



DOMESTIC HEATING SOLUTIONS

ELECTRONICS

**Zoppas Industries**  
Heating Element Technologies

# WARMING IDEAS

**HEATING ELEMENTS:** the core of heat and energy production.

Synergies with the companies in the Group “Zoppas Industries” operating in the industrial sector are a guarantee of high global competence. They ensure research into and proposals for high quality technical solutions that provide rapid response to our customers’ many different application needs, thanks to a sophisticated design system and the use of a wide range of materials for components.

Our customers’ ideas are the stimulus for analysing new opportunities and developing innovative projects. This allows Rica to be extremely versatile in production and affords a vast range from domestic applications, to industrial sectors.

**Zoppas Industries**

*Heating Element Technologies*

**HEATING  
SYSTEMS**

**COMMERCIAL  
& COMFORT**

**COLD**

**ETCHED FOIL**

**PLASTICS**

**ELECTRONICS**



# TECHNOLOGY EVERYWHERE QUALITY INSIDE

Technology is everywhere and thanks to the invisible existence of high quality **HEATING ELEMENTS**, it can be used with maximum safety.



As a result of experience gained in different application sectors, RICA offers highly qualified technical consultancy and works in close collaboration with customers in all design stages and in compliance with the main certification and standards requirements.



The Rica divisions:

## HEATING SYSTEMS

Tubular heaters and systems for industrial applications.

## COMMERCIAL & COMFORT

Sheathed tubular elements and assemblies especially for the catering sector and commercial applications.

## COLD

Vulcanised sheathed tubular elements for defrosting and heating elements for household boilers.

## ETCHED FOIL

Etched foil technology flexible heating elements.

## PLASTICS

Cartridge heaters and assemblies for industry and household heating, band heaters and assemblies for the plastics industry.

## ELECTRONICS

Electronics controls applied to assemblies or elements for heat management.

### SYSTEM CERTIFICATION



FM 11234

### REGISTERED TRADE MARK OF OUR PRODUCTS

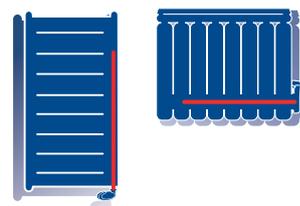


Rica products are made to respect the most important certifications, the applicable technical standards, the demands of the Customer. It's up to the Customer to conceive the final product and to decide the final application of Rica's products in the project.

The Customer must check the completeness and qualification of the ratings and the informative/technical notes of our products, that are related in this catalogue. The Customer must extensively control and verify the fitness of our products for the final application.

The suitability and the completeness of the tag data and the technical and/or informational notes included in this catalogue must be examined by the client. It is the responsibility of the client to fully check the suitability of our product for the final use which is to be made of it.

## RID - DOMESTIC INTEGRATIVE HEATING



The name RID stands for a family of domestic electric heaters to be installed in radiant panels (such as towel rails or radiators). They can be installed in central heating system as auxiliary source or in pure electrical systems.

They are offered in class 1 (single insulation with earth cable) and class 2 (double insulation)

The RID electric heaters can be installed in towel rails mainly used in bathrooms to heat or dry clothes, washcloths and towels, or in radiators used elsewhere in the home as a heating system.

The RID electrical heating elements are equipped with two safety components (a thermostat and a thermal fuse). They can be connected to room temperature control systems (either electromechanical or electronic), to ON/OFF systems, to power regulators or simply equipped with a power cable (either with or without plug).



## TOWEL RAILS



The towel rail is a heat exchanger mainly used to dry towels in bathrooms.

The towel rail equipped with an electrical heating element can be installed in the central heating system using a T-piece. In pure electrical system, the fluid in the towel rail is a mixture of water and glycol or diathermic oil.

The electrical heating element, normally fitted vertically, can be provided in class 1 or class 2.



### Specifications

Diameter	10 - 12 - 12.5 - 14 - 16 mm
Fitting	1/2" G - 1" G
Safety thermostat	Intervention temperature: from 60 ° to 140 °C as selected by client after laboratory testing
Safety thermal fuse	Intervention temperature: from 104 ° to 169 °C as selected by client after laboratory testing
Hydraulic pressure test	Up to 6 bar pressure

Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive

### Approvals:

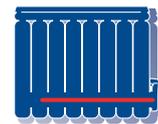
VDE, UL, CSA for elements in class 1 Diameter 12.5mm  
VDE for elements in class 2 Diameter 14mm



### Electronic control options:



## RADIATORS



The radiator is a heat exchanger mainly used in rooms.

It is produced in modular elements (radiators in aluminium, tubular radiators in steel or cast iron) or realized in other unique shapes, such as steel plates.

The heating element is installed horizontally and heats a fluid which is normally a diathermic oil.

It can be provided in class 1 or class 2.



### Specifications

Diameter	12,5 - 14 - 16 - 19 mm
Fitting	1/2" G or 1" G or 1" 1/4 G
Safety thermostat	Intervention temperature: from 60 ° to 140 °C as selected by client after laboratory testing
Safety thermal fuse	Intervention temperature: from 104 ° to 169 °C as selected by client after laboratory testing
Hydraulic pressure test	Up to 6 bar pressure

Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive

### Electronic control options:



## PELLET BURNERS AND STOVES



Pellet burners and stoves are innovative and ecological heating systems powered by wood pellets. They are automatically loaded with the required amount of wood pellet from a special hopper driven in a continuous and controlled mode.

The pellets collect in the crucible and feed the flame in a continuous, controlled mode. Combustion residues are deposited in a special container.

The ignition system composes of an electrical heating element installed in a tube connected directly to the crucible where the pellets are burned.

Ignition is generated by a flow of forced hot air by the heating element and sucked by the smoke fan.

RICA can provide:

- Heating elements with or without fittings or flanges.
- The complete ignition system
- Electronic solutions to set and regulate the whole stove/burner



### Specifications

Diameter	9,5 - 10 - 12,5 - 16 mm
Fitting	3/8" G - 1/2" G

Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive

### Electronic controls available:

Wo-di Digital



Wo-di Program



## WALL-MOUNTED GAS BOILERS



The purpose of the wall-mounted gas boilers (equipped with micro-storage water tank) is to provide hot water to the sanitary system in the shortest time. This is possible thanks to an insulated water tank - the micro-storage - heated by a PTC heating element.

Rica can provide:

- the PTC heating element with various fittings or flanges
- the complete micro-storage



Gas Boiler

### Specifications

Diameter	10 - 12 mm
Fitting	3/8" G - 1/2" G

Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.

## HEATING CABLE FOR TOWEL RAILS

The heating cable is generally used in small, aesthetically simple towel rails.

The towel rail consists of a metallic tube that is painted and shaped to meet functional and design needs.

The heating cable is inserted into the empty tube of the towel holder. It heats by conduction, directly through contact with the tube and via the air that is present.



### Technical characteristics

The cable is flexible and electrically insulated with silicon rubber. The maximum operating temperature for the cable is 120 °C. It is normally inserted in the tube folded in two, so that the ends of the cable come out from the same end. It can be equipped with a plastic cable passage plug used to close the tube.

The applied powers depend on the characteristics of the appliance and the thermal exchange with the environment in various conditions of use.

### Execution

The cable can be made in insulation class 1 and class 2 (double insulation consists of 2 layers of silicon; the thickness of the additional insulation is minimum 1 mm).

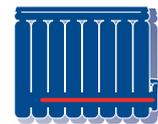
### Approvals

VDE for class 1 and class 2

Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.



## CIRCE RETRO



Circe Retro is an electronic thermostat for a very accurate and high performance ambient temperature regulation . It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the buttons or externally by the pilot wire (class 2 only). The frontal panel display shows all the settings.

The thermostat switches the radiator on and off to achieve a low electromagnetic emission (TRIAC).

The device allows the weekly programming: basing on the needs, you can set the desired temperature during the day and the week.

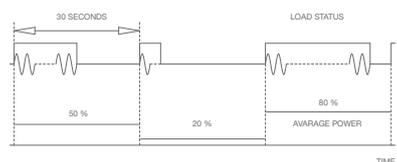
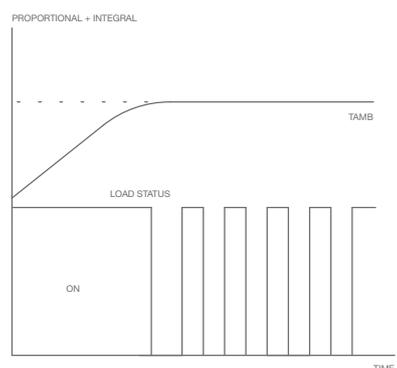
Pressing the buttons, the display illuminates.



### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Box colour	minimum batch 500





## ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

## PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

## PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 30 seconds and two thirds of the maximum power is required to heat the room, the control switches the heater on for 20 seconds every 30 seconds.

## Specifications

Power supply	230V $\pm$ 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	216 x 78 x 44 mm
Operating temperature	0 $\div$ 50 °C
Storage temperature	-20 $\div$ 70 °C
Operating humidity	0 $\div$ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Digital with buttons
Temperature step	1/10 °C
Temperature regulation range	7 $\div$ 35 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	25
Minimum batch	25
Standard box colour	RAL 9016
Standard box material	ABS + PC (V0)

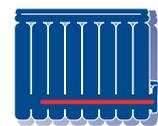
Class1



Class2



## CIRCE PROG



Circe Prog is an electronic thermostat for a very accurate and high performance ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the buttons or externally by the pilot wire (class 2 only). The frontal panel display shows all the settings.

The thermostat switches the radiator on and off to achieve a low electromagnetic emission (TRIAC).

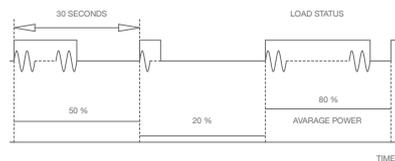
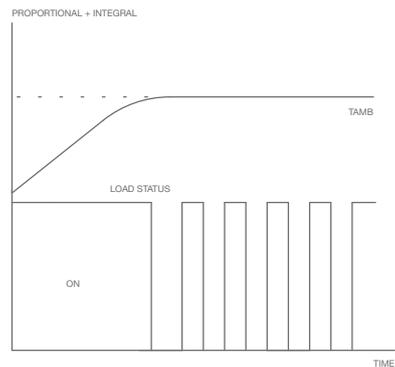
The device allows the weekly programming: basing on the needs, you can set the desired temperature during the day and the week.



### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Box colour	minimum batch 500





## ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

## PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

## PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 30 seconds and two thirds of the maximum power is required to heat the room, the control switches the heater on for 20 seconds every 30 seconds.

## Specifications

Power supply	230V $\pm$ 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	216 x 78 x 44 mm
Operating temperature	0 $\div$ 50 °C
Storage temperature	-20 $\div$ 70 °C
Operating humidity	0 $\div$ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Digital with buttons
Temperature step	1/10 °C
Temperature regulation range	7 $\div$ 35 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	25
Minimum batch	25
Standard box colour	RAL 9016
Standard box material	ABS + PC (V0)

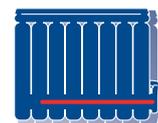
Class1



Class2



## CIRCE MODE



Circe Mode is an electronic thermostat for a very accurate and high performance ambient temperature regulation. It contains a micro-processor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the buttons or externally by the pilot wire (class 2 only). The frontal panel display shows all the settings.

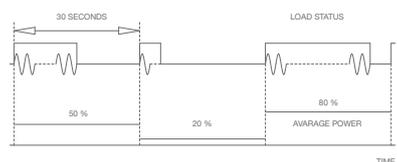
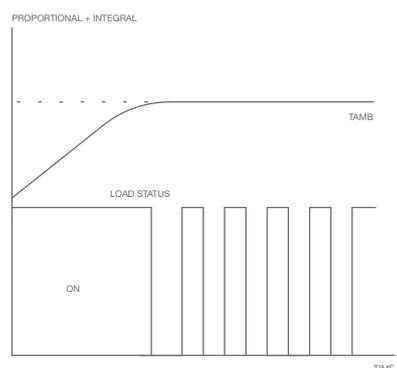
The thermostat switches the radiator on and off to achieve a low electromagnetic emission (TRIAC).



### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Box colour	minimum batch 500





## ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

## PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

## PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 30 seconds and two thirds of the maximum power is required to heat the room, the control switches the heater on for 20 seconds every 30 seconds.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	216 x 78 x 44 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Digital with buttons
Temperature step	1/10 °C
Temperature regulation range	7 ÷ 35 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	25
Minimum batch	25
Standard box colour	RAL 9016
Standard box material	ABS + PC (V0)

Class1



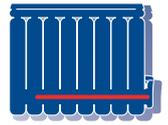
Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## ATLANTIS



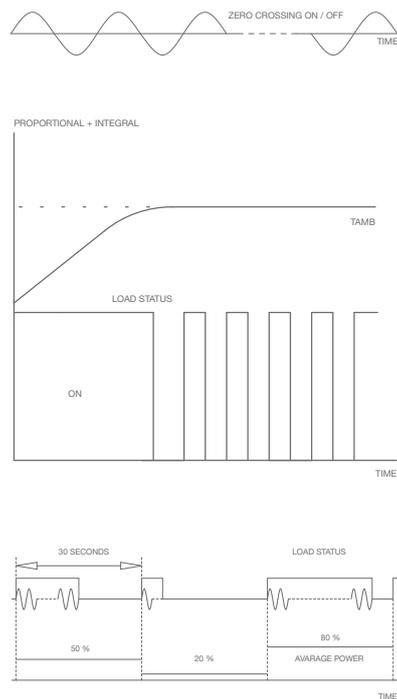
Atlantis is an electronic thermostat for a very accurate and high performance ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature. The regulator mode can be locally controlled by the knobs or externally by the pilot wire (class 2 only). The thermostat switches the radiator on and off to achieve a low electromagnetic emission (TRIAC).



### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Knobs	minimum batch 500
Top colour	minimum batch 500
Box colour	minimum batch 500





### ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

### PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

### PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 30 seconds and two thirds of the maximum power is required to heat the room, the control switches the heater on for 20 seconds every 30 seconds.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	135 x 80 x 40 mm
Maximum temperature of the mounting surface	80 °C
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C
Maximum amplitude	0.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9016
Standard box material	ABS + PC (V0)

Class1



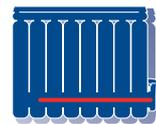
Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.  
 Patent pending.  
 Design model registered by Rica.



## TH-RAD SI



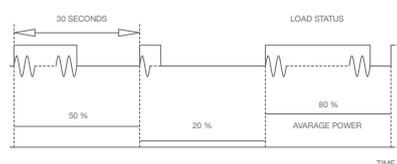
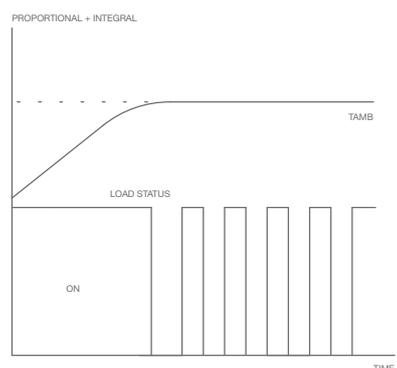
Th-Rad SI is an electronic thermostat for a very accurate and high performance ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature. The regulator mode can be locally controlled by the knobs or externally by the pilot wire (class 2 only). The thermostat switches the radiator on and off to achieve a low electromagnetic emission (TRIAC).



### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Knobs colour	minimum batch 500
Box colour	minimum batch 500





## ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

## PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

## PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 30 seconds and two thirds of the maximum power is required to heat the room, the control switches the heater on for 20 seconds every 30 seconds.

## Specifications

Power supply	230V $\pm$ 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	205 x 80 x 40 mm
Operating temperature	0 $\div$ 50 °C
Storage temperature	-20 $\div$ 70 °C
Operating humidity	0 $\div$ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 $\div$ 30 °C
Maximum amplitude	0.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	25
Minimum batch	25
Standard box colour	RAL 9016
Standard box material	ABS + PC (V0)

Class1



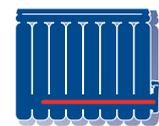
Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## MEDUSA



Medusa is an electronic thermostat for an ambient temperature regulation.

It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the knobs or externally by the pilot wire (class 2 only).

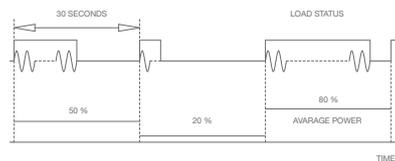
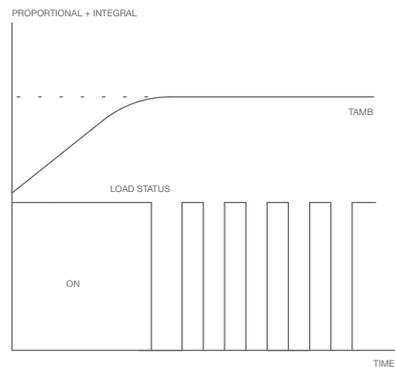
The thermostat switches the radiator on and off to achieve a low electromagnetic emission ( TRIAC ).



### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Knobs colour	minimum batch 500
Front cover colour	minimum batch 500
Box colour	minimum batch 500





## ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

## PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

## PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 30 seconds and two thirds of the maximum power is required to heat the room, the control switches the heater on for 20 seconds every 30 seconds.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX1
Shockproof class	IK04
Dimensions (H x L x W)	135 x 80 x 40 mm
Maximum temperature of the mounting surface	80 °C
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C
Maximum amplitude	0.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class1



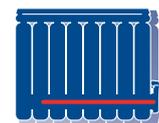
Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.  
 Patent pending.  
 Design model registered by Rica.



## POLIFEMO



Polifemo is an electronic thermostat for an ambient temperature regulation. The regulator mode can be locally controlled by the local knob.



### Available customisations

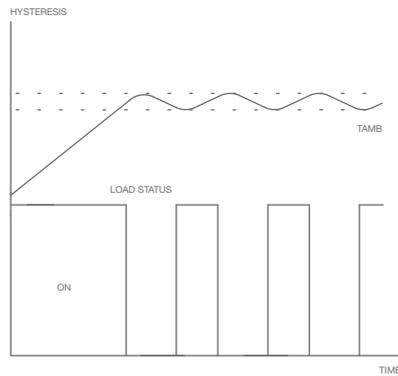
Insulation class	1 or 2
Type of plug	see next page





### ASync ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX1
Shockproof class	IK04
Dimensions (H x L x W)	205 x 80 x 40 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	ON - OFF (hysteresis)
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 ÷ 30 °C
Pieces per package	27
Minimum batch	27
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class1



Class2



## POSEIDONE -1



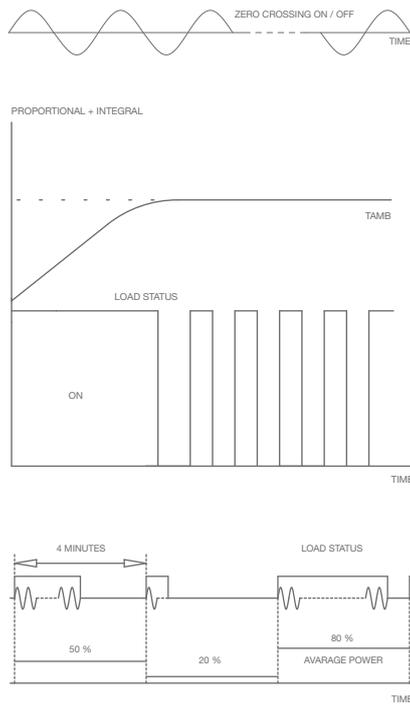
Poseidone-1 is an electronic thermostat for a very accurate and high performance ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature. The regulator mode can be locally controlled by the knob and the buttons. The thermostat switches the radiator on and off to achieve a low electromagnetic emission ( RELAY + TRIAC ). A timer to heat continuously the radiator at its maximum power for two hours is available to dry towels or clothes.



### Available customisations

Type of plug	see next page
Logo on the lid	minimum batch 500
Lid colour	minimum batch 500
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

### PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

### PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 4 minutes and three-fourth of the maximum power is required to heat the room, the control switches the heater on for 3 minutes every 4 minutes.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1
Waterproof class	IPX4
Shockproof class	IK09
Dimensions (H x L x W)	64 x 120 x 52 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C, full power
Maximum amplitude	0.5 °C
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9016 or chromed
Standard Standard box material	ABS + PC (V0)

Class1



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## POSEIDONE-2-FP



Poseidone-2-FP is an electronic thermostat for a very accurate and high performance ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the knob and the buttons or externally by the pilot wire .

The thermostat switches the radiator on and off to achieve a low electromagnetic emission ( RELAY + TRIAC ).

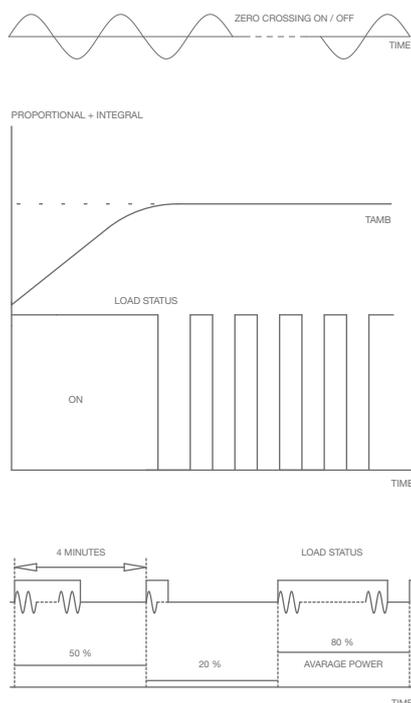
A timer to heat continuously the radiator at its maximum power for two hours is available to dry towels or clothes.



### Available customisations

Type of plug	see next page
Logo on the lid	minimum batch 500
Lid colour	minimum batch 500
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ZERO CROSSING ON-OFF

Zero crossing ON-OFF is a way to switch on and off the heating element to maintain the electromagnetic emissions to a very low level. It consists in connecting the load to the mains when the voltage is zero.

### PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

### PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 4 minutes and three-fourth of the maximum power is required to heat the room, the control switches the heater on for 3 minutes every 4 minutes.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	2
Waterproof class	IPX4
Shockproof class	IK09
Dimensions (H x L x W)	64 x 120 x 52 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C, full power
Maximum amplitude	0.5 °C
Pilot wire interface	6 command modes
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9016 or chromed
Standard box material	ABS + PC (V0)

Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## TH-SPX



TH-SPX is an electronic thermostat for an ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the knob and the button.

A timer to heat continuously the radiator at its maximum power for two hours is available to dry towels or clothes.



### Available customisations

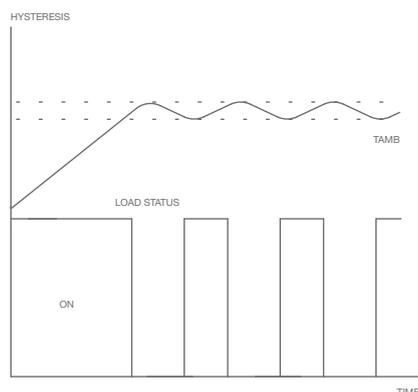
Insulation class	1 or 2
Type of plug	see next page
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ASYNCHRONOUS ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	64 x 120 x 52 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	ON - OFF (hysteresis)
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C
Maximum amplitude	1.5 °C
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class1

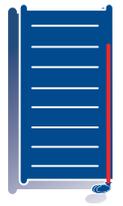
Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## TH-SPX-2-FP



TH-SPX-2-FP is an electronic thermostat for an ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the knob and the button or externally by the pilot wire.

A timer to heat continuously the radiator at its maximum power for two hours is available to dry towels or clothes.



### Available customisations

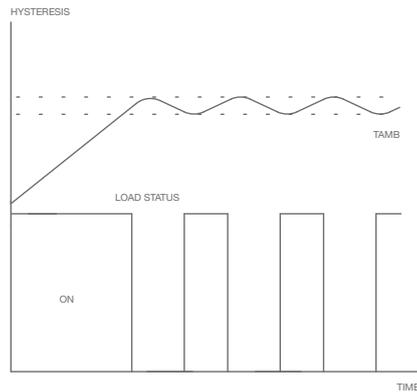
Type of plug	see next page
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ASYNC ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Power supply	230V $\pm$ 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	64 x 120 x 52 mm
Operating temperature	0 $\div$ 50 °C
Storage temperature	-20 $\div$ 70 °C
Operating humidity	0 $\div$ 85% w/out condense
Type of regulation	ON - OFF (hysteresis)
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 $\div$ 30 °C
Maximum amplitude	1.5 °C
Pilot wire interface	6 command modes
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## TH-MIN



TH-MIN is an electronic power regulator that switches the heating element on and off to achieve the required energy. It contains a microprocessor.

The regulator mode can be locally controlled by the knob and the button.

A timer to heat continuously the radiator at its maximum power for two hours is available to dry towels or clothes.



### Available customisations

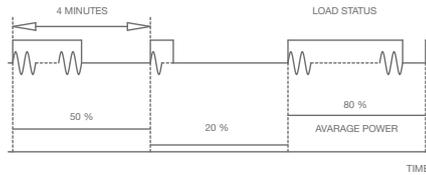
Insulation class	1 or 2
Type of plug	see next page
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ASYNCH ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 4 minutes and three-fourth of the maximum power is required to heat the room, the control switches the heater on for 3 minutes every 4 minutes.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	64 x 120 x 52 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Power level setting	Analogic with knob
Power range setting	20 ÷ 100%
Power step	7%
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class1

Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive. Patented.



## SCILLA MODE



Scilla Mode is an electronic thermostat for an ambient temperature regulation.

It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the knobs or externally by the pilot wire (class 2 only).

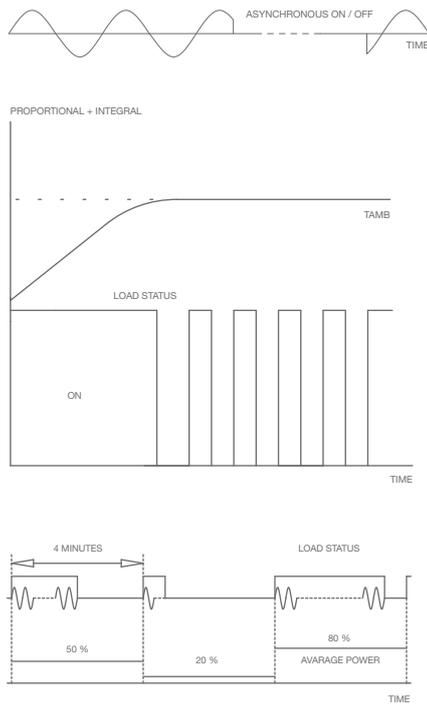
At the end of the temperature scale there is the bulb symbol for 100% max power. At this point it is possible to maintain the maximum power continuously.



### Available customisations

Insulation class	1 or 2
Type of plug	see next page





### ASYNCHRONOUS ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.

### PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

### PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 4 minutes and three-fourth of the maximum power is required to heat the room, the control switches the heater on for 3 minutes every 4 minutes.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	63 x 137 x 34 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C
Maximum amplitude	0.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	50
Minimum batch	50
Standard box colour	RAL 9010
Standard box material	ABS (V0)

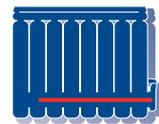
Class1



Class2



## SCILLA PUSH



Scilla Push is an electronic thermostat for an ambient temperature regulation.

It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

A timer to heat the radiator continuously at its maximum power for two hours is available to dry towels or clothes.

The regulator mode can be locally controlled by the knob or externally by the pilot wire (class 2 only).

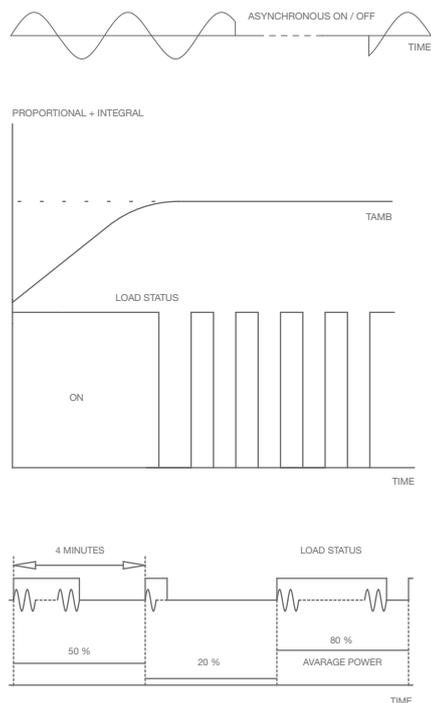
At the very end of the temperature scale there is the bulb symbol for 100% max power. At this point it is possible to maintain the maximum power continuously.



### Available customisations

Insulation class	1 or 2
Type of plug	see next page





### ASYNCHRONOUS ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.

### PROPORTIONAL and INTEGRAL

The thermostat measures the room temperature and estimates the required power to keep the room to a temperature very close to the set point. This is the regulation mode that gives the best results in terms of comfort.

### PWM POWER REGULATION

The power regulation of the radiators is obtained by switching on the heating element for a certain period within the whole cycle time. For example, if the cycle time is 4 minutes and three-fourth of the maximum power is required to heat the room, the control switches the heater on for 3 minutes every 4 minutes.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	63 x 137 x 34 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	Proportional and integral
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C
Maximum amplitude	0.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	50
Minimum batch	50
Standard box colour	RAL 9010
Standard box material	ABS (V0)

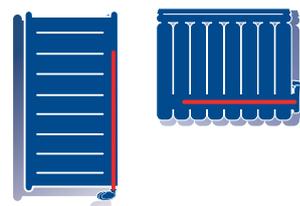
Class1



Class2



## CARIDDI MODE-2-FP



Cariddi Mode-2-FP is an electronic thermostat for an ambient temperature regulation.

It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

The regulator mode can be locally controlled by the knobs or externally by the pilot wire (class 2 only).

At the end of the temperature scale there is the bulb symbol for 100% max power. At this point it is possible to maintain the maximum power continuously.



### Available customisations

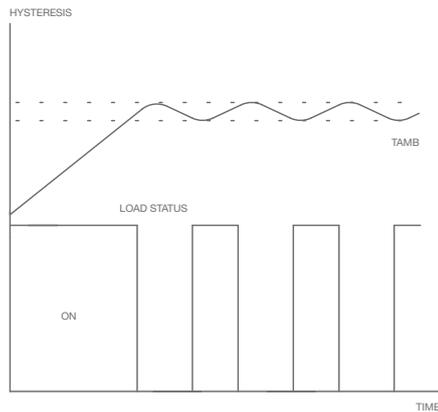
Insulation class	1 or 2
Type of plug	see next page





### ASync ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	96 x 131 x 40 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Type of regulation	ON - OFF (hysteresis)
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	7 °C, 15 ÷ 30 °C
Maximum amplitude	1.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	50
Minimum batch	50
Standard box colour	RAL 9010 or chromed
Standard box material	ABS (V0)

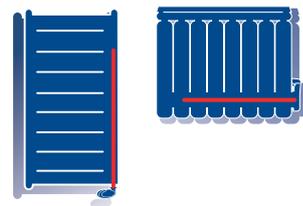
Class 1



Class 2



## CARIDDI MONO



Cariddi Mono is an electronic thermostat for an ambient temperature regulation. It contains a microprocessor that sets the room temperature without being influenced by external conditions or the radiator temperature.

At the end of the temperature scale there is a clock symbol: in this position a timer is set in order to heat continuously the radiator at its maximum power for two hours and dry towels or clothes.

The regulator mode can be locally controlled by the knob or externally by the pilot wire (class 2 only).



### Available customisations

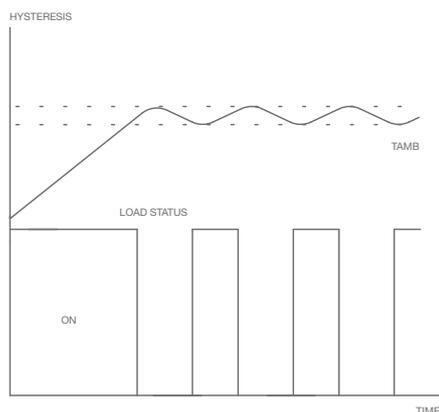
Insulation class	1 or 2
Type of plug	see next page





### ASYNCHRONOUS ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Power supply	230V $\pm$ 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX4
Shockproof class	IK04
Dimensions (H x L x W)	96 x 131 x 40 mm
Operating temperature	0 $\div$ 50 °C
Storage temperature	-20 $\div$ 70 °C
Operating humidity	0 $\div$ 85% w/out condense
Type of regulation	ON - OFF (hysteresis)
Temperature setting	Analogic with knob
Temperature resolution	1/10 °C
Temperature regulation range	15 $\div$ 30 °C
Maximum amplitude	1.5 °C
Pilot wire interface	6 command modes (class 2 only)
Pieces per package	50
Minimum batch	50
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class 1



Class 2



## NAUTILUS-IR



Nautilus-IR is a wireless electronic control for towel rail radiators with a remote thermostat with infrared transmission. It is a very comfortable regulator, because the setting knob of the thermostat can be installed in an easy-to-reach position (on the opposite wall and without any obstacle between transmitter and receiver).



## REMOTE TRANSMITTERS



Zefiro IR-digital



Zefiro IR-linear one knob



Zefiro IR-linear two knobs

### Available customisations

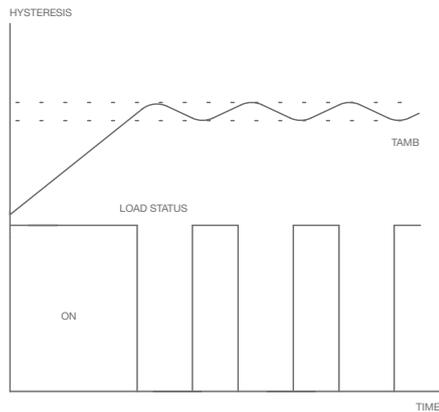
Insulation class	1 or 2
Type of plug	see next page
Logo on the lid	minimum batch 500
Front panel colour	minimum batch 500
Standard box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ASYN ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Receiver	
Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX1
Shockproof class	IK04
Dimensions (H x L x W)	145 x 45 x 45 mm
Standard box colour	RAL 9016 or chromed
Remote Transmitter (Zefiro)	
Power supply	2 Alkaline batteries LR03
Temperature setting	Analogic with knob or digital with buttons
Temperature regulation range	7 ÷ 30 °C
Type of regulation	ON - OFF (hysteresis)
Dimensions (H x L x W)	101 x 68 x 32 mm
Standard box colour	RAL 9016
Receiver and Transmitter	
Storage temperature	-20 ÷ 60 °C
Operating temperature	0 ÷ 50° C
Operating humidity	0 ÷ 85% w/out condense at 25 °C
Minimum batch	30

Class1



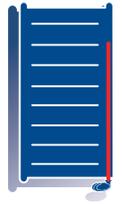
Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.  
Patented.  
Design model registered by RICA.



## NAUTILUS-TH



Nautilus-TH is a bimetallic electromechanical thermostat for an ambient temperature regulation. It is a very low cost regulator. The set point can be quite different if the external conditions or the required power change.



### Available customisations

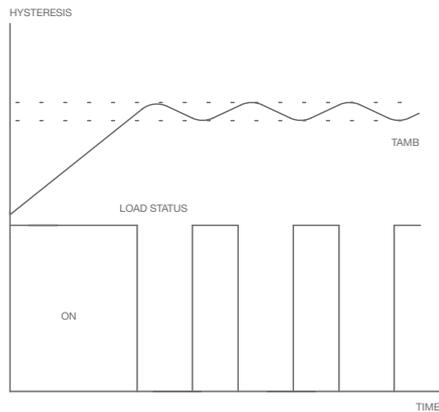
Insulation class	1 or 2
Type of plug	see next page
Front panel colour	minimum batch 500
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√





### ASync ON-OFF

Asynchronous ON-OFF is the basic mode to switch on and off the heating element.



### HYSTERESIS

The thermostat measures the room temperature and if it is lower than set point, it turns on the heating element until the temperature reaches its target, to which a fixed margin is added.

## Specifications

Power supply	230V $\pm$ 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX1
Shockproof class	IK04
Dimensions (H x L x W)	145 x 45 x 45 mm
Operating temperature	0 $\div$ 50 °C
Storage temperature	-20 $\div$ 70 °C
Operating humidity	0 $\div$ 85% w/out condense
Type of regulation	ON - OFF (hysteresis)
Temperature setting	Analogic with knob
Temperature regulation range	0 $\div$ 30 °C
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9010
Standard box material	ABS (V0)

Class1



Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.  
Patented.  
Design model registered by RICA.

## NAUTILUS-SW



Nautilus-SW is an ON-OFF switch for towel rails



### Specifications

Power supply	230V ± 10% AC 50 Hz
Maximum power of the heating element	2000W
Insulation class	1 or 2
Waterproof class	IPX1
Shockproof class	IK04
Dimensions (H x L x W)	145 x 45 x 45 mm
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating humidity	0 ÷ 85% w/out condense
Setting	ON - OFF (manual)
Pieces per package	30
Minimum batch	30
Standard box colour	RAL 9010
Standard box material	ABS (VO)

### Available customisations

Insulation class	1 or 2
Type of plug	see next page
Front panel colour	minimum batch 500
Box colour	minimum batch 500
Mounting tool	√
Single packaging	√
Custom product label	√

Class1



Class2



Produced in accordance with European standard EN 60335-1 and in compliance with RoHS directive.

Patented.

Design model registered by RICA.







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*The manufacturer declines any responsibility for inaccuracies resulting from typographical errors in these instructions.  
He reserves the right to effect any product modifications considered necessary and beneficial without detracting from fundamental product features.*





HEATING SYSTEMS	COMMERCIAL & COMFORT	COLD	ETCHED FOIL	PLASTICS	ELECTRONICS
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