

KOMPAKT | KOMFORT System Regulation Box



Work on heating systems must only be done by qualified professional personnel and in accordance with the respective applicable regulations, guidelines and rules of engineering.

Refer in particular to:

- DIN EN 1264** Surface integrated heating and cooling systems
- DIN EN 12828** Heating systems in buildings
- DIN 18 380** Heating systems and central hot water heating systems
- VDE 0100** Creating low voltage systems
- VDI 2035** Scale formation in domestic water heating systems and water heating systems
- BGV** German Professional Association Regulations (accident prevention regulations)



Features

| | KOMPAKT With plastic housing | KOMFORT With metal box |
|--|--|----------------------------------|
| Room temperature-depent regulation* | ✓ | ✓ |
| Supply temperature limitation | ✓ | ✓ |
| Filling equipment | - | ✓ |
| Flushing and draining equipment | ✓ | ✓ |
| Room thermostat | - * | - * |
| Flow indication and regulation (Topmeter) | ✓ | ✓ |
| Pre-adjustable circulating pump | ✓ | ✓ |
| Primary circuit shut-off valve | ✓ | ✓ |
| Exchangeable primary circuit connection, right or left | - | ✓ |
| “easy-connect” plug-in connection | ✓ | ✓ |
| Safety temperature switch | ✓ | ✓ |
| Extension for larger heating surfaces | - | ✓ |
| Built into masonry | ✓ | ✓ |
| Built into dry construction | - | ✓ |
| Cover frame with depth adjustment | - | ✓ |

*Can be combined with conventional room thermostats 230 V (not included in scope of delivery)

Application

Heating systems

For combined radiator-surface heatings the system regulation box is used for the **room temperature-dependent single room regulation with surface heatings. The temperature is limited in the supply flow.**

The integrated supply system with compact pipe heat exchanger ensures the required supply temperature. The water temperature is therefore optimally adapted to the structural conditions and protects the floor surface structure against harmful overheating. The circulating pump, which can be pre-set, allows operation in large individual rooms and guarantees distribution of heat in the floor independent of the installation.



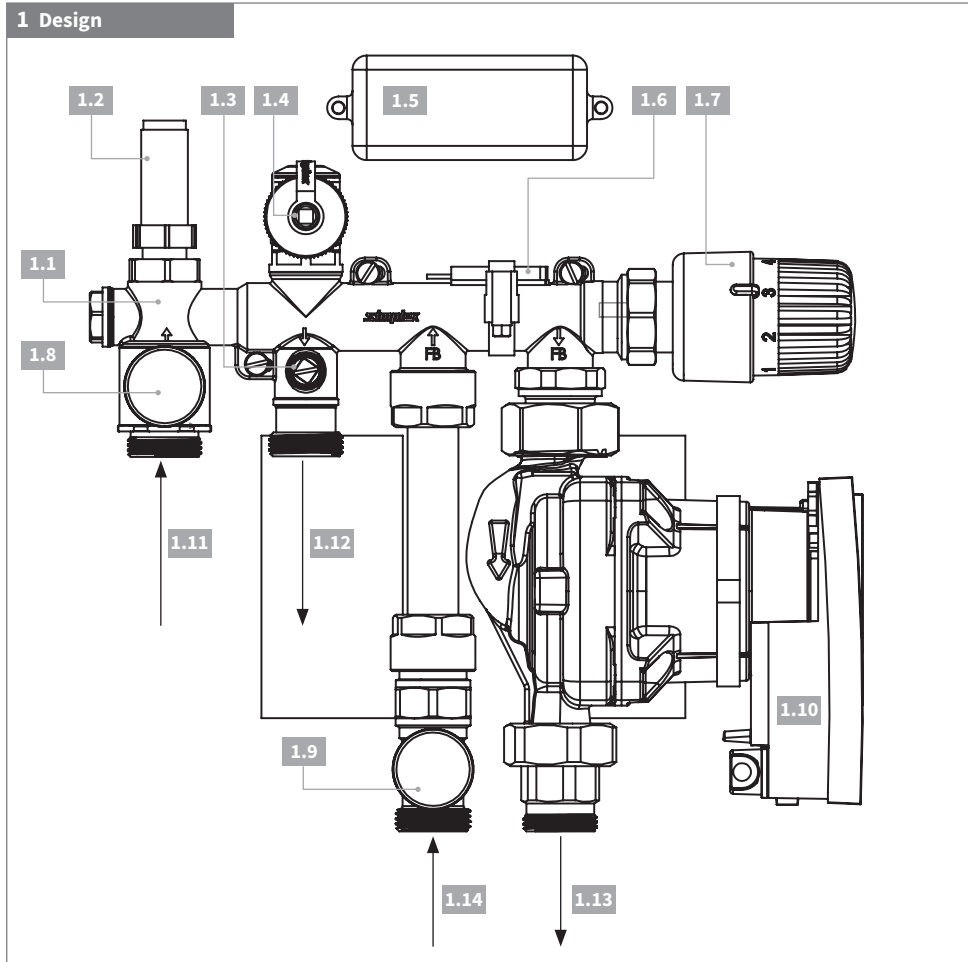
KOMPAKT version



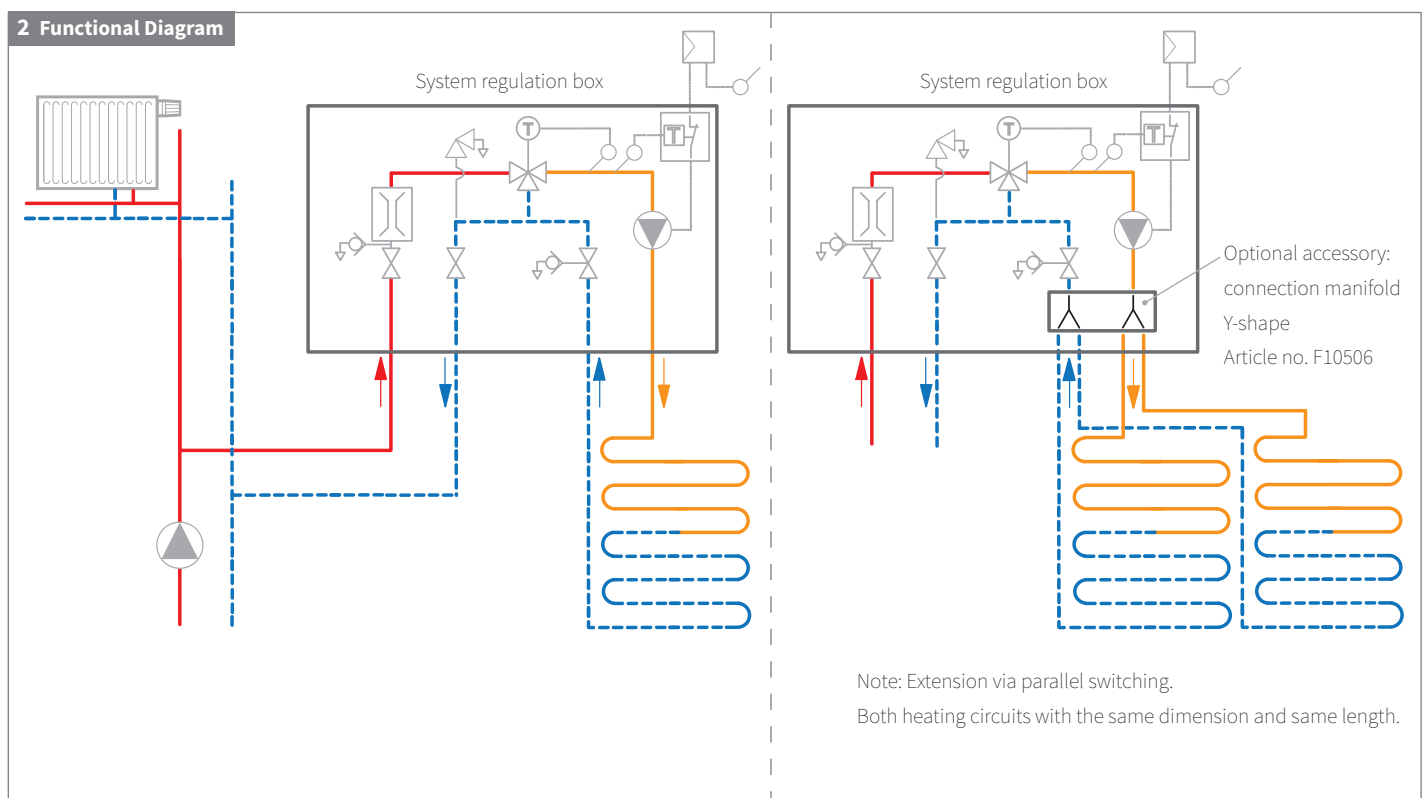
KOMFORT version

DIN = The German Institute for Standardisation
 EN = European Standards
 VDE = German Association for Electrical, Electronic & Information Technologies
 VDI = Association of German Engineers

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- 1.1** Manifold housing
 - 1.2** Topmeter (flow indication/regulation)
 - 1.3** Shut-off ball valve, primary return flow
 - 1.4a** Ventilation valve (KOMPAKT version)
 - 1.4b** Filling and flushing valve (KOMFORT version)
 - 1.5** Terminal strip
 - 1.6** Safety switch
 - 1.7** Regulation head
 - 1.8** Filling valve, supply flow flushing
 - 1.9** Flushing connection, return flow flushing
 - 1.10** Pump for floor circuit
- Connections:**
- 1.11** Primary supply flow
 - 1.12** Primary return flow
 - 1.13** Floor supply flow
 - 1.14** Floor return flow



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Installation

Note for arranging the regulation box in rooms with showers or bath tubs: 3

To prevent contact with spraying water, the regulation box must be arranged according to DIN VDE 0100-701 outside the range 0, 1 and 2.

Prepare the wall socket for installation by inserting the mounting clips from the rear side into the provided drill holes at the corner points of the box and secure them with the supplied screws so that they cannot fall out.

4

The clips can be moved horizontally in order to create a depth compensation as long as the screws have not been completely screwed in place.

The wall socket will be secured in a sufficiently large wall opening onto the mounting clips on the raw wall. It must be ensured at all times that the box is **NOT** wedged into the wall or distorted inwards.

Subsequently screw the wall cover frame on the clips on the raw wall. Rotate the lateral clips by 90° for this purpose.

As a subsequent depth compensation for the frame is no longer possible, always observe the dimensions for the finished wall.

A de-energised connection and the correct flow direction (observe the arrow on the valve, FB = Surface Heating Circuit) must be ensured when connecting to the pipework network. Tension-free connection must also be guaranteed when the system is in operation, i.e. expansion loops or appropriate securing of the pipeline must be provided. The wall cover must be grouted properly.

5

Transport Securing

The transport securing fixture (plastic tensioning strap) on the pump must be removed prior to installing the pipework.

Assembly and Installation of the Pipework

It is recommended that a ring spanner, or alternatively the Simplex spanner (Article no. F10100), is utilised for making assembly easy.

Assembling/Dismantling the Regulation Head

Loosen the union nut on the regulation head, turn the regulation head to the smallest position and then remove this in a level plane first. Remove the head upwards by rotating it before the regulation head comes in contact with the box lining. The assembly works will be executed according to the same principle.

Electrical Connection

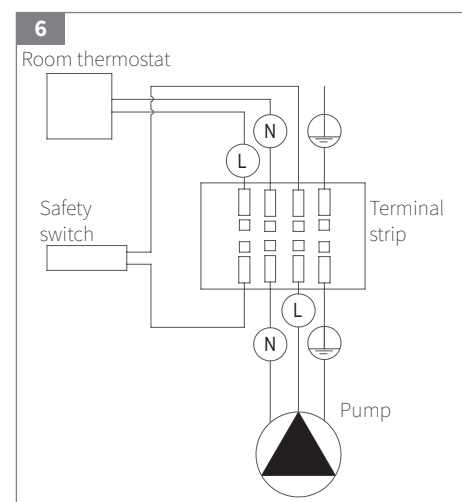
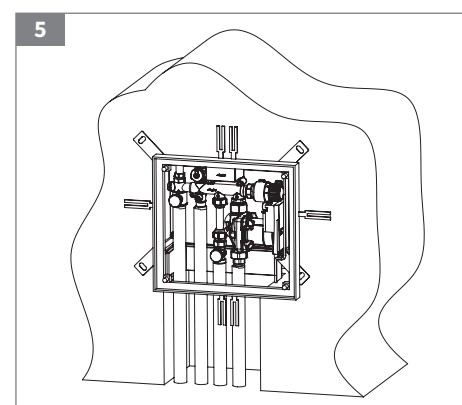
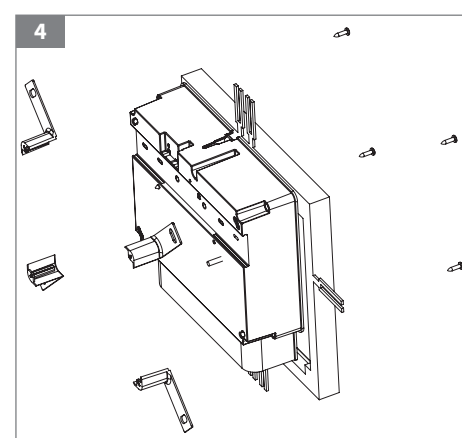
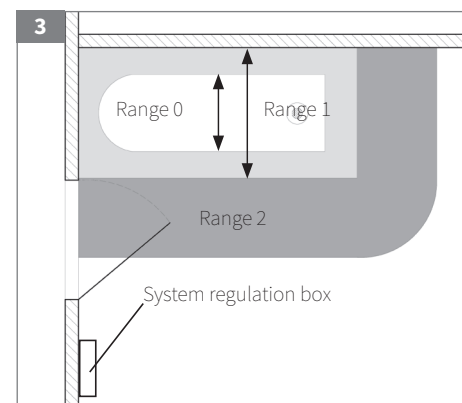
Caution: The electrical connection must always be executed by an authorised, professionally trained electrician.

Remove the splash protection from the terminal clips in the box for connecting the electricity.

Caution: Switch off the electrical supply cables!

Connection according to switching diagram. 6

The pre-installed terminal strip is suitable for solid and flexible cables, cross-section 1 to 2.5 mm².



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Conversion for the Connection Right/Left (only with version KOMFORT)

Dismantle the mounting screws, set the lower spacer to the predetermined position. Position the sound absorption layer on the spacer and secure the base body again rotated by 180°. Loosen the flushing valve, rotate it forwards and then secure it again. **7** **8**

Filling the Pump

The pump must be flooded before connecting the electrical supply otherwise the bearing will be destroyed by running dry.

Ventilation / Flushing

Ventilation

The system can be ventilated as required via the rotatable ventilation valve.

Flushing

Shut off the primary side for flushing. Hereby close the Topmeter **1.2** by screwing it closed in the supply flow. Subsequently close the integrated shut-off ball valve **1.3** in the primary return flow by turning the spindle in a level position with a slotted-head screwdriver **9**. Shut off the flushing connection **1.9** by turning it clockwise with an Alan key.

Connect on both fill and flushing valves **1.8** and **1.9** subsequently the hose connections. The pump must be set to max. power in operation and the regulation head **1.7** to setting mark 4 for the actual pump procedure so that the floor circuit is sufficiently flushed.

Dismantle the hose connection, open the flush connection, shut-off ball valve and Topmeter again. Set the regulation head to the desired position.

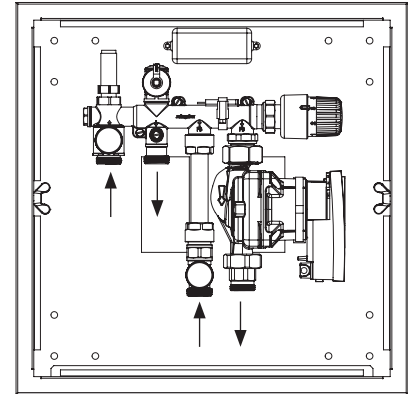
Flowmeter

Flowmeter regulating valve for regulating the supply flow volume. The sight glass is installed in the manual wheel where the flow can be read out directly in L/min. on the printed scale depending upon the position of the indicator unit.

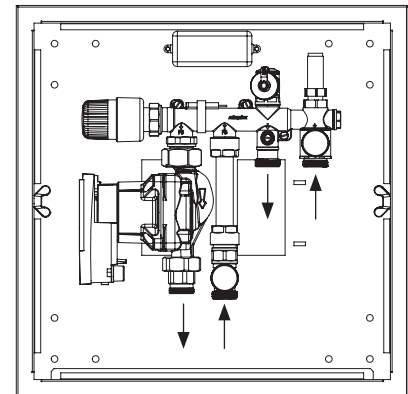
Volume Flow Regulating

Regulate the desired maximum volume flow by turning the black manual wheel. Attention: the valve stem is screwed in clockwise. The volume flow will decrease until completely stopped. The valve will be opened by turning it anti-clockwise.

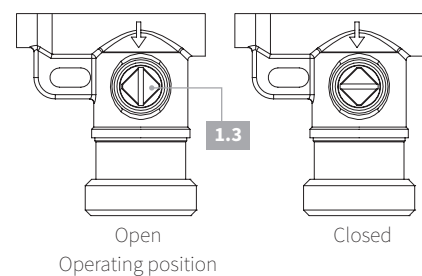
7 Delivery Status



8 After Conversion



9 Shut-off Ball Valve

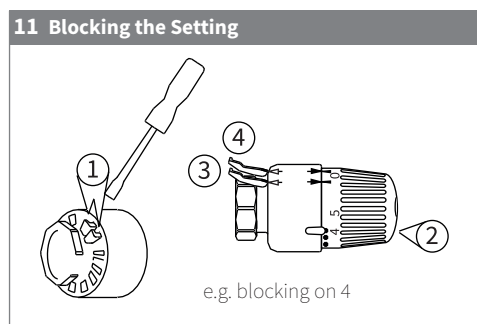
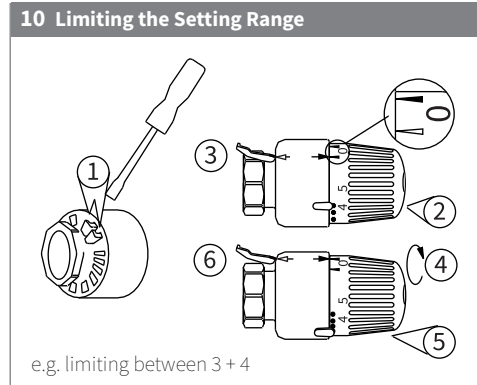


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Regulating Head

It is possible to limit the setting range individually with fixed stop points as required to prevent inadvertent adjustment.

| | | | | |
|---------------------|----|----|----|----|
| Setting range | 1 | 2 | 3 | 4 |
| Approx. supply flow | 10 | 20 | 30 | 40 |
| temperature [°C] | | | | |



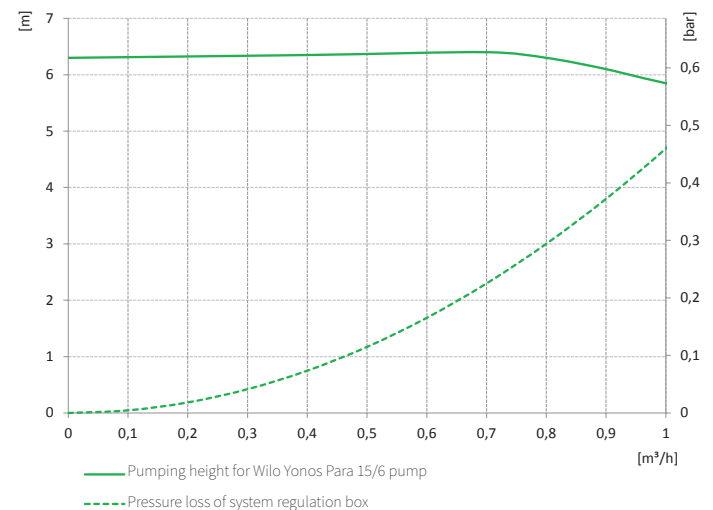
Technical Data

| General | |
|---|--------------------------|
| Flow meter | 0 - 8 l/min. |
| Supply temperature setting range, secondary | 10 - 40 °C |
| Maximum operating temperature, primary | 80 °C (95 °C short-term) |
| Maximum operating pressure: | 6 bar |

| Safety Switch Temperature | |
|---------------------------|-------------------------------------|
| Switching temperature | 50 °C ± 3 K |
| Nominal voltage | 125 VAC to 250 VAC |
| Nominal current | 24 VDC / 250 VAC 50 mA to 600 mA |

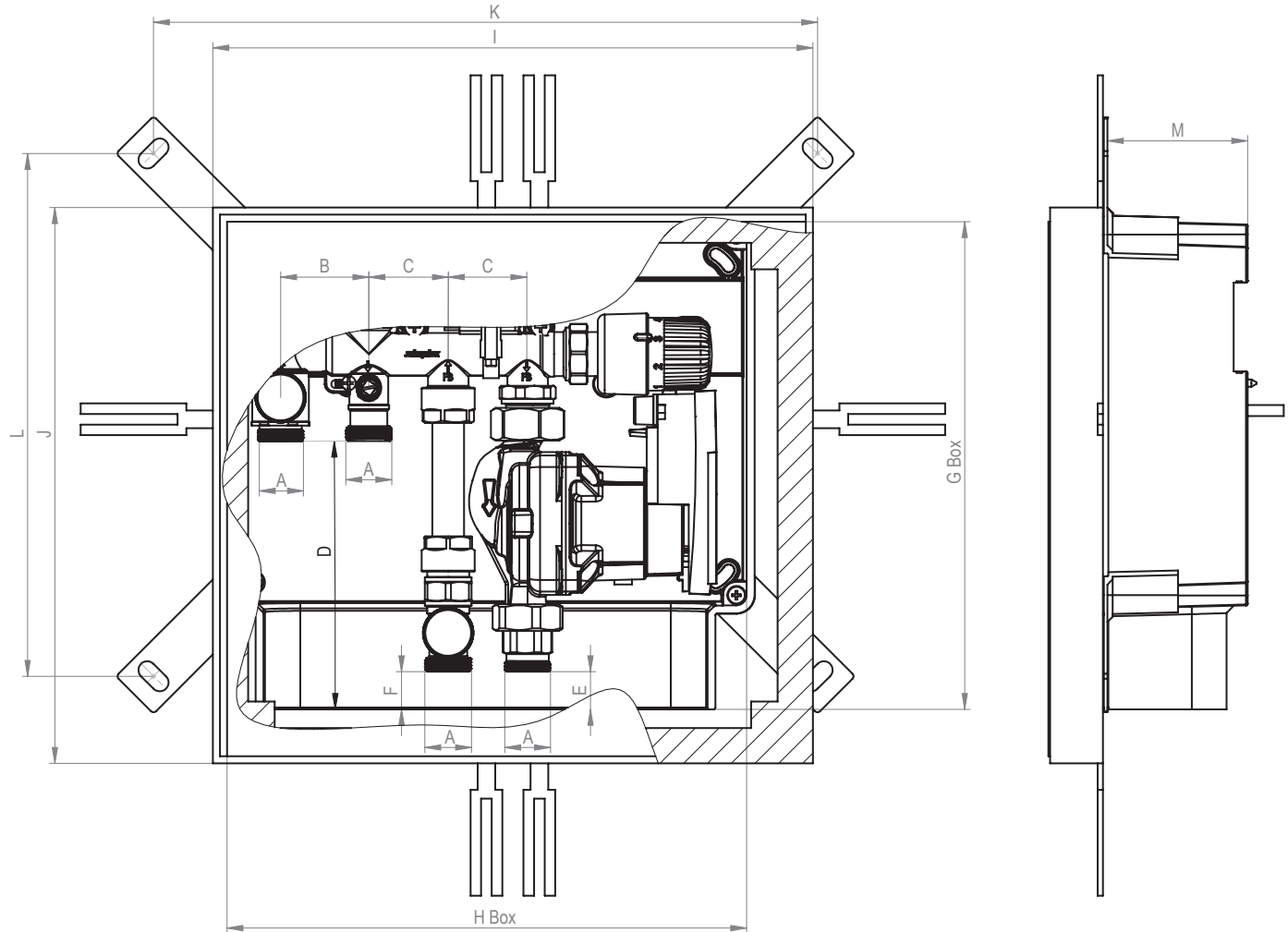
| Circulating Pump | |
|----------------------------------|--|
| Type | Wilos Yonos Para RS 15/6 |
| Energy Efficiency Index EEI | < / = 0.2 |
| Electricity supply | 1~230 V +10 %/-15 %, 50/60 Hz |
| Fuse type | IP x 4D |
| Insulation class | F |
| Complies with European Standards | 2006/95/EC, EN 61800-3 EN 61000-6-3, EN 61000-6-4 EN 61000-6-2, EN 61000-6-1 |

Pump Characteristic Curves / Pressure Loss



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Dimensional Drawing: KOMPAKT version with plastic housing

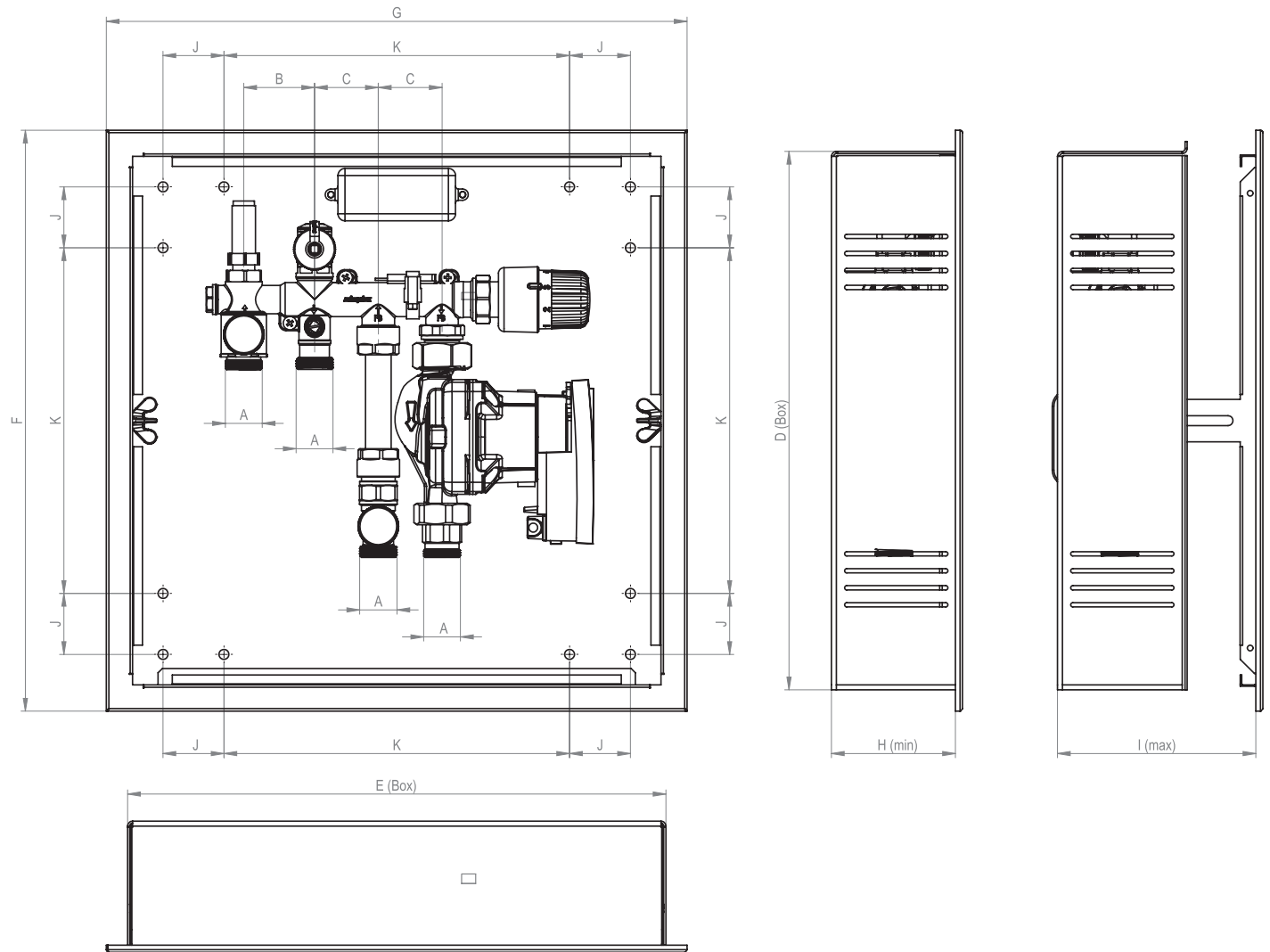


| A | B | C | D | E | F | G | H | I | J | K | L | M |
|------------------|----|----|-----|----|----|-----|-----|-----|-----|-----|-----|----|
| G3/4m Euro taper | 50 | 45 | 147 | 16 | 25 | 280 | 305 | 340 | 315 | 377 | 296 | 80 |

Gm = parallel male thread in inches ["] according to DIN EN ISO 228-1
Data in mm

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Dimensional Drawing: KOMFORT version with metal box



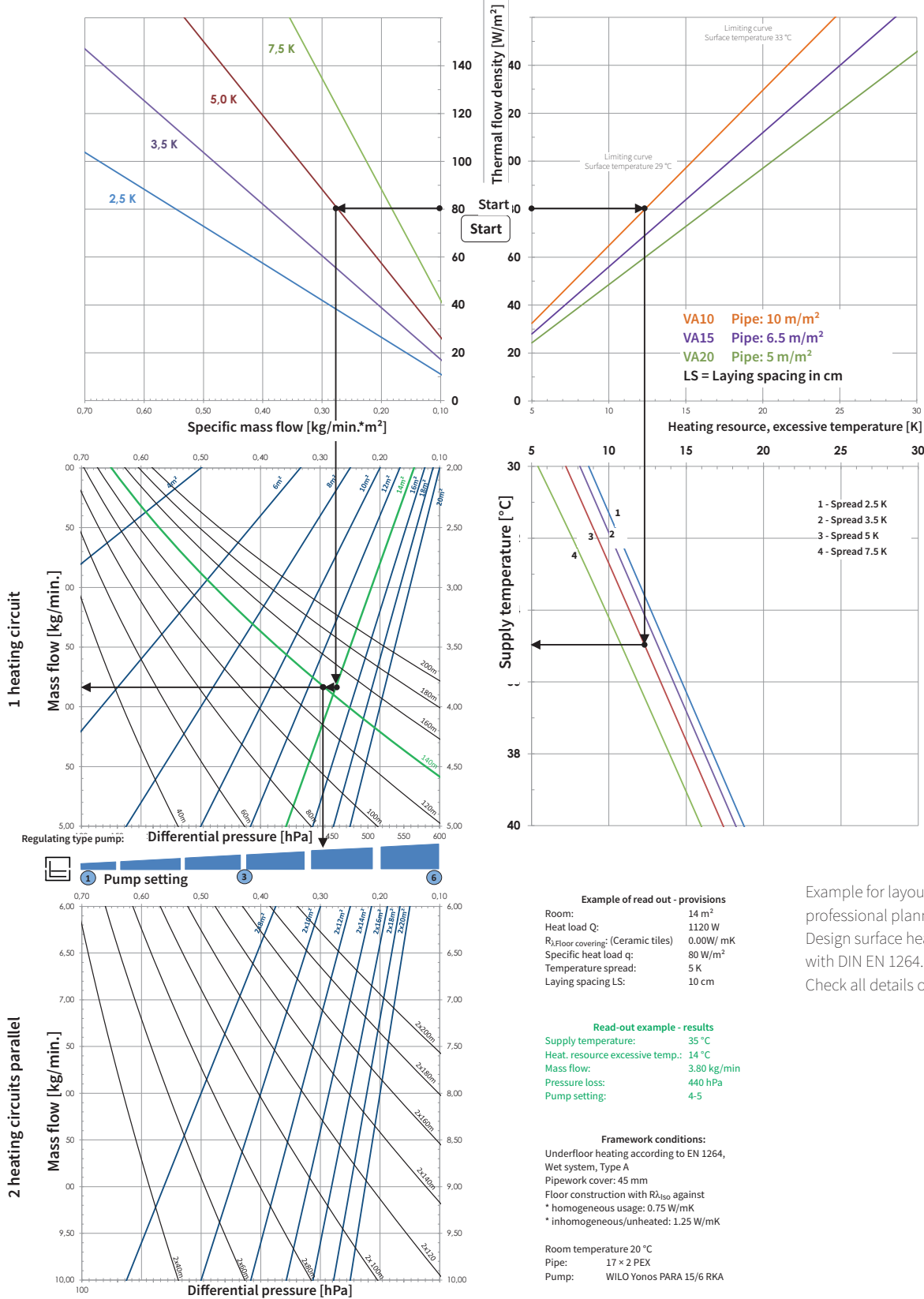
| A | B | C | D | E | F | G | H | I | J | K |
|------------------|----|----|-----|-----|-----|-----|------|-----|----|-----|
| G3/4m Euro taper | 50 | 45 | 380 | 380 | 410 | 410 | 87.5 | 140 | 43 | 244 |

Gm = parallel male thread in inches [""] according to DIN EN ISO 228-1
Data in mm

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Layout Diagram

Evaluating the pump setting ← → Evaluating the supply temperature



Example for layout, does not replace professional planning.
Design surface heating systems in line with DIN EN 1264.
Check all details on site.

All technical data is non-binding and does not represent guaranteed properties of the goods. The illustrations are symbolic and may differ from the respective product. Additional information is available upon request. It is the responsibility of the processor to select products in accordance with their properties. Installation instructions must be followed. Errors and technical changes reserved.