MySMART

Condensing Wall-Hung Boilers

Beretta

NEW
BERETTA
BERETTA

Residential Heating

A⁺ IIIII SYSTEM

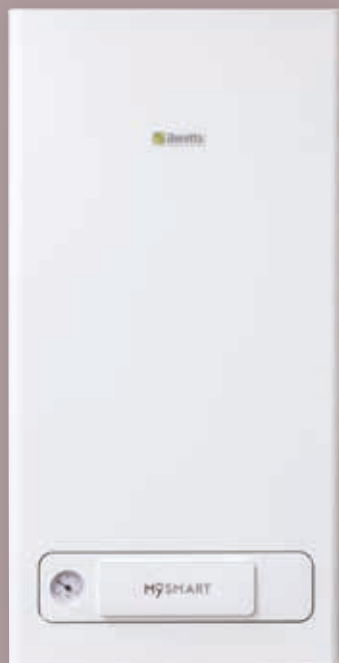ErP compliant

A IIIII

A XL

BeSMART INCLUDED

20.8°

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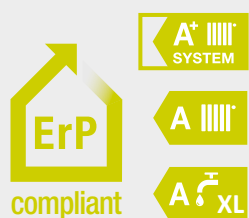
MySMART

MÝSMART

A+ Class system, without additional optionals.

BeSMART WiFi control kit included as standard.

BeSMART APPs available for Smartphone and Tablet.

Highest modulation ratio (up to 10:1).

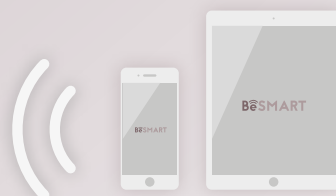Low Energy modulating Flex pump (EEI ≤ 0,20) with 6m head, adjustable up to 7m.

Possibility of inside-chimney installation via specific flue options in PP Ø50 (up to 7 m), in addition to Ø80 (up to 140m) and Ø60 (up to 26 m).

Flue adapter Ø80 mm as standard

THIS AND MUCH MORE IN THE SMARTEST BOILER

A SMARTER THERMOSTAT.

BÊSMART
INCLUDED

Beretta

BeSMART

A+ CLASS SYSTEM

MySMART, in combination with BeSMART WiFi (supplied as standard), enables to create, without additional optionals, an A+ Class system.

MANAGEMENT OF HOME COMFORT VIA SMARTPHONE AND TABLET

Whether you're off on holiday, out shopping or just working late, you can manage your home heating remotley via the BeSMART App from your smartphone or tablet.

CUT YOUR BILLS

With BeSMART, cut your bills by taking total control of your home heating, wherever you are. BeSMART is a clever way to cut costs by matching your heating to your lifestyle.

MULTIZONE

Possibilty to manage up to 8 different heating zones from wherever you are in the world via App, from your smartphone or tablet. (RF/ Radio Frequency communication among BeSMART Controls - wireless communication within 40m distance).

FREE OF CHARGE APP

BeSMART App is downloadable free of charge for Android (≥ 3.0 version) and iOS for the operation and programming of your boiler wherever you are, via smartphone and tablet.

MULTI-USERS APP

BeSMART App enables multi-users management of the heating, by sharing the same password. That is, every member of your family, f.i., can control the heating from smartphone or tablet.

WiFi

WiFi communication between the WiFi Box and the WiFi ADSL home modem router to connect your BeSMART to the internet. As an alternative to the ADSL modem, possibility of internet connection through the specific WiFi router for SIM card. (See BeSMART accessories).

24 HOUR - 7 DAY PROGRAMMING

24 hour weekly programming; possibility to choose among different pre-set programs.

3 COMFORT LEVELS

Programme up to 3 comfort levels to suit your mood and your pocket.

CENTRAL HEATING 24 HOUR PROGRAMMING

24 hour central heating programming, at 30 minutes intervals.

COOLING 24 HOUR PROGRAMMING

24 hour cooling programming, at 30 minutes intervals (if combined with a heat pump).

DOMESTIC HOT WATER 24-HOUR PROGRAMMING

24-hour DHW programming, at 30 minutes intervals (enabled via OTBus connection).

HOLIDAY FUNCTION

Enables to enter the number of days you will be away on holiday, during which your heatgenerator will work in order to keep an energy-saving temperature.

OUTDOOR TEMPERATURE

Outdoor temperature can be read by the outdoor sensor or from internet. If you set the home location on the App of your smartphone or tablet, the outdoor temperature can be read from internet.

INDOOR TEMPERATURE

Indoor temperature is displayed on BeSMART or can be monitored through the BeSMART App via Smartphone or Tablet.

PARTY FUNCTION

Enables unscheduled and immediate activation of heating/cooling (comfort T3 temperature) until the midnight of that day, without modifying the set program.

BeSMART

## A SMARTER THERMOSTAT.

Simple.
Universal.
Always with you.

... With BeSMART, users can adapt their heating to suit their schedules and lifestyles.

Whether they are off on holiday, out shopping or just working late, BeSMART gives them complete control of their home comfort via the handy App on a smartphone or tablet.

BeSMART is a clever way to cut costs by matching heating to different lifestyles. Which means only paying for heating when people are at home, to feel the benefit of it.
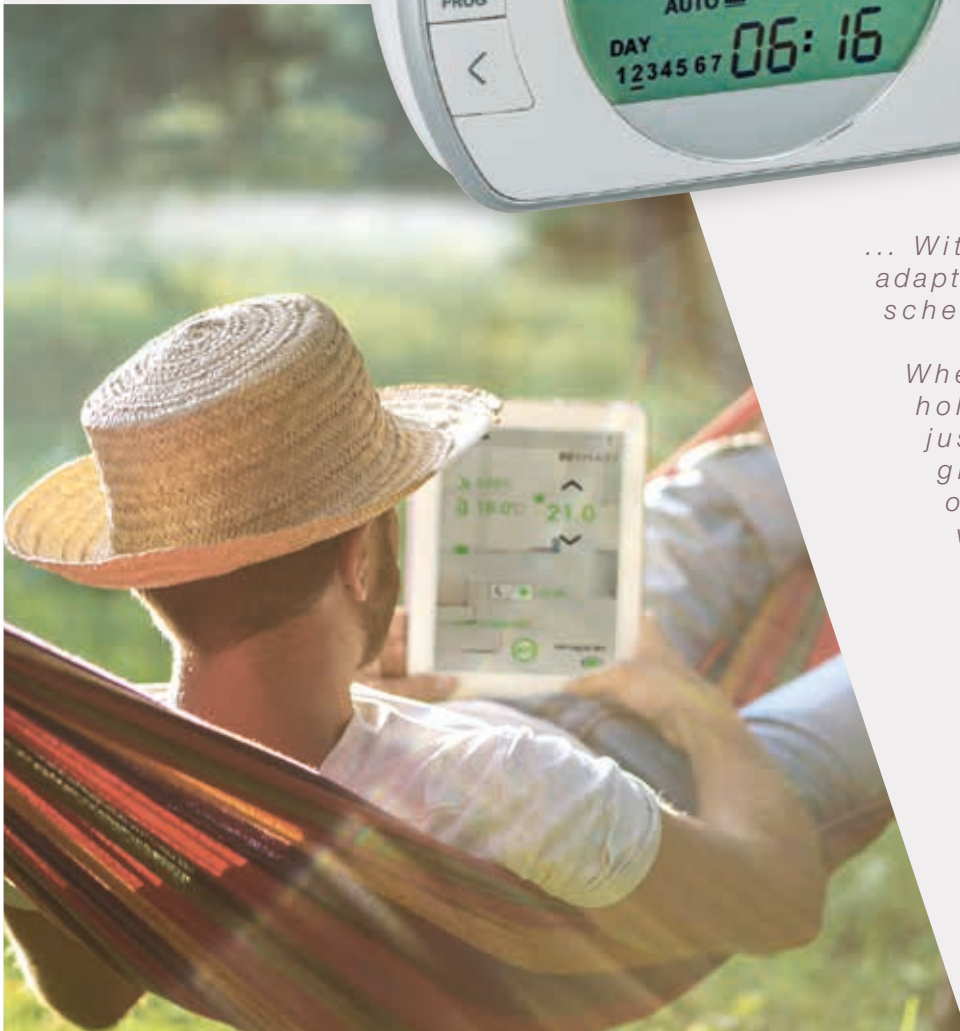
MÿSMART

A SMARTER BOILER.

From the experts in residential heating, the new boiler MySMART, combining Beretta top technology and smart communication.

MySMART with BeSMART

Beretta MySMART is standard equipped with the new Beretta WiFi thermostat BeSMART, allowing users to enjoy the highest degree of connectivity, in addition to comfort management and boiler control via App.

Discover all product features in this section.

Download APP

Download on the **App Store**

ANDROID APP ON **Google play**

besmart-home.com

TECHNOLOGY AND COMFORT MANAGEMENT

MySMART and BeSMART, the smartest system by Beretta

MySMART is standard equipped with BeSMART, the new thermostat by Beretta to control your home heating from your Smartphone or Tablet. Using the latest "smart" technology, BeSMART will surprise you with its ease of use and installation. With the BeSMART App, programming your thermostat has never been so simple and intuitive.
With MySMART and BeSMART you can enjoy the

greatest degree of connectivity, thanks to Beretta OTBus communication: you can view your boiler's operating conditions, alerts, parametres, home and outdoor temperature and much more. You can also reset your boiler when needed. And if you are not interested in the home comfort management via Smartphone or Tablet, you can use BeSMART also as a traditional thermostat, wired or wireless (RF communication).

(89mm H x 135mm W x 28mm D)

(86mm H x 86mm W x 21mm D)

BeSMART: easy installation, flexible configurations

BeSMART is surprisingly quick and easy to install. If you are replacing an old thermostat, BeSMART requires no additional wiring. You can also use BeSMART wirelessly, by using the WiFi Box as an RF receiver. And if you want to create different heating zones with individual programming of temperatures and operation hours, BeSMART makes this possible. In fact, BeSMART can manage up to 8 different zones, each

managed by its own BeSMART controller.
In the next pages, you will find three schemes illustrating the main applications of BeSMART with MySMART.
For further information about BeSMART accessories and possible configurations, please refer to Beretta International catalogue, section "smart systems", or visit the site www.berettaboilers.com

BeSMART WiFi and MySMART

BESMART WIFI - single zone (*)   SCHEME 1
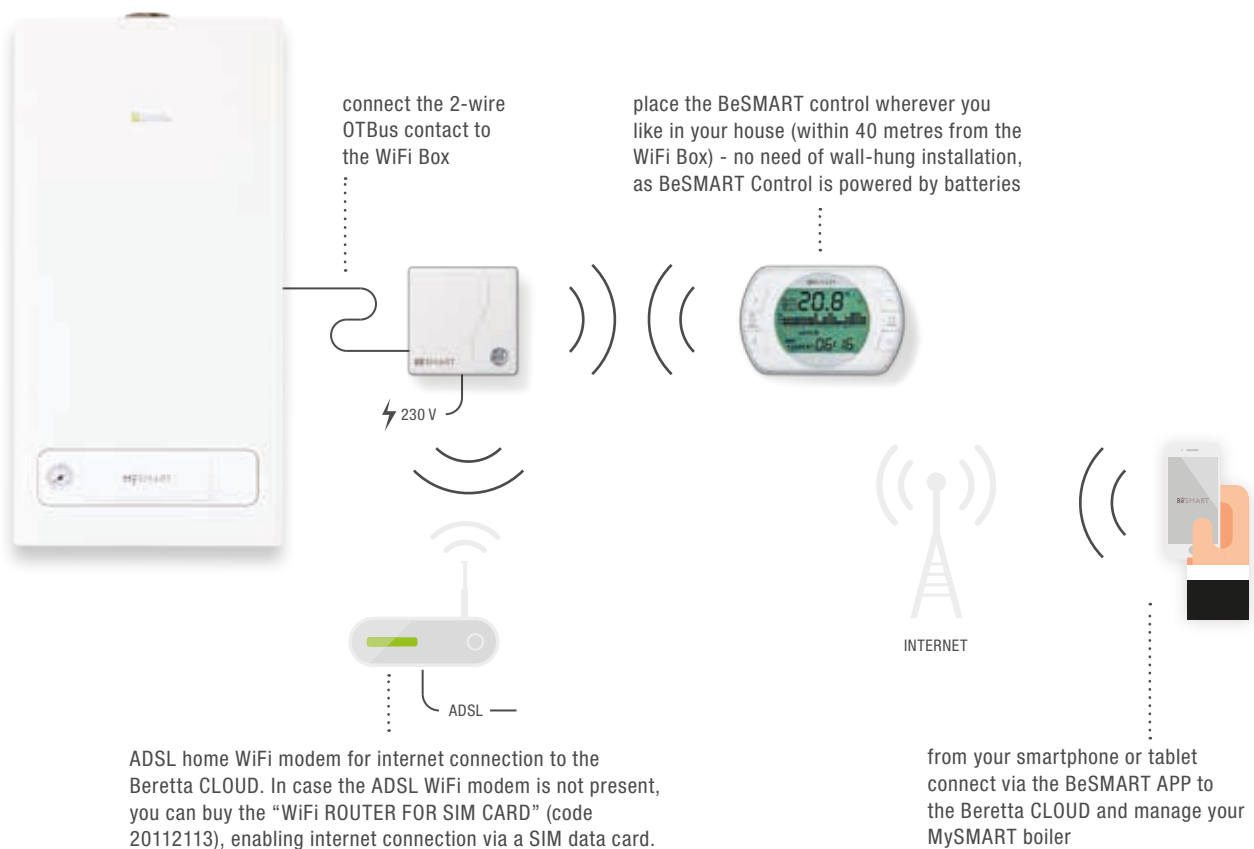
as MODULATING WIFI PROGRAMMABLE THERMOSTAT   via Beretta OTBus connection

By installing the BeSMART WiFi control kit, with connection to the home ADSL WiFi modem, you can enjoy the greatest degree of connectivity of MySMART: from your Smartphone or Tablet, it is possible to manage and programme your boiler from wherever you are. You can view your boiler's operating conditions,

alerts, parameters, home and outdoor temperature and much more. You can even reset your boiler, when needed.
MySMART, in combination with BeSMART (supplied as standard), enables to create, without additional optionals, an A+ Class system.

connect the 2-wire OTBus contact to the WiFi Box

place the BeSMART control wherever you like in your house (within 40 metres from the WiFi Box) - no need of wall-hung installation, as BeSMART Control is powered by batteries

230 V

INTERNET

ADSL

ADSL home WiFi modem for internet connection to the Beretta CLOUD. In case the ADSL WiFi modem is not present, you can buy the "WiFi ROUTER FOR SIM CARD" (code 20112113), enabling internet connection via a SIM data card.

from your smartphone or tablet connect via the BeSMART APP to the Beretta CLOUD and manage your MySMART boiler

In this scheme, the WiFi Box, supplied as standard, is used not only for the connection to the ADSL WiFi modem, but also as an RF receiver. The BeSMART Control communicates with the boiler MySMART via RF, while enabling a very accurate thermoregulation.

(*) To make a multizone system, please find all information on Beretta International Catalogue (section SMART SYSTEMS) or visit the site besmart-home.com
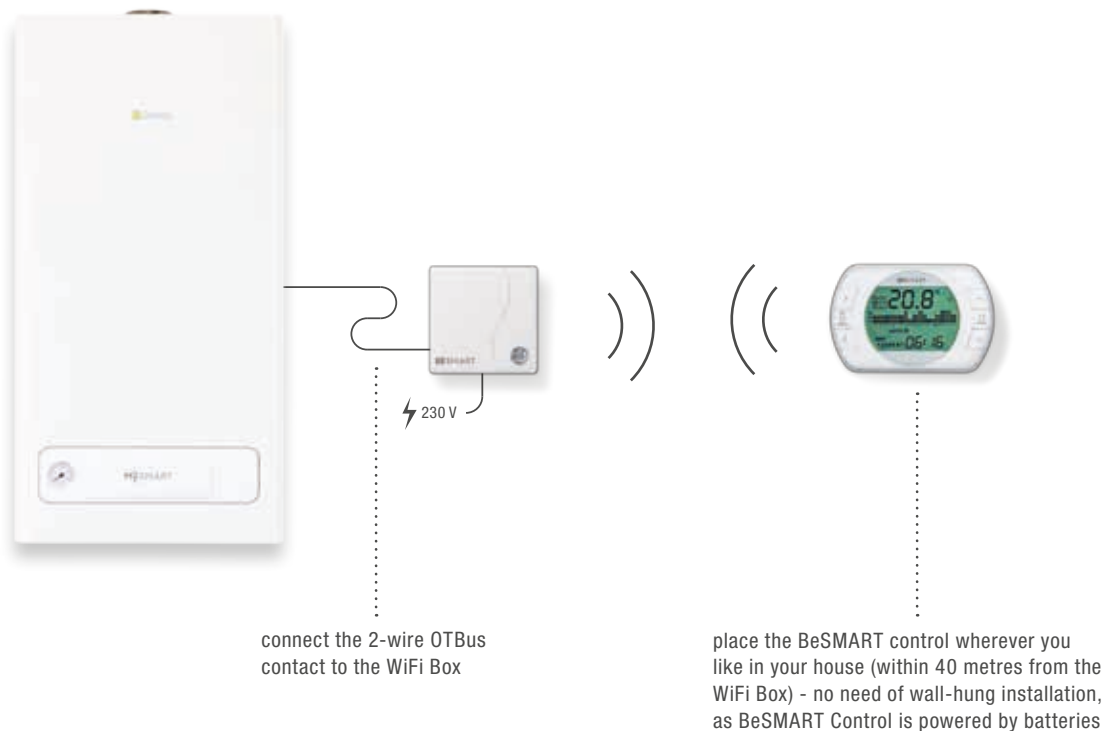
BeSMART and MySMART

BESMART - single zone (*)	SCHEME 2

as RF MODULATING PROGRAMMABLE THERMOSTAT   via Beretta OTBus connection and RF receiver

In case you are not interested in the home comfort management via Smartphone or Tablet, BeSMART can work also as an RF wireless modulating programmable thermostat, while ensuring in addition all extensive advantages from Beretta and OTBus: you can view your boiler's operating conditions, alerts, parametres, home and outdoor temperature and much more. You can also reset your boiler when needed.
In this scheme, the WiFi Box, installed near the boiler,

will work as an RF receiver. The receiving range between BeSMART Control and the RF receiver is 40 metres, which is large enough for most household applications. Anyway, in this configuaration, BeSMART doesn't need to be wall-mounted, as it is powered by batteries.
MySMART, in combination with BeSMART (supplied as standard), enables to create, without additional optionals, an A+ Class system.

connect the 2-wire OTBus contact to the WiFi Box

place the BeSMART control wherever you like in your house (within 40 metres from the WiFi Box) - no need of wall-hung installation, as BeSMART Control is powered by batteries

In this scheme, the WiFi Box is used as an RF receiver, but it is not connected to an ADSL WiFi modem. The BeSMART Control communicates with the boiler MySMART via RF, while enabling a very accurate thermoregulation.

(*) To make a multizone system, please find all information on Beretta International Catalogue (section SMART SYSTEMS) or visit the site besmart-home.com

BeSMART and MySMART

<table>
<tr><td>**BESMART - single zone (*)**</td><td>**SCHEME 3**</td></tr>
</table>

<table>
<tr><td>**as MODULATING PROGRAMMABLE THERMOSTAT**</td><td>**via Beretta OTBus connection**</td></tr>
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In case you are not interested in the home comfort management via Smartphone or Tablet, BeSMART can work also as a traditional modulating programmable thermostat, while ensuring in addition all extensive advantages from Beretta and OTBus: you can view your boiler's operating conditions, alerts, parametres, home and outdoor temperature and much more. You can also

reset your boiler when needed.
To install the BeSMART Control, in case of replacement, you can use also the two existing wires of an old thermostat.
MySMART, in combination with BeSMART (supplied as standard), enables to create, without additional optionals, an A+ Class system.

connect the 2-wire OTBus contact
to the BeSMART Control

In this scheme, the WiFi Box supplied as standard is not used. BeSMART Control communicates via wires with the boiler MySMART, while enabling a very accurate thermoregulation.

(*) To make a multizone system, please find all information on Beretta International Catalogue (section SMART SYSTEMS) or visit the site besmart-home.com

MySMART, the smartest boiler

The new condensing boiler MySMART is designed according to the ecodesign indications foreseen by the European Directive ErP.
MySMART has a higher DHW output, thereby offering a higher DHW comfort. It comes in an instantaneous combi model, featuring the new condensing heat exchanger with front access, characterized by higher efficiency (94% of seasonal space heating efficiency),

and the FLEX Low Energy modulating pump, with adjustable residual head up to 7m.
MySMART is compatible with the new flue options Ø 50 mm for inside-chimney installation up to 7m.
MySMART is standard supplied with: BeSMART WiFi Control kit, twin flue system kit, hydraulic connection cover, installation template, heating taps with filter, hydraulic connections in brass, gas and DHW taps.
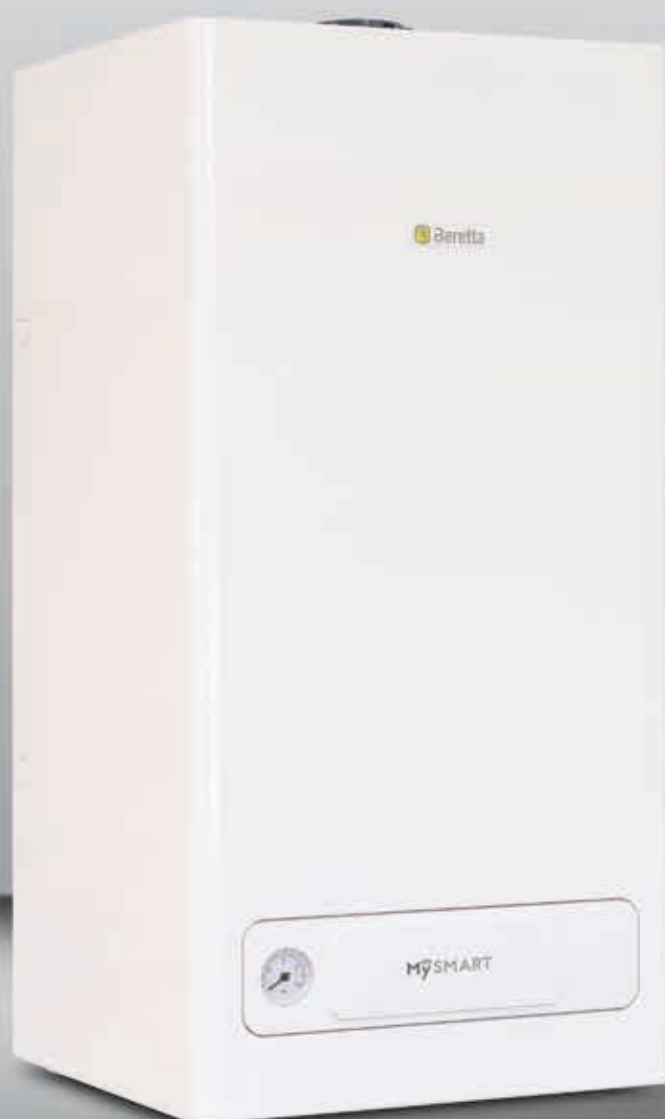
ECODESIGN AND ENERGY LABEL

MySMART system : class A+

MySMART system, composed by the boiler and the BeSMART WiFi control kit, achieves A+ class, without addition of any optionals.

According to the European Directive ErP, which came into force on 26.09.2015, all products for central heating and domestic hot water production, with nominal output lower than or the same as 70 kW, must be classified through a proper Energy Label, showing the efficiency class. Besides the product labels, the European rules foresee a system label in case of systems, made of different appliances, components and relevant controls. Thanks to the virtuous synergy among the different components, the System Label can achieve higher levels of efficiency than the relevant single component. The compulsory labelling aims at giving the end-user the possibility to easily identify the efficiency of a product or a system, allowing a comparison with other products or systems with the same technology.

As a consequence, also boilers will help to reach by 2020 the "20-20-20" target, consisting in 20% reduction of gas emissions, 20% increase in the use of renewable energy and 20% reduction in global energy consumption within the EU countries.
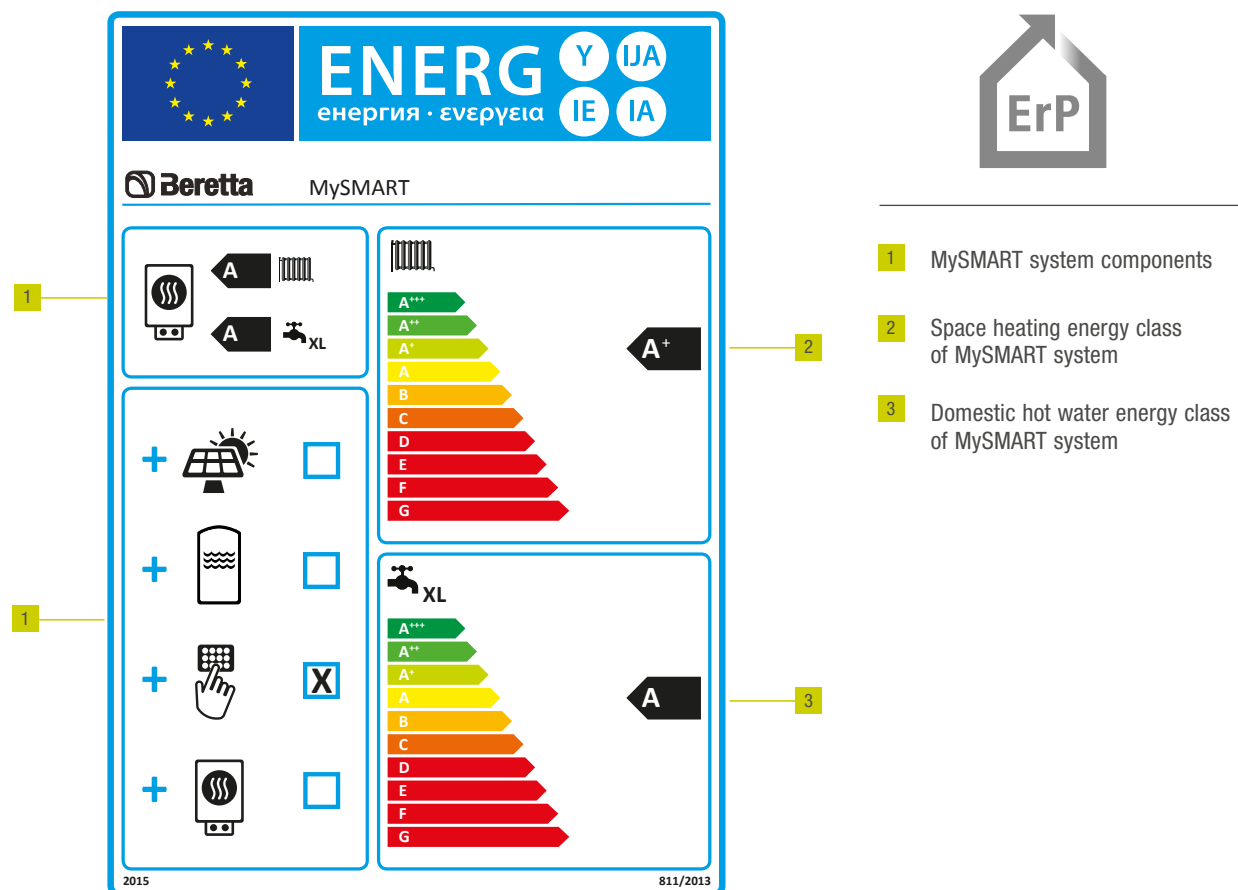
System Label downloadable from the site www.berettaboilers.com
Not included in the boiler package.

1   MySMART system components

2   Space heating energy class
    of MySMART system

3   Domestic hot water energy class
    of MySMART system

TECHNOLOGY

The innovative condensing heat-exchanger with front access

MySMART features the new Beretta condensing heat exchanger with front access. An innovative system of rails allows the movement of the heat-exchanger like a drawer, enabling esier and more rapid cleaning, maintanance and servicing.
Thanks to the continuous research, Beretta succeeded in creating a heat-exchanger characterized by higher efficiency: 94% of seasonal space heating efficiency, calculated according to the ErP European Directive. The heat-exchager is made of a continuous single

aluminium pipe, without weldings, thanks to an innovative production process. The excellent heat transfer property of aluminium, much higher than the stainless steel one, allows a more uniform temperature distribution. The continuous single pipe lay-out (in-series circuit) enables a wide section for the water passage, with the consequent advantage of reducing the head losses, while preventing the impurity deposit, thus ensuring long-lasting efficiency to the heat-exchanger.

1 Exploded view

2 Front view
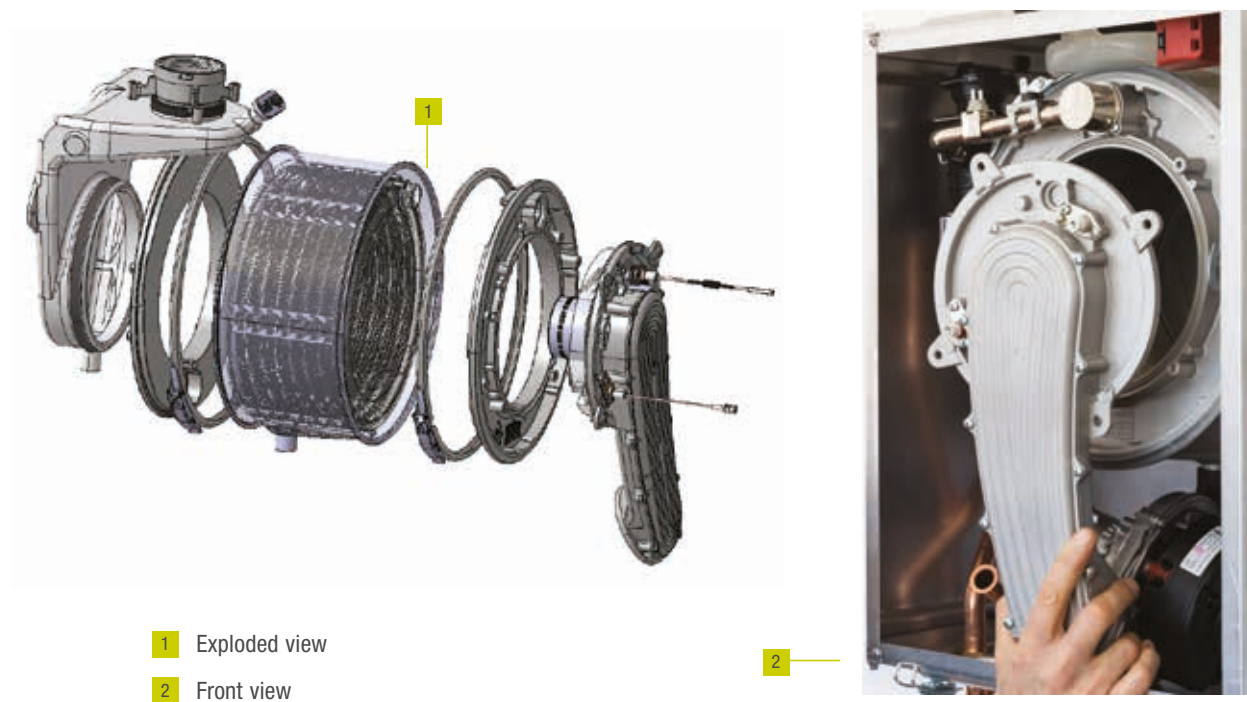
Thanks to the new Beretta condensing heat-exchanger, the boiler performance is increased up to 94% of space heating energy efficiency, translating into further energy saving and helping to safeguard the environment.

A⁺ SYSTEM System energy class A⁺
(thanks to the BeSMART WiFi control kit as standard)

A Space heating energy efficiency class A

A XL Domestic hot water energy efficiency class A

New condensing heat exchanger with front access

Modulation 10 : 1

Low Energy modulating pump (IEE≤0,20)
with 6m residual head adjustable to 7m

Ø50 7 m Up to 7 m of inside-chimney flue Ø 50

TECHNOLOGY AND CONTROL

High performance through user-friendly controls

The MySMART control panel, located under a hinged flap, is simple and user-friendly. A white backlight digital display provides the end-user immediately with all information about the boiler status.

Two easy-to-use knobs allow to do the boiler setting and control all the boiler functions in a simple and intuitive way, including the activation of S.A.R.A. system (automatic temperature control in heating mode).

LEGENDA:

1 Hydrometer

2 Digital display

3 On/off/summer/winter/reset
Heating temperature/"SARA" system selector

4 Domestic Hot Water temperature selector/
Pre-heating activation selector

TECHNOLOGY

Innovative condensing heat-exchanger
with front access

Modulation ratio 10 : 1

High performance fan enabling the inside
chimney installation of flue options with
Ø80 mm, Ø60 mm or Ø50 mm

Condensate trap syphone

Low Energy modulating synchronous pump
(EEI ≤ 0,20) with anti-blocakage cycles system
(6 m residual head, adjustable up to 7 m)

3-way valve with anti-blocakage
cycles system

Electronic board with self-diagnostic function
and frost protection

Rails for the "drawer extraction" of the heat
exchanger

Total pre-mix burner with low emissions:
Class 5 (UNI EN 483)

DHW plate heat-exchanger
with pre-heating option

By-pass on the heating circuit

Climatic thermoregulation as standard with
outdoor probe (available as option)

Flue gas analysis

9 lt. built-in expansion vessel

Suitable for the CLAPET kit (non-return valve),
available as option, for installation with
positive pressure flue systems
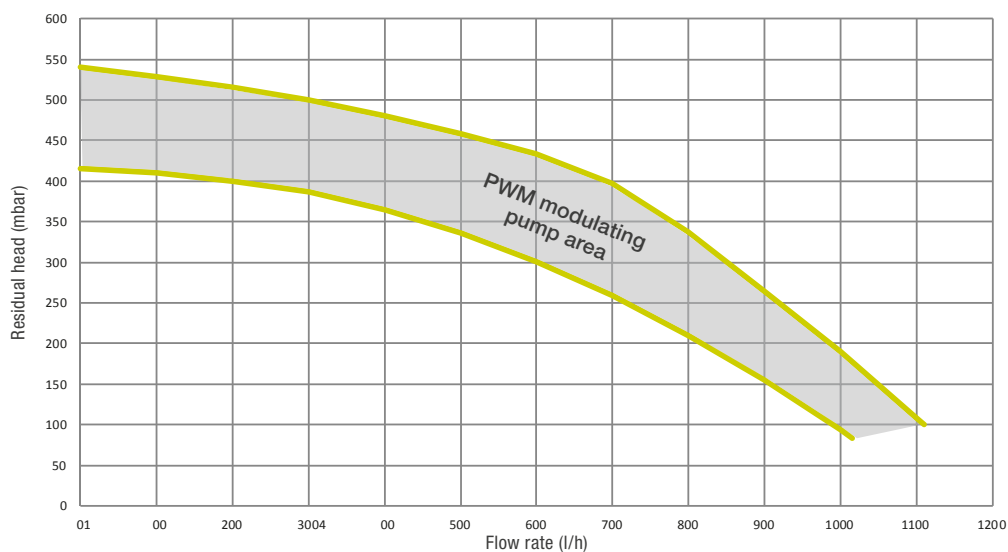
Hydraulic connections cover as standard

TECHNOLOGY AND EFFICIENCY

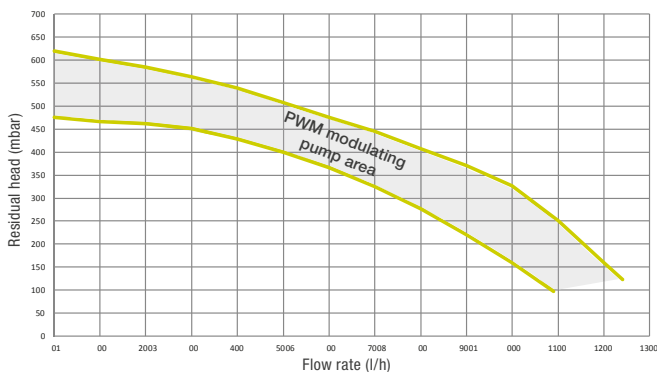# Modulating Flex pump:
Low Energy, optimized performance

MySMART features a Low Energy modulating synchronous pump, according to the European Directive ErP. Thanks to this new technology, the electric motor of the pump offers an Energy Efficiency Index lower than 0,20, translating into dramatically reduced electric consumptions. The new pump works proportionally to the output of the boiler, contributing to a further reduction of the electric consumptions. In case of need by the heating system, it is possible to adjust the head of the pump, without replacing the standard supplied pump with a high head one. From this feature originated the name "Flex".
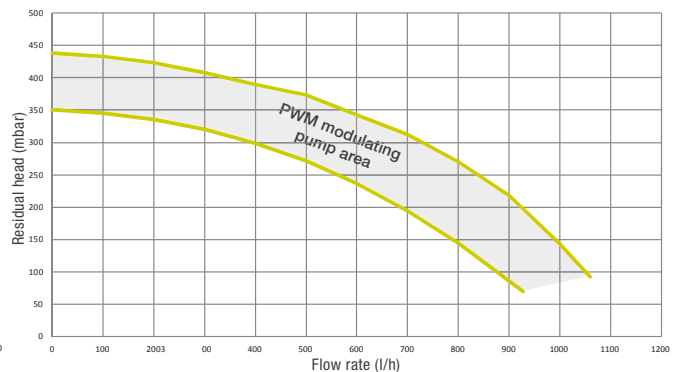
6 METRES RESIDUAL HEAD

PWM modulating pump area
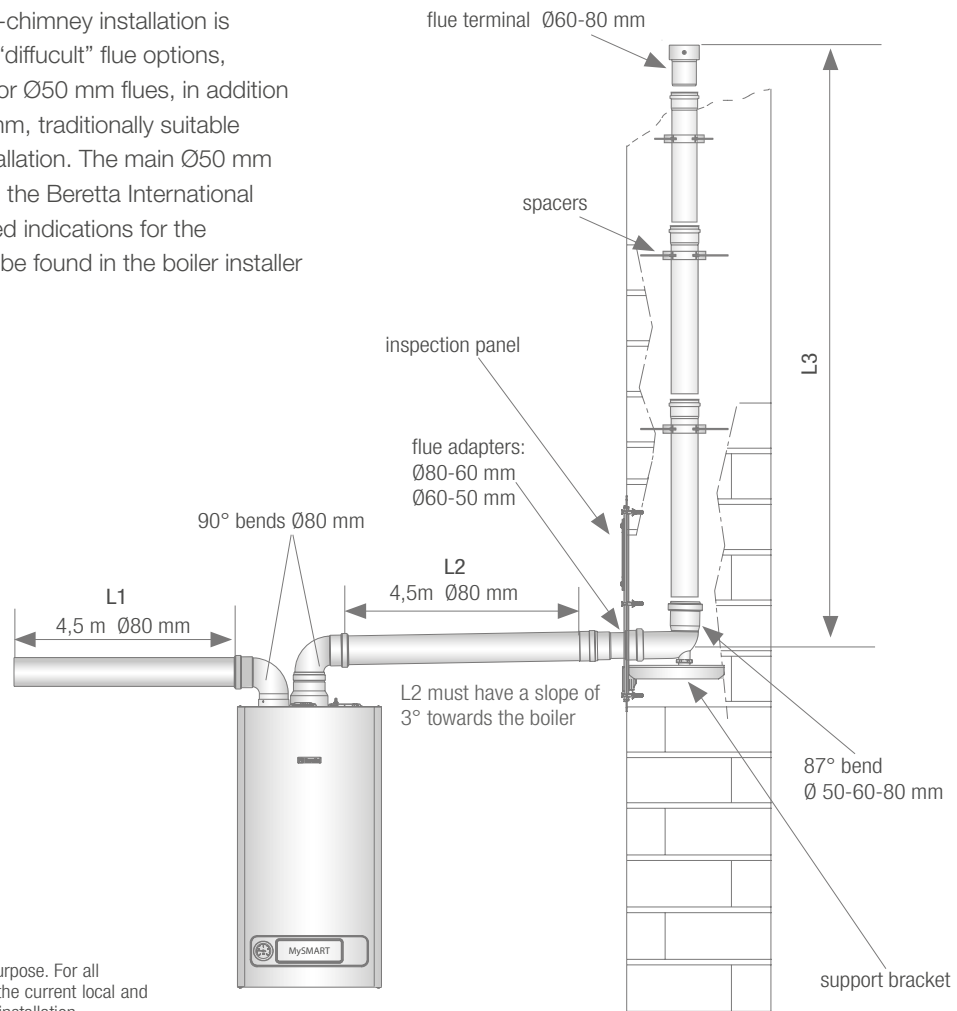
Residual head (mbar)

Flow rate (l/h)

7 METRES RESIDUAL HEAD

PWM modulating pump area

Residual head (mbar)

Flow rate (l/h)

5 METRES RESIDUAL HEAD

PWM modulating pump area

Residual head (mbar)

Flow rate (l/h)

FLUE OPTIONS

Flue options Ø50 - Ø60 - Ø80 for inside-chimney installation

With MySMART, the inside-chimney installation is possible also for the most "diffucult" flue options, thanks to the certification for Ø50 mm flues, in addition to the Ø80 mm and Ø60 mm, traditionally suitable for the inside-chimney installation. The main Ø50 mm flue options are available in the Beretta International catalogue, while the detailed indications for the maximum flue lengths can be found in the boiler installer manual.

flue terminal Ø60-80 mm

spacers

inspection panel

flue adapters:
Ø80-60 mm
Ø60-50 mm

L3

90° bends Ø80 mm

L1
4,5 m Ø80 mm

L2
4,5m Ø80 mm

L2 must have a slope of 3° towards the boiler

87° bend
Ø 50-60-80 mm

support bracket

This scheme has only an indication purpose. For all flueing configurations please refer to the current local and national rules concerning design and installation.
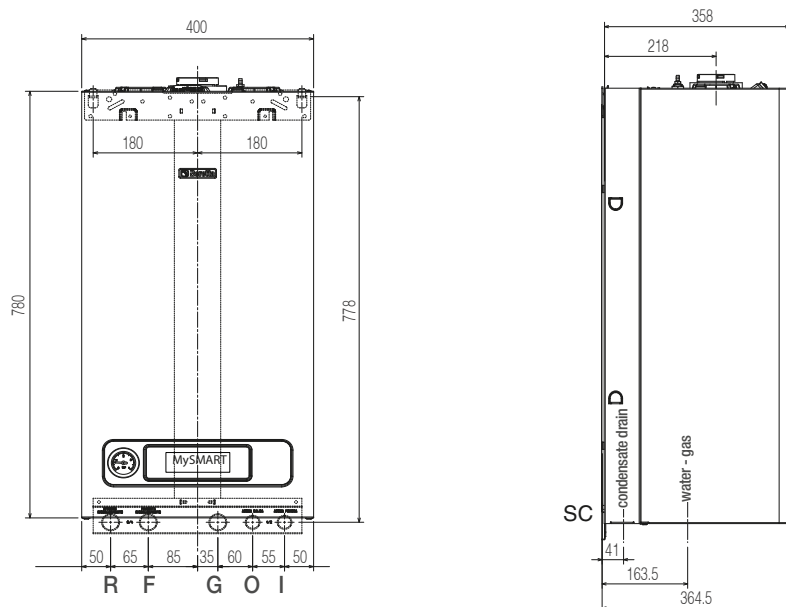
MySMART

KEY:

L1   1 bend 90° + 4,5 linear metres
L2   1 bend 90° + 4,5 linear metres
L3   with Ø50 up to 7m; with Ø60 up to 26m; with Ø80 up to 140m

Kit CLAPET (non-return valve)
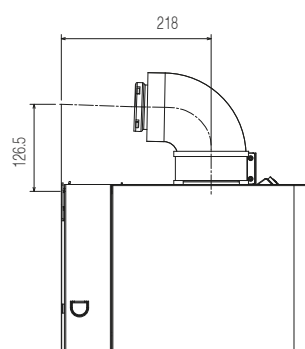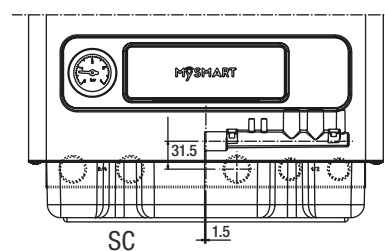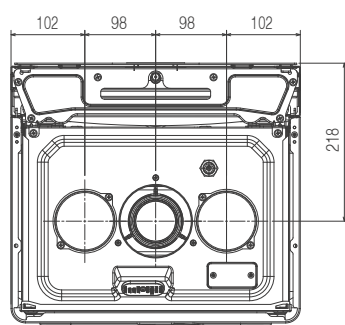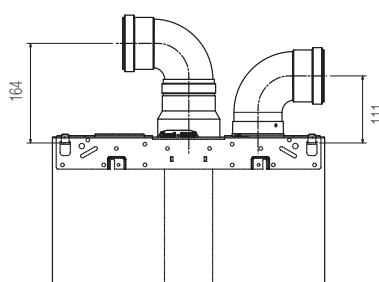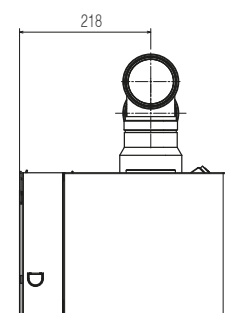
For MySMART, the kit CLAPET (non-return valve) is available as option for collective positive pressure flue systems (3CEp Certification).

TECHNICAL DRAWINGS

VIEW FROM ABOVE

Ø60/100 CONCENTRIC SYSTEM
FLUE OUTLET/ AIR INTAKE

Ø80 TWIN SYSTEM
FLUE OUTLET/ AIR INTAKE

SIDE VIEW
Ø80 TWIN SYSTEM

KEY:

Central heating:
R Return
F Flow
G Gas

Domestic water:
O Outlet
I Inlet

Condensate drain: SC

For all flueing configurations please refer to the current local and national rules.

TECHNICAL DATA

ErP ENERGY LABELLING SPECIFICATIONS (according to ErP regulations)		MySMART 28 C.S.I.
Seasonal space heating energy efficiency class	Class	A
Water heating energy efficiency class	Class	A
Declared load profile	-	XL
Rated heat output	kW	20
Sound power level inside	dB	51
Seasonal space heating energy efficiency	%	94
AUXILIARY ELECTRICITY CONSUMPTION		
At full load	W	29,0
At part load	W	10,4
In Stand-by mode	W	2,4
OTHER SPECIFICATIONS		
CH/DHW nominal heat input	kW	20/28
CH nominal heat output (80 - 60 °C)	kW	19,62
CH nominal heat output (50 - 30 °C)	kW	21,44
CH/DHW minimum heat input	kW	2,80
Efficiency at max - min nominal output (80 - 60 °C)	%	98,1 - 98,7
Efficiency at max - min nominal output (50 - 30 °C)	%	107,2 - 107,0
Efficiency at partial load 30% (30° ritorno)	%	109,6
Losses on flue with burner off	%	0,05
Losses on flue with burner on	%	1,68
NOx	Class	5
Power supply	V/Hz	230/50
CH max power consumption	W	94
Electrical protection	IP	X5D
CENTRAL HEATING		
Maximum pressure / temperature	bar / °C	3 / 90
Expansion vessel capacity	litres	9
DHW		
Minimum - maximum pressure	bar	0,2 - 6
DHW production at Δt =25°	l/min	16,1
DHW minimum flow rate	l/min	2
CONNECTIONS		
CH flow-return / Gas	Ø	3/4"
DHW inlet - outlet	Ø	1/2"
Ø50 FLUE SYSTEMS FOR INSIDE-CHIMNEY INSTALLATION (*)		
Max length: Ø80 air intake and 90° bend + outlet and 90° bend	m	4,5 + 4,5
Max length: Ø50 in vertical chimney	m	7
Ø60 FLUE SYSTEMS FOR INSIDE-CHIMNEY INSTALLATION (*)		
Max length: Ø80 air intake and 90° bend + outlet and 90° bend	m	4,5 + 4,5
Max length: Ø60 in vertical chimney	m	26
Ø60-100 CONCENTRIC SYSTEM (FLUE PIPE AND AIR INTAKE)		
Max length	m	7,8
Losses for a 90°/45° bend	m	1,6 / 1,3
Ø80 TWIN SYSTEM (FLUE PIPE AND AIR INTAKE)		
Max length	m	50 + 50
Losses for a 90°/45° bend	m	1,5 / 1
DIMENSIONS, WEIGHT, GAS		
boiler dimensions (H x L x P)	mm	780 x 400 x 365
Net weight	kg	39
Available gas versions (**)		NG

(*) For further details and settings refer to the instructions manual.
(**) LPG version available through LPG tranformation kit (supplied as option).

KEY:

C COMBI model (CH + DHW);   S Room sealed;   I Electronic ignition, ionisation flame control.

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Beretta