



The competence brand for energy saving systems

Gas fired condensing boiler MGK





Gas fired condensing boiler for condensing operation and DHW heating

Tested in accordance with DIN EN 437 / DIN EN 483 / DIN EN 677, and current EC Directives.
Approved for natural gas E/H, LL and LPG Propane (category II_{2ELL3P})

MGK gas fired condensing boiler

with whisper-quiet, modulating combustion (modulation between 17 and 100%), for open or balanced flue operation.

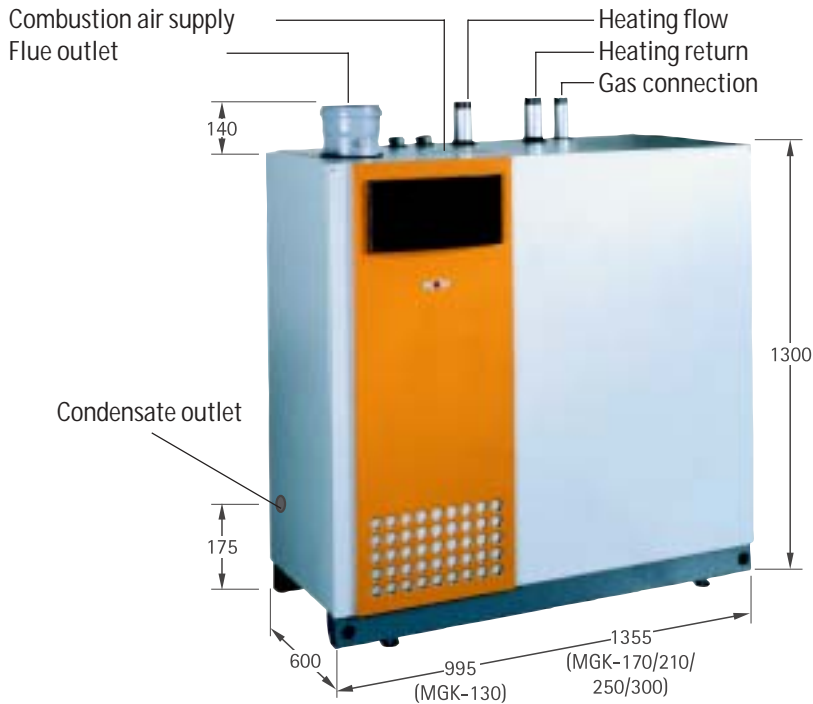


- Five boiler sizes with modulating regulated output ranging from 23 kW to 294 kW
- Extremely clean combustion; standard efficiency up to 110%
- High performance heat exchanger made from a robust aluminium/silicon alloy for a long service life and low maintenance requirements
- Compact, space-efficient design, optional positioning hard against the back or l.h. side wall
- Easy installation and pipework, all connections lead upwards
- Easy access to all components from the front; easy operation and maintenance
- Fully wired control unit, able to be used for the most diverse demand made of heating systems
- The cascade control of up to four gas fired condensing boilers enables an output of up to 1 MW to be achieved
- Five year warranty
Two year warranty on all electrical and moving parts
- Raising the return temperature is not required
- A minimum circulation water volume is not required

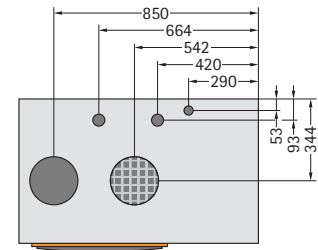
Delivered condition:

Gas fired condensing boiler, fully encased, assembled and wired, packed on a single pallet

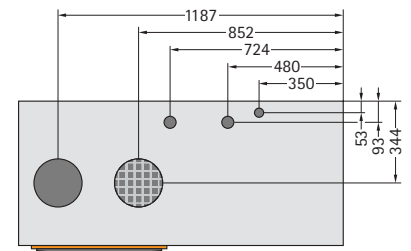
Specification



Top view:
MGK-130

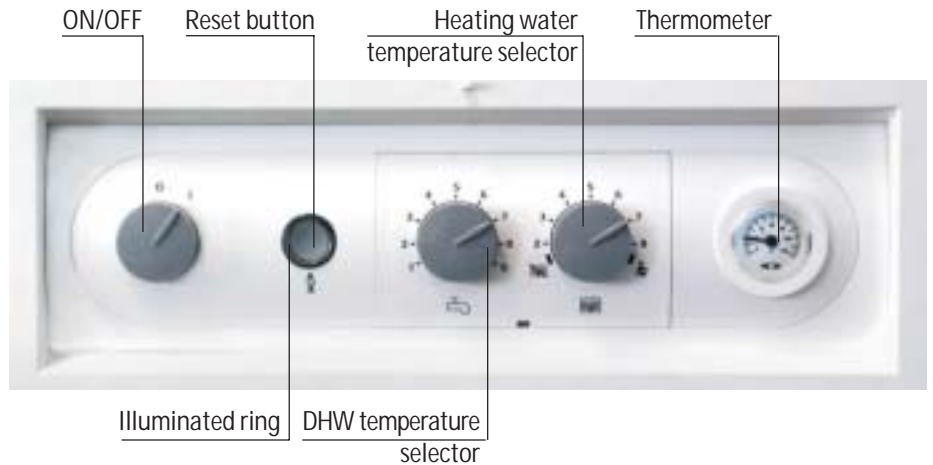


MGK-170/210/250/300



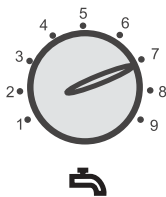
Gas fired condensing boiler	MGK	130	170	210	250	300
Rated output at 80/60°C	kW	117	156	194	233	275
Rated output at 50/30°C	kW	126	167	208	250	294
Rated thermal load	kW	120	160	200	240	280
Lowest output (modulating) at 80/60°C	kW	23	27	34	39	45
Lowest output (modulating) at 50/30°C	kW	24	30	37	44	49
Lowest thermal load (modulating)	kW	23	28	35	41	46
Modulation range load	%	19-100	17-100	17-100	17-100	17-100
Flue outlet	mm	160	160	160	160	200
Combustion air supply (accessories)	Ø mm	160	160	160	160	160
Condensate drain	Ø mm	25	25	25	25	25
Heating flow external diameter	G	1½"	2"	2"	2"	2"
Heating return external diameter	G	1½"	2"	2"	2"	2"
Gas connection	R	1"	1½"	1½"	1½"	1½"
Balanced flue system	Type	B23, B33, C33 C43, C53, C63, C83	B23, B33, C33 C43, C53, C63, C83	B23, B33, C33 C43, C53, C63, C83	B23, B33, C33 C43, C53, C63, C83	B23, B33, C33 C43, C53, C63, C83
Gas category		II _{2ELL3P}	II _{2ELL3P}	II _{2ELL3P}	II _{2ELL3P}	II _{2ELL3P}
Gas supply value:						
Natural gas E (H = 9,5 kWh/m ³ = 34,2 MJ/m ³)	m ³ /h	13,1	16,8	21	25,2	29,4
Natural gas LL (H = 8,6 kWh/m ³ = 31,0 MJ/m ³)	m ³ /h	14,6	18,6	23,3	27,9	32,6
LPG P (H = 12,8 kWh/kg = 46,1 MJ/kg)	kg/h	9,7	12,5	15,6	18,7	21,8
Gas supply pressure:						
Natural gas E and natural gas LL	mbar	20	20	20	20	20
LPG P	mbar	50	50	50	50	50
Boiler water content	Ltr.	12	15,4	16	20	22
Heating water pressure drop (at Δt = 20K)	mbar	95	100	115	135	160
Max. permissible boiler pressure	bar	6	6	6	6	6
Max. permissible flow temperature	°C	90	90	90	90	90
Available gas fan draught	Pa	10-200	10-150	10-150	10-150	10-150
Flue gas temperature 80/60-50/30 with Q _{max}	°C	65 - 45	65 - 45	65 - 45	65 - 45	65 - 45
Flue gas temperature 80/60-50/30 with Q _{min}	°C	55-35	55-35	55-35	55-35	55-35
Flue gas mass flow rate	g/s	56,7	72,6	90,8	108,9	127,1
Flue gas value category to DVGW 635		G52	G52	G52	G52	G52
Condensate volume at 40/30°C	Ltr./h	12	16	20	24	28
Condensate pH value		ca. 4,0	ca. 4,0	ca. 4,0	ca. 4,0	ca. 4,0
Power consumption	W	30-200	45-280	45-280	45-280	45-280
Protection	IP40D	IP40D	IP40D	IP40D	IP40D	
Power supply		230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Weight	kg	195	250	271	292	313
CE-designation		0085BR0117	0063BQ3805	0063BQ3805	0063BQ3805	0063BQ3805

Control unit



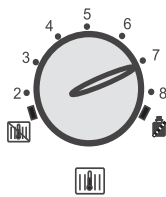
Illuminated ring for status indication

Display	Explanation
Flashing green	Stand-by (power supply ON, burner OFF)
Constant green	Heat demand: pump running, burner OFF
Flashing yellow	Emissions test mode
Constant yellow	Burner ON, flame steady
Flashing red	Fault



DHW temperature selector

The setting range 1-9 corresponds to a cylinder temperature of 15-65°C. The setting on the DHW temperature selector becomes ineffective when the system is used in conjunction with a DWTK thermostat. The temperature is selected at the DWTK.



Heating water temperature selector

The setting range 2-8 corresponds to a heating water temperature of 20-75°C. The setting on the heating water temperature selector becomes ineffective when the system is used in conjunction with a thermostat (AWT, DWT, DWTM, DWTK). Adjustments to the heating water temperature are made at the thermostat.

Setting



Winter mode (position 2 to 8)

The circulation pump operates in heating mode.



Summer mode

Switch in position circulation pump OFF (heating OFF), only DHW heating is active, frost protection and anti-seizing pump protection are active, i.e. the circulation pump operates for approx. 30 seconds once every 24 hours.



Emissions test mode

Turning the switch into position boiler operates at maximum output. The illuminated ring flashes yellow for 15 minutes or until the maximum flow temperature is exceeded.



Thermometer

The heating water temperature is displayed.

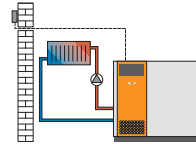
Control accessories



Standard controller; part of the standard delivery of the gas fired condensing boiler

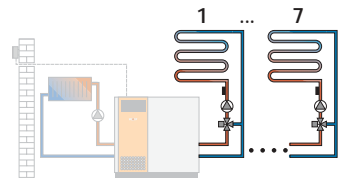
BM programming module (incl. outside temperature sensor) as weather-compensated control thermostat

- Time programs for DHW and central heating
- LCD with background illumination
- Easy plain text guide through the menus
- Control by rotary selector with key function
- Four function keys for frequently used functions (heating, DHW, setback, help)
- Installation either inside the boiler control unit or, as remote control, in a wall mounting base
- Option for mixer module MM
- Only one programming unit is required for multi-boiler systems
- May be extended with mixer module MM (up to 7 mixer circuits)



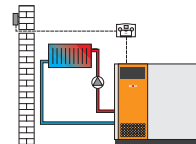
MM mixer module

- Extension module for regulating one mixer circuit
- Weather-compensated flow temperature control
- Easy controller configuration by selecting one of the preset system versions
- BM programming module to clip into boiler, or extendable with wall mounting base as remote control
- Rast-5 connection technology
- Incl. flow temperature sensor



AWT

- Analog weather-compensated temperature controller with day program for DHW and central heating
- Weather-compensated flow temperature
- Display for showing the room temperature, outside temperature, time and fault messages
- Room temperature hook-up
- Frost protection
- Automatic energy-saving device



Radio clock (DCF77 signal) with outside temperature sensor for automatic time adjustment.



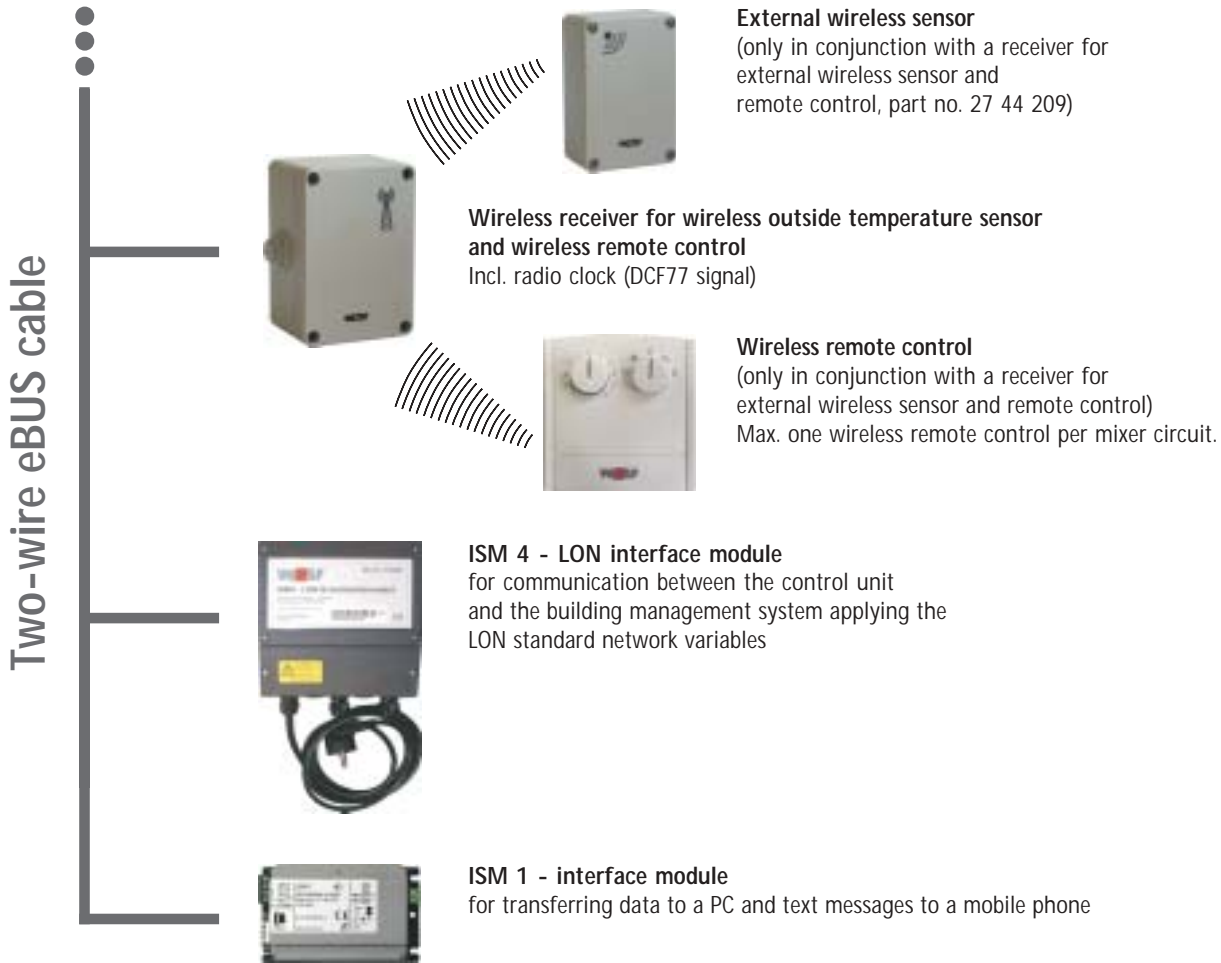
Radio clock (DCF77 signal) for automatic time adjustment.



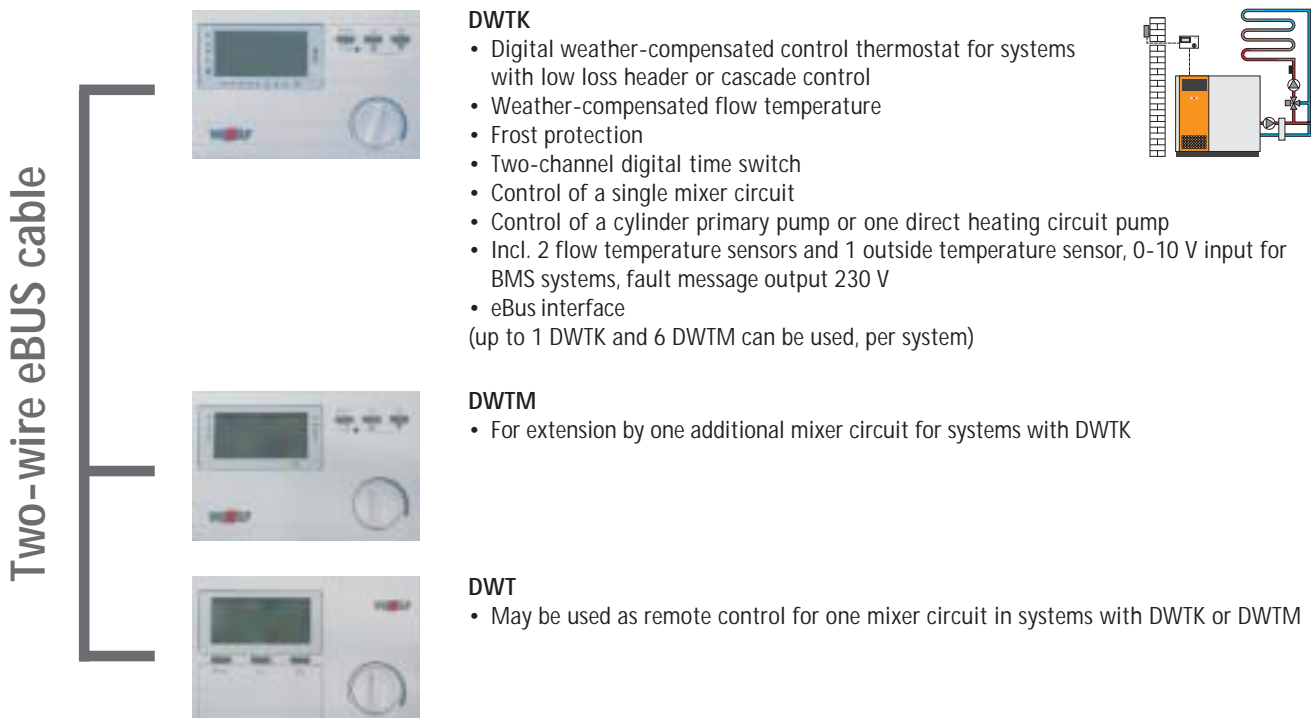
Two-wire eBUS cable



Control accessories



Cascade control unit for up to four gas fired condensing boilers or systems with low loss header





The competence brand for energy saving systems

The comprehensive equipment range from system supplier Wolf, offers the ideal solution for commercial and industrial buildings, for new build and for modernisation projects alike. The Wolf control unit range fulfils every need where heating convenience is concerned. The products are easy to operate, energy-efficient and reliable. Photovoltaic and solar heating systems can be quickly integrated into existing systems. All Wolf products can be easily and rapidly enabled and maintained.

Wolf GmbH, PO Box 1380, D-84048 Mainburg, Tel.: +49 87 51 / 74-0, Fax: +49 87 51 / 74-1600, Internet: www.wolf-heiztechnik.de

► Air handling system components

- KGW Gigant unit
- KGW Gigant with integral cooling technology
- KGG Garage air extractor
- KGW Gigant kitchen extractor
- KG Standard
- KG Standard, flat air conditioning unit

► Ventilation system components

- ER smoke extractor fan
- Hot air curtain heater with mounting panel, white TL
- Air conditioning unit (freestanding)
- LH air heater
- DigiPro control unit

► Heating system components

- Cast iron boiler MK-2

► Solar heating system components

- TopSon F3 solar collectors
- Stratification cylinder



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