THECO-B PIR

DIGITAL CONTROLLER ECODESIGN COMPLIANT FOR ELECTRIC TOWEL RAIL

Digital panel with white back-light, auto-programmable with self-learning process and dual optimization feature, occupancy detection, opened window detection, gauge and power consumption indication in kWh, integrated wireless module for optional advanced remote control

Overview

Main features

- **Ambient temperature control**
- **Temperature setting**
- **Power On / Standby**
- **Operating modes selection**
- **Quick heating of your bathroom using the instant Boost**
- **Automatic and self-learning programming, customized integrated programming or can be programmed remotely using a 6-order pilot wire**

Application

- **Electric towel rail**

Benefits

- **Sober and simple style:** the controller fits in harmoniously with the towel rail style
- **Excellent ergonomic settings :** tilted interface with large and spaced buttons
- **Large display:** white backlit LCD screen, easy to read
- **"Smart" electronic control:** this means stable and accurate temperature in the bathroom all year round
- **Energy saving pack**
- **Auto-programming :** automatic programming by self-learning of the lifestyle
- **Super comfort feature (automatic Boost):** additional instantaneous heating, the controller enables automatic and swift room temperature increase, after an Eco, Frost protection or Standby period
- **Integrated temperature sensor, which cannot be accessed from the outside:** the product is more resistant during installation
- **Integrated 2,4GHz RF:** optional remote control can be used for using, setting and programming the controller
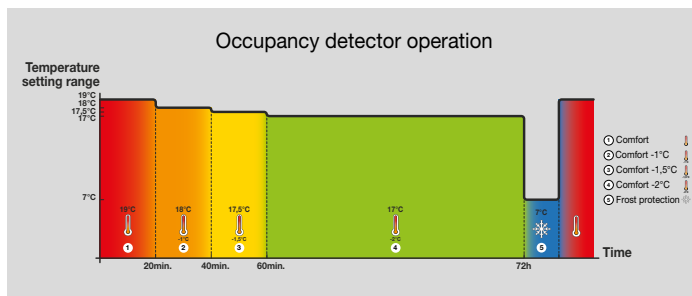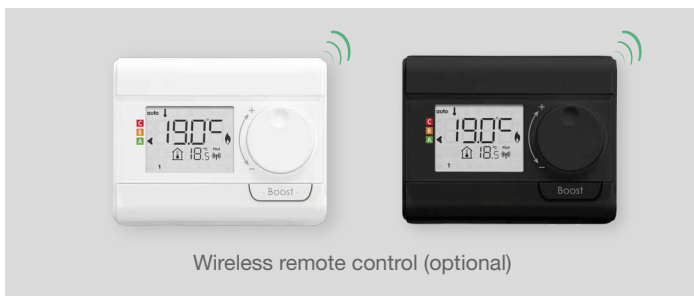
ECOdesign 2018 compliant

Functional specifications

Use

Use	
Power On / standby	A dedicated button allows the appliance to be on standby
Temperature setting	**Preset at 19°C**, adjustable from +7°C to+30°C
Operating modes	Auto (Programming), Comfort, Eco (Economy), Frost protection, Standby mode
Boost	Adjustable between 10 and 60 minutes in 10 minute intervals rises the heat of the bathroom and enables quick drying of clothes or wet towels.
Energy consumption gauge	Automatic indication of the level of energy consumption according to the setting temperature
Power consumption indication in kWh	Posting of the estimated amount of energy consumed in kWh since the last 24 hours or since the last reset to 0 of the energy meter
Opened window detection	Automatic switching to Frost protection mode when a significant drop in temperature is detected
Occupancy detection (optional)	During an unoccupied period, the setting temperature is automatically and progressively decreased
Auto-programming	As soon as the device is switched on and without any initial adjustment, the device is in learning mode to understand and memorize the user's lifestyle. The integrated smart algorithm is going to analyze this information in real time in order to optimize and adapt the programme for the coming weeks
Programming	- 5 different preset program profiles for each day of the week : P1, P2, P3, non-stop Comfort mode, non-stop Eco (economy) mode - P1, P2, P3 programmes can be customised - Manual and temporary overriding of a programme
Dual optimization feature	Depending on different parameters of the room, the controller calculates and optimizes the programming of Comfort and economy periods (Eco) according to the choice of the user; **Comfort oriented or Eco oriented**
Help for the visually impaired	- **The button power on/standby mode is in relief** to be easily identifiable to the touch - **Audible beeps** indicating the change from the standby mode to active mode

Wireless remote control (optional)

Occupancy detector operation

Safety	- **Child anti-tamper :** keypad locking
	- **Setting safety :**
	  - Min. and Max limits of the adjustment range of the Comfort setting temperature
	  - Customizable PIN code locking (prevents access to the Comfort mode, installer and expert settings)
	- **Backup in case the mains power supply goes off :**
	  - The whole of settings and programming : permanent backup
	  - Current time and date : backup time of 3hrs typical
	- **Overheating protection** of the ambient temperature during the Boost mode
	- **Internal protection against any overheating**
	- **Integrated dewatering system:** in normal use, it reduces the risk of having an accumulation of water inside the housing (enhanced user safety)

3 levels of settings	User, Installer, Expert

Installation

Compatible with the majority of heater elements
Controller assembly directly on the towel rail
Connection to the heating electric cartridge by faston
Sealing: supplied o'ring to be fitted on the heating cartridge

User settings

Backlighting	3 settings: - **Temporary backlighting 1 (default setting):** backlight of the screen when a button is pressed or during occupancy detection - **Temporary backlighting 2:** backlight of the screen when a button is pressed - **Non-stop backlighting:** backlight of the screen all the time
Eco mode temperature lowering level	**Preset at -3,5°C,** adjustable from -1°C to -8°C
Frost protection temperature	**Preset at +7°C,** adjustable from +5°C to +15°C
Min. setpoint temperature	**Preset at +7°C,** adjustable from +7°C to +15°C
Max. setpoint temperature	**Preset at +30°C,** adjustable from +19°C to +30°C
Maximum duration of authorised Boost	**60 minutes**
Max. ambient temperature for the automatic stop of the Boost	**Preset at +39°C,** adjustable from +25°C to +39°C
Reset: return to the factory user settings	

Installer settings

Automatic window-opening detection	**Enabled by default,** can be disabled
Occupancy detection	**Enabled by default,** can be disabled
Dual optimization feature	**Comfort oriented by default,** Eco oriented or can be disabled
PIN code locking	**Disabled by default,** can be enabled - Lock all controls except Boost
Reset: return to the factory user and installer settings	

Expert settings

Temperature adjustment	Ambient temperature sensor adjustment
Power	Choice of the towel rail power when it is equiped with an electric cartridge
Reset: return to the factory user, installer and expert settings	

Technical specifications

Dimensional and finish specifications

Height	78 mm	
Width	162 mm	
Depth	34 mm	
Colors	White	Metallic grey
Net weight	0,3 Kg	

Infrared remote control (optional)

Digital panel
with back-lit display

Power supply

Operating voltage	230V +/-10% 50Hz
Maximum power	1500W, resistive load
Power cord	800 mm, 3 conductors

Control

Control type	Electronic PID (Proportional Integral Derivative) control, triggered by a relay + triac

Environment

Protection rating	IP44 after installation under the responsability of the integrator
Class	Class II, after installation under the responsability of the integrator
Operating temperature	0°C to +50°C
Temperature setting range	+7°C to +30°C
Storage temperature	-20°C to +70°C
NTC electronic temperature sensor	

Applicable directives

RED	2014/53/EU
RoHS	RoHS 2011/65/EU, amended by Directives 2015/863/EU and 2017/2102/EU

Applicable standards

RED	Safety: EN 60335-1; EN 60335-2-30; EN 60335-2-43; EN 62333 EMC: ETSI EN 301489-1; ETSI EN 301489-3 Radio: ETSI EN 300440
RoHS	EN IEC 63000
Manufacturing	On certified site ISO 9001 V2015

Options

Designations	Descriptions
Backlight	White backlight increases readability on the display
Occupancy detection	PIR motion detector allows to adapt programming according occupancy and manages automatic reducing of setpoint by steps until frost protection mode.
IR receiver	Infra-red receiver can be added for control by standard remote control
2,4 GHz RF module	RF module allows to control remotely the controller with advanced wireless remote control
Power cord	Power cord can be adjusted following the installation requests from the market: - Length of power cord - Additional earth wire (G/W) for class 1 request - Europlug - Schukoplug
Backup time	Backup time can be extended from 3 to16 hours on request, optional feature.

Product codes

Codes	Descriptions
BXGTHBI2PA	Digital auto-programmable controller with occupancy detection for electric towel-rail, white, CLII with 6-order pilot wire
BXGTHBI2PGA	Digital auto-programmable controller with occupancy detection for electric towel rail, metallic grey, CLII with 6-order pilot wire
RCBTHRFA	Wireless digital remote control, white, weekly programmable, 6 operating modes
RCBTHRFBA	Wireless digital remote control, black, weekly programmable, 6 operating modes
BXERCIRIMHA	Infrared digital white remote control
BXERCIRIMHGA	Infrared digital metallic grey remote control

Product customization (style, features) possible on request. SKUs may change depending on optional features. Please contact us.