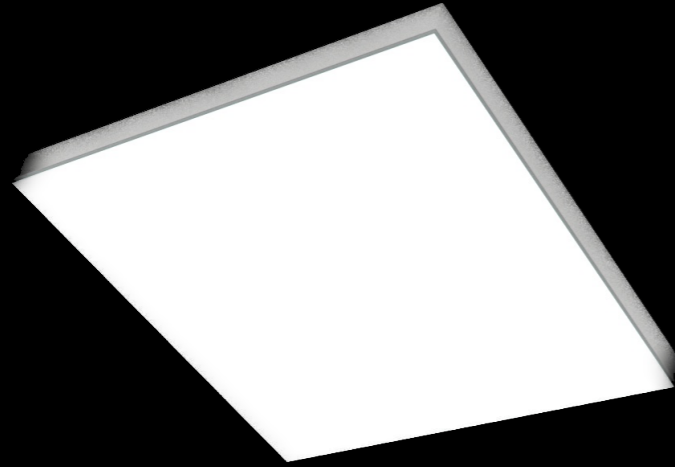◦ IEC 60529:1989 + A1:1999 + A2:2013

RAIO 1 BIS ◦ BUILD-IN STRECHCEILING
APPLICATION IN STRECH CEILINGS

ADDITIONAL MOUNTING AID FOR STRECH CEILING APPLICATION IS AVAILABLE SEPARETLY

RAIO 2

RAIO 1 ∘ SURFACE MOUNTED

WEIGHT AND DIMENSIONS
6,5 kg ∘ 59,3 X 59,3 X 5,06 cm (L X W X H)

COLOUR
White

MATERIALS
Housing RAIO: aluminum
Mounting frame: powdercoated aluminum
Glass: safetyglass 0,38 cm

MOUNTABLE
against ceiling (maximum 3,5m high)
or on the wall (minimum 1,2m high in public places)

HEATING AREA
8 m² to 10 m²
(depending on the transmission calculation)

ELECTRICAL SPECIFICATIONS
450 Watts ∘ 1,95 Amps ∘ 230 Volts

SAFETY
RAIO is in compliance with the relevant Union harmonization legislation Low Voltage Directive 2014/35/EU; EMC Directive 2014/30/EU; RoHS Directive 2011/65/EU. Whereby the following relevant harmonized standards or technical specifications have been applied:
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∘ EN 60335-2-30:2009+A11:2012+AC2010+AC2014
∘ EN 55014-1:2006+A2:2011
∘ EN 55014-:1997+A2:2008; EN 50581:2012

CLASSIFICATION IP54
∘ EN 60529: 1991 + A1:2000 + A2:2013
∘ IEC 60529:1989 + A1:1999 + A2:2013

RAIO 2 BI

RAIO 2 BI ◦ BUILD-IN

APPLICATION IN PLASTERBOARD CEILING

WEIGHT AND DIMENSIONS
6,5 kg◦ 60,6 cmX 60,6 cm (outer dimension)
◦installation depth 5,06 cm

COLOUR
White

MATERIALS
Housing RAIO: aluminum
Mounting frame: powdercoated aluminum
Glass: safetyglass 0,38 cm

MOUNTABLE
against ceiling (maximum 3,5m high)
◦Equipped with stopper for finishing
◦Front side similar to finish

HEATING AREA
8 m² to 10 m²
(depending on the transmission calculation)

ELECTRICAL SPECIFICATIONS
450 Watts ◦ 1,95 Amps ◦ 230 Volts

SAFETY
RAIO is in compliance with the relevant
Union harmonization legislation Low Voltage
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CLASSIFICATION IP54
◦ EN 60529: 1991 + A1:2000 + A2:2013
◦ IEC 60529:1989 + A1:1999 + A2:2013

RAIO 2 BIS ◦ BUILD-IN STRECH-CEILING
APPLICATION IN STRECH CEILINGS

ADDITIONAL MOUNTING AID FOR STRECH CEI-
LING APPLICATION IS AVAILABLE SEPARETLY

RAIO®
OPERATION

T1 SET

T1 THERMOSTAT

∘ Easy to install thermostat with no power connection the thermostat runs on 2x AA batteries.
∘ 868 Mhz wireless installation, excellent range (30 m range).
∘ Measurements 9,5 cm x 1,18 cm x 2,6 cm (L x W x H).
∘ **Range** 5 °C - 32,5 °C.
∘ 5 year manufacturer's warranty.
∘ Thermostat can communicate with multiple relays.

The T1 is a programmable wireless room thermostat with an extra-large display. This thermostat includes additional features that ensure your RAIO heating system guarantees optimal control.

THERMOSTAT FEATURES

∘ Simple, quick and unambiguous operation and setting for all users through the large LCD screen.
∘ TPI (Time Proportional & Integral) "self-learning functionality. More precise control of the heating and therefore increased comfort and improved energy efficiency.
∘ ErP label V an improved ErP score means better efficiency of the entire system and reduction in overall costs.
∘ PIN for homeowner, option to use a PIN to ensure that only the owner of the house or building has access to certain settings and menus.

T1 RELAY

The thermostat comes with a receiver, the relay. The T1 relay has a switching capacity of 16 amps. The relay can be installed on the back of RAIO heating panels within the mounting frame.

RELAY FEATURES
∘ Maximum 16 amp switching capacity.
∘ **Easy assembly.**
∘ 5 year manufacturer's warranty.

T3 SET

SMART HOME

T3 SMART HOME

The basic Smart Home package is expandable with multiple functions and accessories. The ideal total solution for entire buildings and larger installations.

T3 SMART THERMOSTAT

The T3 Smart wireless thermostat is an exceptionally slim thermostat that is easy to install. Its lithium battery makes the thermostat rechargeable, eliminating the need to change batteries.

Additional possible functions.
The S1 and S2 option makes it possible to add more functions to the T3 Smart thermostat.
- External temperature sensor
  By connecting an external temperature sensor.
- External soil sensor
  This feature makes it possible to control a soil temperature without increasing the ambient temperature.
- External motion detector
  In combination with a motion sensor, the thermostat can go into idle mode as long as the room is not entered.
- CO contact
  With this function you can easily switch between heating and cooling.

THERMOSTAT FEATURES
- Vacation mode
- Smart Home with (One Touch) rules to be added
- Valve Protection
- Minimum and maximum temperature setting
- PIN Protection function
- 5 year manufacturer's warranty.

T3 SMART RELAY
The T3 Smart Relay can be placed directly in a flush-mounted box or attached using a holder, this relay can also be attached directly to RAIO heating panels. By installing the Smart Relay, electrical devices can be controlled through the Smart Home app. The Smart Relay must be used in conjunction with the T3 Gateway.

FEATURES
- Maximum 16 amp switching capacity.
- Smart Home solution for electrical appliances
- Control via Smart Home application
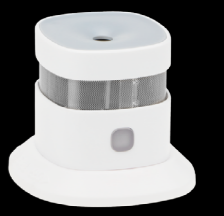- 5 year manufacturer's warranty.

T3 UNIVERSAL GATEWAY
The T3 Gateway allows you to control your Smart Home system via a tablet or smartphone. The device is connected to the Internet via a router and communicates via the Zigbee network.

RAIO®
T3 ACCESSIORIES

T3 SMART HOME

T3 ACCESSOIRIES

T3 TEMPERATURE SENSOR

The T3 temperature sensor for the Smart Home system makes it possible to control the temperature in a room without a thermostat. This radio temperature sensor is slim and discreetly present through unobtrusive design and still allows for optimal heating comfort. Can be used in conjunction with a terminal strip or with the T3 thermostatic heating knob.

T3 MOTION DETECTOR

The T3 motion detector remotely detects motion and is linked to the gateway. Through the application, we can remotely track motion in the room and receive SMS/email notifications. Thanks to One-Touch rules and devices such as the T3 smartplug or T3 smart relay, the motion sensor can turn any electrical device ON / OFF, e.g. turn on lights after detecting motion on stairs. This sensor requires the T3 gateway and the Smart Home application.

T3 SMOKE ALARM

The T3 smoke detector is a wireless intelligent photoelectric smoke detector for radio Zigbee networks, paired with the T3 gateway. As soon as smoke is detected, a red LED light will flash and give an alarm signal. It is also possible to receive a message via email or text message if the smoke detector is logged into the Smart Home system.

T3 SMARTPLUG

The T3 smartplug must be plugged into a grounded outlet. After this, you can control electrical appliances via the app linked to the gateway.

T3 WIRELESS THERMOSTAT RADIATOR KNOB M28

The wireless thermostat radiator knob works through the Zigbee network coupled with the T3 gateway. The T3 thermostat button for radiators can be used by pairing it with the gateway via the app and can be controlled in the app via tablet or smartphone. The T3 M28 radiator knob is easy to install on a standard radiator connection M28x1.5. It is possible to connect up to 6 T3 radiator knobs to one thermostat i.c.m. a Smart Home T3 Gateway. The T3 radiator knob M28 is used in combination with the T3 gateway and T3 room thermostat.

T3 WIRELESS THERMOSTAT RADIATOR KNOB M30

The wireless thermostat radiator knob works through the Zigbee network coupled with the T3 gateway. The T3 thermostat button for radiators can be used by pairing it with the gateway via the app and can be controlled in the app via tablet or smartphone. The T3 M30 radiator knob is easy to install on a standard radiator connection M30x1.5. It is possible to connect up to 6 T3 radiator knobs to one thermostat i.c.m. a Smart Home T3 Gateway. The T3 radiator knob M30 is used in combination with the T3 gateway and T3 room thermostat.

T3 ACCESSOIRIES

T3 DIMMER RELAY
Wireless T3 dimmer relay can be used to control different light sources via the app linked to the gateway. The T3 dimmer relay is a Zigbee controlled dimmer relay that can be used to control various light sources. This product can only function by pairing with the T3 gateway and the Smart Home app.

T3 SHUTTER RELAY
The latest T3 Smart Roller Shutter Relay allows each shutter to be controlled individually or as a group. This Smart relay can also be used as a wireless garage gate control. The shutters or gates can be controlled via the App on Smartphone, Tablet or PC. This allows the shutters to be operated remotely even when no one is at home. This relay can only function by interfacing with the T3 gateway and the Smart Home app.
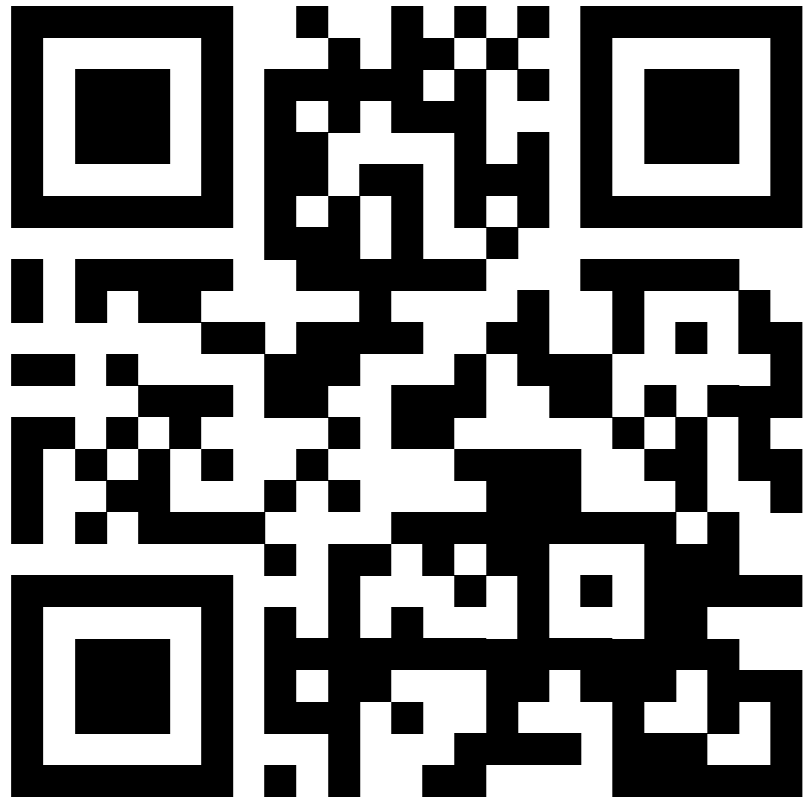
T3 DOOR/WINDOW CONTACT
The T3 door/window contact consists of a permanent magnet and a battery-powered sensor that detects the opening and closing of your windows and doors. This T3 door/window contact should be paired with the T3 Gateway to indicate on the Smart Home APP that a window/window is open or closed.

INSTALLATION HELP

CONTACT

The QR code below leads to raio.be/installation where all information, videos, manuals and technical sheets regarding the installation can be found.

RAIO® BY SPECTRA

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RAIO.BE

RAIO® is a patented product from Spectra, an innovative Belgian company that makes heating radically more efficient - and thus more economical, environmentally friendly and smart.

RAIO.BE