

thermio™ essential - thermio™ essential smart

Item No 04.46.0023.1 / EAN Code 4010940044992



ON BOARD TECHNOLOGY



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Grässlin GmbH is under license. Other trademarks and trade names are those of their respective owners.


PRODUCT DESCRIPTION

The thermio™ essential smart is a digital room thermostat of ErP class IV that can be programmed and operated easily and conveniently with a free app. Thanks to the integrated Bluetooth functionality, temperature profiles and schedules created on a mobile device can be transmitted and adapted easily and simply to the thermio™ essential smart via Bluetooth. This allows individual temperature profiles to be implemented easily, lowered automatically and thereby significantly reduce heating costs – without any loss of convenience. Of course the thermio™ essential smart can also be operated without the app: A large LC display and a manual ON/OFF switch make the room thermostat easy to operate.

- ▶ Long battery life through efficient energy management
- ▶ Needs-based and fast temperature regulation without deviation ensures high energy efficiency
- ▶ Convenient, automatic change from summer to winter time
- ▶ Monitoring the battery status and display with the required battery change
- ▶ The frost protection function prevents the freezing of radiators or icing of piping, even when switched OFF
- ▶ Effective security against unauthorised operation, e.g. in public spaces
- ▶ Optimal tamper protection through PIN code protection for the service interval settings
- ▶ Intuitive and simple operation as well as fast and convenient programming with the free app
- ▶ Cost reduction and efficient energy management through high level of control accuracy
- ▶ Increased comfort through a wide temperature control range of +5°C to +35 °C
- ▶ Child-proof lock as system security for children and elderly
- ▶ Extended scope of functions and excellent user guidance via the graphic user interface on a mobile device
- ▶ Easy configuration of individual temperature profiles using remote access via Bluetooth connection
- ▶ Short-term and need-based heating through Boost function

APPLICATIONS

- ▶ Heating systems
- ▶ Heat pump
- ▶ Circulating pump
- ▶ Electric heating
- ▶ Motorised valves
- ▶ Actuators

TECHNICAL DATA

Electrical Data	
Supply voltage	DC 3 V (2 x 1.5 V AA LR6 alkaline battery)
Battery life	1 year (depending on switching frequency)
Current output	Changeover, potential free
Current capacity - ohmic load	8 A / 250 V AC
Current capacity - inductive load cos.phi 0.6	3 A / 230 V AC
Rated impulse withstand voltage (Uimp)	4 kV
Power consumption	5 VA
Power reserve	Programs saved in EEPROM
Control function	Heating
Control type	PID (factory setting)
	2- Point (ON/OFF)
Hysteresis	±0,4 K (±0,2 K ... ±1 K)
Control range	+5 °C (frost protection)
	+5 °C ... +35 °C
control accuracy	±1 °C
Heating cycle	6 times per hour (3 to 12 times per hour)
Power connection	
Device	Screw terminal with wire protection max. 2.5 mm²

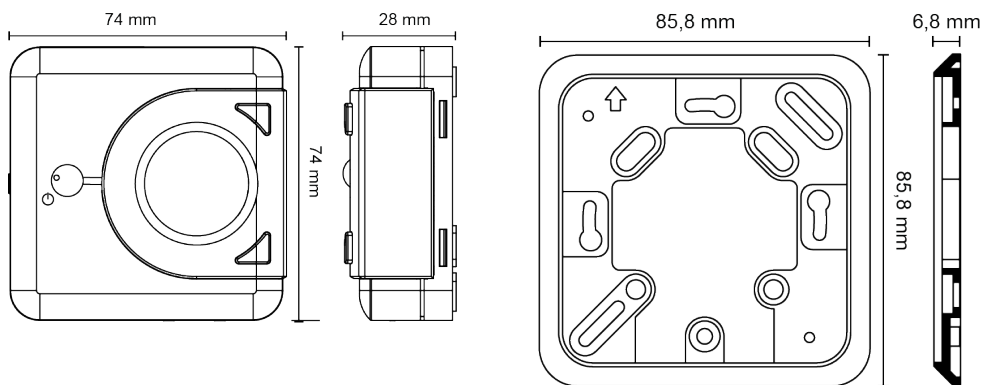
Communication method		
Radio signal	Bluetooth 4.0	
Range	10 m	
Output power	< 1 mW	
Status indicator	Bluetooth Symbol	
Operating specifications		
Operating mode	Manual mode	
	OFF-Mode (5 °C frost protection)	
	Reset function	
	Keylock	
	Override mode	
	Boost mode	
	temperature reduction mode/AUTO	
	holiday mode	
	Manual switch	ON/OFF/AUTO
	Tempering protection	PIN code
Offset	-3 °C ... +3 °C	
Program	7 days	
	5-2 days	
	1-7 Days	
	Boost	
	Manual	
	Individual programming (max. 4 or 6 ON/OFF switching times)	
Programming	Smartphone/Tablet	
Display and format		
Resolution	Room temperature 0.1 °C	
	Target temperature 0.5 °C	
	Day time 1 minute	
Shortest switching time	Boost 1, 2, 3 hours	
	ON/OFF 10 minutes	
	Program Time 10 minutes	
Room temperature display	-10 °C ... +50 °C	
Summer/winter time	Automatic summer/winter time change	
Clock	Digital	
Status indicator	Battery state	
	Operation mode	
	radio signal strength indication	
	Status display heating (flame symbol)	
	Temperature profile	
Operating conditions		
Humidity (operating)	10 % ... 90 % relative humidity, non-condensing	
Humidity (storage)	10 % ... 90 % relative humidity, non-condensing	
Temperature (operation)	-10 °C ... +50 °C	
Temperature (storage)	-20 °C ... +45 °C	
General specifications		
Colour	White/Grey	
Weight	282 g	
Material	Thermoplastics, self-extinguishing & high-temperature resistant	
	Plastic ABS	
Dimension	74 x 74 x 28 mm	
Mounting	Surface mounting (4-hole mounting on flush-mounted box)	
	Surface mounted	
	Flush mounting BS 4662	
	On-wall BS 5733	
Compliance with standards		

ErP class	I
	IV
ErP function	ON/OFF room thermostat
ErP Description	TPI room thermostat for use with on/off heaters A room thermostat that controls the ON/OFF operation of a heater. An electronic room thermostat that controls both thermostat cycle rate and in-cycle ON/OFF ratio of the heater proportional to room temperature. TPI control strategy reduces mean water temperature, improves room temperature control accuracy and enhances system efficiency.
ErP contribution to seasonal characteristic space heating energy efficiency	1 % 2 %
Protection type	IP20
Protection class	II, according to corresponding mounting
Pollution degree	2
Approval mark	CE, Energy Saving Trust
Standards and guidelines	EN 60730-1, Mode of operation and additional properties: Type 1.B

Scope of delivery

Housing	Bezel
	Installation material
Sensors	2 x 1,5 V AA LR6 Alkaline

DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS

