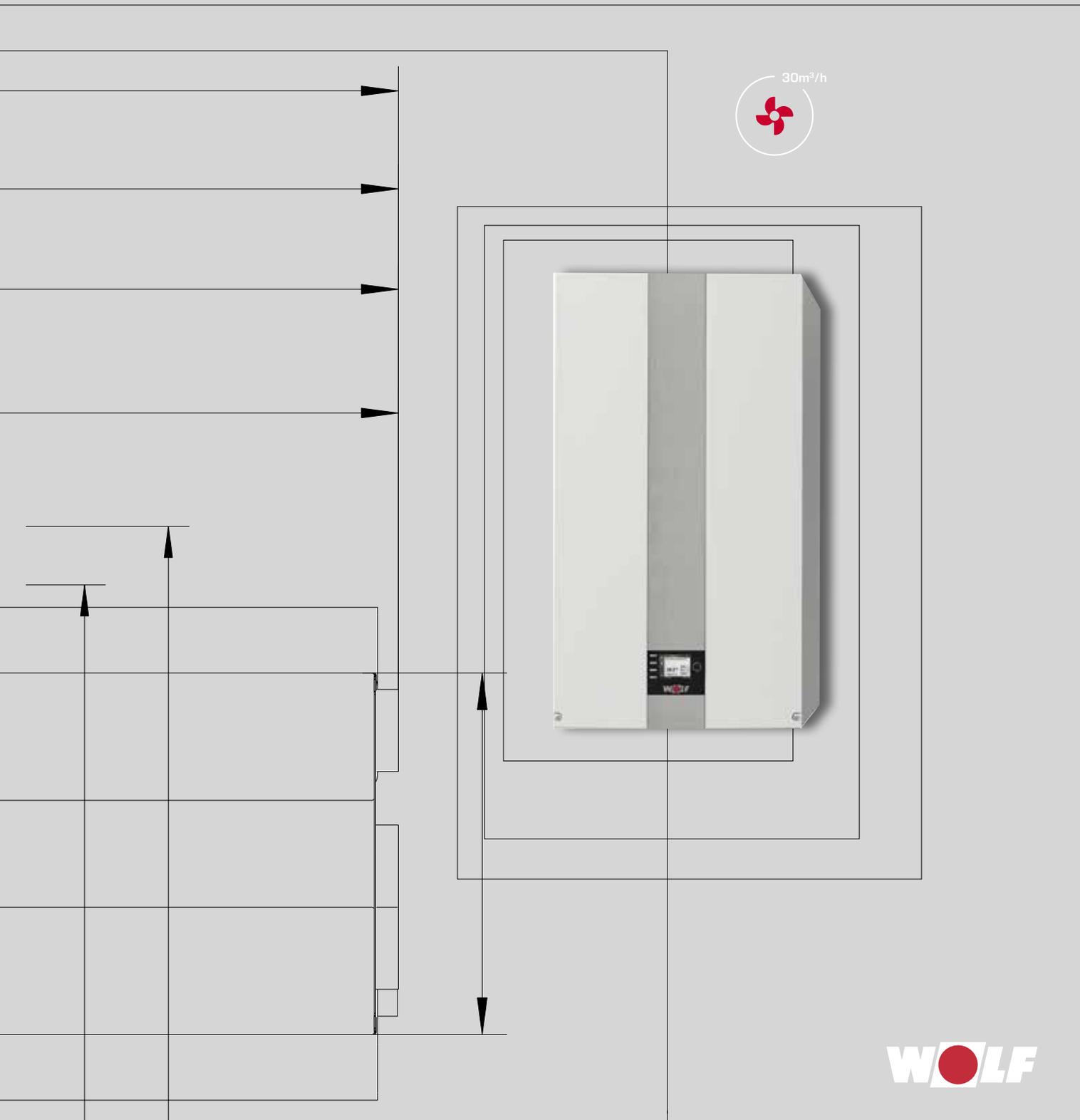
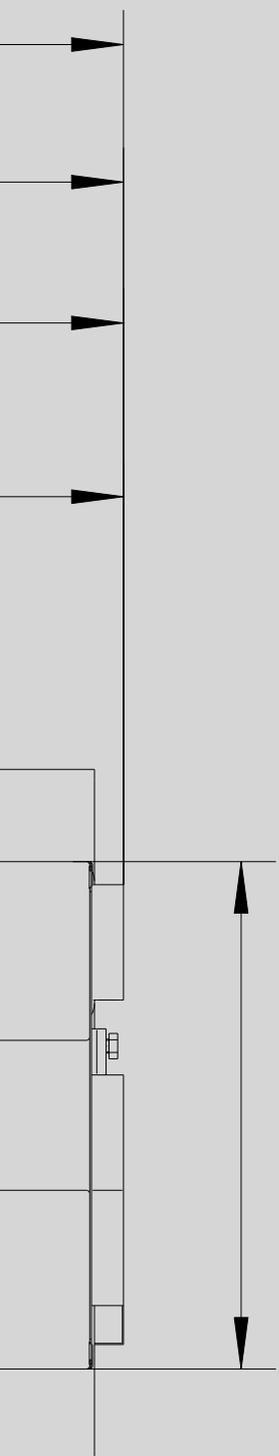


WOLF GAS CONDENSING BOILERS COMFORTLINE

CGB-2-75/100





THE EXTENSIVE EQUIPMENT RANGE

offered by system supplier WOLF provides ideal solutions for commercial and industrial buildings, new build and modernisation projects alike. The range of WOLF control units can meet any requirement for heating convenience. All equipment is easy to operate, highly energy efficient and reliable. Solar thermal systems can be swiftly integrated into existing systems.

WOLF equipment is easy and quick to install and maintain.

COMFORTLINE GAS CONDENSING BOILERS	04-05
SPECIFICATION	06-07
DIMENSIONS + CONNECTION DIMENSIONS	08
STANDARD CONTROL UNITS	09
CONTROL ACCESSORIES	10-11
BALANCED FLUE	12-13
ACCESSORIES	14-15

Gas condensing boilers, closed combustion chamber,
for open flue or room sealed operation

Modulation range up to 1:6:
- modulates between 16 and 100%

5x cascade
up to 500 kW

**Seasonal
space heating efficiency
of 95 %**

Ideal control system design
All boards and WOLF Link home (optional) in one
housing, easily accessible connections

Robust coated heat exchanger
made from extruded AlSi

Flue gas exhaust return damper
available as standard for cascade applications

Intelligent pump spread control
for optimum use of condensing technology



**No overflow valve,
no return temperature raising**
for maximum utilisation of the condensing effect

Also available with WOLF Link pro 4G internet interface including router

Multi-product control system WRS-2:
BM-2 with commissioning assistant

14

BENEFITS OF WOLF GAS CONDENSING BOILERS 75 TO 100 KW

CGB-2-75/100

Hybrid-capable
with WOLF heat pumps

Maintenance
without draining hot water

Existing equipment easy to replace,
all connections fully compatible with previous models



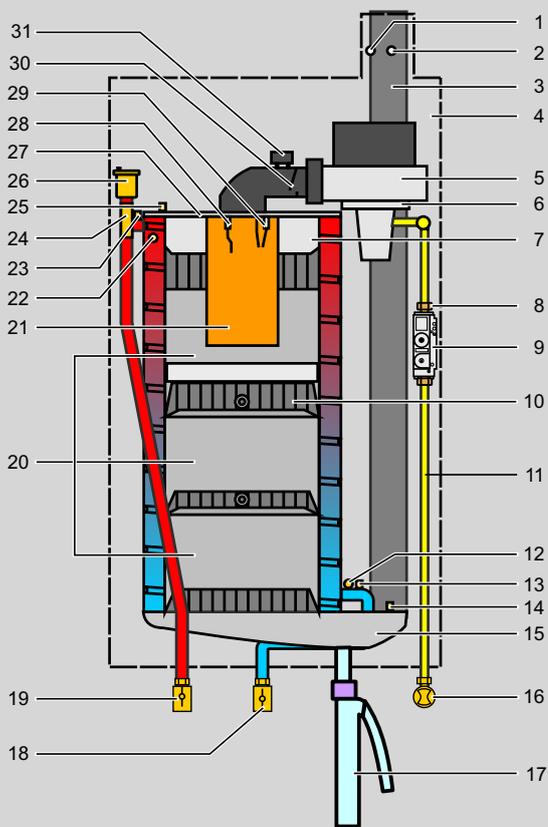
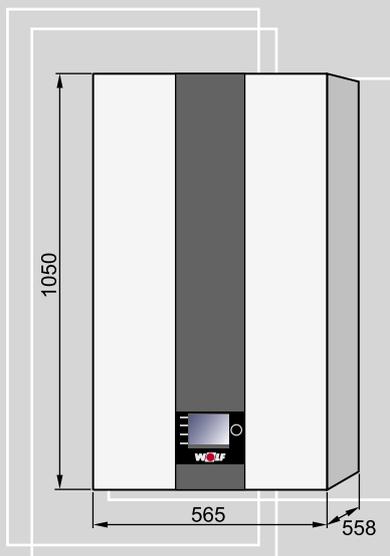
SPECIFICATION

CGB-2-75 / 100 WALL-MOUNTED GAS CONDENSING BOILER FOR HEATING

MODULATION RANGE

for flow / return, 50 / 30°C / natural gas

CGB-2-75	from 15.9 to 75.8 kW
CGB-2-100	from 15.9 to 98.7 kW



- | | |
|--|---|
| 1 Ventilation air test point | 17 Condensate trap |
| 2 Flue gas test point | 18 Heating return |
| 3 Flue pipe | 19 Heating flow |
| 4 Combustion chamber casing | 20 Displacement device |
| 5 Gas fan | 21 Burner |
| 6 Gas-air mixing chamber | 22 Flow sensor |
| 7 Combustion chamber cover insulation | 23 eHLSC flow |
| 8 Gas restrictor | 24 Flash trap |
| 9 Gas combination valve | 25 Combustion chamber temperature limiter |
| 10 Heating water heat exchanger | 26 Quick-action air vent valve |
| 11 Gas pressure switch [optional] | 27 Combustion chamber cover |
| 12 Water pressure sensor | 28 Monitoring electrode |
| 13 Return sensor | 29 Ignition electrode |
| 14 Flue gas temperature sensor | 30 Back draught safety device |
| 15 Condensate pan | 31 Ignition transformer |
| 16 Gas supply pipe / gas appliance valve | |

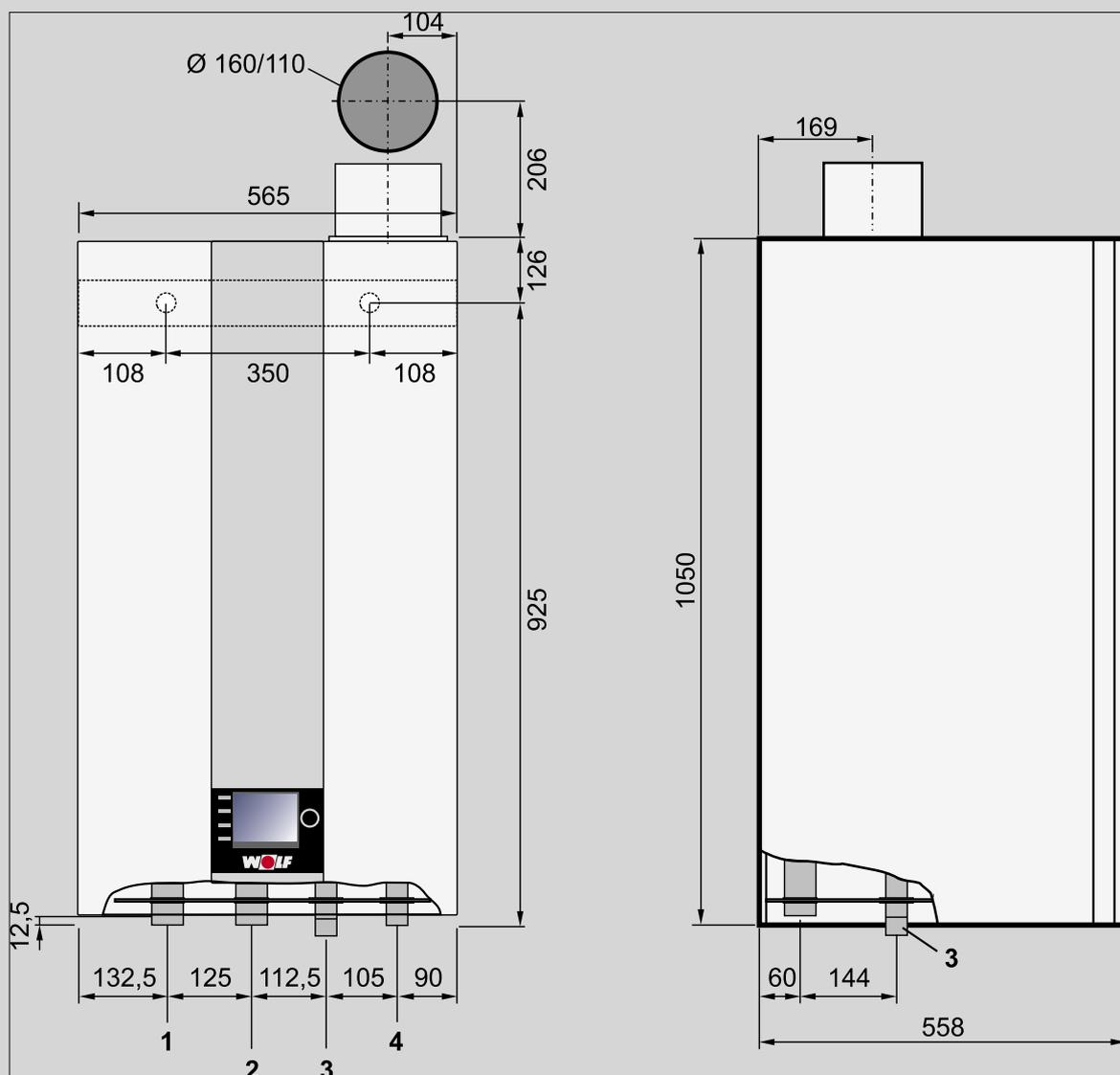
Specification		CGB-2-75	CGB-2-100
Rated heating output at 80/60°C	kW	70.8	92.1
Rated heating output at 50/30°C	kW	75.8	98.7
Rated heat input	kW	71.5	94.0
Lowest output (modulating at 80/60)			
Natural gas E/H	kW	14.9	14.9
LPG P	kW	19.7	19.7
Lowest output (modulating at 50/30)			
Natural gas E/H	kW	15.9	15.9
LPG P	kW	21.2	21.2
Lowest heat input (modulating)			
Natural gas E/H	kW	15.0	15.0
LPG P	kW	20.0	20.0
External diameter, heating flow	G	1½"	1½"
External diameter, heating return	G	1½"	1½"
Drain outlet (condensate)		1"	1"
Gas connection	R	¾"	¾"
Balanced flue connection	mm	110/160	110/160
Dimensions HxWxD	mm	1050x565x558	1050x565x558
Gas supply details:			
Natural gas E/H (Hi = 9.5 kWh/m³ = 34.2 MJ/m³)	m³/h	7.53	9.89
Natural gas LL (Hi = 8.6 kWh/m³ = 31.0 MJ/m³) ¹⁾	m³/h	8.31	10.93
LPG P (Hi = 12.8 kWh/kg = 46.1 MJ/kg)	kg/h	5.59	7.34
Gas supply pressure:			
Natural gas	mbar; hPa	20	20
LPG	mbar; hPa	50	50
Maximum flow temperature, factory setting	°C	80	80
Max. overall pressure, heating	bar / MPa	6 / 0.6	6 / 0.6
Water capacity of heating water heat exchanger	litres	10	10
DHW temperature range (adjustable)	°C	15-65	15-65
Heating water pressure drop with 20 K spread	mbar; hPa	86	159
Rated output:			
Flue gas mass flow rate	g/s	32.2	42.4
Flue gas temperature 50/30 - 80/60	°C	55-79	65-91
Available gas fan draught	Pa	120	216
Lowest heat input:			
Flue gas mass flow rate	g/s	6.9	6.9
Flue gas temperature 50/30 - 80/60	°C	36-60	36-60
Available gas fan draught ²⁾	Pa	[6] 17	[6] 17
Flue gas category to DVGW G 635		G52	G52
NOx class		6	6
Electrical connection	V~/Hz	230/50	230/50
Integral fuse (medium time lag)	A	4	4
Power consumption	W	93	159
IP rating		IP20	IP20
Total weight (empty)	kg	94	94
Amount of condensate at 40/30°C	l/h	7.1	9.8
Condensate pH value		approx. 4	approx. 4
CE designation		CE-0085DL0287	

¹⁾ Not applicable for Austria/Switzerland

²⁾ Value for HG02 at factory setting; value in parentheses for HG02 at min. value

DIMENSIONS

+ Connection dimensions

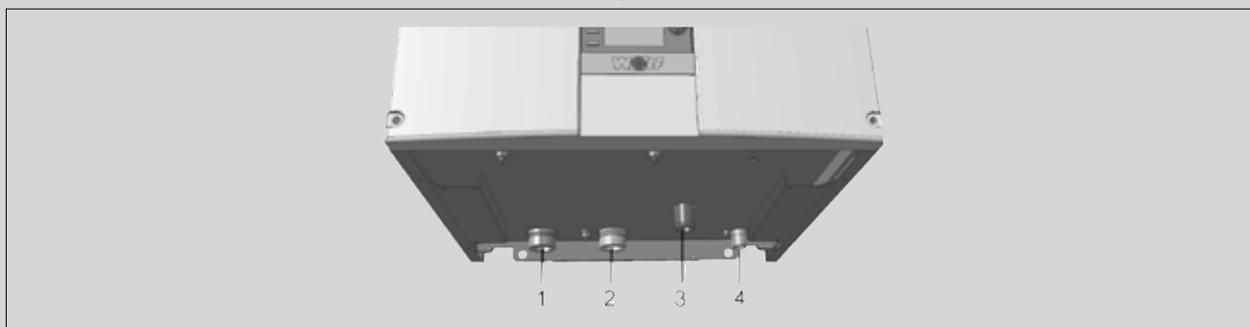


- 1 Heating flow
- 2 Heating return
- 3 Condensate drain
- 4 Gas connection

↑
Front view

View from below

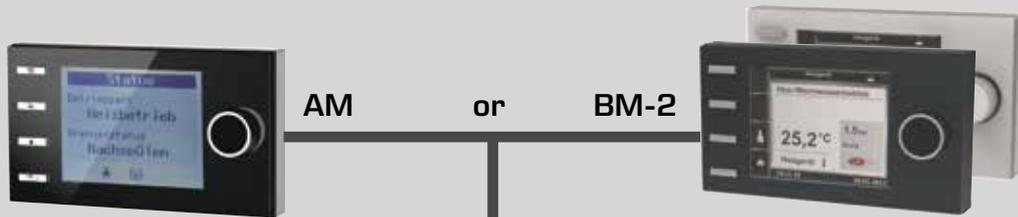
↑
Side view



- 1 Heating flow G 1½"
- 2 Heating return G 1½"

- 3 Trap
- 4 Gas connection R ¾"

The operation of a CGB-2 gas condensing boiler requires either an AM display module or a BM-2 programming unit.



The AM functions solely as a display module for the heat generator. Appliance-specific parameters and values can be programmed and displayed.

AM display module

- Display module for the heat generator
- Only required if BM-2 is used as a remote control or in a cascade circuit / hybrid application
- Operated by rotary selector with pushbutton function
- 4 quick start keys for frequently used functions
- Backlit LCD screen
- AM is always inside the heat generator

BM-2 programming unit

- In black and white
- Weather-compensated flow temperature
- Time programs for heating, DHW and DHW circulation
- 3.5" colour display
- Simple user prompts via plain text display
- Operated by rotary selector with pushbutton function
- 4 function keys for frequently used functions
- microSD card slot for software update
- Installation either inside the heat generator control unit or as a remote control in a wall mounting base
- Only one programming unit required for multi circuit systems
- Can be extended with MM-2 mixer module (up to 7 mixing circuits)
- BM-2 can also be used as a remote control for the CWL Excellent ventilation unit (one programming unit for heating and ventilation)



AM display module or BM-2 programming unit an essential requirement

2-wire eBus connection

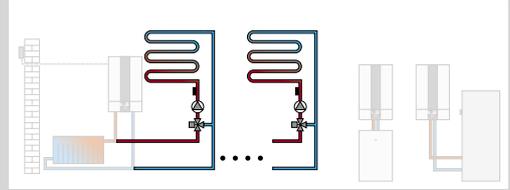


BM-2 programming unit in black or white
(if BM-2 is inside the heat generator, max. 6 additional remote controls are possible)



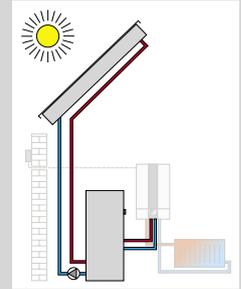
MM-2 mixer module

- Extension module to control one mixing circuit
- Weather-compensated flow temperature control
- Easy controller configuration by selecting predefined system versions
- BM-2 programming unit with wall mounting base can be extended to serve as a remote control
- Rast 5 connection technology
- Incl. flow temperature sensor



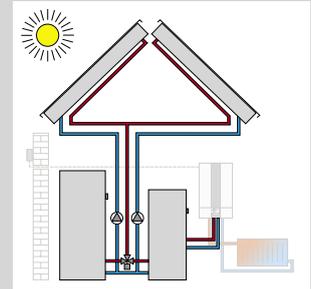
SM1-2 solar module

- Extension module to control one solar circuit incl. collector temperature sensor, cylinder temperature sensor and sensor wells
- Greater energy savings in conjunction with Wolf heat generators, due to intelligent cylinder reheating, i.e. blocking cylinder reheating when there is sufficient solar yield
- Heat metering with external heat meter
- Function check for flow rate and gravity brake
- Temperature differential control for one heat consumer
- Maximum cylinder temperature limit
- Display of the set and actual values on the BM-2 programming unit
- Integrated operating hours meter
- eBus interface with automatic energy management
- Rast 5 connection technology
- Part of the standard delivery for CSZ-2



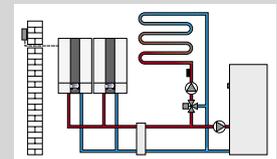
SM2-2 solar module

- Extension module to control one solar thermal system with up to 2 cylinders and 2 collector arrays, incl. 1 collector sensor and 1 cylinder sensor, each with sensor well
- Easy controller configuration by selecting one of the preset system versions
- In conjunction with WOLF heat generators, greater energy savings through intelligent cylinder reheating, i.e. blocking cylinder reheating when there is sufficient solar energy
- Heat metering with external heat meter for all configurations
- Selection of cylinder operating mode
- Display of the set and actual values on the BM-2 programming unit
- eBus interface with automatic energy management
- Rast 5 connection technology



KM-2 cascade module

- Extension module to control systems with a low loss header or cascade operation
- Suitable for gas condensing boilers [5 appliances]
- Easy controller configuration by selecting one of the preset system versions
- Control of one mixing circuit
- BM-2 programming unit slots into wall mounting base and can be extended to serve as a remote control
- 0-10 V input for BMS systems; fault message output 230 V
- eBus interface with automatic energy management
- Rast 5 connection technology



AFB analogue remote control

- Simple WRS remote control for heating circuits and mixing circuits
- Each heating circuit can be operated separately with a remote control
- Integrated room temperature sensor
- Temperature and program selection via rotary selector
- Only in conjunction with BM-2 programming unit

2-wire eBus connection



ISM8i Ethernet interface module

Interface module with open TCP/IP protocol for system-independent integration of WOLF heating appliances and ventilation units.



KNX interface kit

Interface set for integration of WOLF heat generators into a KNX network

Consisting of:
Interface module ISM8i, KNX-IP-BAOS module, installation/operating instructions, network cable



I/O module

Extension module for 2 programmable inputs and outputs



BACnet interface kit

Interface kit for integrating up to 4 gas condensing boilers into a BACnet network

Consisting of:
ISM8 interface module, WOLF BACnet gateway, installation and operating instructions, network cable [2 pce.]

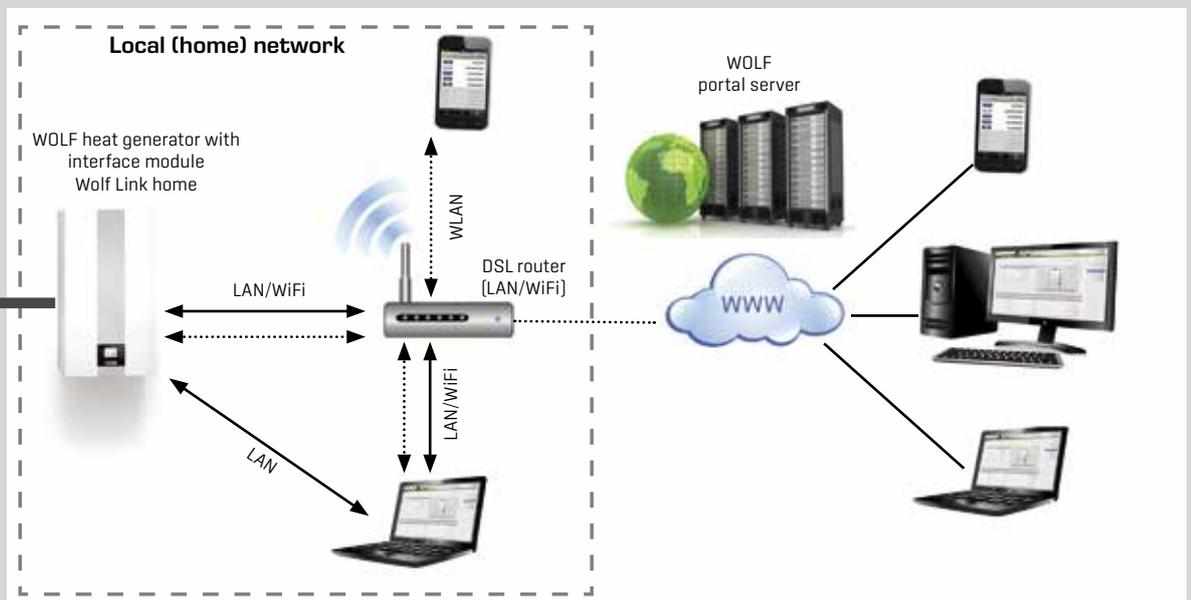


Wolf Link 4G

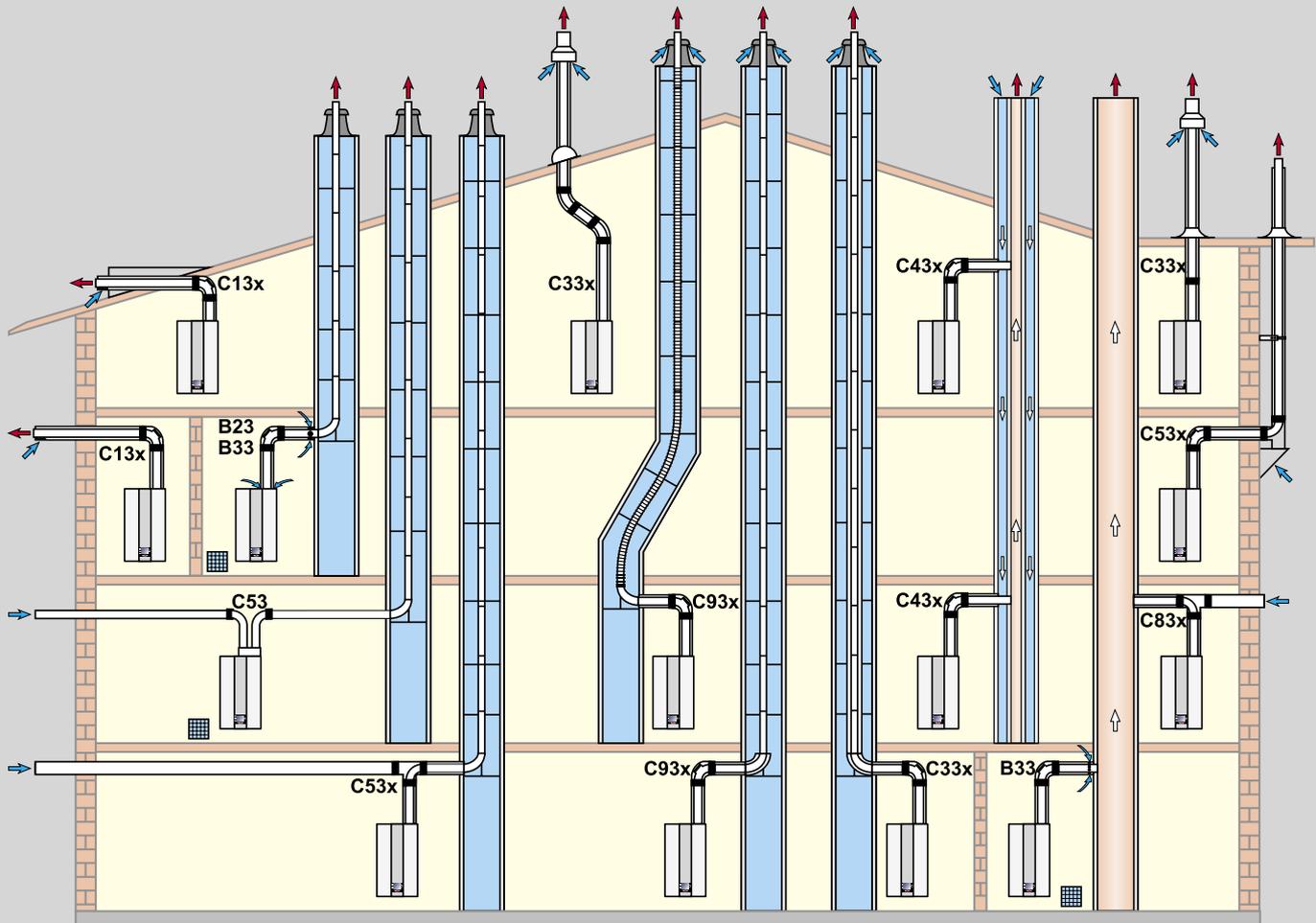
- WOLF Link home and LTE router - with preinstalled antenna
- Remote monitoring even without a router or network connection
- Perfect for landlords, property managers, etc. who do not have access to the local network
- WOLF Smartset for central management of multiple systems
- Settings can be changed remotely
- Remote data recording & fault messages
- A mobile data subscription (at least 3G) with about 500 MB/month is required

WOLF LINK HOME

LAN / WiFi interface for accessing the control unit via the internet or a local network. Operation via iOS, Android or the WOLF portal. Installation in the appliance control unit.



BALANCED FLUE FOR GAS CONDENSING BOILERS



Provide ventilation for B23, B33, C53

BALANCED FLUE FOR GAS CONDENSING BOILERS

CGB-2-75/100

Type	Design variants	Maximum length ¹⁾²⁾ [m]		
		CGB-2	-75	-100
B23	Flue in a shaft and combustion air directly via heat generator (open flue)	DN 110	50	52
		DN 110/160 ³⁾	52	52
B33	Flue in a duct with horizontal, concentric connecting pipe (open flue)	DN 110	41	43
		DN 110/160 ³⁾	52	52
B33	Connection to a moisture-resistant flue gas chimney with a horizontal concentric connection pipe (open flue)		Calculation to EN 13384 (balanced flue chimney manufacturer)	
C13x	Horizontal concentric roof outlet through pitched roof, (room sealed - onsite dormer)	DN 110/160	(12) 15	(9) 16
C33x	Vertical concentric roof outlet through a pitched or flat roof (room sealed)	DN 110/160	(8) 11	(8) 12
C43x	Connection to moisture-resistant balanced flue chimney, maximum pipe length from centre of boiler bend to connection 2 m (open flue)		Calculation to EN 13384 (balanced flue chimney manufacturer)	
C53	Connection to the flue in a duct and supply air line through an external wall (room sealed)	DN 110	43	44
		DN 110/160 ³⁾	50	50
C53x	Connection to flue routed over an external wall; combustion air via external wall panel (room sealed)	DN 110	45	45
C53x	Connection to flue in a duct and supply air through external wall (room sealed)	DN 110	43	44
		DN 110/160 ³⁾	50	50
C83x	Concentric connection to moisture-resistant flue gas chimney and combustion air through external wall (room sealed)		Calculation to EN 13384 (balanced flue chimney manufacturer)	
C93x	Vertical flue for installation in a shaft, rigid or flexible, with horizontal concentric connection line	DN 110	(10) 23	(10) 25
		DN 110/160 ³⁾	(14) 33	(14) 33

¹⁾ Values apply to HG02 "factory setting" (see operating instructions for contractors); for setting HG02 at minimum, please use the value in parentheses.

²⁾ For calculating the pipe length, please refer to the operating instructions for contractors

³⁾ Enlargement in a duct from DN 110 to DN 160

Note: Systems C33x and C83x are also suitable for installation in garages.

The calculation was made taking the pressure conditions into account (geodetic height: 325 m).

Where necessary, adapt the installation examples to the relevant building regulations and requirements in your country/region. Any questions relating to the installation, particularly regarding the provision of inspection components and ventilation apertures (ventilation generally required above 50 kW output) should be raised with your local flue gas inspector prior to installation.

The specified lengths refer to concentric balanced flues and standard flues and apply to original WOLF components only.

Calculating the balanced flue length

The calculated length of the balanced flue or standard flue is derived from the straight pipe length and the length equivalent of any pipe bends.

Example:

Length of straight balanced flue pipe = 1.5 m

87° bend = 2.0 m

2 x 45° bends = 2 x 1.2 m

L = 1.5 m + 1 x 2.0 m + 2 x 1.2 m

L = 5.9 m

Balanced flue systems DN 60/100, DN 80/125 and DN 110/160 are certified as systems together with WOLF wall mounted gas condensing boilers.

The following balanced flues or standard flues with CE-0036-CPD-9169003 certification may be used:

- Flue DN 60, DN 80, DN 110, DN 125 and DN 160
- Concentric balanced flue DN 60/100, DN 80/125 and DN 110/160
- Concentric balanced flue (on an external wall) DN 80/125
- Flexible flue DN 60, DN 80 and DN 110

Wolf accessories are supplied with the necessary ID labels.

Please also observe the installation information supplied with the accessories.

Bend	Type	Calculated length [m]
30°	Single wall	0.4
45°	Single wall	0.6
87°	Single wall	1.0
30°	Concentric	0.7
45°	Concentric	1.2
87°	Concentric	2.0

COMFORTLINE WALL MOUNTED GAS CONDENSING BOILERS ACCESSORIES

CGB-2 Wall-mounted gas condensing boiler for heating

Tested in accordance with EC Directives and EN 483 for heating systems to EN 12828 with flow temperatures up to 90 °C and max. 6 bar permissible operating pressure. Suitable for modulating operation down to room temperature; modulating output control; premix burner suitable for natural gas E, LL or LPG; sealed combustion chamber for open flue and room sealed operation.

Control unit with gas burner control unit, electronic ignition and ionisation flame monitor, variable speed fan.

White RAL 9016 powder-coated casing.

Accessories	CGB-2-75	CGB-2-100
Control accessories		
AM display module	○	○
BM-2 programming unit	○	○
Wall mounting base	○	○
MM-2 mixer module	○	○
SM1-2 solar module	○	○
SM2-2 solar module	○	○
KM-2 cascade module	○	○
WOLF Link home / pro - LAN/WiFi interface module incl. PC software	○	○
WOLF Link 4G	○	○
ISM8i Ethernet interface module open source	○	○
KNX interface kit	○	○
I/O module	○	○
BACNET interface kit	○	○
2m PWM cable	○	○

● Included in standard delivery

○ Optional accessory

COMFORTLINE WALL MOUNTED GAS CONDENSING BOILERS ACCESSORIES

Accessories

CGB-2-75

CGB-2-100

Hydraulic accessories

Heating circuit pump assembly for direct connection to the gas condensing boiler

○

○

Heating circuit connection assembly excl. pump

○

○

Low loss header set for single boilers (installation on right/left)

○

○

Low loss header set for cascade unit with two appliances (fitted on the right)

○

○

Low loss header set for cascade unit with two appliances (fitted on the left)

○

○

Sludge separator, vertical

○

○

Sludge separator, rotatable

○

○

Microbubble separator

○

○

Low loss header, up to 10 m³/h

○

○

Stainless steel plate heat exchanger for hydraulic separation

○

○

Line control valve 2" 20-200 l/min

○

○

Gas supply accessories

Gas ball valve (angle or straight-through version), chrome plated, with thermally activated shut-off valve

○

○

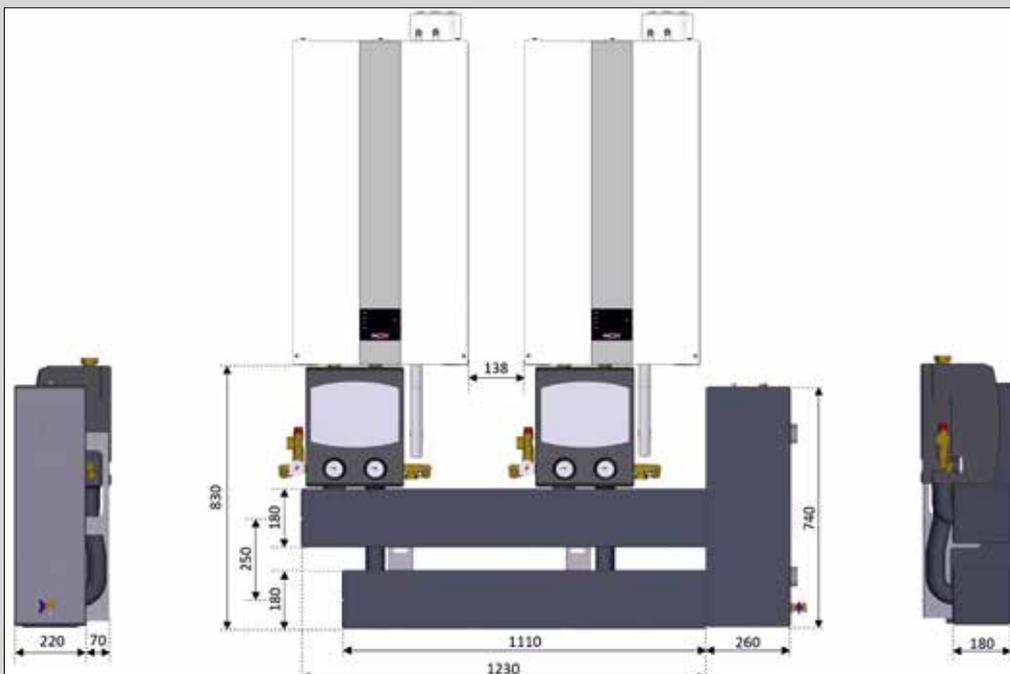
Gas type conversion sets for LL and LPG

○

○

- Included in standard delivery
- Optional accessory

Example: Low loss header set for cascade unit with two appliances (fitted on the right) accessories



Dealer address

WOLF GMBH / POSTFACH 1380 / D-84048 MAINBURG / TEL. +49.0.875174-0 / FAX +49.0.875174-1600 / www.WOLF.eu

