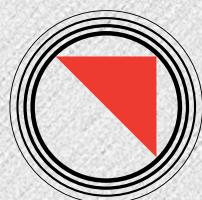
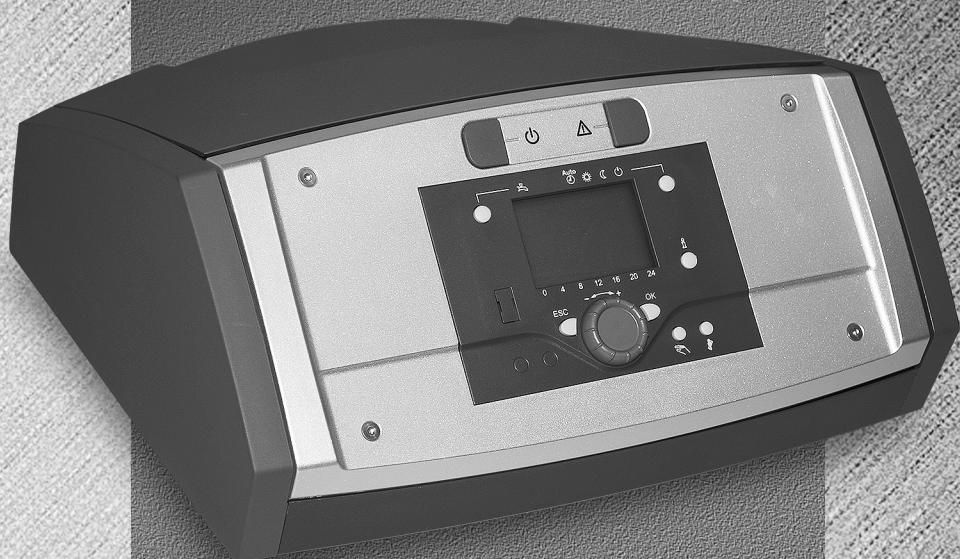


**CONTROL PANEL**

**RIELLOtech**  
**CLIMA TOP**  
**CLIMA COMFORT**

**INSTALLATION, OPERATION AND  
MAINTENANCE MANUAL**



**RIELLO**

RIELLO S.p.A.

Via Ing. Pilade Riello, 7  
37045 Legnago (VR)  
Tel. +39 0442630111

RIELLO S.p.A.  
Società con Socio unico soggetta alla  
direzione e coordinamento di Riello Group SPA  
Sede legale e amministrativa  
37045 Legnago (VR)  
Via Ing. Pilade Riello, 7  
Cap. soc. € 7.117.400,00 i.v.  
Reg. delle Imp. di Verona N. 02641790239  
C.F. e Part. IVA 02641790239

Lecco, 18th January 2012

The company

**Riello SpA Heating Products Direction**  
**Via Risorgimento 13**  
**23900 Lecco**  
**ITALY**

hereby declares that the control panels bearing the brand: **RIELLO**

models:

**RIELLOtech CLIMA COMFORT, RIELLOtech CLIMA TOP,  
RIELLOtech CLIMA MIX, RIELLOtech PRIME and RIELLOtech PRIME ACS**

conform to European Directive 2004/108/EC (Electromagnetic Compatibility), to European Directive 2006/95/EC (Low Voltage) and to the following European standards:

- |                   |   |
|-------------------|---|
| EN 60730-1:2000   | Automatic electrical controls for household and similar use.  |
| EN 60730-2-9:2000 | Part 2: Particular requirements for temperature sensing controls.   |
| EN 60529:1992     | Specification for degrees of protection provided by enclosures (IP code).                                       |
| EN 61000-6-2:2001 | Electromagnetic compatibility. Immunity per industrial environments.  |
| EN 61000-6-3:2001 | Electromagnetic compatibility. Emission standard for residential, commercial and light-industrial environments. |



Marco Tagliaferri  
Heating Products Director  
Riello S.p.A.

*Dear heating engineer,*

*Congratulations on having chosen a **RIELLOtech** control panel. You have selected a modern, quality product that is designed to give dependable, efficient and safe service and to provide comfort in the home for many years to come. This manual provides information that is essential to the installation of the appliance. Used in conjunction with your own knowledge and expertise it will enable you to install the appliance quickly, easily, and correctly.*

*Once again, please accept our thanks and our congratulations on your choice of product.*

*Riello S.p.A.*

---

## RANGE

MODEL	CODE
RIELLOtech CLIMA TOP (horizontal installation)	4031065
RIELLOtech CLIMA TOP (vertical installation)	4031070
RIELLOtech CLIMA COMFORT (horizontal installation)	4031064
RIELLOtech CLIMA COMFORT (vertical installation)	4031069

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The following symbols are used in this manual:



= Identifies actions that require caution and adequate preparation.



= Identifies actions that you MUST NOT do.

This manual, Code 20013508 - Rev. 4 (06/12) is made up of 64 pages.

## GENERAL SAFETY INFORMATION

**⚠** Check that the product is complete and undamaged as soon as you remove it from its packaging. Contact the **RIELLO** reseller from whom you purchased the product if you notice any problems.

**⚠** This product must be installed by a legally qualified heating engineer. (In Italy heating engineers are regulated by law no. 37 of the 22/01/2008.) On completion of the installation, the installer must issue the owner with a declaration of conformity confirming that the installation has been completed to the highest standards in compliance with the instructions provided by **RIELLO** in this instruction manual, and that it conforms to all applicable laws and standards.

**⚠** This control panel is designed and made for use with boilers generating hot water up to 110°C, and must be used exclusively for this purpose and within its specified performance limits.

**⚠** The manufacturer declines all responsibility, contractual or other, for damage to property or injury to persons or animals caused by improper installation, adjustment, maintenance or use.

**⚠** This instruction manual is an integral part of the product. It must be kept safe and must ALWAYS accompany the product, even if it is sold to another owner or transferred to another user or to another installation. If you damage or lose this manual, order a replacement immediately from your local **RIELLO** Technical Assistance Centre.

## PRECAUTIONS

The operation of any appliance that uses electrical power demands that a number of fundamental safety precautions be respected. In particular:

**—** Always turn the **electrical power supply** OFF at the main switch before commencing any cleaning or maintenance.

**—** Do not tamper with or adjust the safety or control devices without prior authorisation and instructions from the boiler's manufacturer.

**—** Never pull, disconnect, or twist the electrical cables coming from the appliance even if it is disconnected from the mains electricity supply.

**—** Dispose of packaging materials in compliance with applicable standards and legislation governing the disposal of urban, domestic and industrial waste.

**—** Never switch the control panel on even for a short period if the safety devices are not functioning correctly or have been tampered with.

**—** All maintenance and repairs must be carried out by a legally qualified heating engineer.

**—** Do not use water to extinguish fire in the control panel. Switch power OFF at the mains power switch to isolate the control panel electrically first. Then use a class E fire extinguisher (marked "SUITABLE FOR LIVE ELECTRICAL ITEMS") to extinguish the flames.

## PRODUCT DESCRIPTION

**RIELLOtech CLIMA COMFORT** and **CLIMA TOP** control panels are designed to perform indoor climate control functions. They combine in the same physical unit an electronic controller and a manual reset safety thermostat for monitoring maximum boiler temperature in the event of a controller malfunction.

**RIELLOtech CLIMA TOP** control panels are designed for use in complex and multi-apartment systems. They are capable of controlling modulating burners, cascaded boilers, complex solar water heating systems and central heating systems comprising different heat generating devices. These control panels can manage 1 direct and 2 mixed central heating zones, as well as domestic hot water production.

**RIELLOtech CLIMA COMFORT** control panels are designed for use in single apartment systems, including complex ones. They can control single and multi-stage burners (with adapter kit), cascaded boilers, solar water heating systems and central heating systems comprising different heat generating device. These control panels can manage 1 direct and 1 mixed central heating zones (or 2 mixed zones with the addition of a n accessory kit), as well as domestic hot water production.

The microprocessor technology of the electronic controller makes these control panels ideal for use with various types of boiler, even with different minimum and maximum temperatures, and also enables them to meet the needs of various types of central heating and domestic hot water production systems. The units are programmed by means of parameter settings on the built-in display that are only accessible to trained and authorised personnel. All thermostatic/electric/electronic control devices comply with applicable technical and safety standards, and are housed in an ABS box.

All the control and safety devices in **RIELLOtech CLIMA COMFORT** and **CLIMA TOP** control panels are factory tested in compliance with applicable technical standards. Both types of control panel are available in two versions for horizontal installation (e.g. in the top panel of a floor standing boiler) or vertical installation (e.g. in the side panel of a wall mounted boiler). A kit for separate wall mounting is also available on request.

## APPLICATION CHART

	Burner type	Cascaded boilers	Biomass fuelled boilers	Solar water heating systems	DHW storage cylinders	Direct zone	1 <sup>st</sup> mixed zone	2 <sup>nd</sup> mixed zone
RIELLO tech CLIMA TOP								
RIELLO tech CLIMA COMFORT	 1  2 2-stage with kit							 With additional mixed zone kit

**⚠** To make the electrical connections to the various system components and to the burner, refer to the instructions on pages 20, 21 and 23 as well as to the specific instructions supplied with each item and with the burner.

## SAFETY DEVICES

RIELLOtech CLIMA COMFORT and CLIMA TOP control panels are fitted with the following safety devices:

- **A safety thermostat** that forces the boiler to perform a safety shutdown if temperature rises above the safety threshold (110°C). Fuel supply to the burner is shut off under these conditions.

**!** The operation of a safety device indicates a potentially dangerous malfunction in the system, and means that you must contact RIELLO's Technical Assistance Service immediately.

You may nevertheless attempt to restart the boiler after a short delay (see the boiler's own instruction manual).

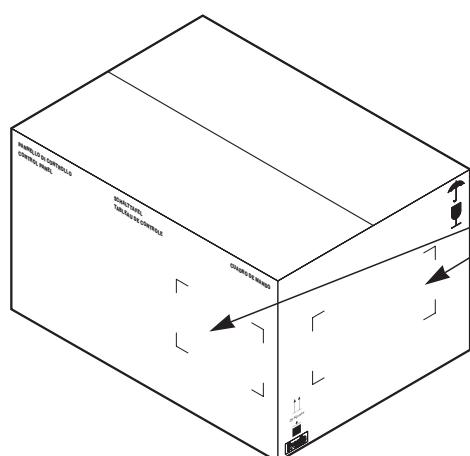
**–** Never start the boiler up even for a short period if the safety devices are not functioning correctly or have been tampered with.

**⚠** Safety devices must only be replaced by RIELLO's Technical Assistance Service using original spare parts. Refer to the spare parts catalogue supplied with the control panel.

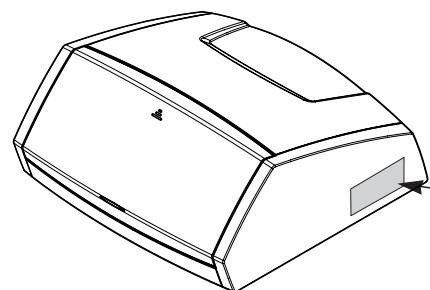
Always check that the control panel and the boiler it is associated with are functioning correctly after any repairs.

## IDENTIFICATION

RIELLOtech control panels are identified by:



- the **code number** on the box



- the **technical data label**

Cod.: XXXXXXXX

Mod.: RIELLO TECH CLIMA ....  
(Installazione .....

Made in Italy

230 V AC - 50 Hz - 6.3 (A) T



## TECHNICAL SPECIFICATIONS

Description	RIELLOtech CLIMA COMFORT RIELLOtech CLIMA TOP	
Power supply	230 (+/-10%) - 50	V - Hz
Main power switch (two pole)	250 - 10(4)	V - A
Burner reset button	250 - 10(4)	V - A
Fuse (on internal terminal block)	250 - 6,3 T	V - A
Max power input (electronic controller)	9	VA
Electronic controller relay contacts for burner and pumps	250 - 2(2)	V - A
Manual reset safety thermostat (TS1)	110 (+0/-6)	°C
Index of protection	20	IP
Length of safety thermostat cable	3	m

## ACCESSORY

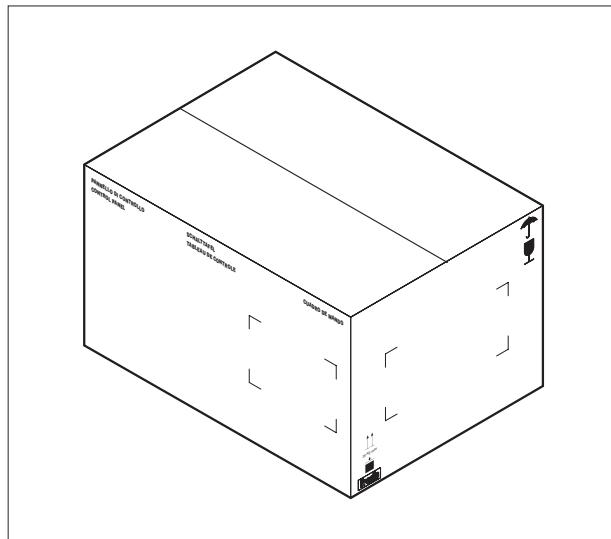
The following accessories are available, to be ordered separately.

ACCESSORY	CODE
Pipe thermostat, NTC 10 kΩ for RVS (QAD36/101)	20008753
Outdoor temperature sensor, NTC 1 kΩ for RVS (QAC34/101)	4047947
Immersion type boiler flow and return temperature sensor, NTC 10 kΩ for RVS (L = 5m)	20010068
Storage cylinder temperature sensor, NTC 10 kΩ for RVS (L = 5m)	20010103
DHW temperature sensor, NTC 10 kΩ for RVS (L=5m)	20010302
Immersion type solar heating system temperature sensor, NTC 10 kΩ for RVS (QAZ36.481/101)	4031913
Room temperature sensor	20012456
RC2 Remote Control – programmable	4334410
Wall mounting kit (for use only with vertical installation versions)	20010056
Two-stage burner control kit (for RIELLOtech CLIMA COMFORT)	4031067
Additional mixed zone control kit (for RIELLOtech CLIMA COMFORT)	20011194

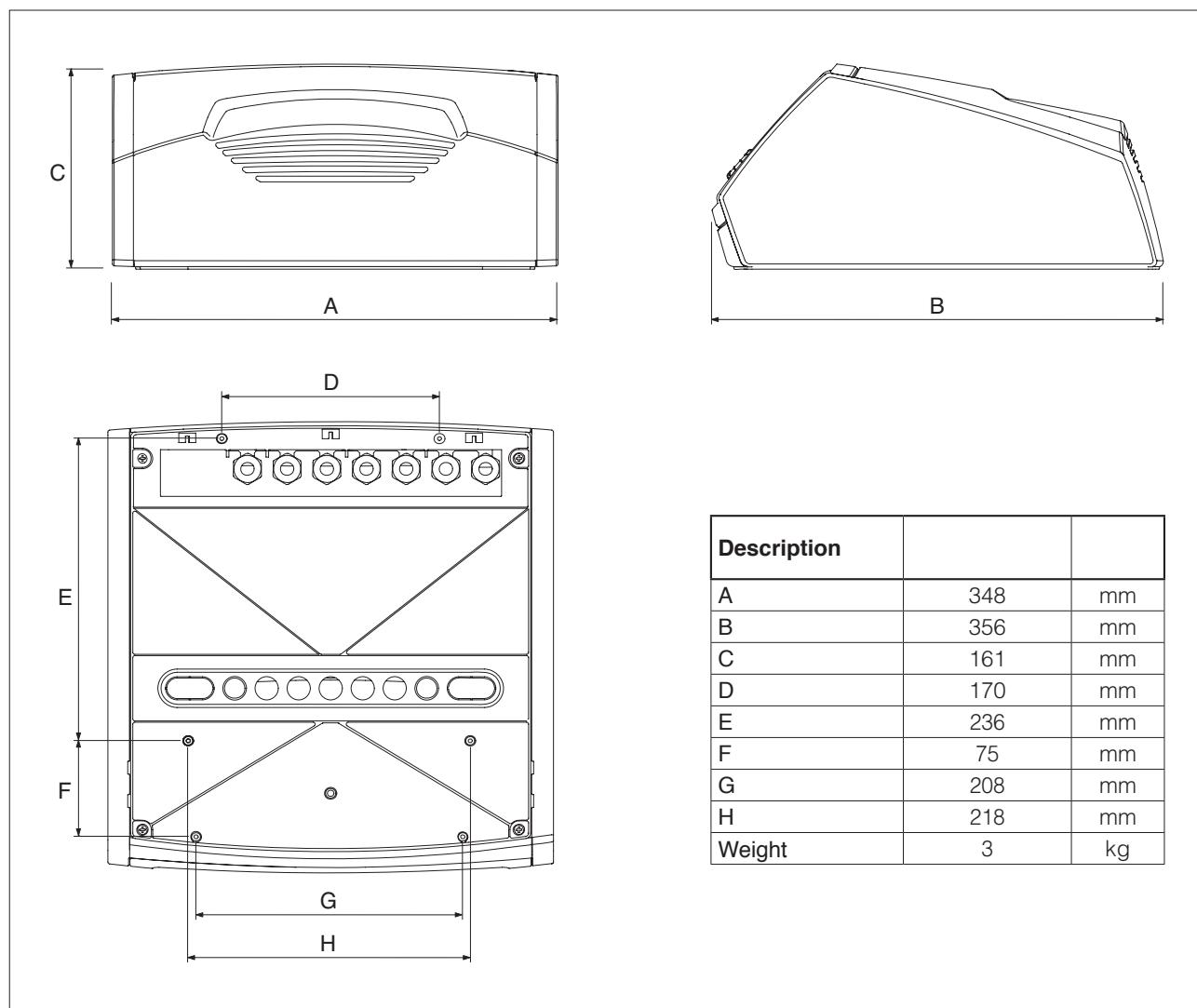
## UNPACKING THE PRODUCT

**RIELLOtech** control panels come in a cardboard box that also contains the following accessories:

- Self-tapping fixing screws
- Instruction manual.



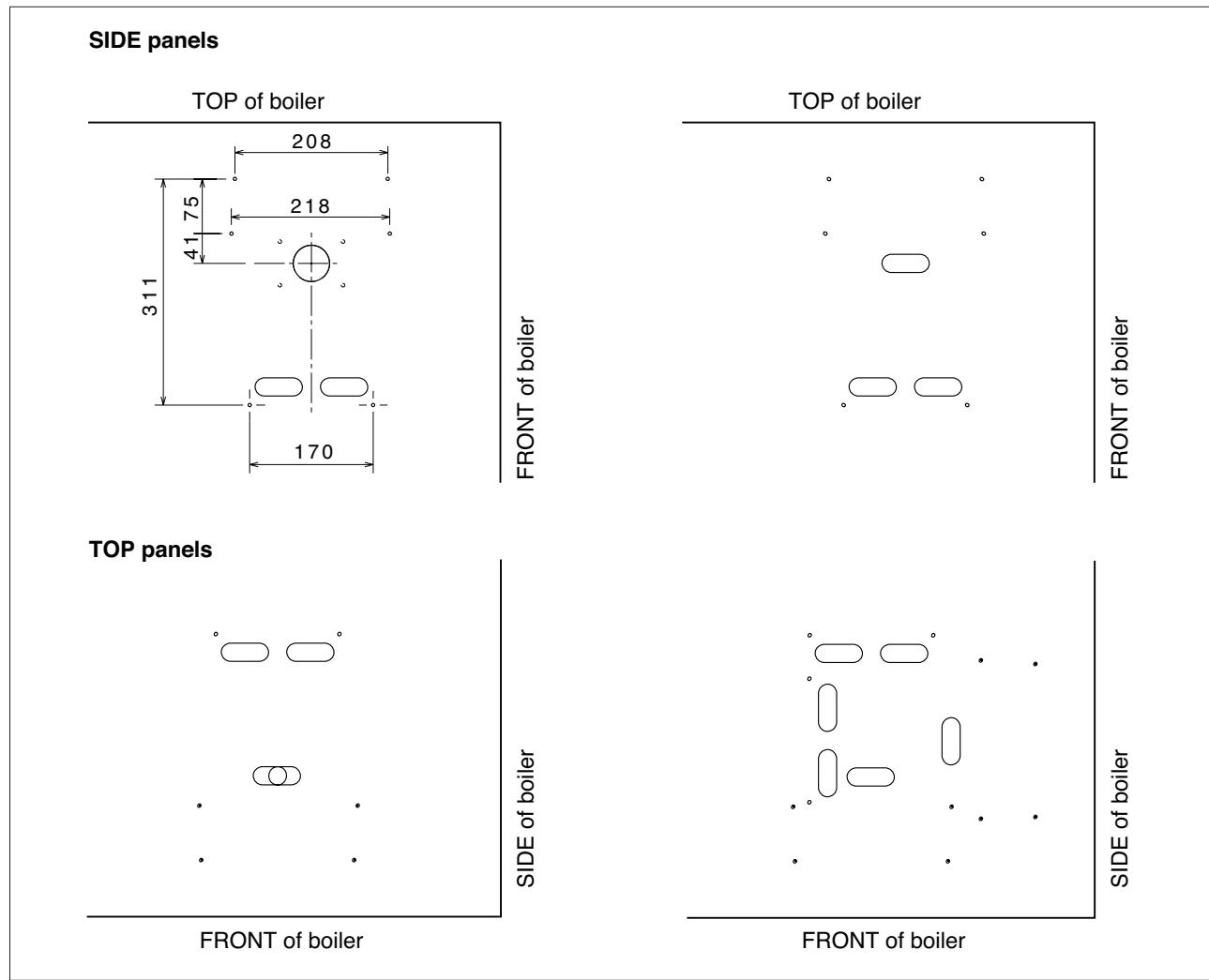
## DIMENSIONS AND WEIGHT



## ASSEMBLY

**RIELLOtech** control panels can be installed either on the top of the boiler or on one of its side panels.

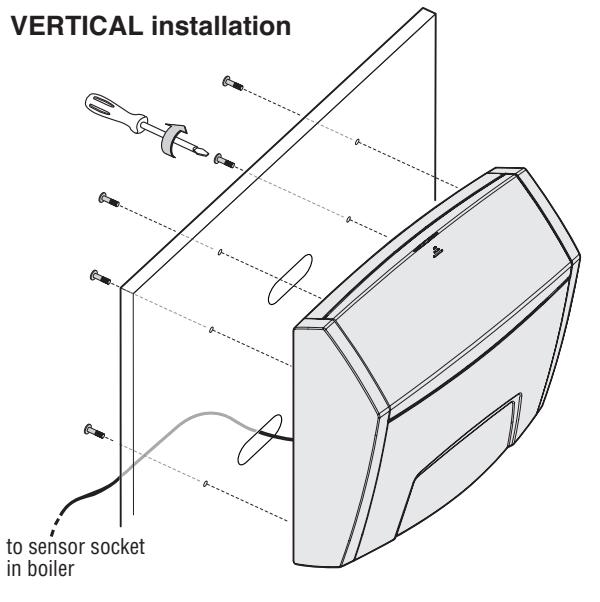
Before commencing installation, check the arrangement of the holes on the top panel or side panel of the boiler.



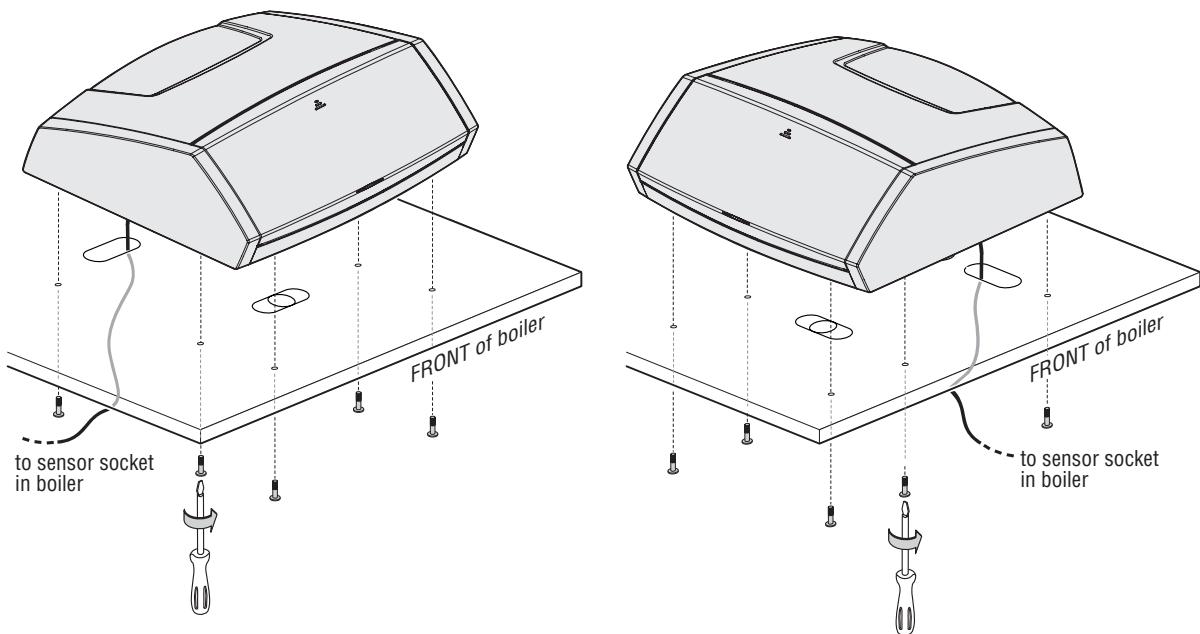
Once you have identified the right holes for the type of installation required, proceed as follows.

- Push out the pre-formed slots on the boiler casing corresponding to the oval cable grommets in the control panel.
- Perforate the membranes of the control panel cable grommets. Pull out the thermostat cable and route it through the slot in the top panel.
- Fix the control panel to the boiler casing using the screws provided.

### VERTICAL installation

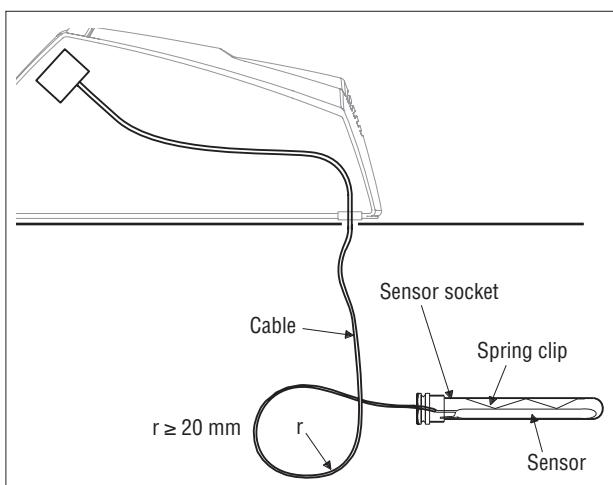


## HORIZONTAL installation



A dedicated kit is available for wall mounting. Refer to the instructions provided with the kit for details on installation.

**⚠** Take care when unwinding thermostat cables. Insert the thermostat sensors in the corresponding sockets in the boiler and storage cylinder. Fix the sensors in place with the spring clips provided. Use the cable straps provided to secure the sensor cables.

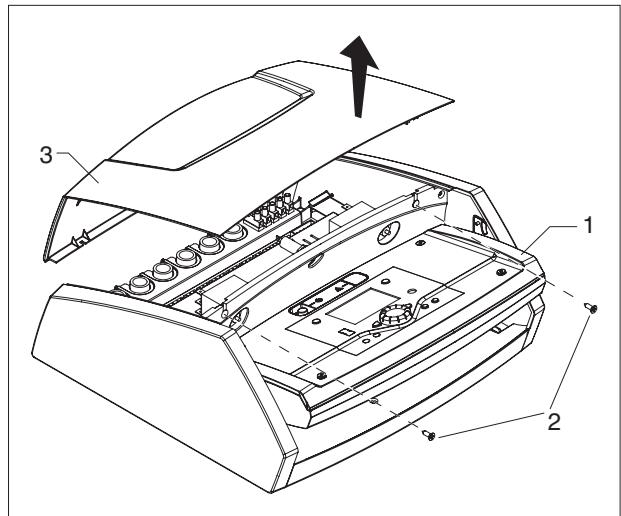


## ACCESSING INTERNAL COMPONENTS

Only personnel from **RIELLO**'s Technical Assistance Service or professionally qualified heating engineers are allowed to access components inside the control panel.

Proceed as follows if you need to access components inside the control panel:

- Turn the system OFF at the mains power switch.
- Tilt the panel (1) forwards. Remove the 2 fixing screws (2) and remove the top cover (3).



## ELECTRICAL CONNECTIONS

All electrical connections must be made by a legally qualified heating engineer according to the following instructions. (In Italy heating engineers are regulated by law no. 37 of the 22/01/2008).

**⚠** The following instructions are mandatory.

- 1 - Use a multi-pole magnetic thermal trip switch and disconnector conforming to IEC-EN standards (with a contact gap of at least 3 mm).
  - 2 - Respect the L (Phase) - N (Neutral) polarity. Keep the ground wire about 2 cm longer than the power wires.
  - 3 - Use cables with a cross section of 1.5 mm<sup>2</sup> or more, complete with end terminals.
  - 4 - Always refer to the electrical wiring diagrams in this manual when performing any electrical work.
  - 5 - Make sure the appliance is connected to an effective ground.
- 
- Proceed as instructed in the "ACCESSING INTERNAL COMPONENTS" section above to access the terminals inside the control panel.
  - Route the control panel power cables and all the cables to be connected to the 'load side' of the main board through the cable grommets (A) in the bottom of the control panel.
  - Route the cables to be connected to the 'sensor side' of the main board through the cable grommets (B) and (C) in the bottom of the control panel.
  - Route all these cables through the cable grommets in the casing of the boiler, or use the cable holes for PG type cable clamps or spiral cable duct fittings.

- Connect up the 230V mains power, using the fixed 'Mamut' terminals, referring to the wiring diagrams on the next pages and to the WIRING DIAGRAMS chapter.

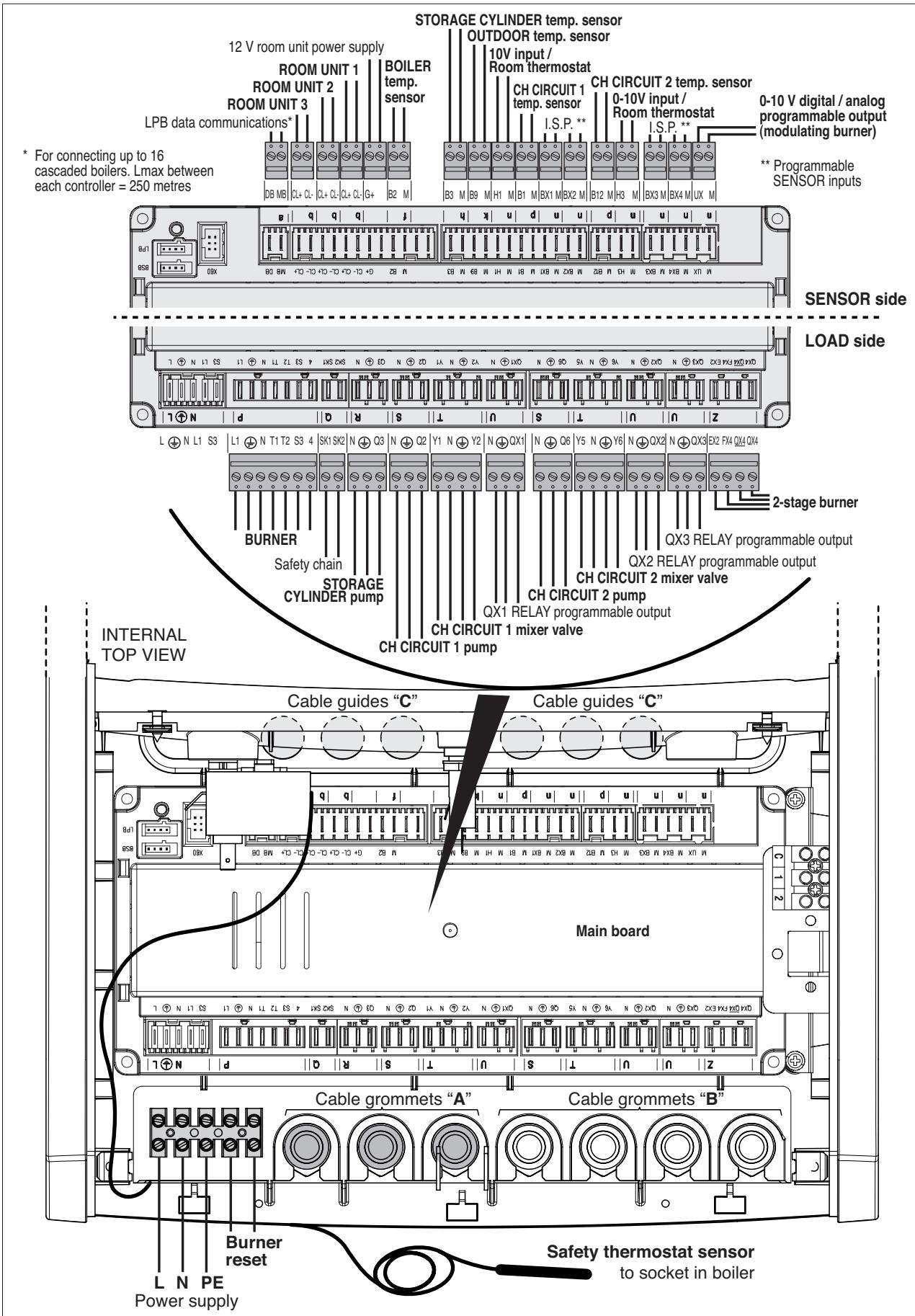
- Connect up the individual 230V and +12Vdc devices, referring to the mounting diagrams on the next pages and to the WIRING DIAGRAMS chapter.
- Secure the cables to the casing of the boiler so that they cannot be accidentally pulled out.

**🚫** It is strictly forbidden to use fuel and/or water pipes to ground the appliance.

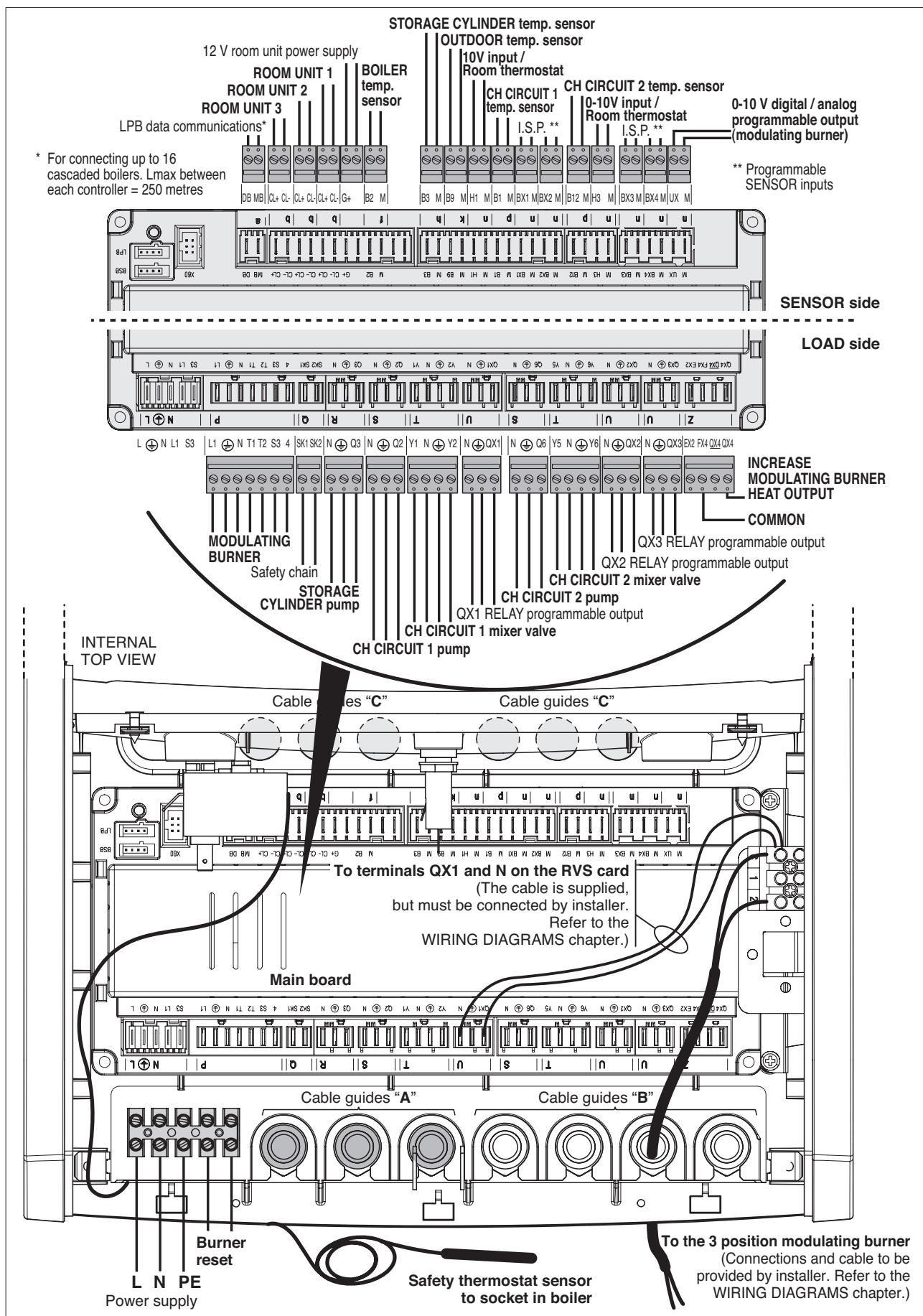
**🚫** Do not route the power cable or room thermostat cables near hot surfaces (like heating circuit flow pipes). Use a suitable class of cable if there is any possibility of contact with parts at temperatures above 50°C.

**The manufacturer declines all responsibility for damage caused by failing to ground the appliance adequately or by failure to respect the wiring diagrams provided in this manual.**

## RIELLotech CLIMA TOP (used with a single stage or two-stage burner)

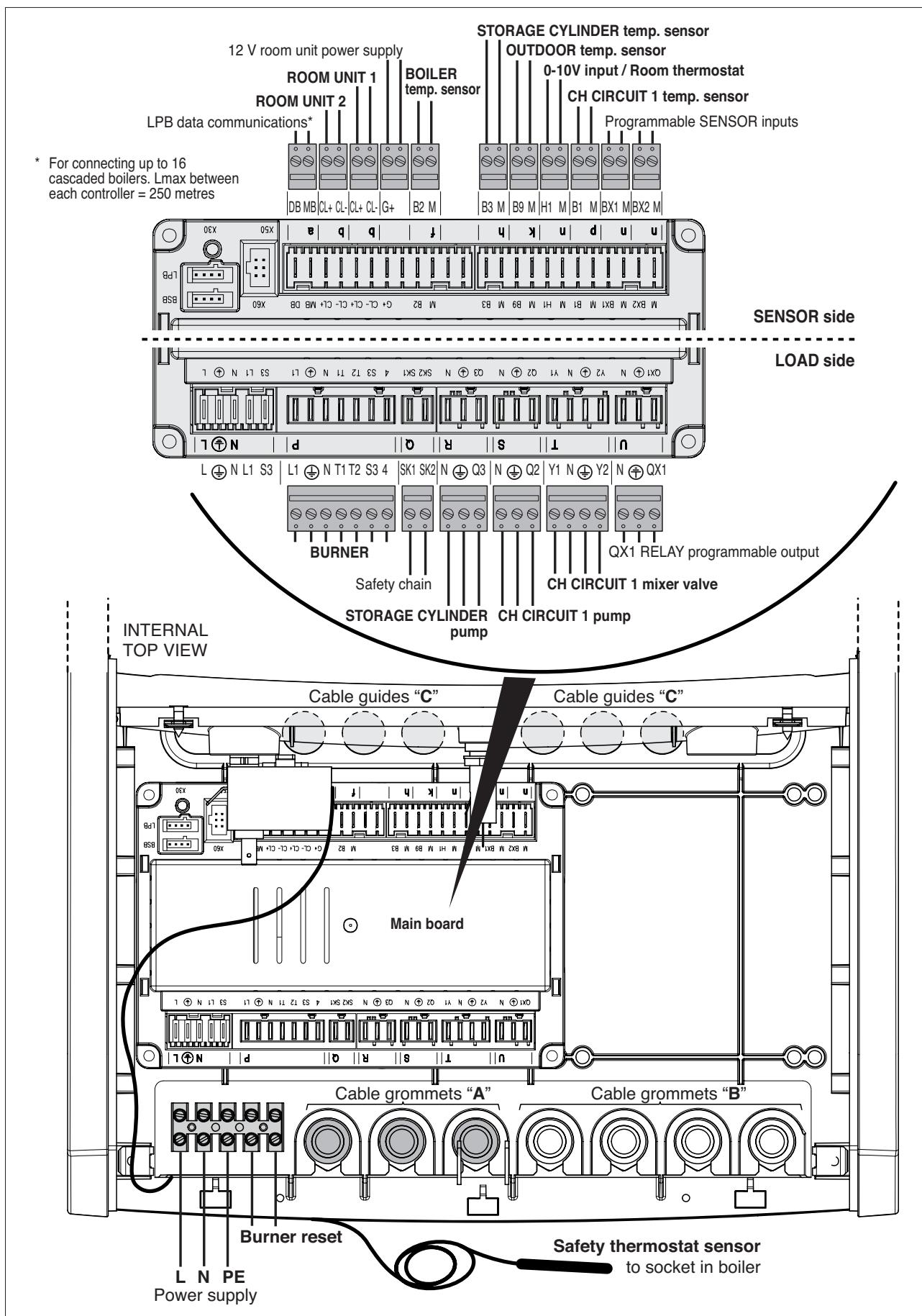


## RIELLOtech CLIMA TOP (used with a modulating burner)



### IMPORTANT!

Once you have made all the necessary electrical connections, configure the parameters for the modulating burner as instructed in the manual for the RVS control card.



## POSITIONING THE SENSORS

Correct positioning of the temperature sensors is essential to proper indoor climate control.

**⚠** To ensure correct functioning, use separate cable ducts for the power cables (230 Vac) and for the non-polarised terminals.

### SM (flow temperature sensor)

Insert in the socket above the flow pipe outlet from the boiler.

### Maximum permitted sensor cable lengths (copper)

Cable size	0,25	0,50	0,75	1,0	1,5	mm <sup>2</sup>
Max. length	20	40	60	80	120	m

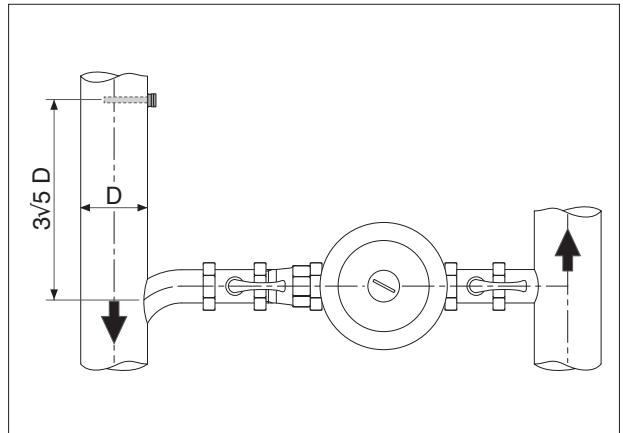
### SB (storage cylinder temperature sensor)

Insert in the top socket on the storage cylinder.

### SR (return temperature sensor)

Insert in the socket to be provided on the boiler return pipe.

To measure effective water return temperature and to control the temperature stabilisation function, the socket for the return temperature sensor must be positioned at a distance of 3 to 5 times the diameter of the water return pipe upstream from any water fittings (condensate prevention pump or recirculation pump). If the boiler provides no socket for an immersion type sensor, use the accessory external pipe sensor, to be ordered separately.



### Correspondence table

### FLOW TEMP. SENSOR – STORAGE CYLINDER TEMP. SENSOR – RETURN TEMP. SENSOR

(Available as accessories, to be ordered separately.)

Measured temperature (°C) – Resistance of temperature sensor (Ω).

T (°C)	R (Ω)	T (°C)	R (Ω)	T (°C)	R (Ω)	T (°C)	R (Ω)
-30	175203	30	8059	90	915	150	183
-25	129289	35	6535	95	786	155	163
-20	96360	40	5330	100	677	160	145
-15	72502	45	4372	105	586	165	130
-10	55047	50	3605	110	508	170	117
-5	42158	55	2989	115	443	175	105
0	32555	60	2490	120	387	180	95
5	25339	65	2084	125	339	185	85
10	19873	70	1753	130	298	190	77
15	15699	75	1481	135	262	195	70
20	12488	80	1256	140	232	200	64
25	10000	85	1070	145	206		

## CONNECTING THE OUTDOOR TEMPERATURE SENSOR

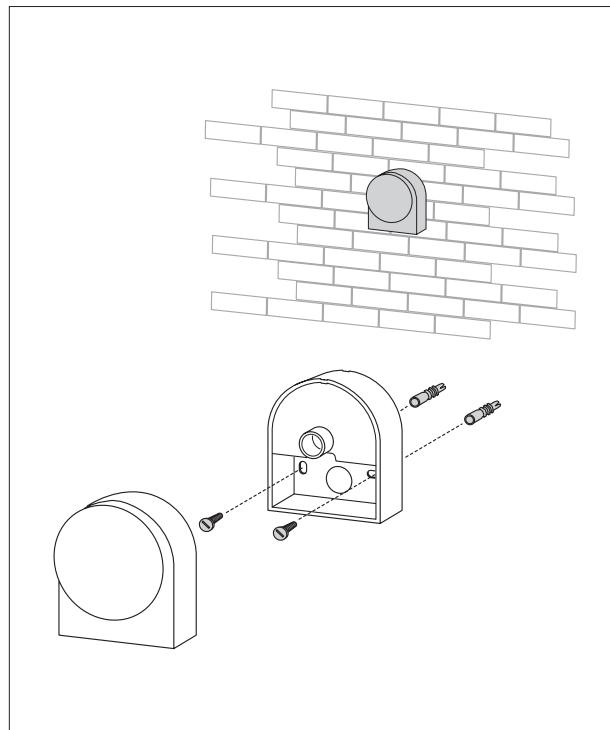
Correct positioning of the outside temperature sensor is essential to proper indoor climate control. The sensor must be installed outside the building to be heated, about 2/3 of the way up a NORTH or NORTH-WEST facing wall, well clear of any flues, doors, windows and out of direct sunlight.

### Fixing the outdoor temperature sensor to the wall

- Unscrew the cover from the sensor casing to access the sensor terminals and fixing holes.
- Use the sensor casing as a template to mark the drilling points on the wall.
- Remove the sensor casing and drill 5x25 holes for the expansion plugs.
- Fix the sensor casing to the wall using the two expansion plugs provided.
- Route a two-core cable from the sensor to the boiler.

Maximum permitted sensor cable lengths (copper)					
Cable size	0,25	0,50	0,75	1,0	1,5 mm <sup>2</sup>
Max. length	20	40	60	80	120 m

- Fit the cover on the sensor casing.
- Open the control panel and connect the sensor up as instructed in the "Electrical connections" section. Polarity is irrelevant.
- Once you have made all the necessary connections, close the control panel, reversing the steps followed to open it.



**⚠** Position the outdoor temperature sensor on a smooth area of wall. Prepare a smooth contact area for the sensor casing if the wall is made from exposed brick or other rough material.

**⚠** Avoid joins in the cable between the outdoor temperature sensor and the control panel. If different cable lengths have to be joined, make sure that the joins are sealed and adequately protected.

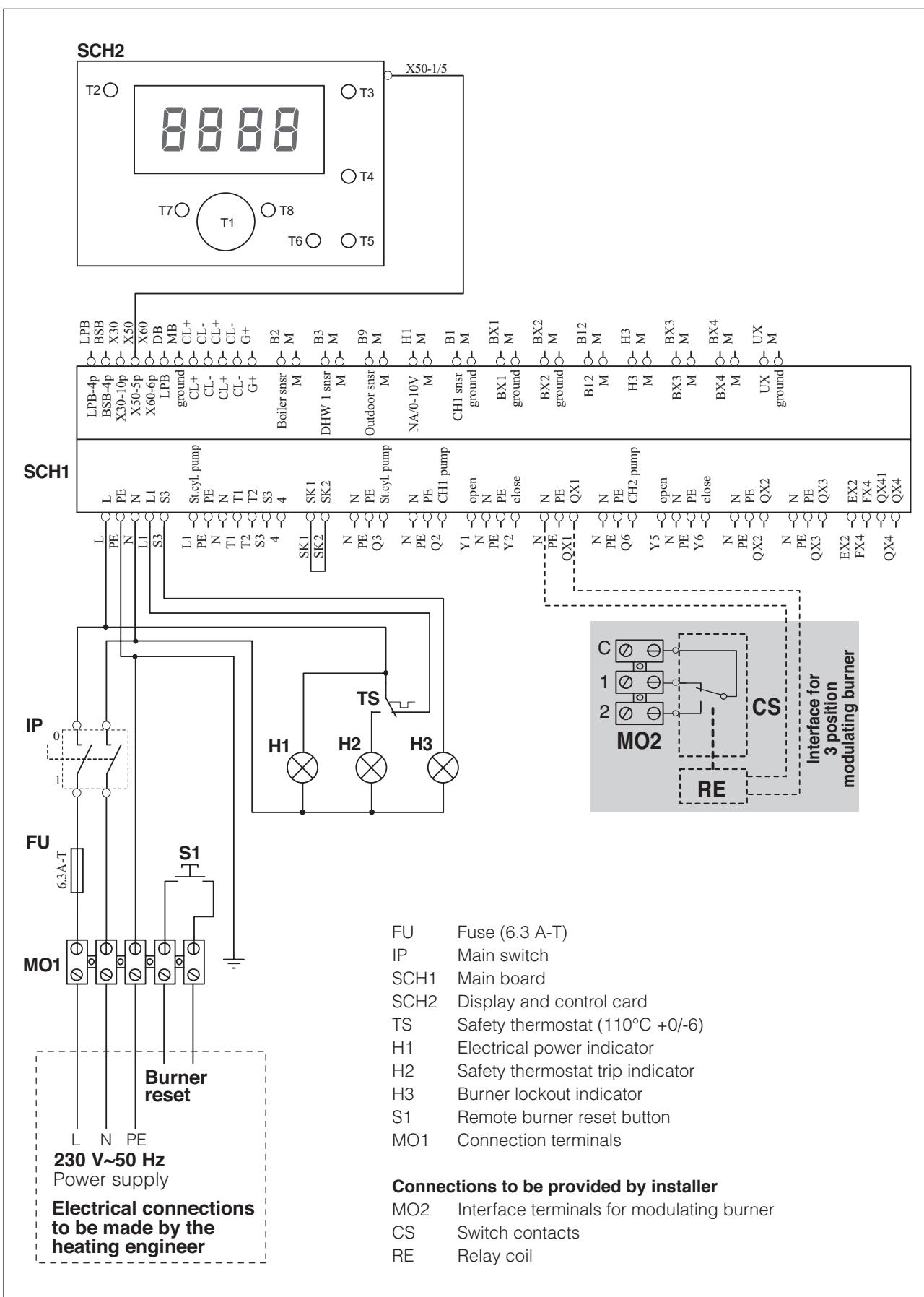
**⚠** If cable ducts are used to route the sensor connection cable, keep these well clear of any power cables (230Vac).

**Correspondence table**

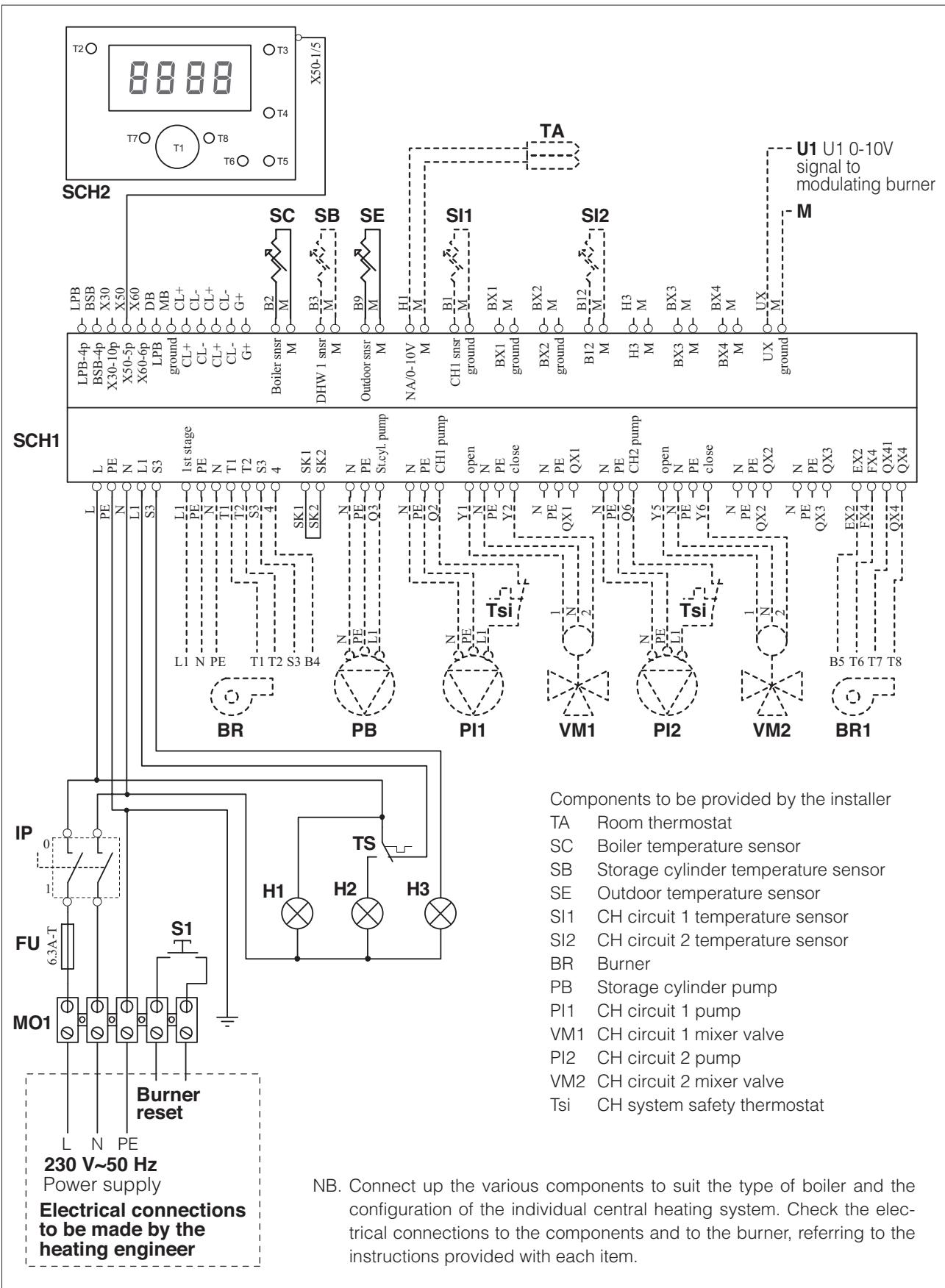
Measured temperature (°C) – Resistance of outdoor temperature sensor (Ω).

T (°C)	R (Ω)	T (°C)	R (Ω)	T (°C)	R (Ω)	T (°C)	R (Ω)
-30.0	13'034	-9.0	4'358	12.0	1'690	33.0	740
-29.0	12'324	-8.0	4'152	13.0	1'621	34.0	713
-28.0	11'657	-7.0	3'958	14.0	1'555	35.0	687
-27.0	11'031	-6.0	3'774	15.0	1'492	36.0	663
-26.0	10'442	-5.0	3'600	16.0	1'433	37.0	640
-25.0	9'889	-4.0	3'435	17.0	1'375	38.0	617
-24.0	9'369	-3.0	3'279	18.0	1'320	39.0	595
-23.0	8'880	-2.0	3'131	19.0	1'268	40.0	575
-22.0	8'420	-1.0	2'990	20.0	1'218	41.0	555
-21.0	7'986	0.0	2'857	21.0	1'170	42.0	536
-20.0	7'578	1.0	2'730	22.0	1'125	43.0	517
-19.0	7'193	2.0	2'610	23.0	1'081	44.0	500
-18.0	6'831	3.0	2'496	24.0	1'040	45.0	483
-17.0	6'489	4.0	2'387	25.0	1'000	46.0	466
-16.0	6'166	5.0	2'284	26.0	962	47.0	451
-15.0	5'861	6.0	2'186	27.0	926	48.0	436
-14.0	5'574	7.0	2'093	28.0	892	49.0	421
-13.0	5'303	8.0	2'004	29.0	859	50.0	407
-12.0	5'046	9.0	1'920	30.0	827		
-11.0	4'804	10.0	1'840	31.0	796		
-10.0	4'574	11.0	1'763	32.0	767		

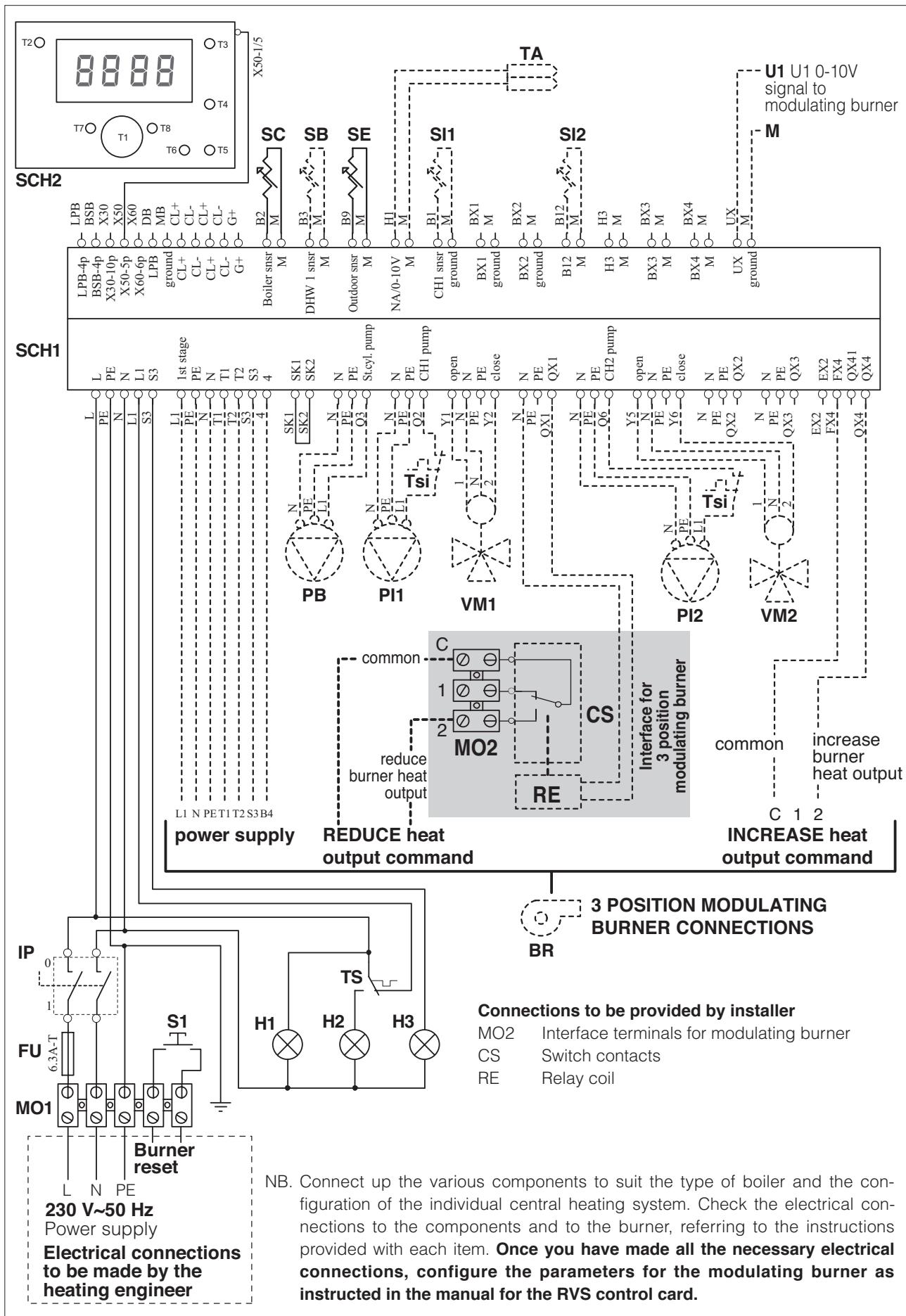
## FUNCTIONAL ELECTRICAL DIAGRAM FOR RIELLOtech CLIMA TOP CONTROL PANEL



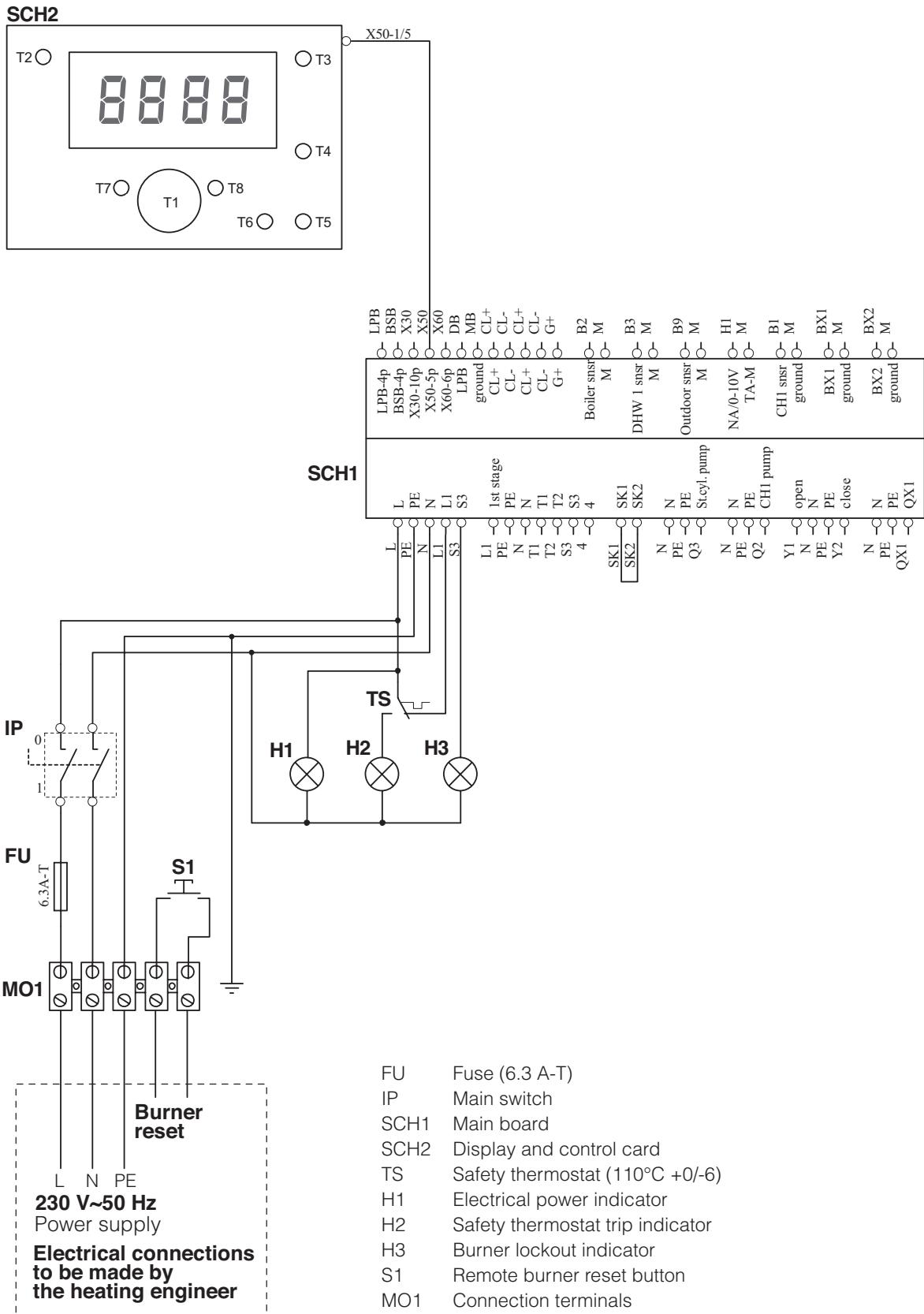
**TYPICAL COMPONENT CONNECTION DIAGRAM FOR SYSTEM WITH RIELLOtech CLIMA TOP CONTROL PANEL AND TWO STAGE BURNER**



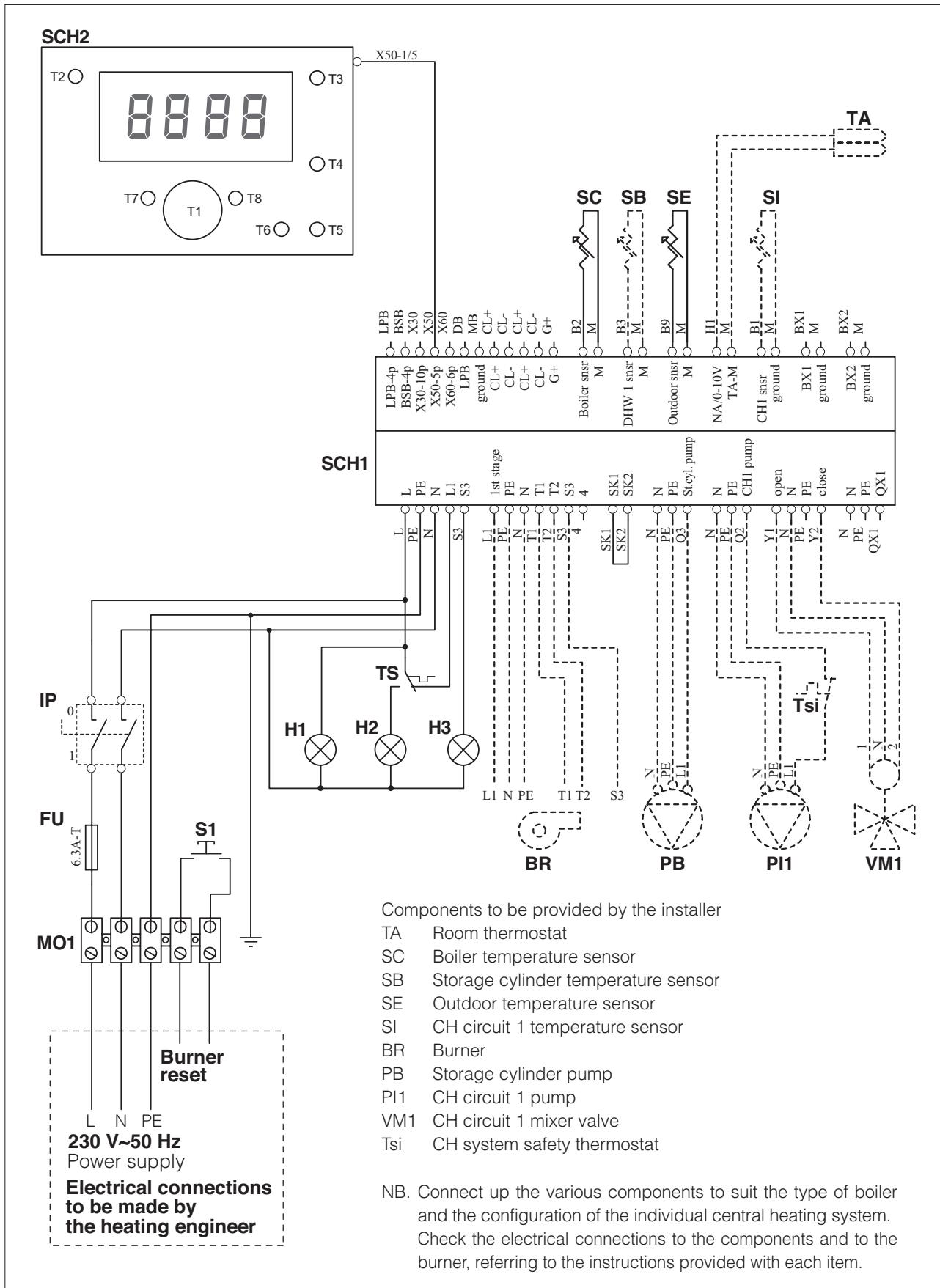
**TYPICAL COMPONENT CONNECTION DIAGRAM FOR SYSTEM WITH RIELLOtech CLIMA TOP CONTROL PANEL AND MODULATING BURNER**

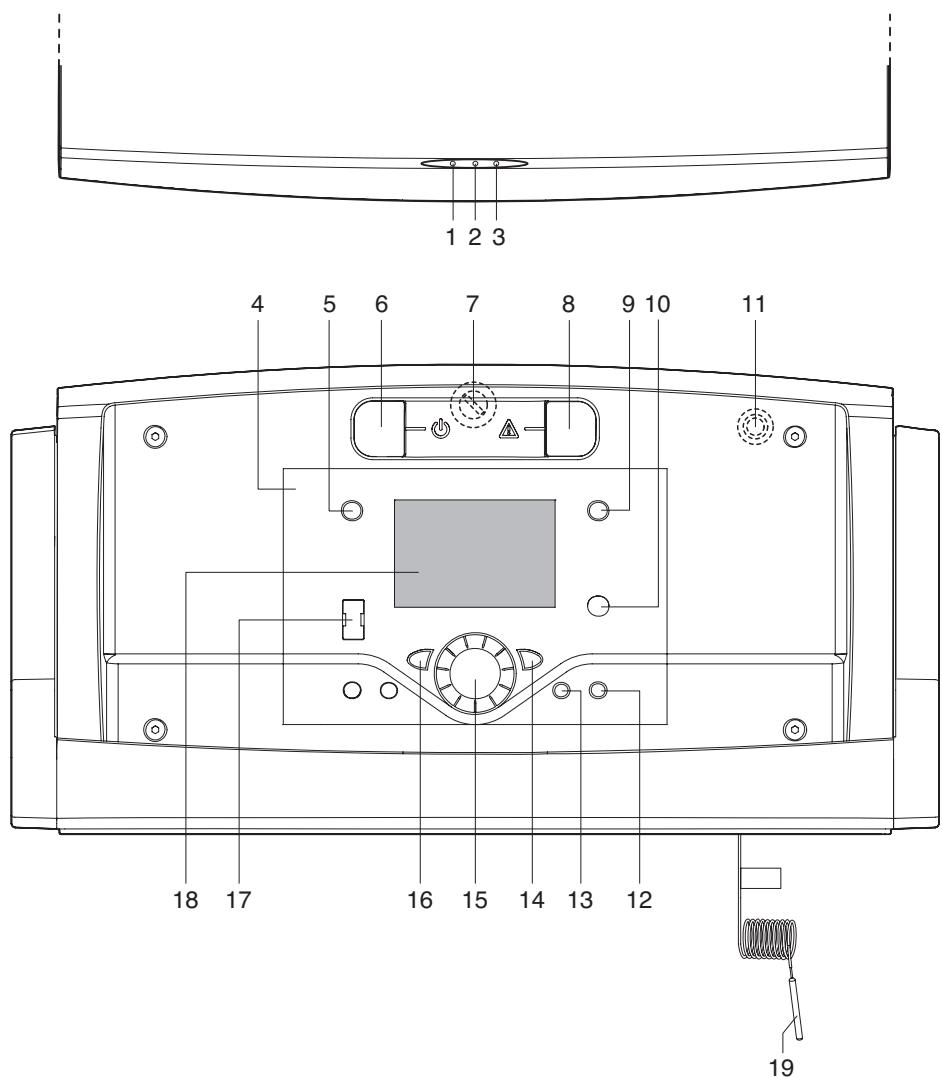


## FUNCTIONAL ELECTRICAL DIAGRAM FOR RIELLOtech CLIMA COMFORT CONTROL PANEL



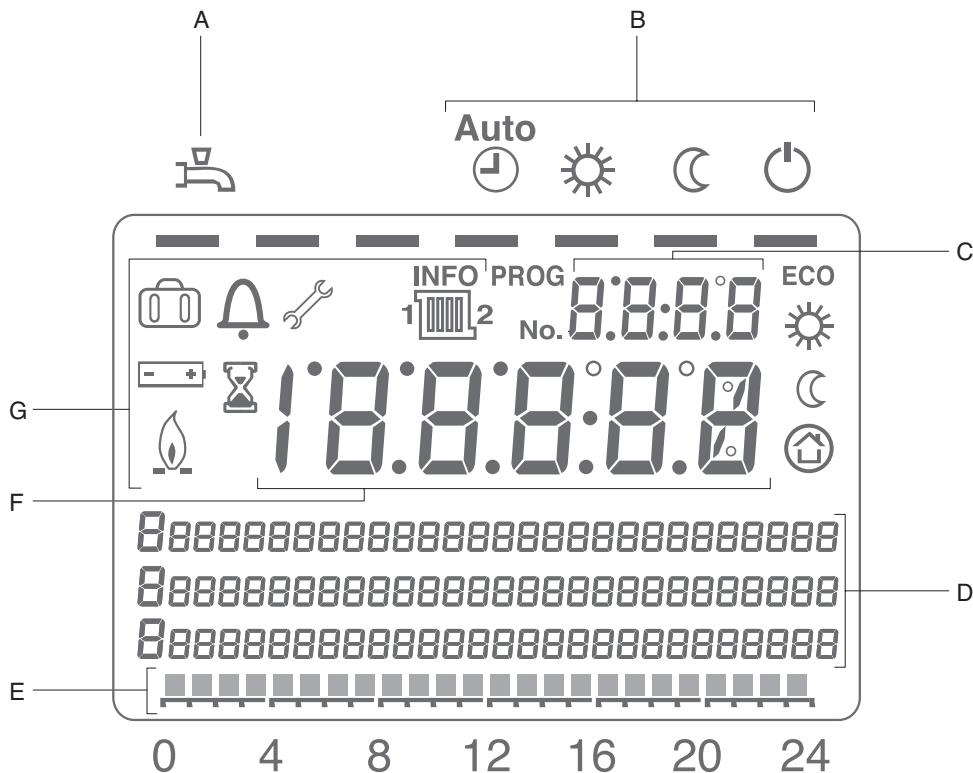
## TYPICAL COMPONENT CONNECTION DIAGRAM FOR SYSTEM WITH RIELLOtech CLIMA COMFORT CONTROL PANEL





- 1 - Electrical power indicator (green).  
Lights to show that the system is receiving electrical power.
- 2 - Safety thermostat trip indicator (red).  
Lights if temperature inside the boiler exceeds 110°C.
- 3 - Burner lockout indicator (red).  
Lights to show that a burner lockout has occurred.
- 4 - Electronic controller.
- 5 - DHW production on/off button.  
When DHW production is active, the  symbol appears on the display.
- 6 - Main switch.
- 7 - Fuse (accessible by tilting the control panel).
- 8 - Burner reset button.
- 9 - Functioning mode selection button.  
A line appears under the symbols:  
  -  Automatic: system operates according to the set program.
  -  Continuous: system operates continuously at comfort setpoint.
  -  Reduced: system operates at reduced setpoint.
  -  Stand-by
- 10 - Information button.
- 11 - Manual reset for safety thermostat (accessible by tilting the control panel).
- 12 -  button for chimney sweep/safety thermostat test functions.
- 13 -  button for manual mode.
- 14 - Value confirm (OK) button.
- 15 - Value change knob.
- 16 - ESCape (exit) button.
- 17 - PC BUS connector.
- 18 - Display.
- 19 - Safety thermostat sensor and cable.

### SECONDARY USER INFORMATION / DISPLAY



A - DHW mode: ON or OFF.

B - Central heating modes:

⌚ AUTOMATIC

☀ Continuous COMFORT

🌙 Continuous REDUCED

⊕ Frost protection. The "⊕" symbol is displayed.

C - Small numeric display: time.

D - Message area.

E - Daily heating program indicator.

F - Large numeric display: current value.

G - Display symbols:

🔥 Burner running.

🔋 Change battery (room unit only, not supplied).

📅 Holiday mode active.

⚠ Error. Press the **i** button to display the error message. Press **ESC** to return to the main screen.

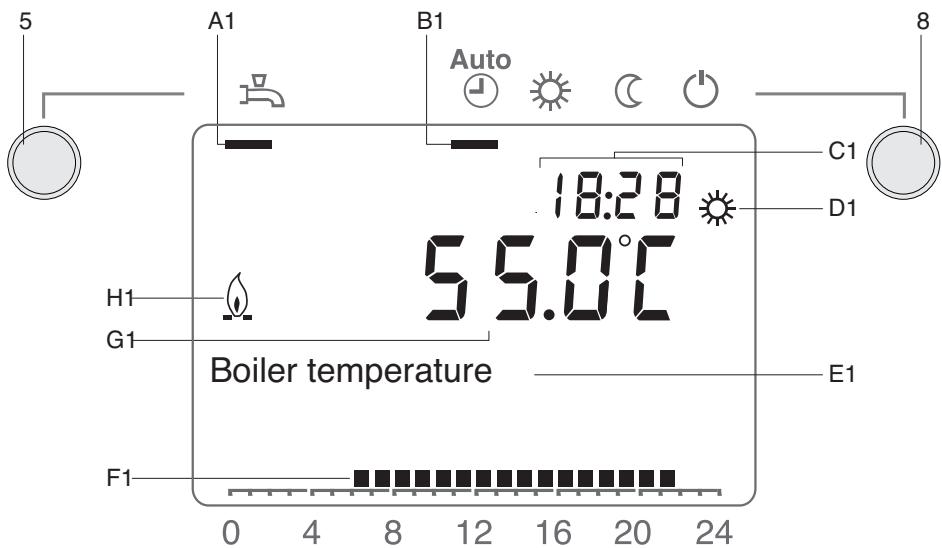
🕒 Wait: process running.

🔧 Maintenance – manual or chimney sweep mode.

▀▀▀ Reference to heating circuit.

ECO Heating temporarily OFF - ECO mode active.

## STANDARD DISPLAY



A1 - DHW mode: ON or OFF.

Press the DHW button (5) to switch DHW on or off (as shown by the line under the symbol).

B1 - Central heating modes.

Press the central heating mode button (8) to activate the various modes as shown by the line under the corresponding symbol.

C1 - Current time.

D1 - COMFORT heating mode.

E1 - Message area.

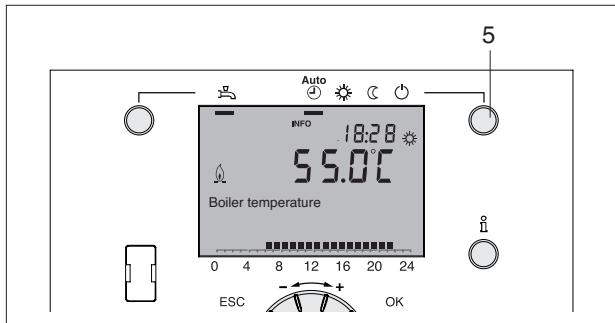
F1 - Daily heating program indicator.

G1 - Current boiler temperature.

H1 - Burner running.

## MODE SELECTION

Press the central heating mode button (5) to select the various modes. The active mode is shown by a line under the corresponding symbol.



### Automatic

In automatic mode, room temperature is controlled by the timer program.

Characteristics:

- Central heating operates according to the timer program.
- The temperature setpoint is set to comfort "☀" or reduced "🌙".
- All protection functions are active.
- Summer/winter switching is automatic (ECO functions). Continuous operation of central heating is limited to 24h.

### Continuous operation or

In continuous mode, room temperature is controlled on the basis of the comfort/reduced setting:

- ☀ Central heating set to comfort setpoint
- 🌙 Central heating set to reduced setpoint

Characteristics:

- Central heating is continuously on with no time program.
- All protection functions are active.
- Summer/winter switching is automatic (ECO functions). Continuous central heating idle time is limited to 24h (see parameter 730).

### Protection

In protection mode the central heating is switched off, but the system remains protected against frost (provided the electrical supply remains switched on).

Characteristics:

- Central heating is switched off.
- Temperature is set to the frost protection setpoint.
- All protection functions are active.

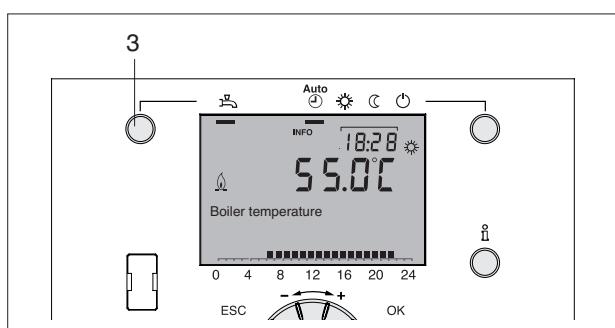
### Domestic hot water (DHW)

Press the central heating mode button (3) to activate DHW production, as shown by a line under the corresponding symbol.

ON: DHW is generated according to the timer program (params. 560 to 566).

OFF: DHW production is switched off but the protection functions remain active.

You can force DHW production (PUSH function) by pressing and holding the DHW button (3) for at least 3 seconds. .



## Setting the room temperature setpoint

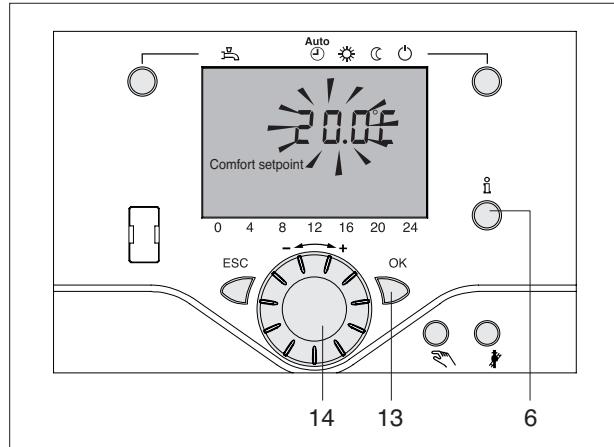
Turn the knob (14) to set the desired room temperature comfort setpoint.

Proceed in a similar way to set the **room temperature reduced setpoint**:

- Press the "OK" button (13).
- Select "Heating circuit 1".
- Set the room temperature reduced setpoint.

**⚠** After changing a setpoint, you need to wait about 2 hours for the new setting to have any effect on room temperature.

**⚠** If no room unit is installed, changing the room temperature setpoint simply shifts the heating curve.



## Information

Press the information button (6) to display:

- Errors or maintenance codes (see the "Errors/Maintenance codes" section)
- Special messages.

Other screens:

**⚠ Other displays depend on the system configuration and operational status. Some of the display lines shown below may not therefore appear.**

- Room temperature
- Room temperature minimum
- Room temperature maximum
- Boiler temperature
- Outside temperature
- Outside temperature min
- Outside temperature max
- DHW temp 1
- State of heating circuit 1

- State of heating circuit 2 (not active)
- State heating circuit P
- State of DHW
- State of boiler
- State of solar
- State solid fuel boiler
- State buffer storage tank
- Date and time of day
- Telephone customer service

## Manual mode



When you select manual mode, the "⚡" symbol appears and relays are energised/de-energised not according to any heating program but according to a setpoint value that can be set manually by pressing the information button (6).

## Chimney sweep mode



To select chimney sweep mode, press the chimney sweep button (11) briefly (max. 3 seconds). The "⚡" symbol is displayed. Chimney sweep mode prepares the boiler for combustion analysis. To exit chimney sweep mode, press the button (11) again. The system exits chimney sweep mode automatically after 1 hour.

## Safety thermostat test

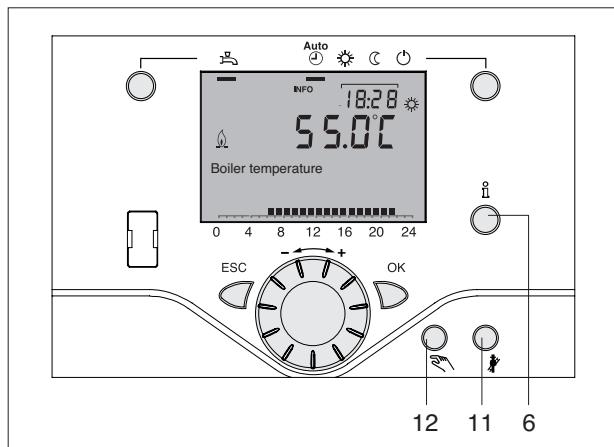


To test the safety thermostat, press and hold the chimney sweep button (11) for longer than 3 seconds.

**Hold the button down for the duration of the test.**

The test terminates as soon as you release the button.

**⚠** This test must only be performed by the **RIELLO** Technical Assistance Service, since it raises boiler temperature over the normal permitted limits.

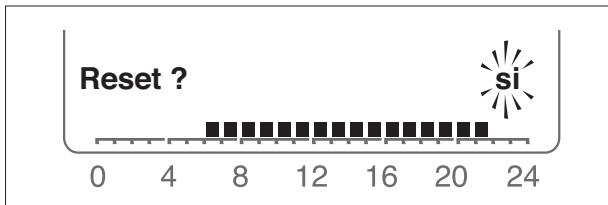
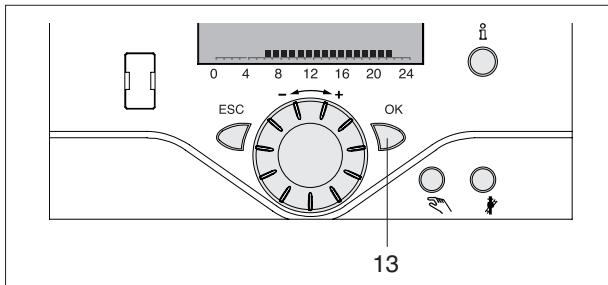


## RESET function

The meters and parameter table RESET icon only appears in the bottom line of the display if it is possible to perform a reset in the current user level (End user, Commissioning, Heating engineer).

**⚠** This operation must only be performed by the **RIELLO** Technical Assistance Service. Performing a RESET restores all parameters to their default values, according to the "Complete list of parameters".

To perform a reset, press the "OK" button (13) when the "Yes" prompt flashes on the display.



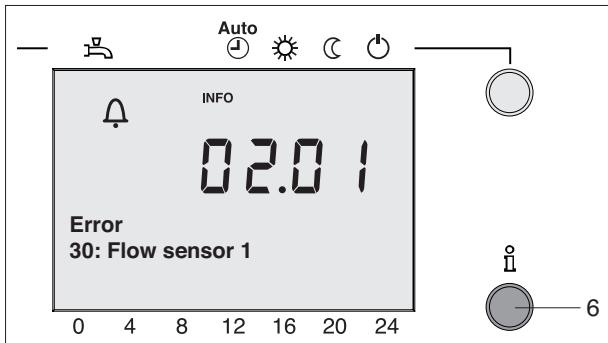
## Special conditions



The following symbols can be displayed under certain conditions:

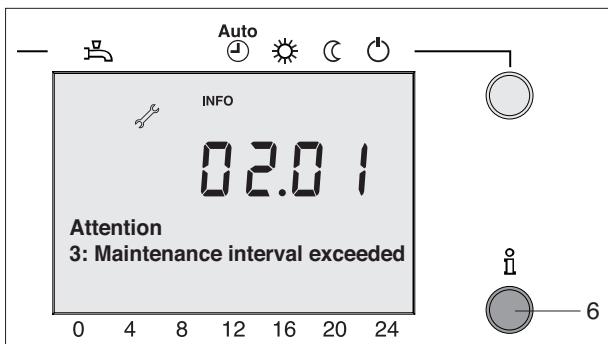


This symbol appears if a system error has occurred.  
Press button (6) for further information.



This symbol appears if a maintenance alarm is present or if the boiler has entered a special functioning mode.  
Press button (6) for further information.

If a system error or maintenance alarm occurs, contact **RIELLO's Technical Assistance Service**.



## USER LEVELS

There are 4 different user levels:

- End user
- Commissioning
- Heating engineer
- OEM (Manufacturer).

The following parameters refer EXCLUSIVELY to the end user level.

Proceed as follows to access the user level you require.

- Go to the main screen.  
If necessary, press the "**ESC**" button one or more times to return to the main screen.

Press the "**OK**" button.

Press and hold the information button "i" for 3 seconds.

- End user level. Turn the knob to scroll through the menu until you reach the end user programming level. Press "**OK**".

To enter the OEM level, you need to enter the

### **Password (12434)**

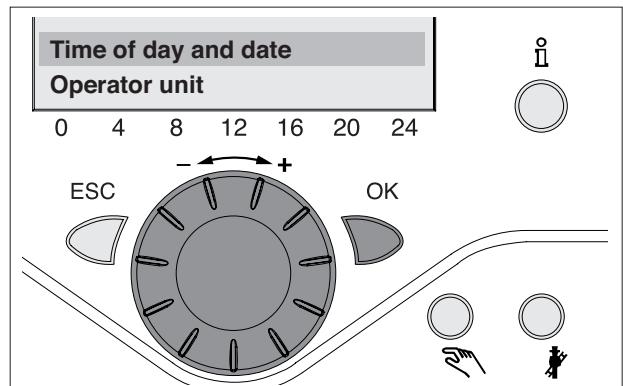
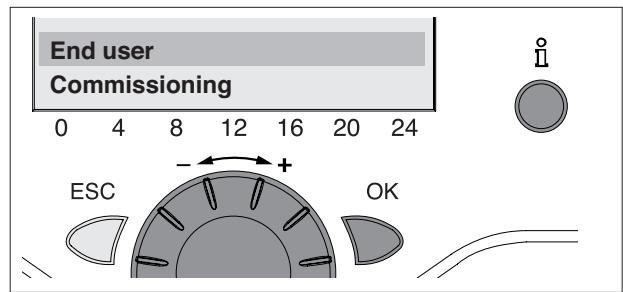
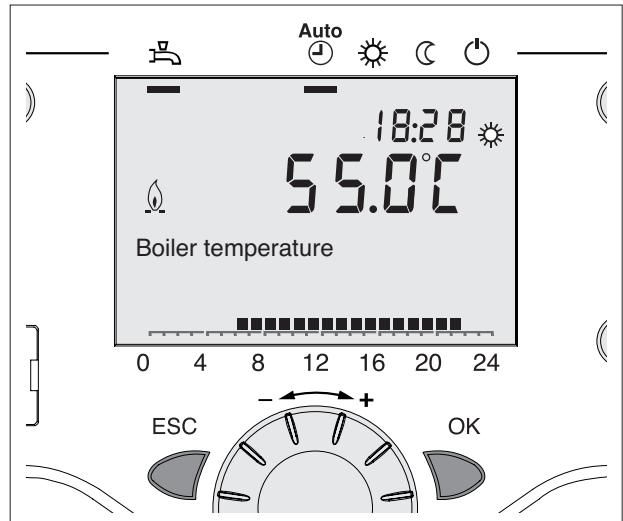
Press the "**OK**" button to confirm each digit. Press "**ESC**" to cancel an entry.

- ⚠** - Pressing the "**ESC**" button takes you just one step back. The value entered is not saved.  
- If no change is made for 8 minutes, the system returns to the main screen.  
- Programming lines are displayed or hidden according to the system configuration and the user level (End user, Commissioning, etc.).

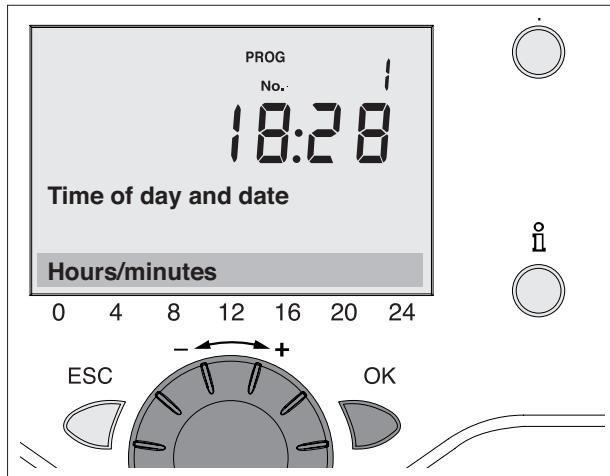
- ⚠** Parameter values on the Commissioning, Heating engineer and OEM levels must only be changed by the **RIELLO** Technical Assistance Service.

### **EXAMPLE: SETTING THE CURRENT TIME**

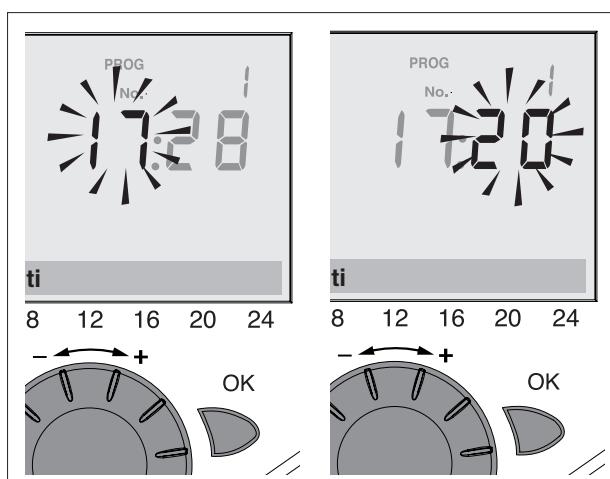
- From the main screen press "**OK**".
- The message area displays a number of setting pages. Turn the knob until you reach the "Time of day and date" line. Press "**OK**" to confirm.



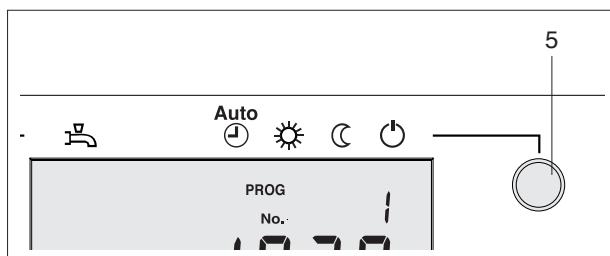
- The message area shows the current hour. Press "OK".



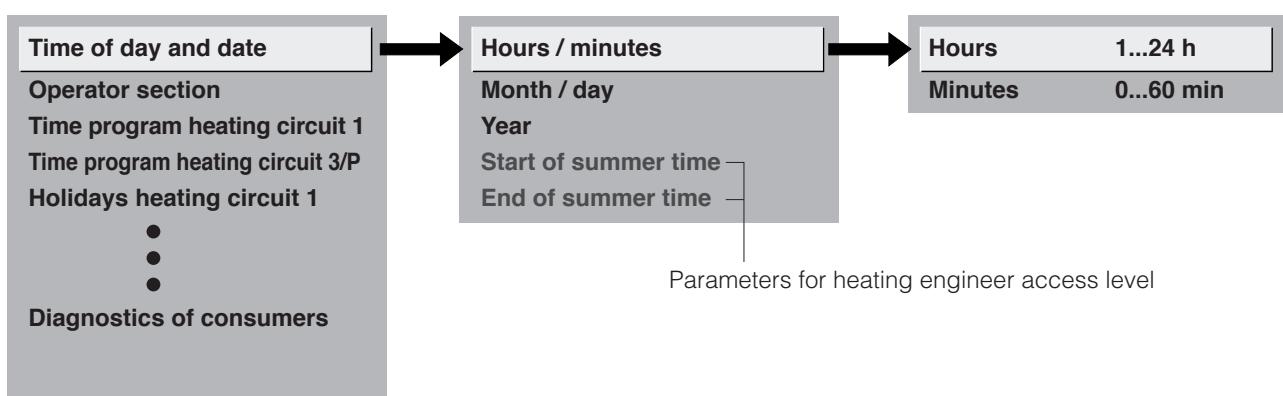
- The display starts to flash. Turn the knob to go on or back to the correct value. Press "OK" to confirm.



- The display flashes the current minutes. Turn the knob to go on or back to the correct value. Press "OK" to confirm.



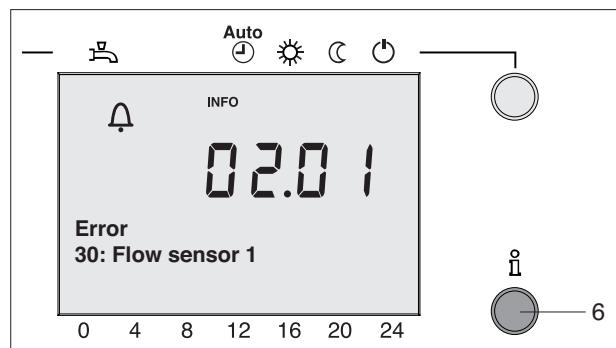
#### EXAMPLE OF THE MENU STRUCTURE



## ERROR/MAINTENANCE CODES

When the alarm symbol  warns of an error, press the button (6) to display a description.

The message on the display describes the cause of the error.



### ERROR LIST

Error code	Description
0	No error
10	Outside temperature sensor error
20	Boiler temperature 1 sensor error
25	Solid fuel boiler temperature (wood) sensor error
26	Common flow temperature sensor error
28	Flue gas temperature sensor error
30	Flow temperature 1 sensor error
31	Flow temperature 1 cooling, sensor error
32	Flow temperature 2 sensor error
38	Flow temperature primary controller sensor error
40	Return temperature 1 sensor error
46	Return temperature cascade sensor error
47	Common return temperature sensor error
50	DHW temperature 1 sensor error
52	DHW temperature 2 sensor error
54	DHW primary controller sensor error
57	DHW circulation temperature sensor error
60	Room temperature 1 sensor error
65	Room temperature 2 sensor error
68	Room temperature 3 sensor error
70	Buffer storage tank temperature 1 sensor error
71	Buffer storage tank temperature 2 sensor error
72	Buffer storage tank temperature 3 sensor error
73	Collector temperature 1 sensor error
74	Collector temperature 2 sensor error
81	Short-circuit LPB
82	LPB address collision
83	BSB wire short-circuit
84	BSB address collision
85	BSB radio communication fault
98	Extension module 1 fault (common fault status message)
99	Extension module 2 fault (common fault status message)
100	2 clock time masters (LPB)
102	Clock time master without backup (LPB)
105	Maintenance message
109	Boiler temperature supervision
110	Lockout by SLT
117	Upper pressure limit (crossed)
118	Critical lower pressure limit (crossed)

Error code	Description
<b>121</b>	Flow temperature 1 (HC1) supervision
<b>122</b>	Flow temperature 2 (HC2) supervision
<b>126</b>	DHW charging supervision
<b>127</b>	Legionella temperature not reached
<b>131</b>	Burner fault
<b>146</b>	Configuration error common message
<b>171</b>	Alarm contact 1 (H1) active
<b>172</b>	Alarm contact 2 (H2) active
<b>173</b>	Alarm contact 3 (EX2/230VAC) active
<b>174</b>	Alarm contact 4 (H3) active
<b>176</b>	Upper pressure limit 2 (crossed)
<b>177</b>	Critical lower pressure limit 2 (crossed)
<b>178</b>	Temperature limiter heating circuit 1
<b>179</b>	Temperature limiter heating circuit 2
<b>207</b>	Error, cooling circuit
<b>217</b>	Sensor error common message
<b>218</b>	Pressure supervision common message
<b>241</b>	Flow sensor, solar sensor error
<b>242</b>	Return sensor, solar sensor error
<b>243</b>	Swimming pool temperature sensor error
<b>320</b>	DHW charging temperature sensor error
<b>321</b>	Instantaneous DHW heater outlet temperature sensor error
<b>322</b>	Upper pressure limit 3 (crossed)
<b>323</b>	Critical lower pressure limit 3 (crossed)
<b>324</b>	BX same sensors
<b>325</b>	BX/extension module same sensors
<b>326</b>	BX/mixing valve group same sensors
<b>327</b>	Extension module same function
<b>328</b>	Mixing valve group same function
<b>329</b>	Extension module / mixing valve group same function
<b>330</b>	Sensor BX1 no function
<b>331</b>	Sensor BX2 no function
<b>332</b>	Sensor BX3 no function
<b>333</b>	Sensor BX4 no function
<b>334</b>	Sensor BX5 no function
<b>335</b>	Sensor BX21 no function
<b>336</b>	Sensor BX22 no function
<b>337</b>	Sensor BX1 no function
<b>338</b>	Sensor BX12 no function
<b>339</b>	Collector pump Q5 missing
<b>340</b>	Collector pump Q16 missing
<b>341</b>	Collector sensor B6 missing
<b>342</b>	Solar DHW sensor B31 missing
<b>343</b>	Solar integration missing
<b>344</b>	Solar controlling element buffer K8 missing
<b>345</b>	Solar controlling element swimming pool K18 missing
<b>346</b>	Solid fuel boiler pump Q10 missing
<b>347</b>	Solid fuel boiler comparison sensor missing
<b>348</b>	Solid fuel boiler address error
<b>349</b>	Buffer return valve Y15 missing
<b>350</b>	Buffer storage tank address error
<b>351</b>	Primary controller / system pump address error

Error code	Description
<b>352</b>	Pressureless header address error
<b>353</b>	Cascade sensor B10 missing
<b>357</b>	Flow temperature cooling circuit 1 monitoring
<b>366</b>	Room temperature Hx sensor error
<b>367</b>	Relative room humidity Hx sensor error

## MAINTENANCE CODE

Maintenance code	Description
<b>1</b>	Burner hours run exceeded
<b>2</b>	Burner starts exceeded
<b>3</b>	Maintenance interval exceeded
<b>5</b>	Water pressure heating circuit too low (dropped below lower pressure limit 1)
<b>18</b>	Water pressure 2 heating circuit too low (dropped below lower pressure limit 2)
<b>10</b>	Replace battery of outside sensor
<b>21</b>	Maximum flue gas temperature exceeded
<b>22</b>	Water pressure 3 heating circuit too low (dropped below lower pressure limit 3)

## SPECIAL OPERATION CODE

Operation code	Description
<b>301</b>	Manual operation
<b>302</b>	SLT test
<b>303</b>	Chimney sweep function
<b>309</b>	Simulation outside temperature
<b>310</b>	Alternative energy operation
<b>314</b>	Economy mode

## LIST OF PARAMETERS

Operating line	User level	Function	Default value	Min	Max	Unit
<b>Time of day and date</b>						
1	E	Hours / minutes	-	00:00	23:59	hh:mm
2	E	Day/month	-	01.01	31.12	dd.MM
3	E	Year	-	2004	2099	yyyy
5	F	Start of summertime	25.03	01.01	31.12	dd.MM
6	F	End of summertime	25.10	01.01	31.12	dd.MM
<b>Operator unit</b>						
20	E	Language German   ...	German			-
21	O	Display special operation Off   On	On			
22	F	Info Temporarily   Permanently	Temporarily			-
26	F	Operation lock Off   On	Off			-
27	F	Programming lock Off   On	Off			-
28	I	Direct adjustment Automatic storage   Save with acknowledgment	Save with acknowledgment			
30	O	Save basic settings No   Yes	No			
31	O	Activate basic settings No   Yes	No			
40 (*)	I	Used as Room unit 1   Room unit 2   Room unit P   Operator unit 1   Operator unit 2   Operator unit P   Service unit	Room unit 1			-
42 (*)	I	Assignment device 1 Heating circuit 1   Heating circuits 1 and 2   Heating circuits 1 and P   All heating circuits	Heating circuit 1			-
44	I	Operation HC2 Commonly with HC1   Independently	Commonly with HC1			-
46	I	Operation HCP Commonly with HC1   Independently	Commonly with HC1			-
48 (*)	I	Action occupancy button None   Heating circuit 1   Heating circuit 2   Commonly	Heating circuit 1			-
54 (*)	F	Readjustment room sensor	0.0	-3	3	°C
70	F	Software version	-	0	99.9	-
<b>Time prog heating circuit 1</b>						
500	E	Preselection Mo - Su   Mo - Fr   Sa - Su   Mo   Tu   We   Th   Fr   Sa   Su	Mo - Su			-
501	E	1st phase on	6:00	00:00	24:00	hh:mm
502	E	1st phase off	22:00	00:00	24:00	hh:mm
503	E	2nd phase on	24:00	00:00	24:00	hh:mm
504	E	2nd phase off	24:00	00:00	24:00	hh:mm
505	E	3rd phase on	24:00	00:00	24:00	hh:mm
506	E	3rd phase off	24:00	00:00	24:00	hh:mm
516	E	Default values No   Yes	No			-

**E**=End user **I**=Commissioning **F**=Heating engineer **O**=OEM **BZ**=Operating line

(\*) QAA75../78.. only, (\*\*) RIELLOtech CLIMA COMFORT only, (\*\*\*) RIELLOtech CLIMA TOP only.

<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
<b>Time prog heating circuit 2</b>						
520	E	Preselection Mo - Su ; Mo - Fr ; Sa - Su ; Mo ; Tu ; We ; Th ; Fr ; Sa ; Su	Mo - Su			-
521	E	1st phase on	6:00	00:00	24:00	hh:mm
522	E	1st phase off	22:00	00:00	24:00	hh:mm
523	E	2nd phase on	24:00	00:00	24:00	hh:mm
524	E	2nd phase off	24:00	00:00	24:00	hh:mm
525	E	3rd phase on	24:00	00:00	24:00	hh:mm
526	E	3rd phase off	24:00	00:00	24:00	hh:mm
536	E	Default values No ; Yes	No			-
<b>Time program 3/HCP</b>						
540	E	Preselection Mo - Su ; Mo - Fr ; Sa - Su ; Mo ; Tu ; We ; Th ; Fr ; Sa ; Su	Mo - Su			-
541	E	1st phase on	6:00	00:00	24:00	hh:mm
542	E	1st phase off	22:00	00:00	24:00	hh:mm
543	E	2nd phase on	24:00	00:00	24:00	hh:mm
544	E	2nd phase off	24:00	00:00	24:00	hh:mm
545	E	3rd phase on	24:00	00:00	24:00	hh:mm
546	E	3rd phase off	24:00	00:00	24:00	hh:mm
556	E	Default values No ; Yes	No			-
<b>Time program 4/DHW</b>						
560	E	Preselection Mo - Su ; Mo - Fr ; Sa - Su ; Mo ; Tu ; We ; Th ; Fr ; Sa ; Su	Mo - Su			-
561	E	1st phase on	6:00	00:00	24:00	hh:mm
562	E	1st phase off	22:00	00:00	24:00	hh:mm
563	E	2nd phase on	24:00	00:00	24:00	hh:mm
564	E	2nd phase off	24:00	00:00	24:00	hh:mm
565	E	3rd phase on	24:00	00:00	24:00	hh:mm
566	E	3rd phase off	24:00	00:00	24:00	hh:mm
576	E	Default values No ; Yes	No			-
<b>Time program 5</b>						
600	E	Preselection Mo - Su ; Mo - Fr ; Sa - Su ; Mo ; Tu ; We ; Th ; Fr ; Sa ; Su	Mo - Su			-
601	E	1st phase on	6:00	00:00	24:00	hh:mm
602	E	1st phase off	22:00	00:00	24:00	hh:mm
603	E	2nd phase on	24:00	00:00	24:00	hh:mm
604	E	2nd phase off	24:00	00:00	24:00	hh:mm
605	E	3rd phase on	24:00	00:00	24:00	hh:mm
606	E	3rd phase off	24:00	00:00	24:00	hh:mm
616	E	Default values No ; Yes	No			-
<b>Holidays heating circuit 1</b>						
641	E	Preselection Period 1 ; Period 2 ; Period 3 ; Period 4 ; Period 5 ; Period 6 ; Period 7 ; Period 8	Period 1			-
642	E	Start	--.--	01.01	31.12	dd.mm
643	E	End	--.--	01.01	31.12	dd.mm

**E**=End user   **I**=Commissioning   **F**=Heating engineer   **O**=OEM   **BZ**=Operating line

(\*) QAA75../78.. only, (\*\*) RIELLOtech CLIMA COMFORT only, (\*\*\*) RIELLOtech CLIMA TOP only.

<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
648	E	Operating level Frost protection   Reduced	Frost protection			-
<b>Holidays heating circuit 2</b>						
651	E	Preselection Period 1   Period 2   Period 3  Period 4  Period 5  Period 6  Period 7  Period 8	Period 1			-
652	E	Start	--.--	01.01	31.12	dd.mm
653	E	End	--.--	01.01	31.12	dd.mm
658	E	Operating level Frost protection   Reduced	Frost protection			-
<b>Holidays heating circuit P</b>						
661	E	Preselection Period 1   Period 2   Period 3  Period 4  Period 5  Period 6  Period 7  Period 8	Period 1			-
662	E	Start	--.--	01.01	31.12	dd. mm
663	E	End	--.--	01.01	31.12	dd.mm
668	E	Operating level Frost protection   Reduced	Frost protection			-
<b>Heating circuit 1</b>						
710	E	Comfort cooling setpoint	20.0	Operating line 712	Operating line 716	°C
712	E	Reduced setpoint	16	Operating line 714	Operating line 710	°C
714	E	Frost protection setpoint	10.0	4	Operating line 712	°C
716	F	Comfort setpoint maximum	35.0	Operating line 710	35	°C
720	E	Heating curve slope	1.50	0.10	4.00	-
721	F	Heating curve displacement	0.0	-4.5	4.5	°C
726	F	Heating curve adaption Off   On	Off			-
730	E	Summer/winter heating limit	18	-- -- / 8	30	°C
732	F	24-hour heating limit	-3	-- -- / -10	10	°C
740	I	Flow temp setpoint min	8	8	Operating line 741	°C
741	I	Flow temp setpoint max	80	Operating line 740	95	°C
750	F	Room influence	20	-- -- / 1	100	%
760	F	Room temp limitation	1	-- -- / 0.5	4	°C
770	F	Boost heating	5	-- -- / 0	20	°C
780	F	Quick setback Off   Down to reduced setpoint   Down to frost prot setp	Down to reduced setpoint			-
790	F	Optimum start control max	0	0	360	min
791	F	Optimum top control max	0	0	360	min
800	F	Reduced setp increase start	-- --	-- -- / -30	10	°C
801	F	Reduced setp increase end	-15	-30	Operating line 800	°C
820	F	Overtemp prot pump circuit Off   On	On			-
830	F	Mixing valve boost	5	0	50	°C
832	F	Actuator type 2-position   3-position	3-position			-
833	F	Switching differential 2-pos	2	0	20	°C
834	F	Actuator running time	120	30	873	s

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
835	O	Mixing valve Xp	32	1	100	°C
836	O	Mixing valve Tn	120	10	873	s
850	I	Floor curing function Off ; Functional heating ; Curing heating ; Functional/ curing heating! Curing/ functional heating ; Manually	Off			-
851	I	Floor curing setp manual	25	0	95	°C
861	F	Excess heat draw Off ; Heating mode ; Always	Always			
870	F	With buffer storage tank No ; Yes	Yes			-
872	F	With primary controller / system pump No ; Yes	Yes			
882 (**)	F	Pump speed min	100	0	100	%
883 (**)	F	Pump speed max	100	0	100	%
900	F	Optg mode changeover None ; Protection ; Reduced ; Comfort ; Automatic	Protection mode			

#### Cooling circuit 1

901 (**)	E	Operating mode Off ; Automatic	Automatically			-
902 (**)	E	Comfort cooling setpoint release	24.0	15	40	°C
907 (**)	E	24h/day ; Time programs HCs ; Time program 5	24 h/day			-
908 (**)	I	Flow setpoint at OT 25°C	20	8	35	°C
909 (**)	I	Flow setpoint at OT 35°C	16	8	35	°C
912 (**)	I	Cooling limit at OT (outside temperature)	20	-- / 8	355	°C
913 (**)	F	Locking period at end of heating	24	-- / 8	100	h
918 (**)	F	Start of summer compensation at OT	26	20	35	°C
919 (**)	F	End of summer compensation at OT	35	20	35	°C
920 (**)	F	Summer compensation setpoint increase	4	-- / 1	10	°C
923 (**)	I	Flow setpoint min. OT 25°C	18	8	35	°C
924 (**)	I	Flow setpoint min. OT 35°C	18	8	35	°C
928 (**)	F	Room influence	80	-- / 1	10	%
932 (**)	F	Room temp limitation	0.5	-- / 0.5	4	°C
938 (**)	F	Mixing valve subcooling	0	0	20	°C
939 (**)	F	Actuator type 2-position ; 3-position	3-position			
940 (**)	F	Switching differential 2-pos	2	0	20	°C
941 (**)	F	Actuator running time	120	30	873	s
942 (**)	O	Mixing valve Xp	12	1	100	°C
943 (**)	O	Mixing valve Tn	90	10	873	s
945 (**)	F	Mixing valve in heating mode Control ; Open	Controls			
946 (**)	F	Dewpt monitor locking time	60	-- / 10	600	min
947 (**)	F	Flow setpt increase hygro	3	-- / 1	10	°C
948 (**)	F	Start flow increase at R.H.	60	0	100	%
950 (**)	I	Flow temp diff dewpoint	2	-- / 0	10	°C
962 (**)	F	With buffer storage tank No ; Yes	No			
963 (**)	F	With primary controller / system pump No ; Yes	No			

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
969 (**)	I	Optg mode changeover None ; Off ; Automatic	Off			
<b>Heating circuit 2</b>						
1010	E	Comfort cooling setpoint	20.0	Op line 1012	Operating line 1016	°C
1012	E	Reduced setpoint	16	Op line 1014	Operating line 1010	°C
1014	E	Frost protection setpoint	10.0	4	Operating line 1012	°C
1016	F	Comfort setpoint maximum	35.0	Op line 1010	35	°C
1020	E	Heating curve slope	1.50	0.10	4.00	-
1021	F	Heating curve displacement	0.0	-4.5	4.5	°C
1026	F	Heating curve adaption Off ; On	Off			-
1030	E	Summer/winter heating limit	18	-- / 8	30	°C
1032	F	24-hour heating limit	-3	-- / -10	10	°C
1040	I	Flow temp setpoint min	8	8	Operating line 1041	°C
1041	I	Flow temp setpoint max	80	Op line 1040	95	°C
1050	F	Room influence	20	-- / 1	100	%
1060	F	Room temp limitation	1	-- / 0.5	4	°C
1070	F	Boost heating	5	-- / 0	20	°C
1080	F	Quick setback Off ; Down to reduced setpoint ; Down to frost prot setp	Down to reduced setpoint			-
1090	F	Optimum start control max	0	0	360	min
1091	F	Optimum top control max	0	0	360	min
1100	F	Reduced setp increase start	--	-- / -30	10	°C
1101	F	Reduced setp increase end	-15	-30	Operating line 1100	°C
1120	F	Overtemp prot pump circuit Off ; On	On			-
1130	F	Mixing valve boost	5	0	50	°C
1132	F	Actuator type 2-position ; 3-position	3-position			-
1133	F	Switching differential 2-pos	2	0	20	°C
1134	F	Actuator running time	120	30	873	s
1135	O	Mixing valve Xp	32	1	100	°C
1136	O	Mixing valve Tn	120	10	873	s
1150	F	Floor curing function Off ; Functional heating ; Curing heating ; Functional/curing heating; Curing/ functional heating ; Manually	Off			-
1151	F	Floor curing setp manual	25	0	95	°C
1161	F	Excess heat draw Off ; Heating mode ; Always	Always			
1170	F	With buffer storage tank No ; Yes	Yes			-
1172	F	With primary controller / system pump No ; Yes	Yes			
1182 (***)	F	Pump speed min	100	0	100	%
1183 (***)	F	Pump speed max	100	0	100	%

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
1200	F	Optg mode changeover None ! Protection ! Reduced ! Comfort ! Automatic	Protection mode			
<b>Heating circuit P</b>						
1300	E	Operating mode Protection ! Automatic ! Reduced ! Comfort	Automatically			-
1310	E	Comfort cooling setpoint	20.0	Op line 1312	Op line 1316	°C
1312	E	Reduced setpoint	16	Op line 1314	Op line 1310	°C
1314	E	Frost protection setpoint	10.0	4	Op line 1312	°C
1316	F	Comfort setpoint maximum	35.0	Op line 1310	35	°C
1320	E	Heating curve slope	1.50	0.10	4.00	-
1321	F	Heating curve displacement	0.0	-4.5	4.5	°C
1326	F	Heating curve adaption Off ! On	Off			-
1330	E	Summer/winter heating limit	18	--- / 8	30	°C
1332	F	24-hour heating limit	-3	--- / -10	10	°C
1340	F	Flow temp setpoint min	8	8	Op line 1341	°C
1341	F	Flow temp setpoint max	80	Op line 1340	95	°C
1350	F	Room influence	20	--- / 1	100	%
1360	F	Room temp limitation	1	--- / 0.5	4	°C
1370	F	Boost heating	5	--- / 0	20	°C
1380	F	Quick setback Off ! Down to reduced setpoint ! Down to frost prot setp	Down to reduced setpoint			-
1390	F	Optimum start control max	0	0	360	min
1391	F	Optimum top control max	0	0	360	min
1400	F	Reduced setp increase start	---	--- / -30	10	°C
1401	F	Reduced setp increase end	-15	-30	Op line 1400	°C
1420	F	Overtemp prot pump circuit Off ! On	On			-
1450	I	Floor curing function Off ! Functional heating ! Curing heating ! Functional/ curing heating! Curing/ functional heating ! Manually	Off			-
1451	I	Floor curing setp manual	25	0	95	°C
1455	F	Floor curing setp current	0	0	95	°C
1456	F	Floor curing day current	0	0	32	
1457 (**)	F	Floor curing days complete	0	0	32	
1461	F	Excess heat draw Off ! Heating mode ! Always	Always			
1470	F	With buffer storage tank No ! Yes	Yes			-
1472	F	With primary controller / system pump No ! Yes	Yes			
1482 (**)	F	Pump speed min	100	0	100	%
1483 (**)	F	Pump speed max	100	0	100	%

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
1500	F	Optg mode changeover None   Protection   Reduced   Comfort   Automatic	Protection mode			
<b>DHW</b>						
1610	E	Nominal setpoint	55	Op line 1612	BZ 1614 OEM	°C
1612	F	Reduced setpoint	40	8	Op line 1610	°C
1614	O	Nominal setpoint max	65	8	80	°C
1620	O	Release 24h/day   Time programs HCs   Time program 4/DHW	Time programs HCs			-
1630	I	Charging priority Absolute   Shifting   None   MC shifting, PC absolute	MC shifting, PC absolute			-
1640	F	Legionella function Off   Periodically   Fixed weekday	Fixed weekday			-
1641	F	Legionella funct periodically	3	1	7	Days
1642	F	Legionella funct weekday Monday   Tuesday   Wednesday   Thursday   Friday   Saturday   Sunday	Monday			
1644	F	Legionella function time	--- / 00:00	---	23:50	hh:mm
1645	F	Setpoint of Legionella function	65	55	95	°C
1646	F	Legionella function dwelling time	30	--- / 10	360	min
1647	F	Legionella funct circ pump Off   On	On			-
1660	F	Circulating pump release Time program 3/HCP   DHW release   Time program 4/DHW   Time program 5	DHW release			-
1661	F	Circulating pump cycling Off   On	On			-
1663	F	Circulation setpoint	45	8	80	°C
<b>Pumps H</b>						
2008	O	H1 DHW charging priority No   Yes	Yes			
2010	F	H1 Excess heat draw Off   On	On			
2012	F	H1 with buffer storage tank No   Yes	Yes			-
2014	F	H1 prim contr/system pump No   Yes	Yes			-
2015 (**)	F	H1 Refrig demand 2-pipe system   4-pipe system	2-pipe system			
2033	O	H2 DHW charging priority No   Yes	Yes			
2035	F	H2 Excess heat draw Off   On	On			
2037	F	H2 with buffer storage tank No   Yes	Yes			-
2039	F	H2 prim contr/system pump No   Yes	Yes			-
2040 (**)	F	H2 Refrig demand 2-pipe system   4-pipe system	2-pipe system			
2044 (***)	O	H3 DHW charging priority No   Yes	Yes			
2046 (***)	F	H3 Excess heat draw Off   On	On			
2048 (***)	F	H3 with buffer No   Yes	Yes			

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
2050 (***)	F	H2 prim contr/system pump No ; Yes	Yes			
<b>Swimming pool</b>						
2055	F	Setpoint solar heating	26	8	80	°C
2056	F	Setpoint source heating	22	8	80	°C
2065	F	Charging priority solar No ; Yes	No			
2070	O	Swimming pool temp max	32	8	95	°C
2080	F	With solar integration No ; Yes	Yes			
<b>Primary controller / system pump</b>						
2110	O	Flow temp setpoint min	8	8	95	°C
2111	O	Flow temp setpoint max	80	8	95	°C
2112	O	Flow setpoint, cooling min	8	8	20	°C
2130	O	Mixing valve boost	10	0	50	°C
2131	O	Mixing valve subcooling	0	0	20	°C
2132	O	Actuator type 2-position ; 3-position	3-position			
2133	O	Switching differential 2-pos	2	0	20	°C
2134	O	Actuator running time	120	30	873	s
2135	O	Mixing valve Xp	32	1	100	°C
2136	O	Mixing valve Tn	120	10	873	s
2150	I	Primary controller / system pump Before buffer st tank ; After buffer st tank	After buffer st tank			-
<b>Boiler</b>						
2200	O	Operating mode Continuous operation ; Automatic ; Auto, extended running time	Automatically			
2203	F	Release below outside temp	---	--/-50	50	°C
2205	F	Economy mode Off ; On DHW ; On	Off			
2208	O	Full charging buffer Off ; On	Off			
2210	F	Setpoint min	40	Op line 2211 OEM	Setpoint manu- al opera- tion	°C
2211	O	Setpoint min OEM	40	8	95	°C
2212	F	Setpoint max	80	Setpoint manu- al opera- tion	Op line 2213 OEM	°C
2213	O	Setpoint max OEM	85	8	120	°C
2220 (***)	O	Release integral stage 2	50	0	500	°C min
2221 (***)	O	Reset integral stage 2	10	0	500	°C min
2232 (***)	O	Damper actuator running time	60	7.5	480	s
2233 (***)	O	Modulating Xp	20	1	200	°C
2234 (***)	O	Modulating Tn	150	10	873	s
2235 (***)	O	Modulating Tv	4.5	0	30	s
2240	O	Switching differential of the boiler	8	0	20	°C
2241	O	Burner running time min	4	0	20	min
2250	O	Pump overrun time	5	0	20	min
2260	O	Prot boil startup consumers Off ; On	On			

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
2261	O	Prot boil startup boil pump Off ; On	On			
2262	O	Optimum start control Off ; On	Off			
2270	F	Return setpoint min	8	8	95	°C
2271	O	Return setpoint min OEM	8	8	95	°C
2272	O	Return influence consumers Off ; On	On			
2282	O	Actuator running time	120	30	873	s
2283	O	Mixing valve Xp	32	1	100	°C
2284	O	Mixing valve Tn	120	10	873	s
2285	O	Mixing valve Tv	10	0	60	s
2290	O	Switching differential bypass pump	6	0	20	°C
2291	O	Control bypass pump Parallel burner operation ; Return temp	Return temperature			
2300	O	Frost prot plant boiler pump Off ; On	Off			
2310	O	Limit thermostat function Off ; On	On			
2315	O	Temp differential min	---	---	80	°C
2316	O	Temp differential max	---	---	80	°C
2322 (***)	O	Pump speed min	40	0	100	%
2323 (***)	O	Pump speed max	100	0	100	%
2324 (***)	O	Speed Xp	32	1	100	°C
2325 (***)	O	Speed Tn	120	10	873	s
2326 (***)	O	Speed Tv	10	0	60	s
2330	F	Output nominal	50	0	1000	kW
2331	F	Output of basic stage	30	0	1000	kW
2340 (***)	F	Auto source seq 2x1 casc	500	---	990	h

#### Cascade

3510	O	Lead strategy Late on, early off ; Late on, late off ; Early on, late off	Late on, late off			
3511	O	Output band min	40	0	100	%
3512	O	Output band max	90	0	100	%
3530	O	Release integral source seq	50	0	500	°C min
3531	O	Reset integral source seq	20	0	500	°C min
3532	F	Restart lock	300	0	1800	s
3533	F	Switch-on delay	5	0	120	min
3534	O	Forced time basic stage	60	0	1200	s
3540	F	Auto source seq ch'over	500	---	990	h
3541	F	Auto source seq exclusion None ; First ; Last ; First and last	None			
3544	F	Leading source S ource 1 ; Source 2 ; ... ; Source 16	Source 1			
3550	O	Prot startup cascade pump Off ; On	On			
3560	F	Return setpoint min	8	8	95	°C
3561	O	Return setpoint min OEM	8	8	95	°C
3562	O	Return influence consumers Off ; On	On			
3570	O	Actuator running time	120	30	873	s
3571	O	Mixing valve Xp	32	1	100	°C

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
3572	O	Mixing valve Tn	120	10	873	s
3590	O	Temp differential min	---	--- / 0	20	°C
<b>Solar</b>						
3810	F	Temp diff on	8	0	40	°C
3811	F	Temp diff off	4	0	40	°C
3812	F	Charg temp min DHW st tank	---	--- / 8	95	°C
3813	O	Temp diff on buffer	---	--- / 0	40	°C
3814	O	Temp diff off buffer	---	--- / 0	40	°C
3815	F	Charging temp min buffer	---	--- / 8	95	°C
3816	O	Temp diff on swi pool	---	--- / 0	40	°C
3817	O	Temp diff off swi pool	---	--- / 0	40	°C
3818	F	Charging temp min swi pool	---	--- / 8	95	°C
3822	F	Charging prio storage tank None ; DHW storage tank ; Buffer	DHW storage tank			
3825	F	Charging time relative prio	---	--- / 2	60	min
3826	F	Waiting time relative prio	5	1	40	min
3827	F	Waiting time parallel op	---	--- / 0	40	min
3828	F	Delay secondary pump	60	0	600	s
3830	O	Collector start function	---	--- / 5	60	min
3831	F	Min run time collector pump	20	5	120	s
3832	O	Collector start function on	07:00	00:00	23:50	hh:mm
3833	O	Collector start function off	19:00	00:00	23:50	hh:mm
3834	F	Collector start funct gradient	---	--- / 1	20	min/°C
3840	F	Collector frost protection	---	--- / -20	5	°C
3850	F	Collector overtemp prot	---	--- / 30	350	°C
3860	F	Evaporation heat carrier	---	--- / 60	350	°C
3870 (***)	F	Pump speed min	40	0	100	%
3871 (***)	F	Pump speed max	100	0	100	%
3872 (***)	O	Speed Xp	32	1	100	°C
3873 (***)	O	Speed Tn	120	10	873	s
3880	F	Antifreeze None ; Ethylen glycol ; Propylene glycol ; Etyl and propyl glycol	None			
3881	F	Antifreeze concentration	30	1	100	%
3884	F	Pump capacity	200	10	1500	l/h
<b>Solid fuel boiler</b>						
4102	F	Locking other heat sources Off ; On	On			
4110	F	Setpoint min	40	8	120	°C
4130	F	Temp diff on	8	1	40	°C
4131	F	Temp diff off	4	0	40	°C
4133	F	Comparative temp DHW sensor B3 ; DHW sensor B31 ; Buff st tank sensor B4 ; Buff st tank sensor B41 ; Flow temp setpoint ; Setpoint min	Setpoint min			
4140	O	Pump overrun time	20	0	120	min
4141	O	Excess heat discharge	90	60	140	°C
4170	O	Frost prot plant boiler pump Off ; On	Off			

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Operating line	User level	Function	Default value	Min	Max	Unit
<b>Buffer storage tank</b>						
4720	F	Auto generation lock None ; With B4 ; With B4 and B42/B41	With B4			-
4721	O	Auto heat generation lock SD	8	0	20	°C
4722	F	Temp diff buffer/HC	-5	-20	20	°C
4723 (**)	F	Temp diff buffer/CC	0	-20	20	°C
4724	F	Min st tank temp heat mode	---	--- / 8	95	°C
4726 (**)	F	Max stor temp cooling mode	25	--- / 10	40	°C
4739 (**)	F	Stratification protection Off ; Always ; With solid fuel boiler	Off			
4740 (**)	O	Stratif prot temp diff max	5	0	20	°C
4743 (**)	O	Stratiprot anticipation time	60	0	240	s
4744 (**)	O	Strat prot integr action time	120	10	200	s
4746 (**)	O	DHW protection combined Off ; On	Off			
4750	F	Charging temperature max	80	8	95	°C
4751	O	Storage tank temp max	90	8	95	°C
4755	F	Recooling temp	60	8	95	°C
4756	F	Recooling DHW/HCs Off ; On	Off			
4757	F	Recooling collector Off ; Summer ; Always	Off			
4783	F	With solar integration No ; Yes	No			
4790	F	Temp diff ON return div	10	0	40	°C
4791	F	Temp diff OFF return div	5	0	40	°C
4795	F	Compar temp return div B4 ; B41 ; B42	B42			
4796	F	Optg action return diversion Temp decrease ; Temp increase	Temp increase			
4800	F	Partial charging setpoint	---	--- / 8	95	°C
4810	O	Full charging Off ; Heating mode ; Always	Off			
4811	O	Full charging temp min	8	8	80	°C
4813	O	Full charging sensor With B4 ; With B42/B41	With B42/B41			
<b>DHW storage tank</b>						
5010	O	Charging Once/day ; Several times/day	Several times / day			
5020	F	Flow setpoint boost	16	0	30	°C
5021	F	Increase of transfer boost	8	0	30	°C
5022	F	Type of charging with B3 ; With B3 and B31 ; Legio B3 and B31	With B3 and B31			
5024	O	Switching differential	5	0	20	°C
5030	O	Charging time limitation	150	--- / 10	600	min
5040	O	Discharging protection Off ; Always ; Automatically	Automatically			
5050	F	Charging temperature max	80	8	BZ 5051 OEM	°C
5051	O	Storage tank temp max	90	8	95	°C
5055	F	Recooling temp	80	8	95	°C
5056	F	Recooling heat gen/HCs Off ; On	Off			-

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5057	F	Recooling collector Off ; Summer ; Always	Off			-
5060	F	electric immersion heater:operating mode Substitute ; Summer ; Always	Substitute			-
5061	F	Electric immersion heater release 24h/day ; DHW release  Time program4/ DHW	DHW release			-
5062	F	El immersion heater control External thermostat ; DHW sensor	DHW sensor			-
5070	O	Automatic push Off ; On	On			
5071	O	Charging prio time push	0	0	120	min
5085	F	Excess heat draw Off ; On	On			-
5090	F	With buffer storage tank No ; Yes	No			
5092	F	With primary controller / system pump No ; Yes	No			
5093	F	With solar integration No ; Yes	Yes			
5101 (***)	F	Pump speed min	40	0	100	%
5102 (***)	F	Pump speed max	100	0	100	%
5103 (**)	O	Speed Xp	32	1	100	%
5104 (**)	O	Speed Tn	120	10	873	s
5120	O	Mixing valve boost	2	0	50	°C
5124	O	Actuator running time	120	30	873	s
5125	O	Mixing valve Xp	32	1	100	°C
5126	O	Mixing valve Tn	120	10	873	s
5130	O	Transfer strategy Always ; DHW release	Always			
5131	O	Comparison temp transfer DHW sensor B3 ; DHW sensor B31	DHW sensor B3			
<b>Instantaneous DHW heater</b>						
5406	F	Min setp diff to tank temp	4	0	20	°C
5544	F	Actuator running time	60	7.5	480	s
5545	O	Mixing valve Xp	20	1	200	°C
5546	O	Mixing valve Tn	150	10	873	s
5547	O	Mixing valve Tv	4.5	0	30	s
<b>Configuration</b>						
5710	I	Heating circuit 1 Off ; On	On			-
5711 (**)	I	Cooling circuit 1 Off ; 4-pipe system ; 2-pipe system				
5712 (**)	I	Use of mixing valve 1 Heating ; Cooling ; Heating and cooling	Heating and cooling			
5715	I	Heating circuit 2 Off ; On	Off			-
5730	I	DHW sensor B3 Sensor ; Thermostat	Sensors			-
5731	I	DHW control element Q3 None ; Charging pump ; Diverting valve	Charging pump			-
5736	I	Separate circuit Off ; On	Off			-
5770	I	Source type 1-stage ; 2-stage <sup>6)</sup> ; Modulating 3-position (***) ; Modulating UX <sup>6)</sup> ; Without boiler sensor ; 2x1 cascade <sup>6)</sup>	1-stage (**) 2-stage (***)			-

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
5840	I	Solar controlling element Charging pump   Diverting valve	Charging pump			
5841	I	External solar exchanger Jointly   DHW storage tank   Buffer <sup>6)</sup>	Jointly			
5890	I	Relay output QX1 None   Circulating pump Q4   El imm heater DHW K6   Collector pump Q5   H1 pump Q15   Boiler pump Q1   Bypass pump Q12   Alarm output K10   2nd pump speed HC1 Q21   2nd pump speed HC2 Q22   2nd pump speed HCP Q23   Heating circuit pump HCP Q20   H pump Q18   System pump Q14   Heat en shutoff valve Y4   Solid fuel boiler pump Q10   Time program 5 K13   Buffer return valve Y15   Solar pump ext exch K9   Solar ctrl elem buffer K8   Solar ctrl elem swi pool K18   Collector pump 2 Q16   H3 pump Q19   Flue gas relay K17   Assisted firing fan K30   Cascade pump Q25   St tank transfer pump Q11   DHW mixing pump Q35   DHW intern circ pump Q33   Heat request K27   Refrig. request K28 <sup>4)</sup>   Diverting valve, cooling Y21 (***)	None			-
5891 (***)	I	Relay output QX2 None   Circulating pump Q4   El imm heater DHW K6   Collector pump Q5   H1 pump Q15   Boiler pump Q1   Bypass pump Q12   Alarm output K10   2nd pump speed HC1 Q21   2nd pump speed HC2 Q22   2nd pump speed HCP Q23   Heating circuit pump HCP Q20   H pump Q18   System pump Q14   Heat en shutoff valve Y4   Solid fuel boiler pump Q10   Time program 5 K13   Buffer return valve Y15   Solar pump ext exch K9   Solar ctrl elem buffer K8   Solar ctrl elem swi pool K18   Collector pump 2 Q16   H3 pump Q19   Flue gas relay K17   Assisted firing fan K30   Cascade pump Q25   St tank transfer pump Q11   DHW mixing pump Q35   DHW intern circ pump Q33   Heat request K27   Refrig. request K28   Air dehumidif. K29   Diverting valve, cooling Y21	None			-

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
5892 (***)	I	Relay output QX3 None ; Circulating pump Q4 ; El imm heater DHW K6 ; Collector pump Q5 ; H1 pump Q15 ; Boiler pump Q1 ; Bypass pump Q12 ; Alarm output K10 ; 2nd pump speed HC1 Q21 ; 2nd pump speed HC2 Q22 ; 2nd pump speed HCP Q23 ; Heating circuit pump HCP Q20 ; H pump Q18 ; System pump Q14 ; Heat en shutoff valve Y4 ; Solid fuel boiler pump Q10 ; Time program 5 K13 ; Buffer return valve Y15 ; Solar pump ext exch K9 ; Solar ctrl elem buffer K8 ; Solar ctrl elem swi pool K18 ; Collector pump 2 Q16 ; H3 pump Q19 ; Flue gas relay K17 ; Assisted firing fan K30 ; Cascade pump Q25 ; St tank transfer pump Q11 ; DHW mixing pump Q35 ; DHW intern circ pump Q33 ; Heat request K27 ; Refrig. request K28 ; Air ehumidif. K29 ; Diverting valve, cooling Y21	None			
5894 (***)	I	Relay output QX4 None ; Circulating pump Q4 ; El imm heater DHW K6 ; Collector pump Q5 ; H1 pump Q15 ; Boiler pump Q1 ; Bypass pump Q12 ; Alarm output K10 ; 2nd pump speed HC1 Q21 ; 2nd pump speed HC2 Q22 ; 2nd pump speed HCP Q23 ; Heating circuit pump HCP Q20 ; H pump Q18 ; System pump Q14 ; Heat en shutoff valve Y4 ; Solid fuel boiler pump Q10 ; Time program 5 K13 ; Buffer return valve Y15 ; Solar pump ext exch K9 ; Solar ctrl elem buffer K8 ; Solar ctrl elem swi pool K18 ; Collector pump 2 Q16 ; H3 pump Q19 ; Flue gas relay K17 ; Assisted firing fan K30 ; Cascade pump Q25 ; St tank transfer pump Q11 ; DHW mixing pump Q35 ; DHW intern circ pump Q33 ; Heat request K27 ; Refrig. request K28 ; Air dehumidify. K29 ; Diverting valve, cooling Y21	None			
5930	I	Sensor input BX1 None ; DHW sensor B31 ; Collector sensor B6 ; Return sensor B7 ; DHW circulation sensor B39 ; Buffer st tank sensor B4 ; Buffer st tank sensor B41 ; Flue gas temp sensor B8 ; Common flow sensor B10 ; Solid fuel boiler sensor B22 ; DHW charging sensor B36 ; Buffer sensor B42 ; Common return sensor B73 ; Cascade return sensor B70 ; Swimming pool sensor B13 ; Collector sensor 2 B61 ; Solar flow sensor B63 ; Solar return sensor B64	None		-	

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Operating line	User level	Function	Default value	Min	Max	Unit
5931	I	Sensor input BX2 None ; DHW sensor B31 ; Collector sensor B6 ; Return sensor B7 ; DHW circulation sensor B39 ; Buffer st tank sensor B4 ; Buffer st tank sensor B41 ; Flue gas temp sensor B8 ; Common flow sensor B10 ; Solid fuel boiler sensor B22 ; DHW charging sensor B36 ; Buffer sensor B42 ; Common return sensor B73 ; Cascade return sensor B70 ; Swimming pool sensor B13 ; Collector sensor 2 B61 ; Solar flow sensor B63 ; Solar return sensor B64	None			-
5932 (***)	I	Sensor input BX3 None ; DHW sensor B31 ; Collector sensor B6 ; Return sensor B7 ; DHW circulation sensor B39 ; Buffer st tank sensor B4 ; Buffer st tank sensor B41 ; Flue gas temp sensor B8 ; Common flow sensor B10 ; Solid fuel boiler sensor B22 ; DHW charging sensor B36 ; Buffer sensor B42 ; Common return sensor B73 ; Cascade return sensor B70 ; Swimming pool sensor B13 ; Collector sensor 2 B61 ; Solar flow sensor B63 ; Solar return sensor B64	None			
5933 (***)	I	Sensor input BX4 None ; DHW sensor B31 ; Collector sensor B6 ; Return sensor B7 ; DHW circulation sensor B39 ; Buffer st tank sensor B4 ; Buffer st tank sensor B41 ; Flue gas temp sensor B8 ; Common flow sensor B10 ; Solid fuel boiler sensor B22 ; DHW charging sensor B36 ; Buffer sensor B42 ; Common return sensor B73 ; Cascade return sensor B70 ; Swimming pool sensor B13 ; Collector sensor 2 B61 ; Solar flow sensor B63 ; Solar return sensor B64	None			
5950	I	Function of input H1 Optg mode changeover HCs + DHW ; Optg mode changeover HCs ; Optg mode changeover HC1 ; Optg mode changeover HC2 ; Optg mode changeover HCP ; Heat generation lock ; Error/alarm message ; Min flow temp setpoint ; Excess heat discharge ; Release sw pool ; Swimming pool ; Dewpoint monitor ; Flow setp increase hygro ; Refrig demand ; Heat request 10V ; Refrig. demand 10V ; Pressure measurement 10V ; Rel. room humidity 10V ; Room temperature 10V	Optg mode change-over HCs+DHW			-
5951	I	Contact type H1 NC ; NO	NO			-
5952 (**)	I	Function value, contact type H1	70	8	130	°C
5952 (***)		Min flow temp setpoint H1	70	8	120	°C
5953 (**)	I	Voltage value 1, H1	0	0	10	Volt

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
5954 (**)	I	Function value 1, H1	0	-100	500	-
5954 (***)		Temp value 10V H1	100	5	130	°C
5955 (**)	I	Voltage value 2, H1	10	0	10	Volt
5956 (**)	I	Function value 2, H1	70	-100	500	-
5956 (***)		Pressure value 3.5V H1	5.0	0.0	10.0	bar
5960 (***)	I	Function input H3 Optg mode change HC <sub>s</sub> +DHW   Optg mode changeover HC <sub>s</sub>   Optg mode changeover HC1   Optg mode changeover HC2   Optg mode changeover HCP   Heat generation lock   Error/alarm message   Min flow temp setpoint   Excess heat discharge   Release swimming pool   Heat request 10V   Pressure measurement 10V	Optg mode change-over HC <sub>s</sub> +DHW			-
5961 (***)	I	Contact type H3 NC   NO	NO			-
5962 (***)	I	Min flow temp setpoint H3	70	8	120	°C
5964 (***)	I	Temp value 10V H3	100	5	130	°C
5966 (***)	I	Pressure value 3.5V H3	5.0	0.0	10.0	bar
5982 (***)	I	Function input EX2 Counter 2nd burner stage   Heat generation lock   Error/alarm message   SLT error message   Excess heat discharge	Counter for second burner stage			-
5983 (***)	I	Cont type input EX2 NC   NO	NO			-
6014	I	Function mixing group 1 Heating circuit 1   Return temp controller   Prim contr/system pump   DHW primary controller   Instantaneous DHW heater   Return controller cascade   Cooling circuit 1 <sup>4)</sup>   Heating circuit / Cooling circuit 1 (**)	Heating circuit			-
6015 (***)	I	Function mixing group 2 Heating circuit 2   Return temp controller   Prim contr/system pump   DHW primary controller   Instantaneous DHW heater   Return controller cascade				
6020	I	Function extension module 1 None   Multifunctional   Heating circuit 2   Return temp controller   Solar DHW   Prim contr/system pump   DHW primary controller   Instantaneous DHW heater   Return controller cascade   Cooling circuit 1 (**)	None			-
6021	I	Function extension module 2 None   Multifunctional   Heating circuit 2   Return temp controller   Solar DHW   Prim contr/system pump   DHW primary controller   Instantaneous DHW heater   Return controller cascade   Cooling circuit 1 (**)	None			-

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Operating line	User level	Function	Default value	Min	Max	Unit
6030	I	Relay output QX21 None   Circulating pump Q4   El imm heater DHW K6   Collector pump Q5   H1 pump Q15   Boiler pump Q1   Bypass pump Q12   Alarm output K10   2nd pump speed HC1 Q21   2nd pump speed HC2 Q22   2nd pump speed HCP Q23   Heat circuit pump HCP Q20   H2 pump Q18   System pump Q14   Heat gen shutoff valve Y4   Solid fuel boiler pump Q10   Time program 5 K13   Buffer return valve Y15   Solar pump ext exch K9   Solar ctrl elem buffer K8   Solar ctrl elem swi pool K18   Collector pump 2 Q16   H3 pump Q19 (***)   Flue gas relay K17   Assisted firing fan K30   Cascade pump Q25   St tank transfer pump Q11   DHW mixing pump Q35   DHW interm circ pump Q33   Heat request K27   Refrig. request K28 <sup>(**)</sup>   Air dehumidif. K29 <sup>4)</sup>   Diverting valve, cooling Y21 <sup>(**)</sup>	None			
6031	I	Relay output QX22 None   Circulating pump Q4   El imm heater DHW K6   Collector pump Q5   H1 pump Q15   Boiler pump Q1   Bypass pump Q12   Alarm output K10   2nd pump speed HC1 Q21   2nd pump speed HC2 Q22   2nd pump speed HCP Q23   Heat circuit pump HCP Q20   H2 pump Q18   System pump Q14   Heat gen shutoff valve Y4   Solid fuel boiler pump Q10   Time program 5 K13   Buffer return valve Y15   Solar pump ext exch K9   Solar ctrl elem buffer K8   Solar ctrl elem swi pool K18   Collector pump 2 Q16   H3 pump Q19 (***)   Flue gas relay K17   Assisted firing fan K30   Cascade pump Q25   St tank transfer pump Q11   DHW mixing pump Q35   DHW interm circ pump Q33   Heat request K27   Refrig. request K28 <sup>4)</sup>   Air dehumidif. K29 <sup>4)</sup>   Diverting valve, cooling Y21 <sup>4)</sup>	None			

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
6032		Relay output QX23 None   Circulating pump Q4   El imm heater DHW K6   Collector pump Q5   H1 pump Q15   Boiler pump Q1   Bypass pump Q12   Alarm output K10   2nd pump speed HC1 Q21   2nd pump speed HC2 Q22   2nd pump speed HCP Q23   Heat circuit pump HCP Q20   H2 pump Q18   System pump Q14   Heat gen shutoff valve Y4   Solid fuel boiler pump Q10   Time program 5 K13   Buffer return valve Y15   Solar pump ext exch K9   Solar ctrl elem buffer K8   Solar ctrl elem swi pool K18   Collector pump 2 Q16   H3 pump Q19 (***)   Flue gas relay K17   Assisted firing fan K30   Cascade pump Q25   St tank transfer pump Q11   DHW mixing pump Q35   DHW interm circ pump Q33   Heat request K27   Refrig. request K28 (**)   Air dehumidif. K29 <sup>4)</sup>   Diverting valve, cooling Y21 (**)	None			
6040		Sensor input BX21 None   DHW sensor B31   Collector sensor B6   Return sensor B7   DHW circulation sensor B39   Buffer sensor B4   Buffer sensor B41   Flue gas temp sensor B8   Common flow sensor B10   Solid fuel boiler sensor B22   DHW charging sensor B36   Buffer sensor B42   Common return sensor B73   Cascade return sensor B70   Swimming pool sensor B13   Collector sensor 2 B61   Solar flow sensor B63   Solar return sensor B64	None			
6041		Sensor input BX22 None   DHW sensor B31   Collector sensor B6   Return sensor B7   DHW circulation sensor B39   Buffer sensor B4   Buffer sensor B41   Flue gas temp sensor B8   Common flow sensor B10   Solid fuel boiler sensor B22   DHW charging sensor B36   Buffer sensor B42   Common return sensor B73   Cascade return sensor B70   Swimming pool sensor B13   Collector sensor 2 B61   Solar flow sensor B63   Solar return sensor B64	None			

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
6046	I	Function of input H2 Optg mode changeover HCs + DHW   Optg mode changeover HCs   Optg mode changeover HC1   Optg mode changeover HC2   Optg mode changeover HCP   Heat generation lock   Error/alarm message   Min flow temp setpoint   Excess heat discharge   Swimming pool enable   Dewpoint monitor (***)   Flow temp. setpt increase, hygro (**)   Refrig request (**)   Heat request 10V   Refrig. request 10V (**)   Pressure measurement 10V   Rel. room humidity 10V (**)   Room temperature 10V (**)	Optg mode change-over HCs+DHW			
6047	I	Contact type H2 NC   NO	NO			-
6048 (**)	I	Function value, contact H2	70	8	130	°C
6048 (***)	I	Min flow temp setpoint H2	70	8	120	°C
6049 (**)	I	Voltage value 1, H2	0	0	10	Volt
6050 (**)	I	Function value 1, H2	0	-100	500	-
6050 (***)	I	Temp value 10V H2	100	5	130	°C
6051 (**)	I	Voltage value 2, H2	10	0	10	Volt
6052 (**)	I	Function value 2, H2	70	-100	500	-
6052 (***)	I	Pressure value 3.5V H2	5.0	0.0	10.0	bar
6070 (***)	I	Function output UX None   Boiler pump Q1   DHW pump Q3   DHW interm circ pump Q33   Heat circ pump HC1 Q2   Heat circ pump HC2 Q6   Heat circ pump HCP Q20   Collector pump Q5   Solar pump ext exch K9   Solar pump buffer K8   Solar pump swi pool K18   Collector pump 2 Q16   Boiler setpoint   Output setpoint   Heat request	None			
6071 (***)	I	Signal logic output UX Standard   Inverted	Standard			
6075 (***)	I	Temperature value 10V UX	100	5	130	°C
6097	F	Sensor type collector NTC 10k   Platinum 1000	NTC 10k			
6098	F	Readjustm collector sensor	0	-20	20	°C
6099	F	Readjustm coll sensor 2	0	-20	20	°C
6100	F	Readjustm outside sensor	0	-3.0	3.0	°C
6101	F	Sensor type flue gas temp NTC 10k   Platinum 1000	NTC 10k			
6102	F	Readjustm flue gas sensor	0	-20	20	°C
6110	F	Time constant building	15	0	50	h
6112	O	Gradient room model	60	0	300	Min/°C
6116 (**)	O	Time constant setp compens	10	0	14	min
6117	O	Central setp compensation	20	--- / 1	100	°C
6118	O	Setpoint drop delay	60	--- / 1	200	k/min
6120	F	Frost protection for the plant Off   On	Off			-
6128	F	Heat request below OT	---	--- / -50	50	°C

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6129	F	Heat request above OT	---	- - - / -50	50	°C
6131	F	Heat req in economy mode Off ; On DHW ; On	Off			
6135 (**)	F	Air dehumidifier Off ; On	Off			
6136 (**)	F	Air dehumidifier enable 24h/day ; Time progr. heating circuit ; Time program 5	24 h/day			
6137 (**)	F	Air dehumidifier r.h. ON	55	0	100	%
6138 (**)	F	Air dehumidifier r.h. SD	5	2	50	%
6140	O	Water pressure max	---	- - - / 0.0	10.0	bar
6141	O	Water pressure min	---	- - - / 0.0	10.0	bar
6142	O	Water pressure critical min	---	- - - / 0.0	10.0	bar
6150	O	Water pressure 2 max	---	- - - / 0.0	10.0	bar
6151	O	Water pressure 2 min	---	- - - / 0.0	10.0	bar
6152	O	Water press 2 critical min	---	- - - / 0.0	10.0	bar
6180 (***)	O	Water pressure 3 max	---	- - - / 0.0	10.0	bar
6181 (***)	O	Water pressure 3 min	---	- - - / 0.0	10.0	bar
6182 (***)	O	Water press 3 critical min	---	- - - / 0.0	10.0	bar
6200	I	Save sensors No ; Yes	No			-
6204	O	Save parameters No ; Yes	No			
6205	F	Reset to default parameters No ; Yes	No			-
6212	I	Check-No. heat source 1	-	0	199999	-
6213	I	Check-No. heat source 2	-	0	199999	-
6215	I	Check-No. storage tank	-	0	199999	-
6217	I	Check-No. heating circuits	-	0	199999	-
6220	F	Software version	-	0	99.9	-
6222	O	Device hours run	0	0	65535	h
<b>LPB system</b>						
6600	I	Device address	1	0	16	-
6601	F	Segment address	0	0	14	-
6604	F	Bus power supply function Off ; Automatically	Automatically			-
6605	F	Bus power supply state Off ; On	On			-
6610	O	Display system messages No ; Yes	Yes			
6612	O	Alarm delay	---	- - - / 2	60	min
6620	F	Action changeover functions Segment ; System	System			-
6621	F	Summer changeover Locally! Centrally	Locally			-
6623	F	Optg mode changeover Locally! Centrally	Centrally			
6624	F	Manual source lock Locally ; Segment	Locally			

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6625	F	Assignment of DHW heating Local HCs   All HCs in segment   All HCs in system	All HCs in system			-
6627 (**)	F	Refrigeration demand Locally  Centrally	Locally			
6630	O	Cascade master Always   Automatically	Automatically			
6631	F	Ext source with eco mode Off   On DHW   On	Off			
6640	I	Clock mode Autonomously   Slave without remote   Slave with remote setting   Master	Autonomously			-
6650	F	Outside temp source	0	0	239	-
<b>Errors</b>						
6710	I	Reset alarm relay No   Yes	No			-
6740	F	Flow temp 1 alarm	---	-- / 10	240	min
6741	F	Flow temp 2 alarm	---	-- / 10	240	min
6743	F	Boiler temp alarm	---	-- / 10	240	min
6745	F	DHW charging alarm	---	-- / 1	48	h
6746 (**)	F	Flow temp alarm, cooling 1	---	-- / 10	240	min
6800	F	History 1	-			
	F	Error code 1	-	0	255	-
6802	F	History 2	-			
	F	Error code 2	-	0	255	-
6804	F	History 3	-			
	F	Error code 3	-	0	255	-
6806	F	History 4	-			
	F	Error code 4	-	0	255	-
6808	F	History 5	-			
	F	Error code 5	-	0	255	-
6810	F	History 6	-			
	F	Error code 6	-	0	255	-
6812	F	History 7	-			
	F	Error code 7	-	0	255	-
6814	F	History 8	-			
	F	Error code 8	-	0	255	-
6816	F	History 9	-			
	F	Error code 9	-	0	255	-
6818	F	History 10	-			
	F	Error code 10	-	0	255	-
6820	O	Reset history No   Yes	No			-
<b>Maintenance / special operation</b>						
7040	F	Burner hours interval	---	-- / 10	10000	h
7041	F	Burner hrs since maintenance	0	0	10000	h
7042	F	Burner start interval	---	-- / 60	65535	-
7043	F	Burn starts since maint	0	0	65535	-
7044	F	Maintenance interval	---	-- / 1	240	Months

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7045	F	Time since maintenance	0	0	240	Months
7053	F	Flue gas temp limit	---	--- / 0	350	°C
7054	F	Delay flue gas message	0	0	120	min
7119	F	Economy function Locked ; released	Locked			-
7120	E	Economy mode Off ; On	Off			-
7130	E	Chimney sweep function Off ; On	Off			-
7140	E	manual operation Off ; On	Off			-
7150	I	Simulation outside temperature	-	-50.0	50	°C
7170	I	Telephone customer service				-
<b>Input / output test</b>						
7700	I	Relay test No test ; Everything off ; 1st burner stage T2 ; 1st + 2nd burn stage T2/QX4 (***) ; DHW pump Q3 ; Heating circuit pump Q2 ; Heat circ mix valve op Y1 ; Heat circ mix valve cl Y2 ; Heating circuit pump Q6 (***) ; Heat circ mix valve op Y5 (***) ; Heat circ mix valve cl Y6 <sup>6</sup> ) ; Relay output QX1 ; Relay output QX2 (***) ; Relay output QX3 (***) ; Relay output QX4 (***) ; Relay output QX21 module 1 ; Relay output QX22 module 1 ; Relay output QX23 module 1 ; Relay output QX21 module 2 ; Relay output QX22 module 2 ; Relay output QX23 module 2	No test			-
7710 (***)	I	Output test UX	-	0	100	%
7711 (***)	I	Voltage signal UX	0	0	10	Volt
7730	I	Outside temp B9	-	-50.0	50	°C
7732	I	Flow temp B1	-	0.0	140	°C
7734 (***)	I	Flow temp B12	-	0.0	140	°C
7750	I	DHW temp B3	-	0.0	140	°C
7760	I	Boiler temp B2	-	0.0	140	°C
7820	I	Sensor temp BX1	-	-28.0	350	°C
7821	I	Sensor temp BX2	-	-28.0	350	°C
7822 (***)	I	Sensor temp BX3	0	-28	350	°C
7823 (***)	I	Sensor temp BX4	0	-28	350	°C
7830	I	Sensor temp BX21 module 1	0	-28	350	°C
7831	I	Sensor temp BX22 module 1	0	-28	350	°C
7832	I	Sensor temp BX21 module 2	0	-28	350	°C
7833	I	Sensor temp BX22 module 2	0	-28	350	°C
7840	I	Voltage signal H1	-	0	10	Volt
7841	I	Contact state H1 Open ; Closed	-			-

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
7845	I	Voltage signal H2	0	0	10	°C
7846	I	Contact state H2 Open ; Closed	-			-
7854 (***)	I	Voltage signal H3	0	0	10	Volt
7855 (***)	I	Contact state H3 Open ; Closed	-			
7870	I	Burner fault S3 0V ; 230V	-			-
7881	I	1. 1st burner stage E1 0V ; 230V	-			
7912 (***)	I	Input EX2 0V ; 230V	-			
State						
8000	I	State of heating circuit 1	-			-
8001	I	State of heating circuit 2	-			-
8002	I	State heating circuit P	-			-
8003	I	State of DHW	-			-
8005	I	State of boiler	-			-
8007	I	State of solar	-			-
8008	I	State solid fuel boiler	-			
8010	I	State buffer storage tank	-			
8011	I	State swimming pool	-			

#### Diagnostics cascade

8100 through 8130	I	Priority source 1...16				
8101 through 8131	I	State source 1...16 Missing ; Faulty ; Manual control active ; Heat generation lock active ; Chimney sweep funct active ; Separate DHW circuit active ; Ouside temp limit active ; Not released ; Released				
8138	I	Cascade flow temp	0	0	140	°C
8139	I	Cascade flow temp setpoint	0	0	140	°C
8140	I	Cascade return temp	0	0	140	°C
8141	I	Cascade return temp setp	0	0	140	°C
8150	I	Source seq ch'over current	0	0	990	h

#### Diagnostics, heat generation

8300	I	1. 1st burner stage T2 Off ; On	-			-
8301 (***)	I	2. 2nd burner stage Off ; On	-			-
8308 (***)	F	Boiler pump speed	0	0	100	%
8310	I	Boiler temperature	-	0.0	140.0	°C
8311	I	Boiler setpoint	-	0.0	140.0	°C
8312	I	Boiler switching point	0	0	140	°C
8314	I	Boiler return temp	-	0.0	140.0	°C
8315	I	Boiler return temp setpoint	0	0	140	°C
8316	I	Flue gas temp	0	0	350	°C
8318	I	Flue gas temp max	0	0	350	°C
8326	I	Burner modulation	0	0	100	%

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
8330	F	Hours run 1st stage	0	0	65535	h
8331	F	Start counter 1st stage	-	0	199'999	-
8332 (**)	F	Hours run 2nd stage	0	0	65535	h
8333 (**)	F	Start counter 2nd stage	0	0	199999	-
8505 (**)	F	Speed collector pump 1	0	0	100	%
8506 (**)	F	Speed solar pump ext exch	0	0	100	%
8507 (**)	F	Speed solar pump buffer	0	0	100	%
8508 (**)	F	Speed solar pump swi pool	0	0	100	%
8510	I	Collector temp 1	-	-28.0	350	°C
8511	I	Collector temp 1 max	0	-28.0	350	°C
8512	I	Collector temp 1 min	0	-28.0	350	°C
8513	I	ΔT collector 1/DHW	-	-168.0	350	°C
8514	I	ΔT collector 1/buffer	-	-168.0	350	°C
8515	I	ΔT collector 1/swimming pool	0	-168.0	350	°C
8519	I	Solar flow temp	0	-28.0	350	°C
8520	I	Solar return temp	0	-28.0	350	°C
8526	E	24-hour yield solar energy	0	0	999.9	kWh
8527	E	Total yield solar energy	0	0	999999.9	kWh
8530	F	Hours run solar yield	-	0	65535	h
8531	F	Hours run collect overtemp	-	0	65535	h
8543 (**)	F	Speed collector pump 2	0	0	100	%
8547	I	Collector temp 2	0	-28	350	°C
8548	I	Collector temp 2 max	-28	-28	350	°C
8549	I	Collector temp 2 min	3500	-28	350	°C
8550	I	ΔT collector 2/DHW	0	-168	350	°C
8551	I	ΔT collector 2/buffer	0	-168	350	°C
8552	I	ΔT collector 2/swimming pool	0	-168	350	°C
8560		Solid fuel boiler temp	0	0	140	°C
8570	E	Hours run solid fuel boiler	0	0	65535	h
<b>Diagnostics, consumers</b>						
8700	I	Outside temperature (OT)	-	-50.0	50.0	°C
8703	I	Outside temp attenuated	-	-50.0	50.0	°C
8704	I	Outside temperature composite	-	-50.0	50.0	°C
8720 (**)	I	Relative room humidity	-	0	100	%
8721 (**)	I	Outside temperature (OT)	-	0	50.0	°C
8722 (**)	I	Dewpoint temperature 1	-	0	50.0	°C
8730	I	Heating circuit pump Q2 Off ; On	-			-
8731	I	Heating circ mix valve op Y1 Off ; On	-			-
8732	I	Heat circ mix valve cl Y2 Off ; On	-			-
8735 (**)	F	Speed heating circuit pump 1	0	0	100	%
8740	I	Room temp 1	-	0.0	50.0	°C
8741	I	Room setpoint 1	-	4.0	35.0	°C
8742	O	Room temp 1 model	-	0.0	50.0	°C
8743	I	Flow temperature 1	-	0.0	140.0	°C
8744	I	Flow temp setpoint 1	-	0.0	140.0	°C
8751 (**)	I	Cooling circuit pump 1 Off ; On	-			

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<b>Operating line</b>	<b>User level</b>	<b>Function</b>	<b>Default value</b>	<b>Min</b>	<b>Max</b>	<b>Unit</b>
8752 (**)	I	Cooling circuit mixing valve 1 Open Off ; On	-			
8753 (**)	I	Cooling circuit mixing valve 1 Closed Off ; On	-			
8754 (**)	I	Cooling diverting valve 1 Off ; On	-			
8756 (**)	I	Flow temperature, cooling 1	-	0	140	°C
8757 (**)	I	Flow temperature, cooling 1	-	0	140	°C
8760	I	Heating circuit pump 2 Off ; On	-			-
8761	I	Heat circ mix valve 2 open Off ; On	-			-
8762	I	Heat circ mix valve 2 close Off ; On	-			-
8765 (***)	F	Speed heating circuit pump 2	0	0	100	%
8770	I	Room temp 2	-	0.0	50	°C
8771	I	Room setpoint 2	-	4.0	35	°C
8772	O	Room temp 2 model	-	0.0	50	°C
8773	I	Flow temperature 2	-	0.0	140	°C
8774	I	Flow temp setpoint 2	-	0.0	140	°C
8795 (***)	F	Speed heating circuit pump B	0	0	100	%
8800	I	Room temp P	-	0.0	50	°C
8801	I	Room setpoint P	-	4.0	35	°C
8802	O	Room temp P model	-	0.0	50	°C
8803	I	Flow temp setpoint P	-	0.0	140	°C
8820	I	DHW pump Q3 Off ; On	-			-
8825 (***)	F	Speed DHW pump	0	0	100	%
8826 (***)	F	Speed DHW interm circ pump	0	0	100	%
8830	I	DHW temp 1	-	0.0	140	°C
8831	I	DHW temp setpoint	-	8.0	80	°C
8832	I	DHW temp 2	-	0.0	140	°C
8835	I	DHW circulation temp	-	0.0	140	°C
8836	I	DHW charging temp	0	0	140	°C
8850	I	DHW primary controller temp	0	0	140	°C
8851	I	DHW primary controller setp	0	0	140	°C
8852	I	Instant DHW heater temp	0	0	140	°C
8853	I	Instant DHW heater setpoint	0	0	140	°C
8900	I	Swimming pool temp	0	0	140	°C
8901	I	Swimming pool setpoint	24	8	80	°C
8930	I	Primary controller temp	-	0.0	140.0	°C
8931	I	Primary controller setpoint	-	0.0	140.0	°C
8950	I	Common flow temp	-	0.0	140.0	°C
8951	I	Common flow temp setpoint	-	0.0	140.0	°C
8952	I	Common return temp	0	0	140	°C
8957 (**)	I	Common flow temp setpoint refrig	0	0	140	°C
8962	I	Common output setpoint	0	0	100	%
8980	I	Buffer temp 1	-	0.0	140.0	°C
8981	I	Buffer setpoint	0	0	140	°C
8982	I	Buffer temp 2	-	0.0	140.0	°C
8983	I	Buffer temp 3	0	0	140	°C
9000	I	Flow temperature setpoint H1	-	5.0	130.0	°C

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9001	I	Flow temp setpoint H2	-	5.0	130.0	°C
9004 (***)	I	Flow temp setpoint H3	8	8	120	°C
9005	I	Water pressure H1	-	0.0	10.0	bar
9006	I	Water pressure H2	-	0.0	10.0	bar
9009 (***)	I	Water pressure H3	0	0	10	bar
9031	I	Relay output QX1 Off ; On	-			-
9032 (***)	I	Relay output QX2 Off ; On	-			-
9033 (***)	I	Relay output QX3 Off ; On	-			-
9034 (***)	I	Relay output QX4 Off ; On				
9050	I	Relay output QX21 module 1 Off ; On	-			-
9051	I	Relay output QX22 module 1 Off ; On	-			-
9052	I	Relay output QX23 module 1 Off ; On	-			-
9053	I	Relay output QX21 module 2 Off ; On	-			-
9054	I	Relay output QX22 module 2 Off ; On	-			-
9055	I	Relay output QX23 module 2 Off ; On	-			-

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## USEFUL INFORMATION

**SELLER:**

Mr. ....

Address .....

Tel. ....

**INSTALLER:**

Mr. ....

Address .....

Tel. ....

**TECHNICAL ASSISTANCE SERVICE:**

Mr. ....

Address .....

Tel. ....

**BOILER DETAILS**

(From Data label):

Mak .....

Type .....

Serial number .....

Date of initial start-up .....

**CONTROL PANEL DETAILS**

(From product label):

Serial number .....

Lot .....







**Instructions for the correct disposal of the product  
pursuant to European Directive 2002/96/EC**

At the end of its working life, the product cannot be disposed of as municipal waste. It can be delivered to separate waste collection centres operated by local councils, if such exist, or to the resellers that provide this service. Separate disposal of appliances avoids possible negative consequences for the environment and the health due to unsuitable disposal and allows the recovery of the components, with significant savings in terms of energy and resources. The symbol (crossed-out wheeled bin) shown on the product indicates that the appliance must be disposed of separately.



**RIELLO S.p.A.  
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the appearance, dimensions, technical data, equipment and accessories  
may be subject to variation.**