

RIELLO MINI LN

Gas instant water heaters



A Carrier Company

RIELLO
Energy For Life

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NEW WATER HEATING SOLUTIONS IN THE RIELLO RANGE

From RIELLO's technological research comes **MINI LN**, the new gas instant water heater line with **low emission water-tight chamber**, and a completely new design, both in terms of aesthetics and operations, capable of offering **maximum DHW comfort** in compliance with the latest European norms for reducing NOx emissions.

Thanks to its new elegant and linear line and its compact dimensions, this product is readily integrated in any household environment. This characteristic represents the **ideal solution** for meeting every domestic hot water need.

Prepared for indoor domestic installation, the new water heaters may be installed also outdoors, in a partially protected area, by adding the antifreeze kit (available as an optional fitting) up to a temperature of -10°C .



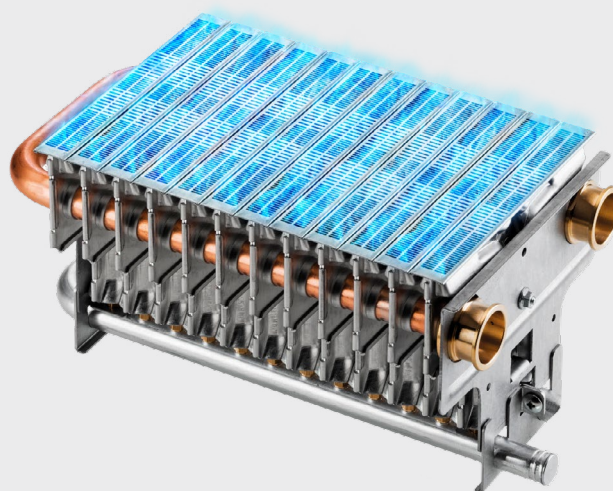
LATEST GENERATION BURNER WITH REDUCED NOx emissions

The new **RIELLO MINI LN** line is compliant with the strictest **low emission** requirements, which are in force from September 2018 as provided by (EU) Regulation 814/2013, prescribing nitrogen oxide emissions equal to or lower than 56 mg/kWh.

The **innovative hyper-stoichiometric burner** allows the flame to be fed by a greater air-gas mixture than needed for combustion, thus achieving a **very low temperature flame**.

This feature, together with the burner's cooling through the water of the water-heater circuit, causes a **considerable reduction in the polluting values** of carbon and nitrogen oxides produced by combustion, such as to satisfy fully the new limits prescribed by international norms.

The high heat output, together with the flame wide modulation (up to 45% of nominal output) complete the new burner's profile in terms of performance, offering the user **maximum DHW comfort**



THE TECHNOLOGY AND ADVANTAGES OF THE RANGE

- Innovative hyper-stoichiometric cooled low-emission burner
- Wide flame modulation (1:3), which allows an excellent DHW supply temperature stability, even with minimum drawing.
- Electronic start and ionisation flame control.
- Brand new user interface with backlit display with icons and 4 keys for easily browsing the menu and perform adjustments.
- Ample production of DHW: 11, 13 or 17 litres/min
- Ever more compact dimensions and simple installation
- Assembling template and supplied power cable. Watertight chamber instant water heater with natural gas and LPG versions

RIELLO MINI LN is a product that has been designed

and made specifically for the production of DHW with reduced NOx emissions (<56 mg/kWh).

RIELLO MINI LN is available in the following versions and power levels:

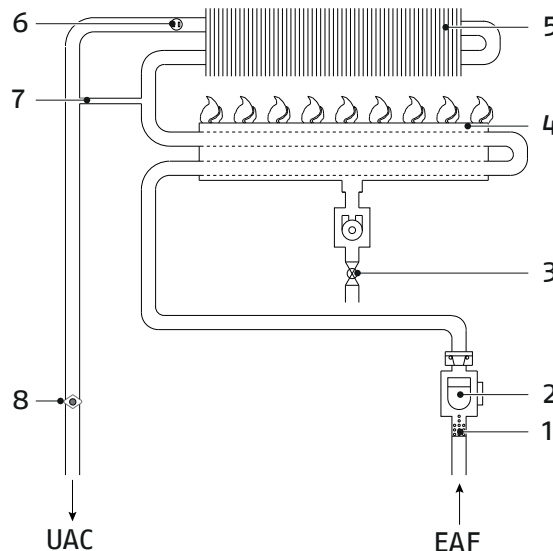
RIELLO MINI 11 LN	20.2-22.2 kW	with 11 l/min*
RIELLO MINI 13 LN	22.5-25.0 kW	with 13 l/min*
RIELLO MINI 17 LN	25.8-30.0 kW	with 17 l/min*

* DHW production with $\Delta T = 25^{\circ}\text{C}$

INTERNAL HYDRAULIC CIRCUIT

Here is a diagram of the hydraulic circuit of the new **RIELLO Mini LN**:

- EAF Cold water inlet
- UAC Hot water outlet
- 1. Filter
- 2. Flow switch
- 3. Gas valve
- 4. Burner
- 5. Exchanger
- 6. NTC probe
- 7. By-pass (models 11-13)
- 8. Limit thermostat

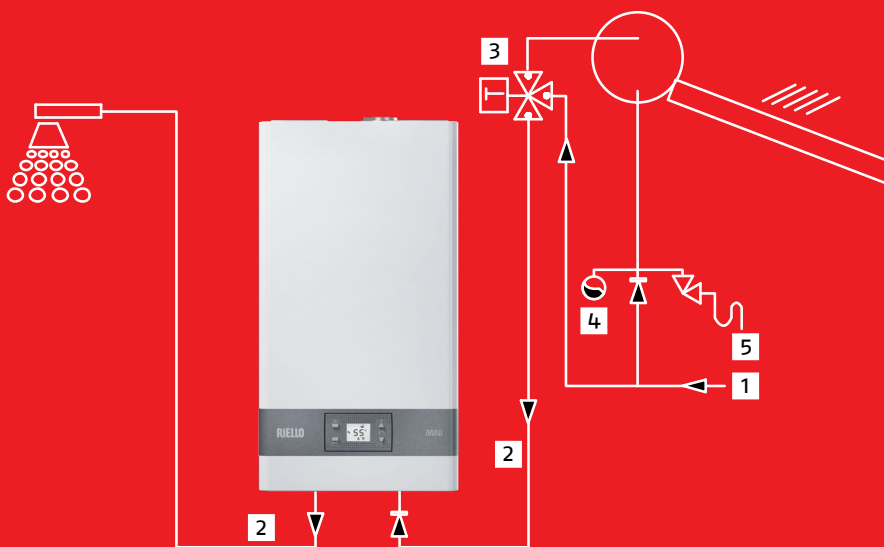


PREARRANGEMENT FOR HEAT SOLAR



The new **RIELLO Mini LN** are equipped with the solar function, which may be activated through the control panel if installed in a heat solar system for producing DHW, allowing maximum energy efficiency.

- 1. Cold water
- 2. Water inlet
- 3. Thermostatic valve
- 4. Expansion reservoir
- 5. Safety unit



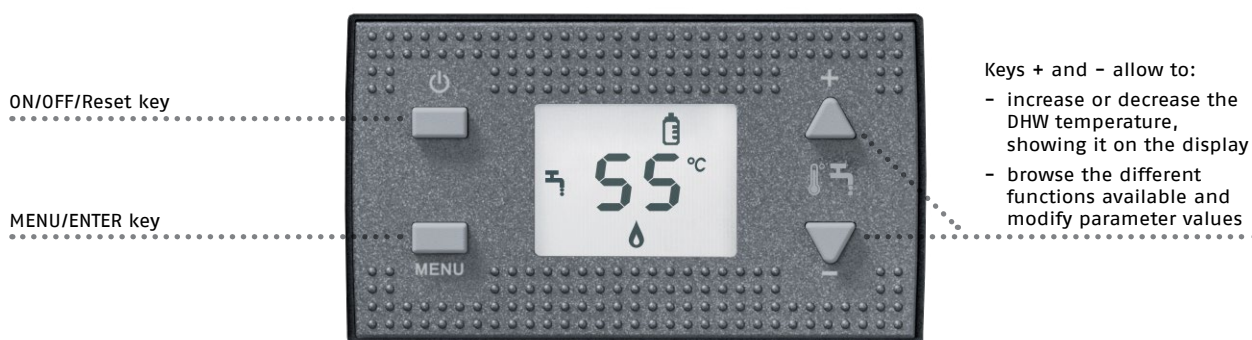
Purely indicative layout. Pleaser refer to the installer's manual. Solar function available from September 2018.

MANY NEW FUNCTIONS WITH A MODERN AND LINEAR DESIGN

The new **RIELLO Mini LN** feature a **new electronics**, which combined with the modern and linear design, allow a simple and intuitive control, with many innovative and additional functions.

Thanks to a backlit **wide digital display** (40x60 mm) and 4 control keys, the user may manage all the water heater functions and easily browse the menu.

The **display** icon language is particularly **user friendly** both in terms of equipment setting and special function configuration, in addition to the immediate display of error diagnostics.



Keys + and - allow to:

- increase or decrease the DHW temperature, showing it on the display
- browse the different functions available and modify parameter values

ICONS DISPLAYED



Antiburn function, for setting DHW supply maximum temperature



Generic alarm signal that in conjunction with other icons and/or codes, identifies the kind of fault



Spanner function, which indicates the need for technical maintenance/operation, or accessing the technical menu



Selection function for the temperature's unit of measurement: degrees Celsius or Fahrenheit



Flame presence, indicating that the burner is on



Flue gas fault signal



Keyboard lock function, useful, for example, so as to avoid children tampering



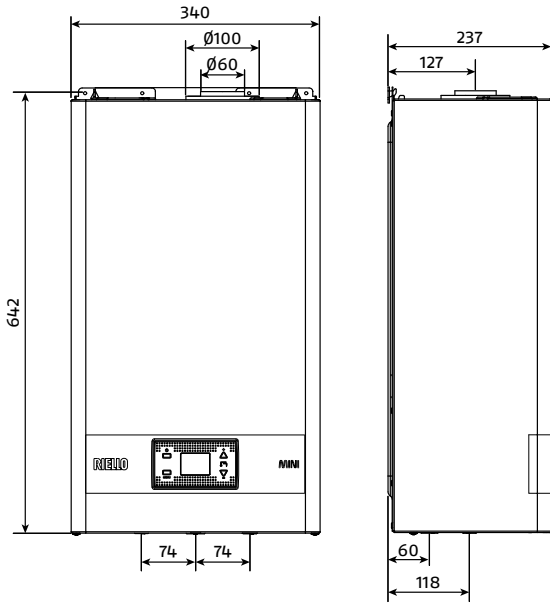
Flame lock, when there is a fault



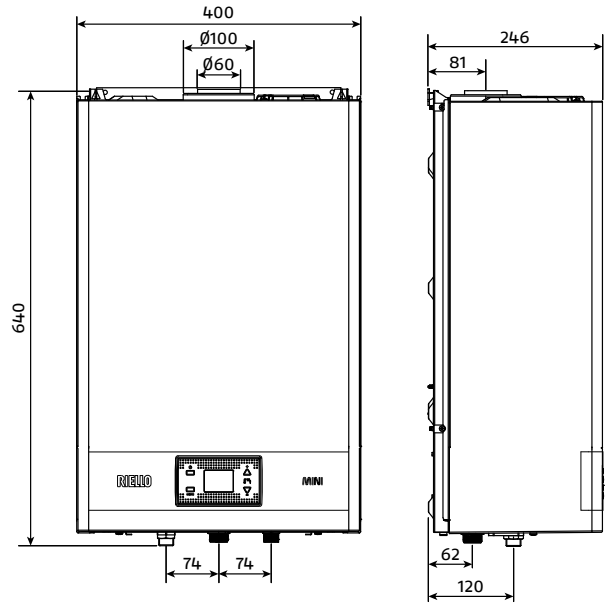
Solar function, which may be activated when combined with heat solar systems for DHW production

TECHNICAL DRAWINGS

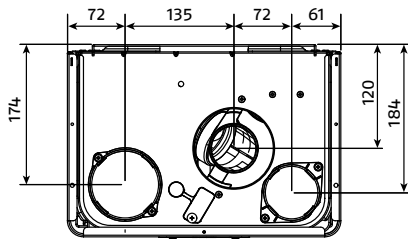
RIELLO MINI 11-13 LN



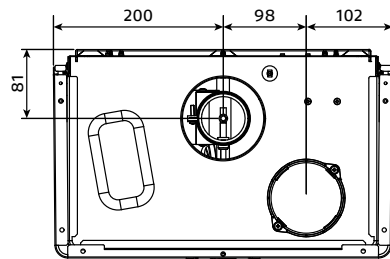
RIELLO MINI 17 LN



View from top

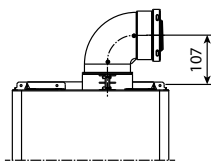


View from top



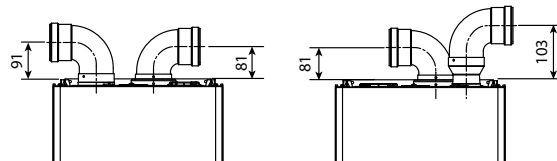
Coaxial discharges Ø60 - Ø100

RIELLO MINI 11-13 LN

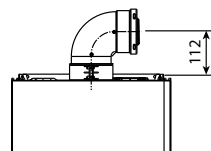


Split discharges (Ø80)

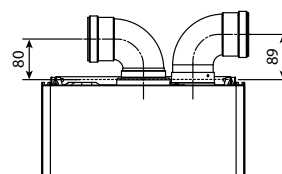
RIELLO MINI 11-13 LN



RIELLO MINI 17 LN



RIELLO MINI 17 LN



TECHNICAL DATA

MODELS AVAILABLE		RIELLO MINI 11 LN	RIELLO MINI 13 LN	RIELLO MINI 17 LN
ENERGY LABEL SPECIFICATIONS ACCORDING TO THE ErP EUROPEAN DIRECTIVE				
DHW energy efficiency class	F → A+*	A	A	A
DHW load profile	-	M	L	L
DHW energy efficiency (η_{wh})	%	75.4	80.2	80.2
Gas daily consumption (Q_{fuel})	kWh/h	8.109	15.175	15.175
Gas annual consumption (AFC)	GJ	6	11	11
Electrical power daily consumption (Q_{elec})	kWh	0.065	0.069	0.069
Electrical power yearly consumption (AEC)	kWh	14	15	15
Indoor sound power level (LWA)	dB(A)	51	51	51
Nitrogen oxide (Nox) emissions	mg/kWh	33	33	40
CHARACTERISTICS				
Type	-	Water-tight chamber		
Draught	-	Forced draught		
Ignition	-	Ion (electrics)		
Flame control	-	Ionisation-type		
Flame modulation	-	Electronics		
Domestic hot water output $\Delta t=30^\circ$	l/min	9.5	10.7	13.2
Nominal heat output	kW	22.2	25.0	30.0
Nominal thermal power	kW	19.89	22.45	27.60
WATER				
DHW temperature selection range	°C	36-65	36-65	36-65
Minimum / nominal / maximum pressure	bar	0.2/2.0/10.0	0.2/2.0/10.0	0.2/2.0/10.0
Water connections	∅	1/2"	1/2"	1/2"
GAS				
Natural gas fed nominal supply pressure (G20)	mbar	20	20	20
LPG fed nominal supply pressure (G30/G31)	mbar	28-30/37	28-30/37	28-30/37
Gas connection	∅	3/4"	3/4"	3/4"
Flue gas temperature G20 / G30 / G31	°C	120/121/124	128/123/129	135/-/137
FLUE GAS OUTLET TUBE AND COAXIAL AIR SUCTION ∅ 60/100				
Maximum length	m	3.5	3.5	2.6
Loss due to the introduction of a 45°/90° curve	m	1.0/1.5	1.0/1.5	1.0/1.5
FLUE GAS OUTLET TUBE AND SPLIT AIR SUCTION ∅ 80				
Maximum length	m	15+15	15+15	6+6
Loss due to the introduction of a 45°/90° curve	m	1.2/1.7	1.2/1.7	1.2/1.7
ELECTRICAL VALUES				
Absorbed power	W	41	41	41
Power supply voltage	V/Hz	230-50	230-50	230-50
Electrical protection level	-	IPX4D	IPX4D	IPX4D
DIMENSIONS AND WEIGHTS				
Dimensions (H×L×D)	mm	642×340×237	642×340×237	640×400×246
Net weight	kg	19	19	21
Available gas versions	-	Natural gas / LPG		

* The range of energy efficiency class of this products category is between F and A+.

RIELLO

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