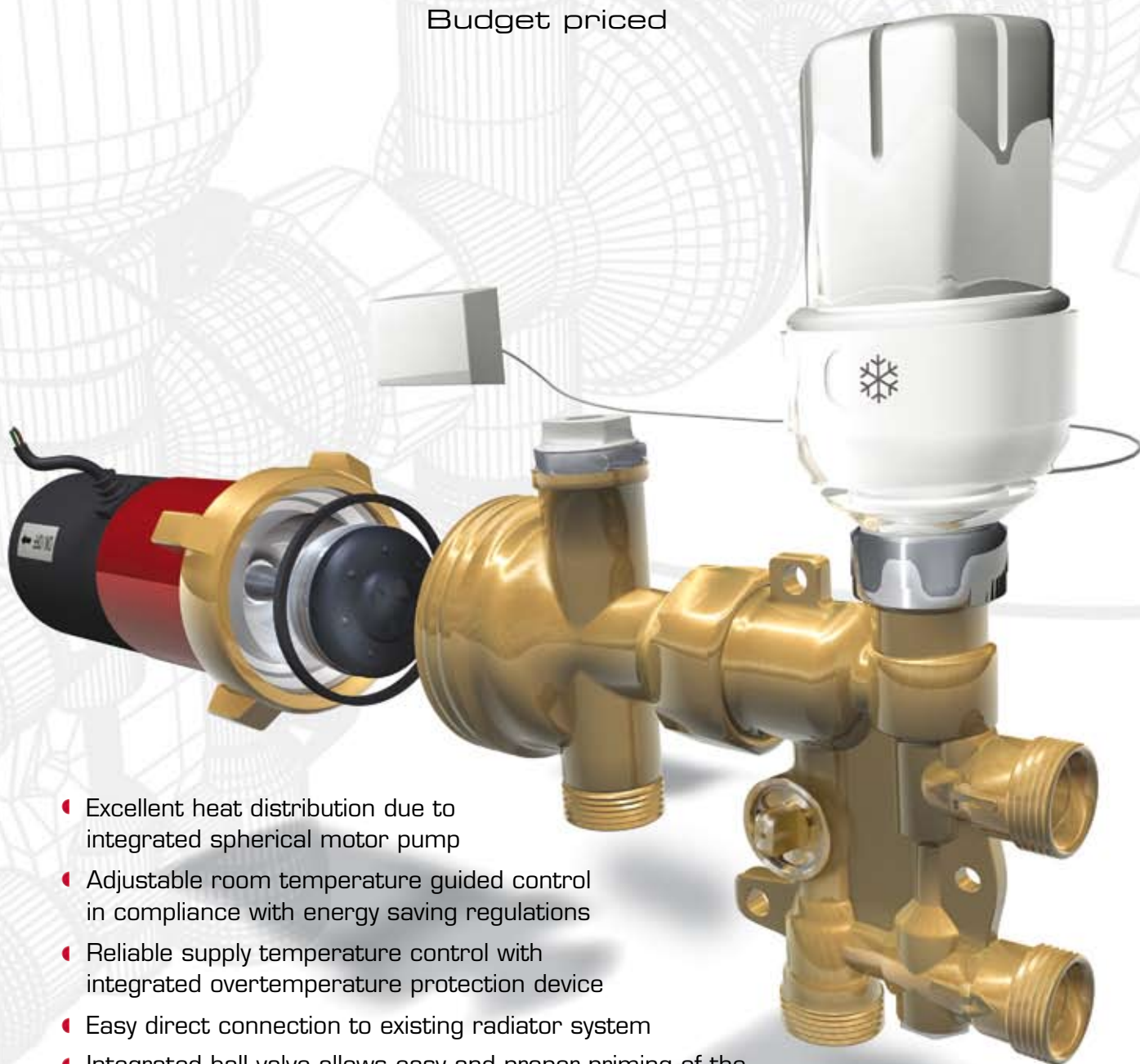


Mixing unit for the easy connection of floor heating systems

bmmini

The professional system connection with room temperature guided control for heating surfaces up to 40 m².
Quick installation - Safe operation - Budget priced



- Excellent heat distribution due to integrated spherical motor pump
- Adjustable room temperature guided control in compliance with energy saving regulations
- Reliable supply temperature control with integrated overtemperature protection device
- Easy direct connection to existing radiator system
- Integrated ball valve allows easy and proper priming of the under floor heating system without disconnecting the pipes from the BM mini

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simply the best · by design

Mixing unit for the easy connection of floor heating systems

bmmini

Application

With the BM mini mixing unit, floor heating systems with up to 2 circuits and up to 40 m² can be easily directly connected to a radiator circuit. The BM mini allows additionally a room temperature guided control according to a chosen reference room.

The surface specification of 40 m² is based on an inside diameter of the floor heating pipe of min. 12 mm (i.e. plastic pipe 16x2 mm or copper pipe 15x1 mm); the max. pipe length per heating circuit should not exceed 100 m based on a system with a temperature difference of 10 K. For smaller pipe diameters corresponding reductions have to be made.

The BM mini is designed for oxygen proof floor heating systems. The enclosed mounting bracket allows a left- or right-sided connection to the radiator circuit. Due to an integrated bypass the BM mini can be also connected to the formerly used but now out-dated single-pipe system.

The model BM mini KF is specially suited for bath rooms and other humid areas due to the thermostat with remote sensor working without electricity.

Design principle

The BM mini allows a reduction of the high supply temperature of the radiator circuit (i. e. 70° C) to the lower temperature level required for the floor heating (i. e. 45 °C) by admixing hot water to the floor heating circuit supply. The required exact supply temperature for the particular floor heating can be adjusted indirectly by the flow through the control valve (model KF + RT) or directly by an integrated constant temperature control (model KR).

The integrated spherical motor pump ensures an even temperature distribution in the whole underfloor circuit and a constant comfortable temperature level in the floor heating area. The integrated ball valve allows easy and proper priming of the under floor heating system without disconnecting the pipes from the BM mini.

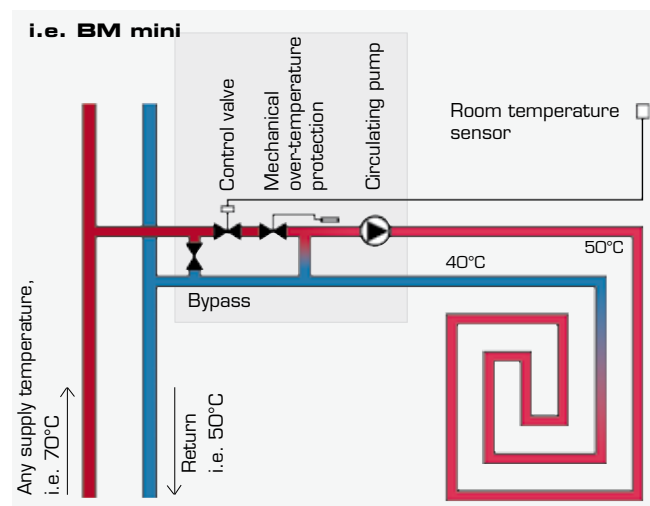
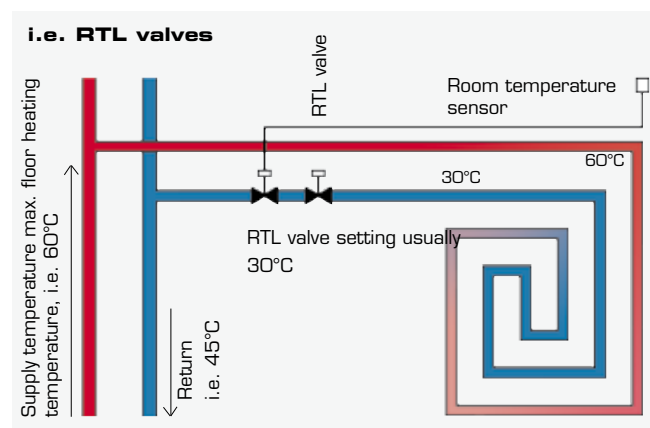
In addition, the BM mini is equipped with an integrated over-temperature protection device (extensible wax), which prevents a flow with temperatures higher than 55° C through the floor heating loops, thus excluding damage to the floor.

The room temperature control of the BM mini works as follows: A drive opens or closes the control valve dependent on the measured and required room temperature. This can happen in two ways: Thermostat drive with remote sensor (model KF) or thermoelectric drive (model RT + KR). The last one has to be connected to a room thermostat (to order separately). Delivery of a wireless radio control is available on request.

Comparison of BM mini with RTL valves (Return Temperature Limiter)

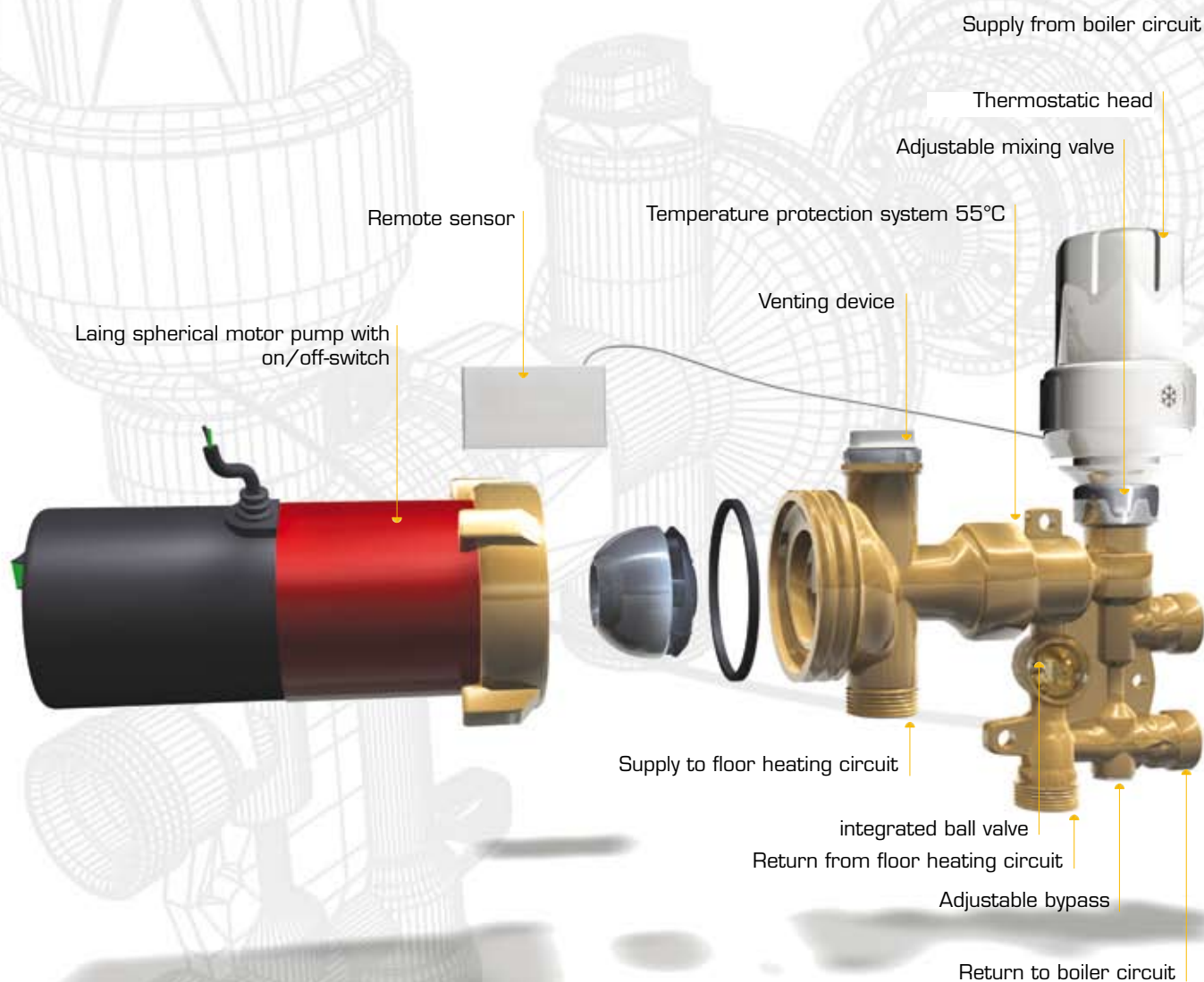
Connecting a floor heating system with a BM mini has some advantages compared with an installation using so-called RTL valves

- Excellent heat distribution due to integrated pump.
- Connection possibility of floor heating surfaces up to 40m².
- No limitation of the radiator supply temperature, which means, that also old boiler systems with high supply temperatures up to 110°C can be connected to a floor heating system.
- Integrated over-temperature protection device (55° C).
- The floor heating supply temperature is controllable either by adjustment of the admixed volume flow (model KF and RT) or directly by setting the integrated constant temperature control (model KR).
- Specially suited for the connection of floor heating systems with low construction heights, which are used especially for the renovation of buildings.



Design

Mixing unit for the connection of floor heating systems (e.g. BM mini KF)



bmmini Mixing unit for the easy connection of floor heating systems

Mixing base unit (Eurocone connection 3/4") incl. spherical motor pump with on/off-switch and cord (1 m), pre-adjustable control valve, mounting bracket for left- or right sided connection, over-temperature protection device (55° C), adjustable bypass for connection to one-pipe systems, venting device;

Model	Art. No.	Description	Product category
BM mini KF	49 00 920	with room temperature guided control made by thermostat (10-26°C + freeze protection) with capillary remote sensor (5 m).	B
BM mini RT	49 00 921	with room temperature guided control made by thermoelectric drive for connection to a room thermostat (please order separately).	
BM mini KR	49 00 922	with integrated constant temperature control (20-70° C) for connection to a room thermostat (please order separately).	

bmmini Accessories

Model	Art. No.	Description	Product category
DXG	95 00 175	Duplex connector (manifold with supply and return for 2 loops)	Z
RTS	95 00 403	Room thermostat (230 V/50 Hz), control range 10-30°C, protection class II, max. ambient temperature 50°C, dimensions H 76 x W 82 x D 38 mm, colour white.	Z
S-BM mini A	95 00 984	Concealed cabinet made of galvanized steel sheet (finished white) incl. 2 mounting rails and fixing material for BM mini, single packed in carton. Niche dimensions: H 330 x W 320 x D 115-170 mm.	Z
S-BM mini B	95 00 986	Cabinet (H 320 x W 410 x D 135 mm) made of galvanized steel sheet (finished white hood) incl. 2 mounting rails and fixing material for BM mini, single packed in carton.	Z

bmmini Spare parts

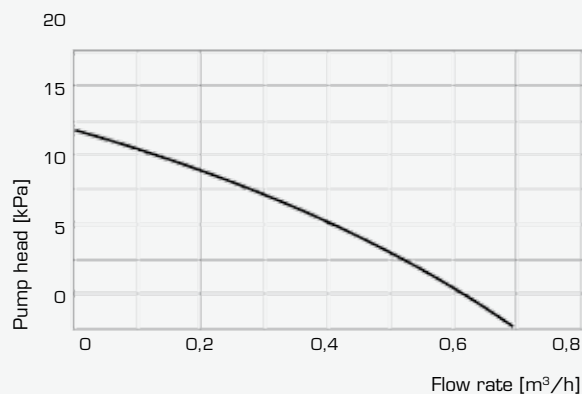
Model	Art. No.	Description	Product category
A1-121	95 00 288	Replacement motor with on/off-switch and cord (1 m), incl. screw ring and flat gasket.	Z
A1-121 R	95 00 289	Replacement motor with integrated constant temperature control (20-70°C), on/off-switch and cord (1 m), incl. screw ring, flat gasket and pre-mounted thermoelectric drive model MTWZ-RT.	Z
MTWZ-KF	95 00 410	Thermostat with capillary remote sensor (5 m) incl. mounting housing (control range 10-26° C and freeze protection).	D
MTWZ-RT	95 00 411	Thermoelectric drive (230 V/50 Hz, dead closed), incl. cord (0,9 m).	D
BM mini-GM	49 00 929	BM mini base unit incl. mounting bracket and tool for pre-adjustment, but without circulating pump.	B

Delivery of the BM mini includes: BM mini base unit with pre-mounted pump, enclosed standard accessories (mounting bracket, tool for pre-adjustment, thermostat with remote sensor or thermoelectric drive) and special accessories as ordered.

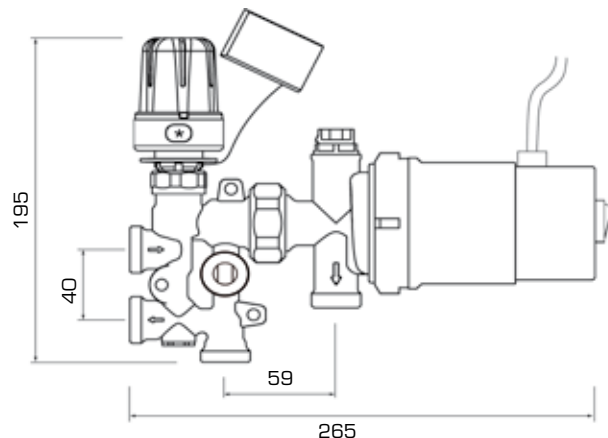
Technical Data

Max. system pressure	1 MPa (10 bar)
Max. system temperature	110°C (Radiator circuit) 55°C (Floor heating circuit)
Max. differential pressure	100 kPa (1 bar) within radiator circuit
Supply voltage	1 x 230 V / 50 Hz
Power consumption	25 Watt (pump)
Dimensions	L 265 x H 195 x D 90 mm
Distance Supply/Return	40 mm Radiator connection 59 mm Floor heating connection
Weight	2,3 kg

Pump curve



Dimensional drawing (mm)



270607 Subjected to technical changes

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