

# Thermostats

<p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Temperature control accuracy</li> <li>• Flat and attractive design</li> <li>• Possibility to connect a time switch (night-time reduction)</li> <li>• Surface-mounting</li> </ul>	<p><b>Applications</b></p> <ul style="list-style-type: none"> <li>• Central heating</li> <li>• Boiler</li> <li>• Combi-boiler</li> </ul>
--	--

	Voltage	EAN-Code 4010940	Ord.-No.
--	---------	------------------	----------



**thermio E**

24 V / 50-60 Hz	033231	04.46.0014.1
-----------------	--------	--------------

- Electronic control with digital temperature indicator (actual and desired temp.), with power stealing
- No battery required



**thermio 513**

230 V / 50-60 Hz	019167	04.46.0001.1
------------------	--------	--------------

- Bi-metal controller / Rotary knob for temperature adjustment / Manual switch for night-time reduction
- Connection for time switch (night-time reduction)
- Thermic feedback
- Antifreeze adjustable by turning knob catch



**thermio 402**

230 V / 50-60 Hz	019495	04.46.0003.1
------------------	--------	--------------

**thermio 403**

230 V / 50-60 Hz	019471	04.46.0005.1
------------------	--------	--------------

- Bi-metal controller / Rotary knob for temperature adjustment / Manual switch for heating ON/OFF
- Thermic feedback
- Antifreeze adjustable by turning knob catch



**thermio 102**

230 V / 50-60 Hz	019488	04.46.0004.1
------------------	--------	--------------

**thermio 103**

230 V / 50-60 Hz	019464	04.46.0006.1
------------------	--------	--------------

- Bi-metal controller / Rotary knob for temperature adjustment
- Connection for time switch (night-time reduction)
- Thermic feedback
- Antifreeze adjustable by turning knob catch



**Frame**

–	035044	04.46.0038.6
---	--------	--------------

- Fitted for all thermostats thermio
- 80,5 x 80,5 mm (5 mm thick)

# Technical data

	thermio E	thermio 513	thermio 102	thermio 103	thermio 402	thermio 403
Dimensions H x W x D (mm)	75 x 71 x 27		75 x 71 x 27		75 x 71 x 27	
Weight (g) approx.	60	70	60		90	
Connection	2-wire	3- and 4-wire	2- and 3-wire		2- and 3-wire	
Power consumption	100 mW	approx. 200 mW	approx. 200 mW		approx. 200 mW	
Switching capacity						
– ohmic load	–	10 A / 250 V~	0,5 A, 5 A / 250 V~	10 A / 250 V~	0,5 A, 5 A / 250 V~	10 A / 250 V~
– inductive load cos φ 0,6	–	4 A / 250 V~	0,5 A, 4 A / 250 V~	4 A / 250 V~	0,5 A, 4 A / 250 V~	4 A / 250 V~
– minimal	20 mA / 24 V-	0,1 A / 230 V-	0,5 A, 1 A / 24 V-	0,1 A / 230 V-	0,5 A, 1 A / 24 V-	0,1 A / 230 V-
Switching output	opens with raising temperature		opens with raising temperature		opens with raising temperature	
Switch contacts	–	Ag Ni	Ag Ni		Ag Ni	
Ambient temperature	T 30		T 30		T 30	
Switching state display						
– control	flame icon	LED green	–		–	
– selector switch	–	night lowering device ON/OFF	–		heating ON/OFF	
Assembling mode	wall mounting		wall mounting		wall mounting	
Connection type	screw terminal with wire protection		screw terminal with wire protection		screw terminal with wire protection	
Control range of day temperatures	+5°C ... +30°C		+5°C ... +30°C		+5°C ... +30°C	
Night lowering device	–	approx. 4 K	–	approx. 4 K	–	
Antifreeze	–	adjustable by turning knob catch	adjustable by turning knob catch		adjustable by turning knob catch	
Differential gap of temperature	approx. 0,5 K		approx. 0,5 K		approx. 0,5 K	
Refeeding	–	thermic	thermic		thermic	
Stocking temperature	-20°C ... +70°C		-20°C ... +70°C		-20°C ... +70°C	
Protection class	II after accordant installation		II after accordant installation		II after accordant installation	
Protection type	IP20		IP20		IP20	
Fault clearance of sparks	according to EN 55014		according to EN 55014		according to EN 55014	

Dimensional drawings / circuit diagrams:

