



EOLO Mini 24-28 Export

EOLO Mini 24 S Export

Wall-mounted instant boilers



Thanks to compact dimensions and easy installation EOLO Mini is Immergas ideal solution for new building projects and wherever installation space is limited or must be optimized.

The elegant design makes this boiler easily adaptable to any home interior, whatever the style of furnishing.

Mini models are room sealed and fan assisted combi boilers with heat output of 24 kW (20,640 kcal/h) and 28 kW (24,080 kcal/h). All models are equipped with microprocessor driven electronic control board and control panel complete with display and pushbuttons for the regulation of boiler parameters.

Thanks to the reduced consumptions, all EOLO Mini boilers have obtained the 3 stars energy mark (★ ★ ★) in compliance with European Directive 92/42/CEE.

EOLO Mini is prearranged for connection to the new (optional) Digital Remote Control; this allows the boiler management from a distance and it includes timer/room thermostat functions, boiler diagnostic functions and thermoregulation functions.

The appliance has an IPX4D electrical insulation degree: this means the boiler is protected against water sprays and high humidity.

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SPECIFICATIONS - EOLO Mini

Wall-hung boiler both for central heating and instantaneous production of domestic hot water, with sealed room and fan assisted (appliance type C₁₂, C₃₂, C₄₂, C₅₂, C₈₂) with heat outputs of 24 kW (20,640 kcal/h) and 28 kW (24,080 kcal/h), high efficiency and forced water circulation.

The boiler includes:

- stainless steel burner with 12 ramps (24 kW version) or 14 ramps (28 kW version) complete with ignition and detection electrodes, dual-shutter electric gas valve with built-in modulation coil;
- high-efficiency gas/water primary exchanger made of copper and consisting of four pipes connected in series in finned battery protected by non-corroding alloy;
- combustion chamber in steel plate internally insulated with ceramic panels;
- sealed chamber in steel plate with fumes exhaust fan at fixed speed, differential flue pressure switch;
- sanitary water/water exchanger for domestic hot water production, made of stainless steel with 12 plates (24 kW version) or 14 plates (28 kW version);
- hydraulic unit consisting of an electric diverter valve, adjustable speed circulator with built-in air separator, automatic by-pass, system draining union, system filling ball cock;
- domestic water flow switch to detect when domestic hot water is requested;
- diaphragm expansion vessel with capacity of 6 litres (real 4.5) for 24 kW model or 7.5 litres (real 4.5) for 28 kW model with 1 bar preload, 3 bar system safety valve and pressure gauge;
- overheating safety thermostat;
- electronic ignition with ionizing flame control function;
- push buttons (+ and -) for adjusting the central heating tem-

perature, push buttons (+ and -) for adjusting the domestic hot water temperature, main functioning button (Stand-by, Summer, Winter) and reset button;

- control panel equipped with electronic printed control board, with continuous flame modulation in Central Heating and Domestic Hot Water mode and modulation range from:
 - 9.3 to 24 kW (from 8,000 to 20,640 kcal/h) for EOLO Mini 24;
 - 10.5 to 28 kW (from 9,030 to 24,080 kcal/h) for EOLO Mini 28;
- programming boiler operating parameters by means of digital interface;
- auto-diagnosis system with digital visualisation of the temperature, status, functioning mode and error codes on the display;
- central heating ignition delay device, antifreeze protection system (down to -5°C), circulator and diverter valve with anti-lock function, post-circulation function, post-ventilation function, chimney sweep function, pump functioning mode selection;
- set for connection to Remote Digital Control, to timer/room thermostat or to wireless radio timer/room thermostat;
- IP X4D electrical insulation degree;
- (optional) connecting group.

Boiler supplied complete with sampling points for combustion analysis and bottom protection grid.

Class II_{2H3+} appliances working with Natural gas and LPG. CE marking.

The following models are available:

- **EOLO Mini 24 Export** code 3.016324
- **EOLO Mini 28 Export** code 3.016326



EOLO Mini 24-28 Export

EOLO Mini 24 S Export



EOLO Mini S is the wall-hung room sealed fan assisted boiler for central heating only prearranged for connection to an external diverter valve.

Easy installation makes EOLO Mini S Immergas ideal solution for new building projects and wherever installation space is limited or must be optimized.

EOLO Mini S is a room sealed and fan assisted boiler with an heat output of 24 kW (20,640 kcal/h), equipped with microprocessor driven electronic control board and control panel with display and pushbuttons for the regulation of boiler parameters.

EOLO Mini S is prearranged for connection to the new (optional) Digital Remote Control; this allows the boiler management from a distance and it includes timer/room thermostat functions, boiler diagnostic functions and thermoregulation functions.

Thanks to the reduced consumptions, all EOLO Mini S boilers have obtained the 3 stars energy mark (★★★) in compliance with European Directive 92/42/CEE.

The appliance has an IPX4D electrical insulation degree: this means the boiler is protected against water sprays and high humidity.

1.1

SPECIFICATIONS - EOLO Mini S

Wall-hung boiler for central heating only with sealed room and fan assisted (appliance type C₁₂, C₃₂, C₄₂, C₅₂, C₈₂), heat output of 24 kW (20,640 kcal/h), high efficiency, forced water circulation and prearrangement for external diverter valve.

The boiler consists of:

- 12 ramps stainless steel burner complete with ignition and detection electrodes, dual-shutter electric gas valve with built-in modulation coil;
- high-efficiency gas/water primary exchanger made of copper and consisting of four pipes connected in series in finned battery protected by non-corroding alloy;
- combustion chamber in steel plate internally insulated with ceramic panels;
- sealed chamber in steel plate with fumes exhaust fan at fixed speed, differential pressure switch;
- hydraulic unit consisting of adjustable speed circulator with built-in air separator, automatic by-pass, system draining union, system filling ball cock;
- 6 litres (real 4.5) diaphragm expansion vessel with 1 bar preload, 3 bar system safety valve and pressure gauge;
- overheating safety thermostat;
- electronic ignition with ionizing flame control function;
- push buttons (+ and -) for adjusting the central heating temperature, push buttons (+ and -) for adjusting the domestic hot water temperature (in case of external storage tank installation), main functioning button with Stand-by / Summer (in case of external storage tank installation) /

Winter mode and reset button;

- control panel equipped with electronic printed control board with continuous flame modulation from 9.3 to 24 kW (from 8,000 to 20,640 kcal/h);
- programming boiler operating parameters by means of digital interface;
- auto-diagnosis system with digital visualisation of the temperature, status, functioning mode and error codes on the display;
- central heating ignition delay device, antifreeze protection system (down to -5°C), circulator anti-lock function, post-circulation function, post-ventilation function, chimney sweep function, pump functioning mode selection;
- set for connection to Remote Digital Control, to timer/room thermostat or to wireless radio timer/room thermostat;
- IP X4D electrical insulation degree;
- (optional) connecting group.

Boiler supplied complete with sampling points for combustion analysis and bottom protection grid.

Class II_{2H3+} appliances working with Natural gas and LPG.
CE marking.

The following models are available:

- **EOLO Mini 24 S Export** code 3.016328

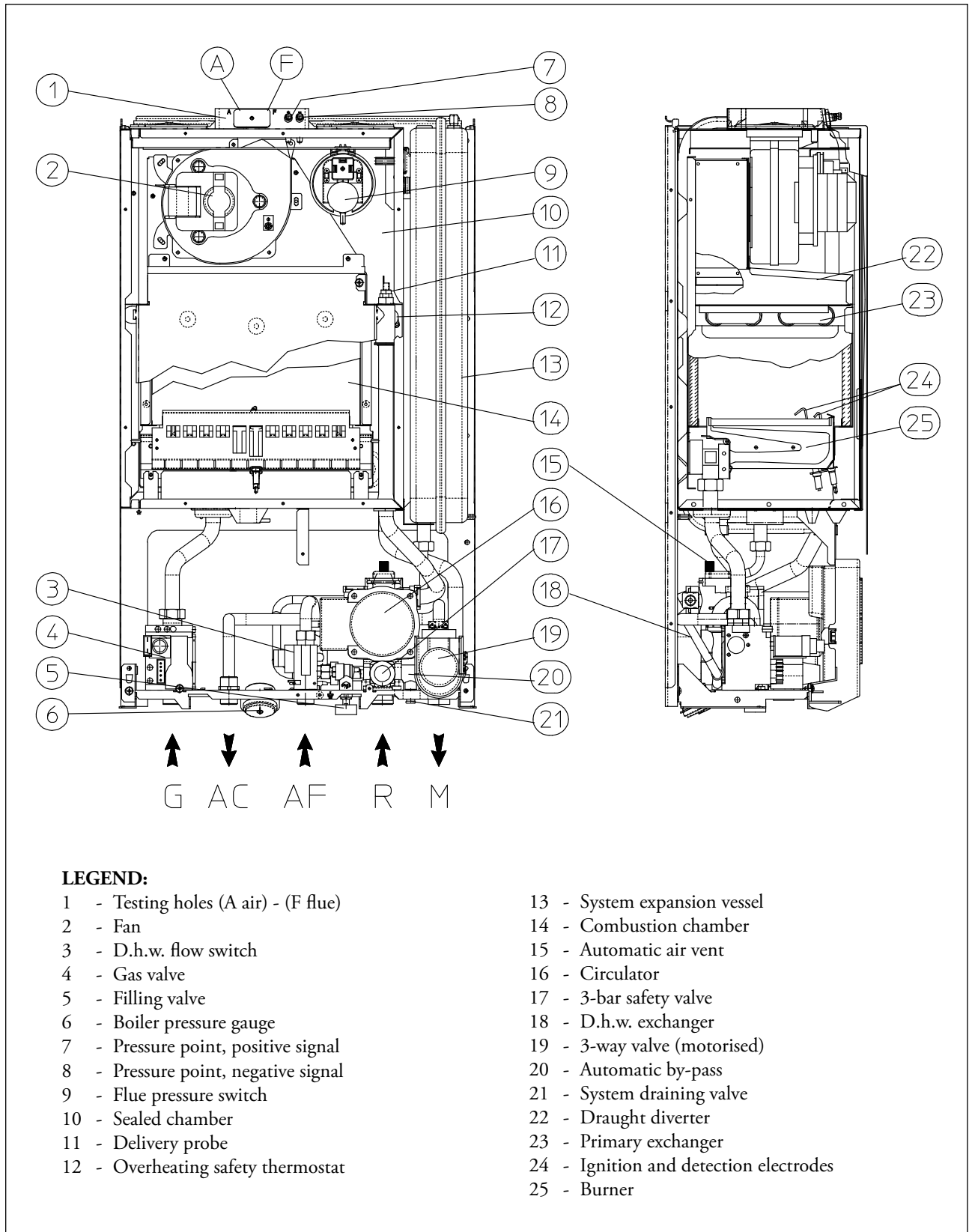


EOLO Mini 24-28 Export

EOLO Mini 24 S Export

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MAIN COMPONENTS - EOLO Mini 24



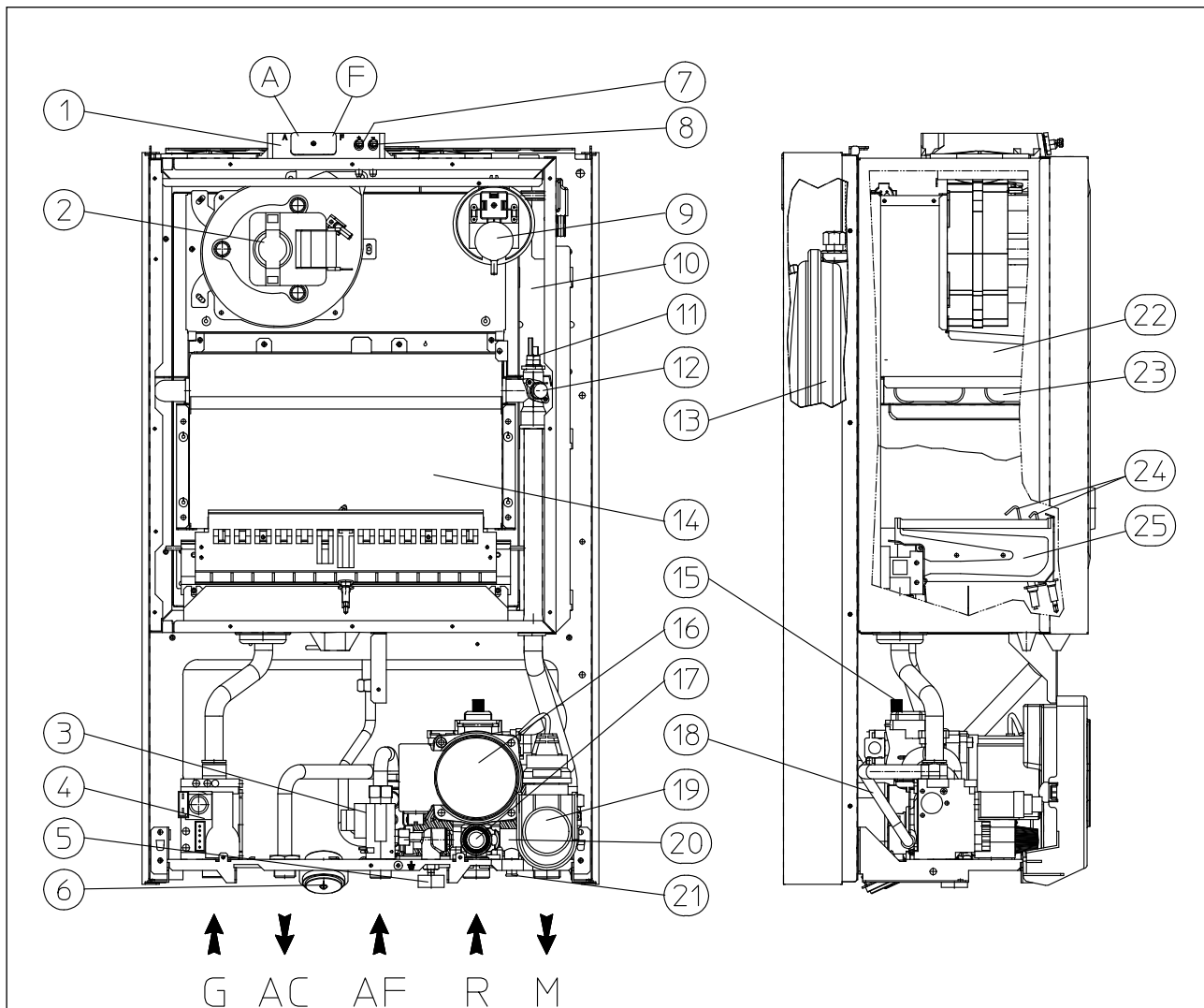


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2.1

MAIN COMPONENTS - EOLO Mini 28



LEGEND:

- | | |
|--------------------------------------|--|
| 1 - Testing holes (A air) - (F flue) | 13 - System expansion vessel |
| 2 - Fan | 14 - Combustion chamber |
| 3 - D.h.w. flow switch | 15 - Automatic air vent |
| 4 - Gas valve | 16 - Circulator |
| 5 - Filling valve | 17 - 3-bar safety valve |
| 6 - Boiler pressure gauge | 18 - D.h.w. exchanger |
| 7 - Pressure point, positive signal | 19 - 3-way valve (motorised) |
| 8 - Pressure point, negative signal | 20 - Automatic by-pass |
| 9 - Flue pressure switch | 21 - System draining valve |
| 10 - Sealed chamber | 22 - Draught diverter |
| 11 - Delivery probe | 23 - Primary exchanger |
| 12 - Overheating safety thermostat | 24 - Ignition and detection electrodes |
| | 25 - Burner |

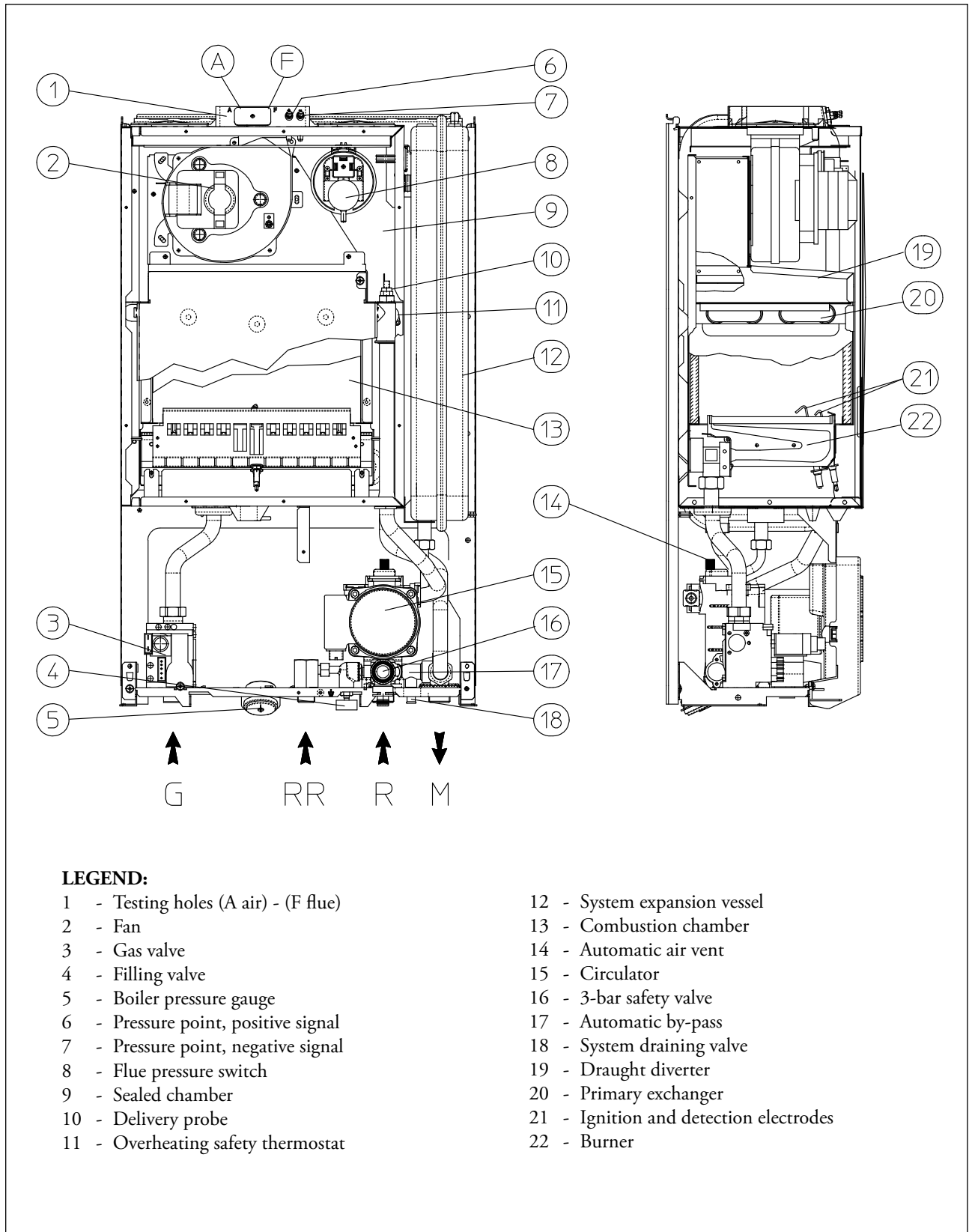


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EOLO Mini 24 S Export

2.2

MAIN COMPONENTS - EOLO Mini 24 S





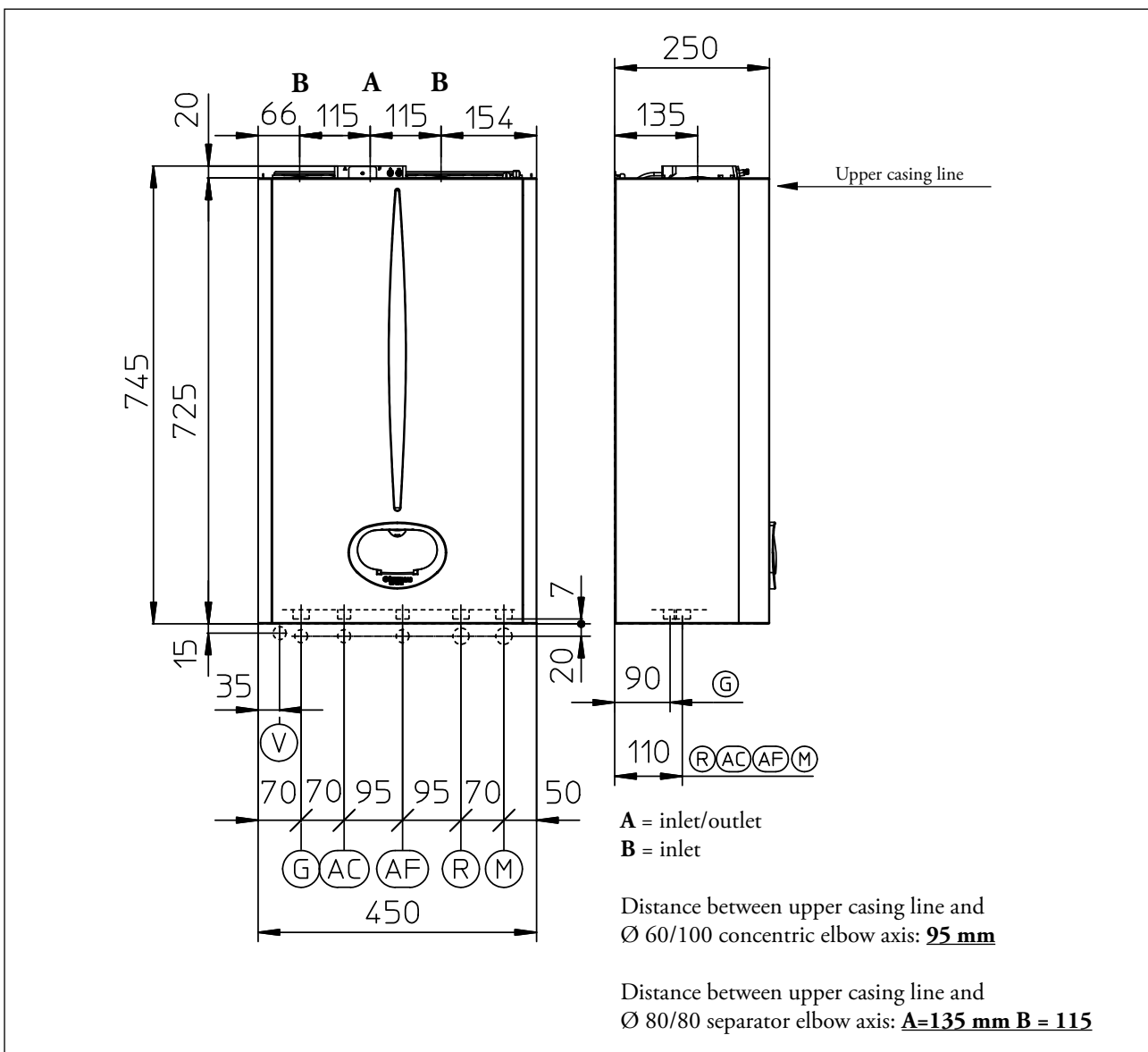
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3 MAIN DIMENSIONS - EOLO Mini 24

Model	Height mm	Width mm	Depth mm	inlet/outlet Ø mm
EOLO Mini 24	745	450	250	100/60

3.1 CONNECTIONS



Model	Delivery M	Return R	Hot outlet AC	Cold inlet AF	Gas G	Expansion vessel Litres
EOLO Mini 24	3/4"	3/4"	1/2"	1/2"	3/4"	6 (real 4.5)



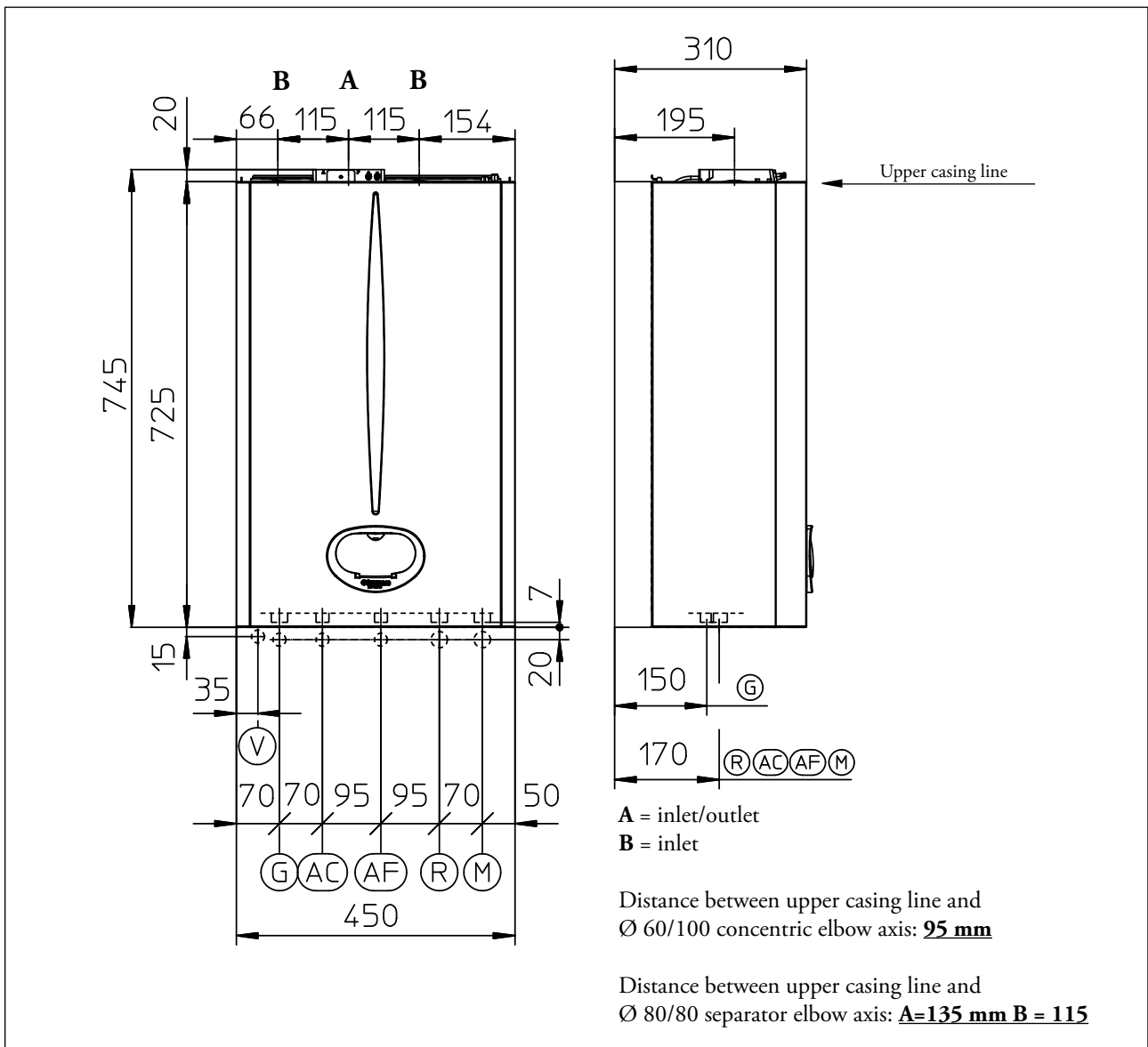
EOLO Mini 24-28 Export

EOLO Mini 24 S Export

4 MAIN DIMENSIONS - EOLO Mini 28

Model	Height mm	Width mm	Depth mm	inlet/outlet Ø mm
EOLO Mini 28	745	450	310	100/60

4.1 CONNECTIONS



Model	Delivery M	Return R	Hot outlet AC	Cold inlet AF	Gas G	Expansion vessel Litres
EOLO Mini 28	3/4"	3/4"	1/2"	1/2"	3/4"	7.5 (real 4.5)



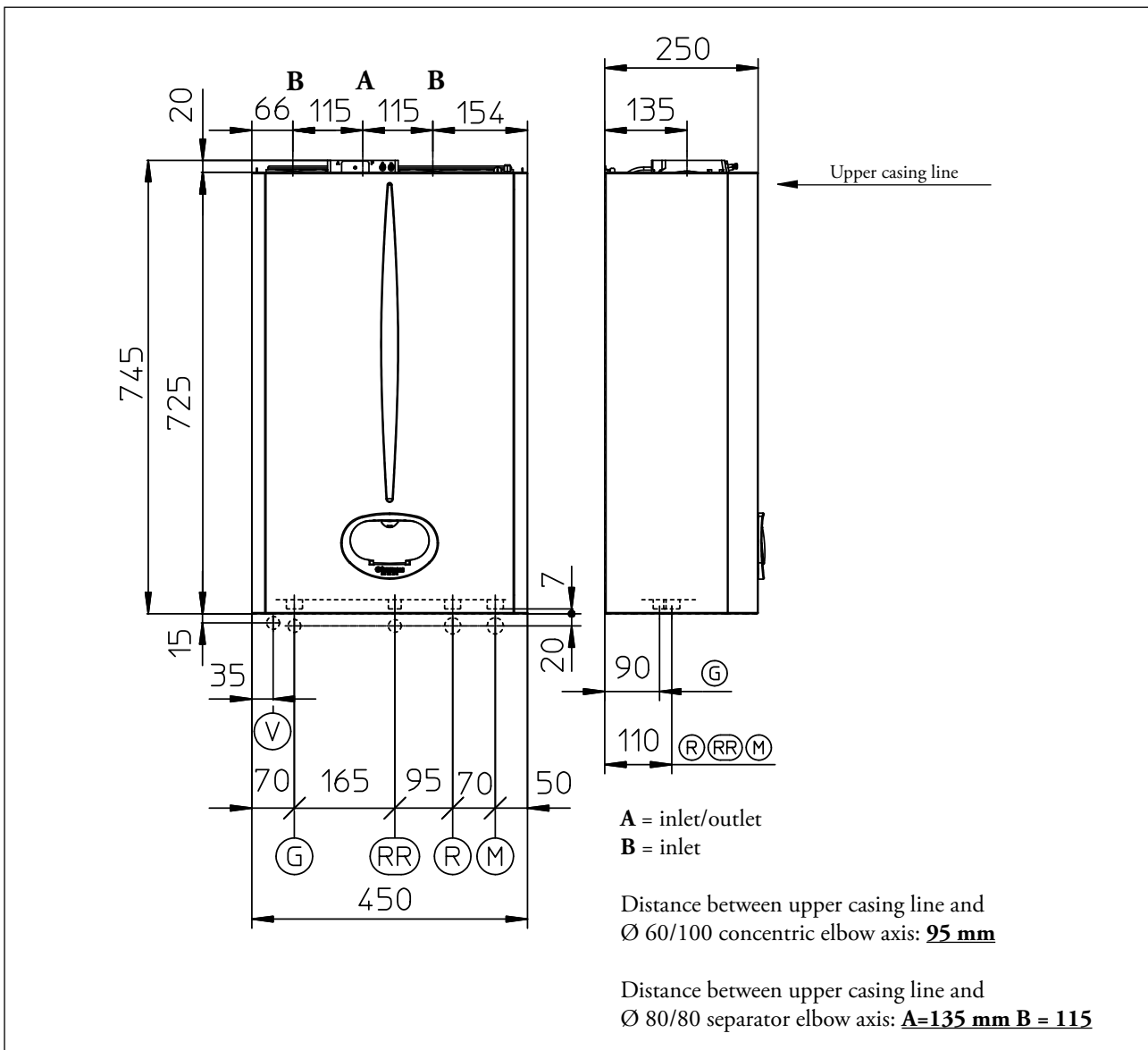
EOLO Mini 24-28 Export

EOLO Mini 24 S Export

5 MAIN DIMENSIONS - EOLO Mini 24 S

Model	Height mm	Width mm	Depth mm	inlet/outlet Ø mm
EOLO Mini 24 S	745	450	250	100/60

5.1 CONNECTIONS



Model	Delivery M	Return R	System filling RR	Gas G	Expansion vessel Litres
EOLO Mini 24 S	3/4"	3/4"	1/2"	3/4"	6 (reali 4.5)



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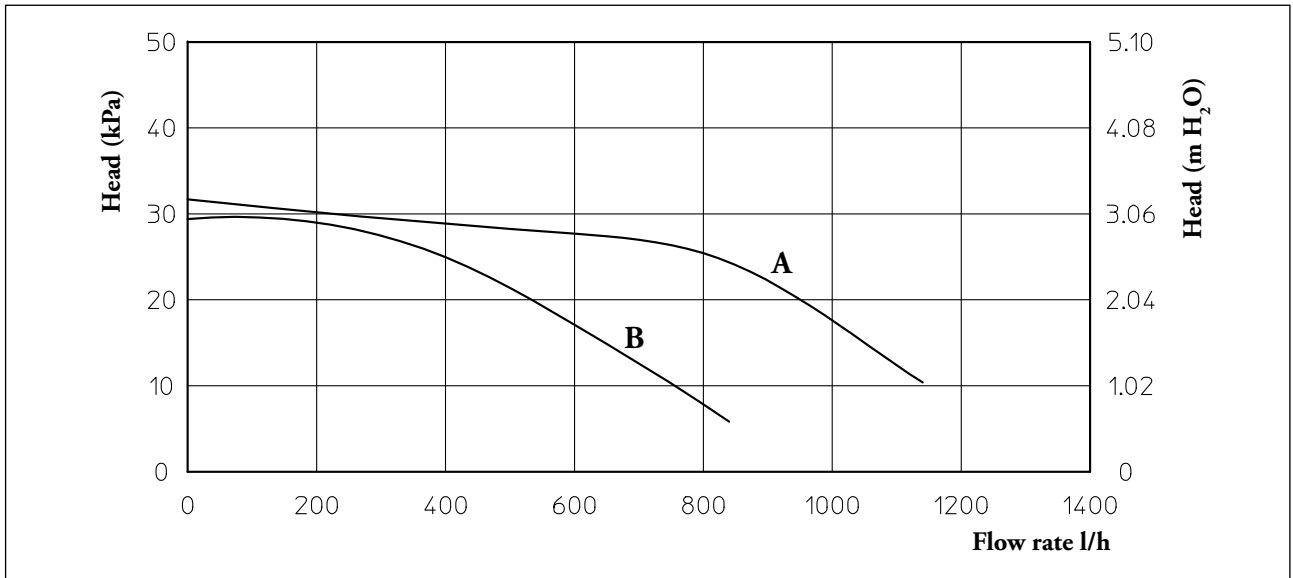
6 CIRCULATOR HEAD AND FLOW RATE GRAPH

The EOLO Mini boilers are supplied with the circulator incorporated. The circulator is already fitted with a condenser. The graph shows the system's available head (with automatic

by-pass) which depends on the flow rate. To optimize boiler operation, the circulation pump in new systems (single-pipe and module) should be used at top speed.

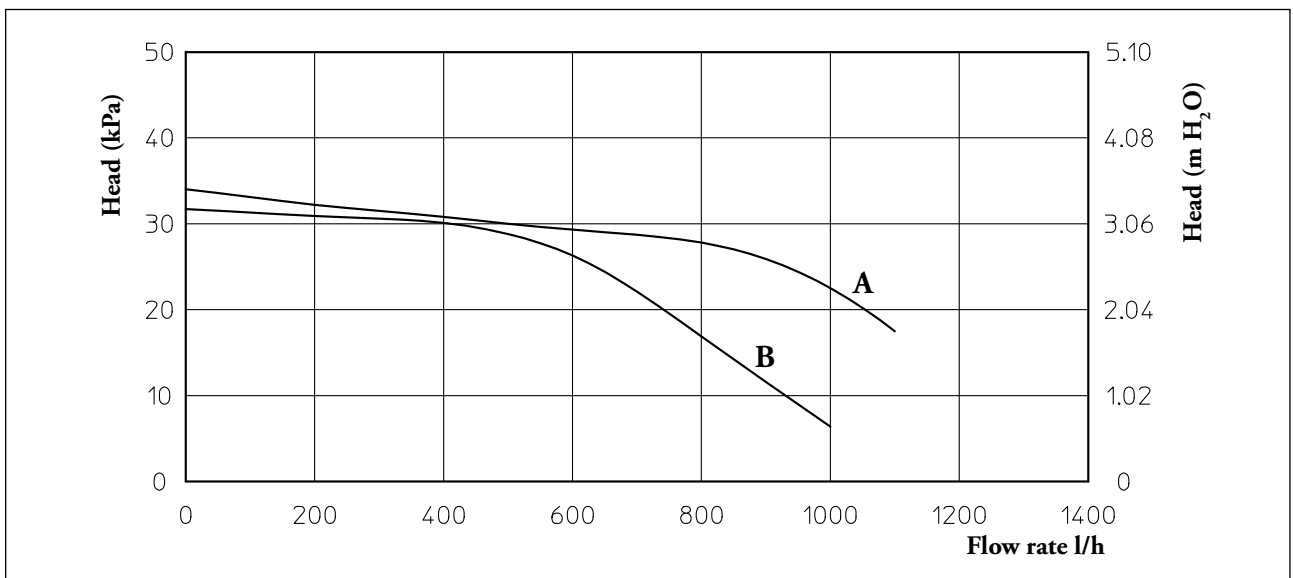
6.1 CIRCULATOR EOLO Mini 24 - 24 S

WILO OTSL 15/4.1-3



6.2 CIRCULATOR EOLO Mini 28

WILO OTSL 15/5-3



- A = Head available to the system at third speed (with automatic by-pass).
- B = Head available to the system at second speed (with automatic by-pass).



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EOLO Mini 24 S Export

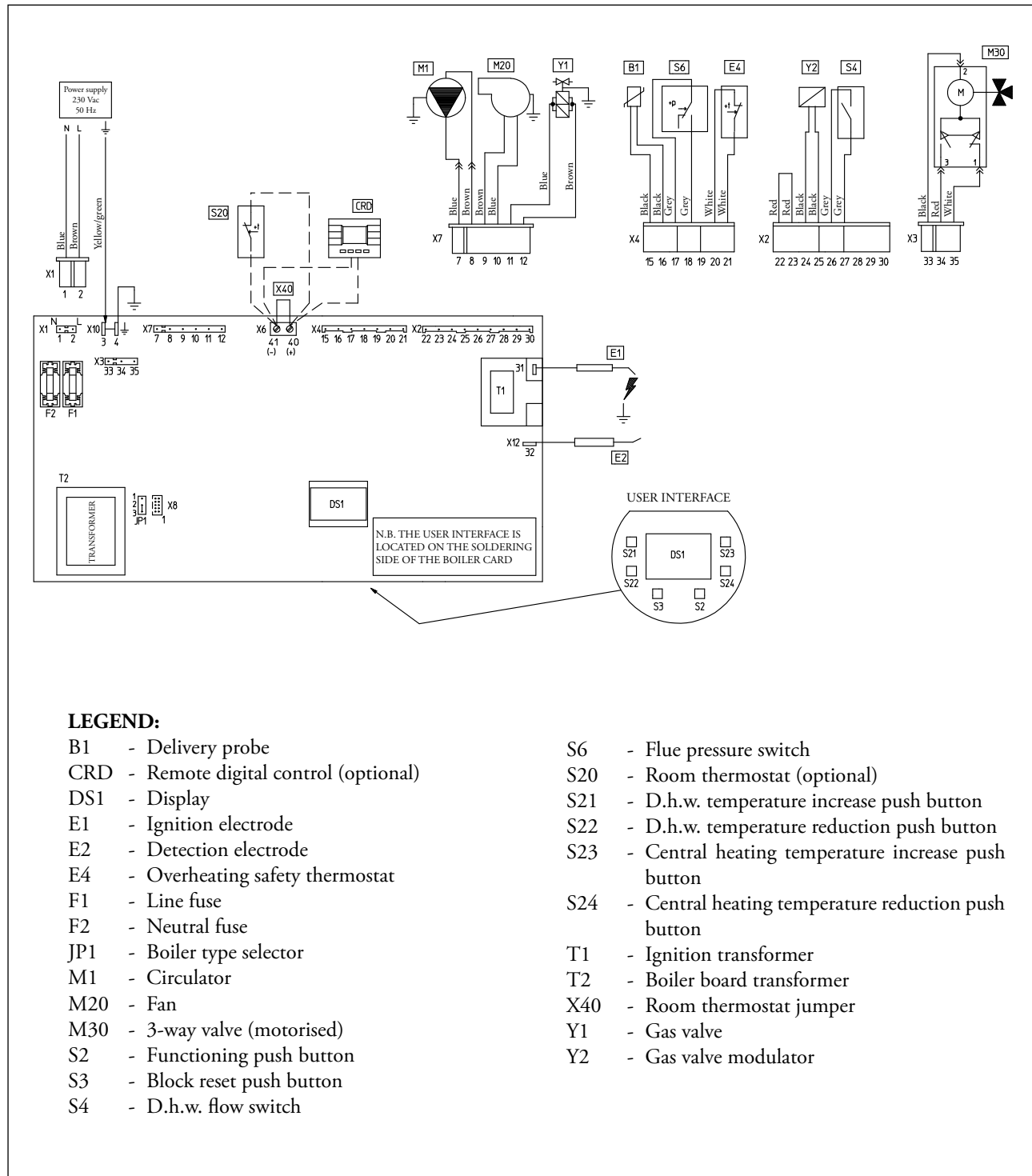
7

WIRING DIAGRAM - EOLO Mini 24-28

AMBIENT THERMOSTAT OR DIGITAL REMOTE CONTROL.

The boiler may be connected to a room thermostat (S20), programmable On/Off thermostat, programmable timer or a

Digital Remote Control (CRD), which must be connected to terminals 40 - 41 and remove the jumper X40.





EOLO Mini 24-28 Export

EOLO Mini 24 S Export

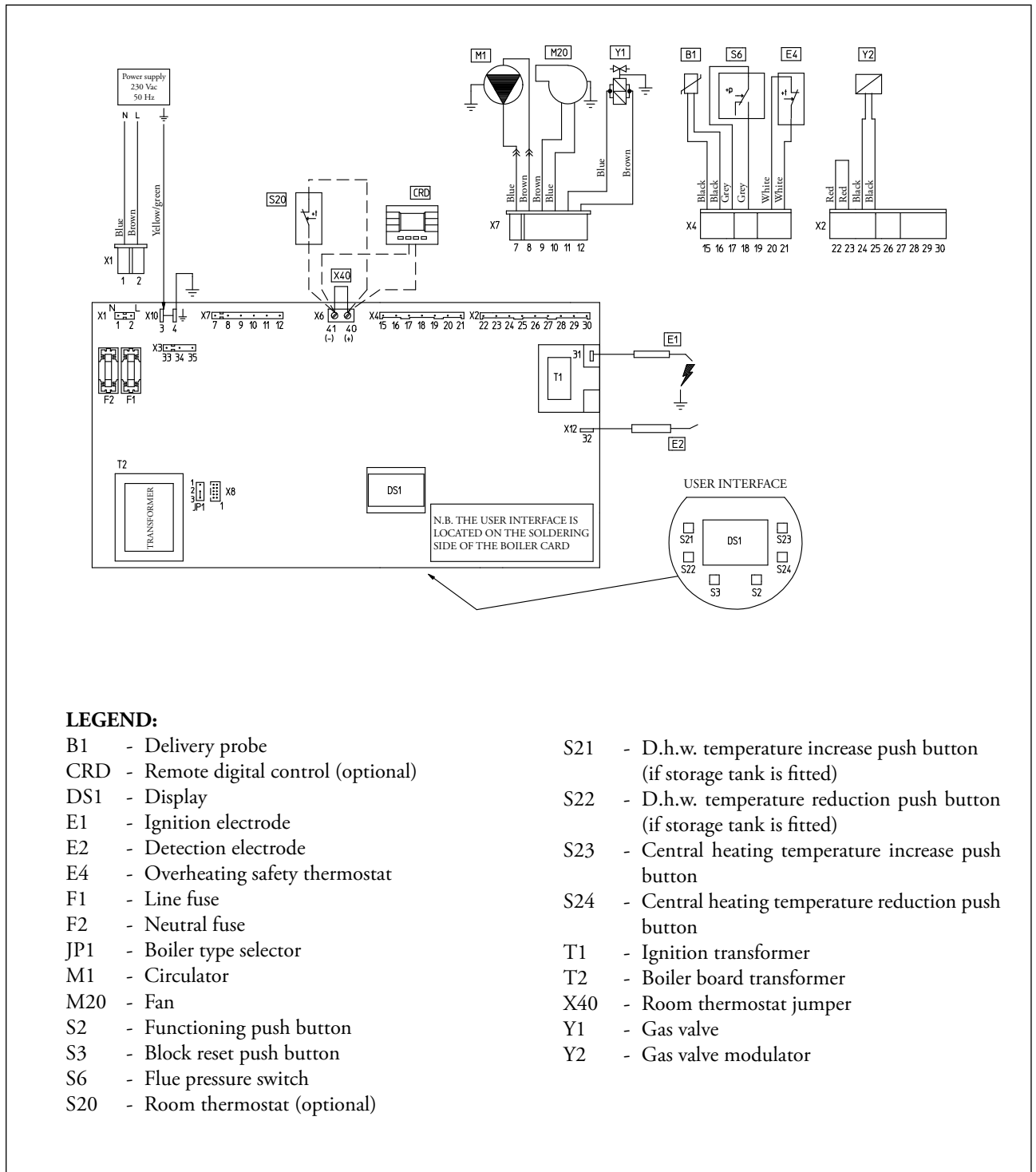
7.1

WIRING DIAGRAM - EOLO Mini 24 S

AMBIENT THERMOSTAT OR DIGITAL REMOTE CONTROL.

Digital Remote Control (CRD), which must be connected to terminals 40 - 41 and remove the jumper X40.

The boiler may be connected to a room thermostat (S20), programmable On/Off thermostat, programmable timer or a



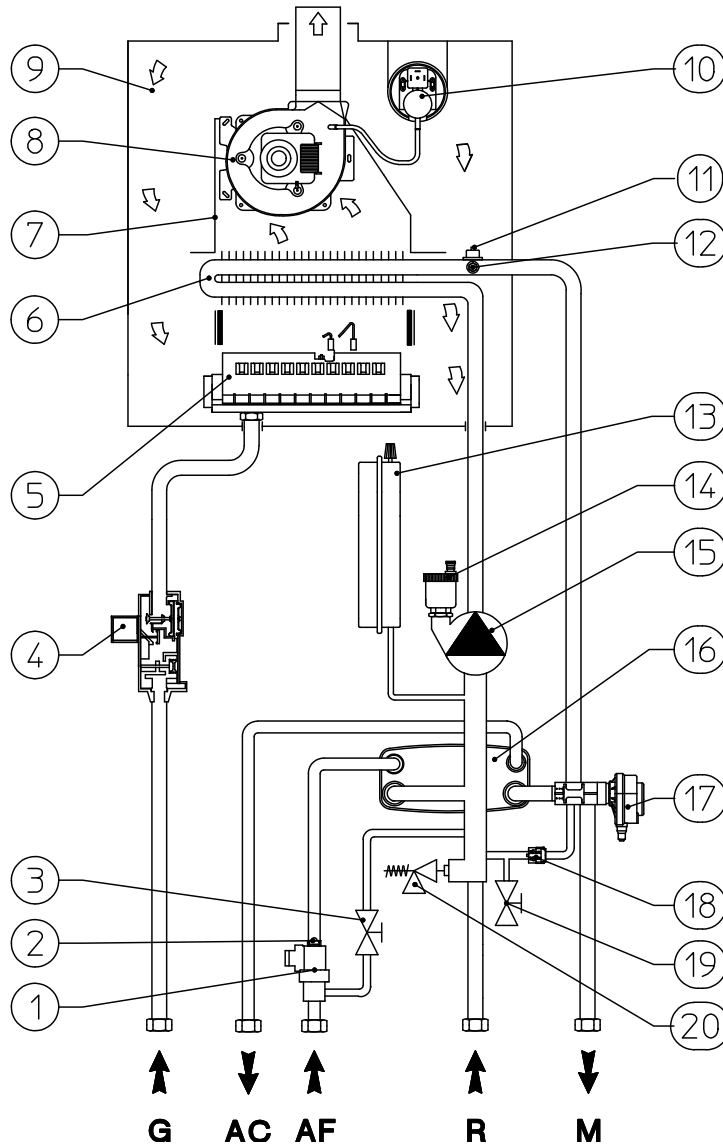


EOLO Mini 24-28 Export

EOLO Mini 24 S Export

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HYDRAULIC LAYOUT - EOLO Mini 24-28



LEGEND:

- | | |
|---------------------------|------------------------------------|
| 1 - D.h.w. flow switch | 11 - Delivery probe |
| 2 - Flow limiter | 12 - Overheating safety thermostat |
| 3 - Filling valve | 13 - System expansion vessel |
| 4 - Gas valve | 14 - Automatic air vent |
| 5 - Burner | 15 - Circulator |
| 6 - Primary exchanger | 16 - D.h.w. exchanger |
| 7 - Draught diverter | 17 - 3-way valve (motorised) |
| 8 - Fan | 18 - Automatic by-pass |
| 9 - Sealed chamber | 19 - System draining valve |
| 10 - Flue pressure switch | 20 - 3-bar safety valve |

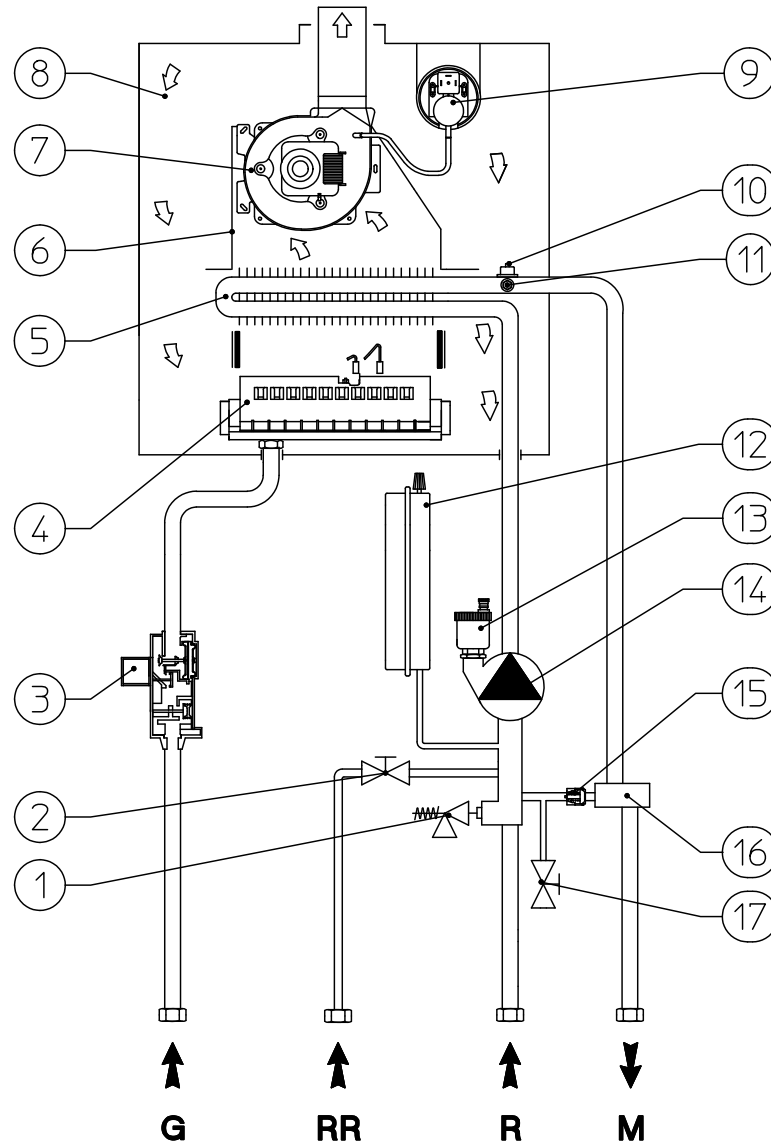


EOLO Mini 24-28 Export

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8.1

HYDRAULIC LAYOUT - EOLO Mini 24 S



LEGEND:

- | | |
|--------------------------|------------------------------------|
| 1 - 3-bar safety valve | 11 - Overheating safety thermostat |
| 2 - Filling valve | 12 - System expansion vessel |
| 3 - Gas valve | 13 - Automatic air vent |
| 4 - Burner | 14 - Circulator |
| 5 - Primary exchanger | 15 - Automatic by-pass |
| 6 - Draught diverter | 16 - Delivery header valve |
| 7 - Fan | 17 - System draining valve |
| 8 - Sealed chamber | |
| 9 - Flue pressure switch | |
| 10 - Delivery probe | |



EOLO Mini 24-28 Export

EOLO Mini 24 S Export

9 TECHNICAL SPECIFICATIONS - EOLO Mini 24 - 28

			EOLO 24	EOLO 28
Maximum nominal heat input		kW (kcal/h)	25.8 (22,146)	30.0 (25,782)
Maximum nominal heat output		kW (kcal/h)	24.0 (20,640)	28.0 (24,080)
Minimum nominal heat input		kW (kcal/h)	10.6 (9,122)	12.0 (10,356)
Minimum nominal heat output		kW (kcal/h)	9.3 (8,000)	10.5 (9,030)
Efficiency at 100% Pn		%	93.2	93.4
Efficiency at 30%		%	90.3	90.7
Central Heating circuit				
C.H. temperature adjustment		°C	38 - 85	38 - 85
C.H. max temperature		°C	90	90
C.H. max pressure		bar	3	3
Nom. / (real) system expansion vessel capacity		litres	6 / (4.5)	7.5 / (4.5)
Expansion vessel preload pressure		bar	1.0	1.0
Available pump head with flow 1000 l/h		kPa (m H ₂ O)	17.6 (1.79)	22.55 (2.30)
Domestic Hot Water circuit				
D.H.W. nominal heat output		kW (kcal/h)	24.0 (20,640)	28.0 (24,080)
D.H.W. temperature adjustment		°C	30 - 60	30 - 60
Minimum D.H.W. pressure		bar	0.3	0.3
Maximum D.H.W. circuit pressure		bar	10	10
Minimum D.H.W. demand		litres/min	1.5	1.5
Continuous max D.H.W. production (Δt 30°C)		litres/min	11.4	13.4
Gas supply				
NATURAL GAS (G20)	MIN - MAX	mbar	2.20 - 12.10	1.88 - 11.80
	nozzles	n°- ø mm	12 x 1.30	14 x 1.30
LPG (G30)	MIN - MAX	mbar	5.30 - 28.50	4.87 - 27.70
	nozzles	n°- ø mm	12 x 0.77	14 x 0.77
LPG (G31)	MIN - MAX	mbar	7.00 - 36.60	6.45 - 35.60
	nozzles	n°- ø mm	12 x 0.77	14 x 0.77
Electric supply		V/Hz	230 - 50	230 - 50
Nominal absorption		A	0.65	0.77
Electric power		W	115	135
Power consumption of the fan		W	36	45
Power consumption of the pump		W	63	79
Electric protection	IP		X4D	X4D
Water content		litres	2.7	2.9
Empty weight		kg	34	34
Energetic Efficiency Marking (92/42/CEE Directive)	stars		★★★	★★★



EOLO Mini 24-28 Export

EOLO Mini 24 S Export

9.1

TECHNICAL SPECIFICATIONS - EOLO Mini 24 S

			EOLO 24 S
Maximum nominal heat input		kW (kcal/h)	25.8 (22,146)
Maximum nominal heat output		kW (kcal/h)	24.0 (20,640)
Minimum nominal heat input		kW (kcal/h)	10.6 (9,122)
Minimum nominal heat output		kW (kcal/h)	9.3 (8,000)
Efficiency at 100% Pn		%	93.2
Efficiency at 30%		%	90.3
Central Heating circuit			
C.H. temperature adjustment		°C	38 - 85
C.H. max temperature		°C	90
C.H. max pressure		bar	3
Nom. / (real) system expansion vessel capacity		litri	6 / (4.5)
Expansion vessel preload pressure		bar	1.0
Available pump head with flow 1000 l/h		kPa (m H ₂ O)	17.6 (1.79)
Gas supply			
NATURAL GAS (G20)	MIN - MAX	mbar	2.20 - 12.10
	nozzles	n°- ø mm	12 x 1.30
LPG (G30)	MIN - MAX	mbar	5.30 - 28.50
	nozzles	n°- ø mm	12 x 0.77
LPG (G31)	MIN - MAX	mbar	7.00 - 36.60
	nozzles	n°- ø mm	12 x 0.77
Electric supply		V/Hz	230 - 50
Nominal assorbtion		A	0.65
Electric power		W	115
Power consumption of the fan		W	36
Power consumption of the pump		W	63
Electric protection	IP		X4D
Water content		litres	2.4
Empty weight		kg	33
Energetic Efficiency Marking (92/42/CEE Directive)	stars		★★★



EOLO Mini 24-28 Export

EOLO Mini 24 S Export

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COMBUSTION SPECIFICATIONS - EOLO Mini 24 - 24 S

		Nat. gas (G20)	LPG (G30)	LPG (G31)
100% Pn combustion efficiency	%	93.6	93.6	93.6
P min combustion efficiency	%	88.5	88.5	88.5
Stack losses with burner on (100% Pn)	%	6.4	6.4	6.4
Stack losses with burner on (P min)	%	11.5	11.5	11.5
Stack losses with burner off	%	0.06	0.06	0.06
Outer casing losses with burner off	%	0.60	0.60	0.60
Outer casing losses with burner on (100% Pn)	%	0.40	0.40	0.40
Outer casing losses with burner on (P min)	%	0.80	0.80	0.80
Exhaust flue temp. at Max. nominal heat input	°C	111	112	109
Exhaust flue temp. at Min. nominal heat input	°C	86	88	87
Fumes flow rate at Max. nominal heat input	kg/h	55	55	57
Fumes flow rate at Min. nominal heat input	kg/h	57	56	57
CO ₂ at Maximum Heat Input	%	6.70	7.70	7.40
CO ₂ at Minimum Heat Input	%	2.50	3.00	2.90
CO at Maximum Heat Input	mg/kWh	90	98	57
CO at Minimum Heat Input	mg/kWh	75	72	65
NO _x at Maximum Heat Input	mg/kWh	178	208	231
NO _x at Minimum Heat Input	mg/kWh	104	106	108
Weighted CO	mg/kWh	55	-	-
Weighted NO _x	mg/kWh	113	-	-
NO _x category	-	3	3	3

The gas flow rates refer to the NHV at 15°C and with 1013 mbar pressure.
The fumes temperature values refer to a 15°C inlet air temperature.



EOLO Mini 24-28 Export

EOLO Mini 24 S Export

10.1

COMBUSTION SPECIFICATIONS - EOLO Mini 28

		Nat. gas (G20)	LPG (G30)	LPG (G31)
100% Pn combustion efficiency	%	93.9	93.9	93.9
P min combustion efficiency	%	88.1	88.1	88.1
Stack losses with burner on (100% Pn)	%	6.1	6.1	6.1
Stack losses with burner on (P min)	%	11.9	11.9	11.9
Stack losses with burner off	%	0.08	0.08	0.08
Outer casing losses with burner off	%	0.57	0.57	0.57
Outer casing losses with burner on (100% Pn)	%	0.50	0.50	0.50
Outer casing losses with burner on (P min)	%	0.9	0.9	0.9
Exhaust flue temp. at Max. nominal heat input	°C	107	108	106
Exhaust flue temp. at Min. nominal heat input	°C	87	86	87
Fumes flow rate at Max. nominal heat input	kg/h	63	64	65
Fumes flow rate at Min. nominal heat input	kg/h	66	67	67
CO ₂ at Maximum Heat Input	%	6.80	7.80	7.50
CO ₂ at Minimum Heat Input	%	2.45	2.80	2.80
CO at Maximum Heat Input	mg/kWh	88	112	55
CO at Minimum Heat Input	mg/kWh	90	93	74
NO _x at Maximum Heat Input	mg/kWh	194	290	272
NO _x at Minimum Heat Input	mg/kWh	159	163	187
Weighted CO	mg/kWh	56	-	-
Weighted NO _x	mg/kWh	151	-	-
NO _x category	-	2	2	2

The gas flow rates refer to the NHV at 15°C and with 1013 mbar pressure.
The fumes temperature values refer to a 15°C inlet air temperature.



EOLO Mini 24-28 Export

EOLO Mini 24 S Export

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OPTIONALS EOLO Mini

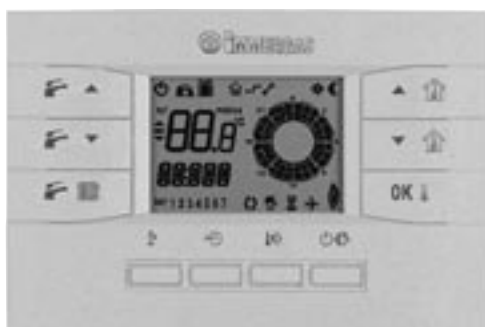
Digital weekly timer-thermostat
code 3.014438



Remote timer-thermostat (wireless)
code 3.014439



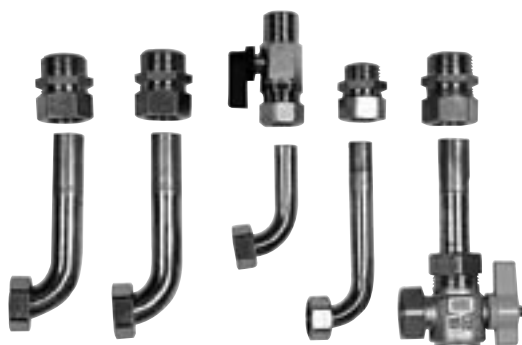
Digital remote control
code 3.016362



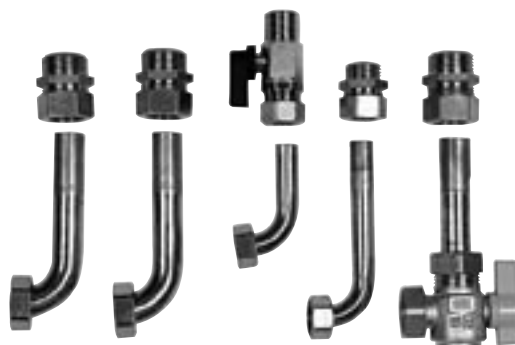
Polyphosphate dispenser kit
(only for EOLO Mini 24-28)
code 3.016305



Connections set kit
(only for EOLO Mini 24-24 S)
code 3.015229



Connections set kit
(only for EOLO Mini 28)
code 3.016671



On-Off valve kit
code 3.4297

Storage tank installation kit
(only for EOLO Mini 24 S)
code 3.017239

CERTIFICATO DI ESAME CE DI TIPO

EC TYPE EXAMINATION CERTIFICATE

No. **51BQ2948**

VISTO L'ESITO DELLE VERIFICHE CONDOTTE IN CONFORMITÀ ALL'ALLEGATO II, PUNTO 1,
DEL DPR 15/11/96, N. 661, ATTUAZIONE DELLA DIRETTIVA 90/396/CEE,
SI DICHIARA CHE I SEGUENTI PRODOTTI (MODELLO/TIPO):

*On the basis of our assessment carried out according to Annex II, section 1,
of Legislative Decree of 1996/11/15, No. 661, national transposition of the Directive 90/396/EEC,
we hereby certify that the following products (model/type):*

Caldae murali

Wall mounted boilers

Modelli EOLO MINI ...

Models EOLO MINI ...

*(ulteriori informazioni sono riportate in allegato)
(for further information see annex)*

CONSTRUITI DA:
Manufactured by:

**IMMERGAS SPA
VIA CISA LIGURE 95
42041 BRESCELLO RE**

SODDISFANO LE DISPOSIZIONI DEL DECRETO SUDDETTO.
Meet the requirements of the aforementioned national legislation.

QUESTO CERTIFICATO DI ESAME CE DI TIPO È RILASCIATO DA IMQ S.P.A. QUALE
ORGANISMO NOTIFICATO PER LA DIRETTIVA 90/396/CEE.
IL NUMERO IDENTIFICATIVO DELL'IMQ S.P.A. QUALE ORGANISMO NOTIFICATO È: **0051**

*This EC Type Examination Certificate is issued by IMQ S.p.A. as Notified Body for the Directive 90/396/EEC.
Notified Body notified to European Commission under number: 0051*

2005-03-31

DATA

IMQ S.p.A.

VIA QUINTILIANO 41 - 20138 MILANO

IL PRESENTE CERTIFICATO ANNULLA E SOSTITUISCE IL PRECEDENTE DEL _____
This Certificate cancels and replaces the previous one of _____



IMMERGAS
AZIENDA CERTIFICATA ISO 9001

During their working life, the performances of the products are influenced by external factors such as the hardness of the domestic water, the weather conditions, scaling in the system, etc. The data indicated in this brochure refer to new products, installed and used in compliance with the current standards in force. NOTE: remember to have your appliance periodically serviced.



IMMERGAS

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