

Modular heating circuit K36E - DN 32

Boiler charging set, with integrated overflow valve



- return flow temperature maintenance for solid fuel boilers, wood firing and stove heating systems

Flat-sealing connections

incl. 2" union nut for the installation on a PAW modular distribution manifold. With PAW mounting equipment the heating circuit can be installed on wall brackets.

Pumps

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number

Check valve in the flow pipe of the thermal control valve

can be opened, 200 mm water column, spring-loaded, thus suited for horizontal and overhead installation

Additional hydraulic separator is not required.

Thermal control valve with automatic bypass and integrated bypass overflow valve ensures that the boiler always keeps a minimum temperature (= opening temperature +/- 3 K) and prevents the boiler from contamination.

Special feature of the thermal control valve of the K36E heating circuit is the integrated bypass overflow valve. By means of this adjustable valve the K36E can be adjusted optimally to all possible working and mounting conditions:

- When mounted to a buffer storage tank or a hydraulic separator, the overflow valve is closed. When the opening temperature in the boiler circuit is reached, the power of the integrated boiler pump is high enough to load the storage tank /hydraulic separator.
- When mounted to a distribution manifold, the pump pressure is reduced by means of the integrated bypass valve. The pump must operate at speed level II. Unwanted circulation, for example excessive charging of domestic hot water tanks, is prevented that way.

TECHNICAL DATA K36E - DN 32

Materials

| | |
|---------------------|------------|
| Valves and fittings | Brass |
| Gaskets | EPDM / NBR |
| Insulation | EPP |

Technical data

| | |
|----------------------------|--------|
| Nominal pressure | 6 bar |
| Max. operating temperature | 110 °C |
| Kvs value | 8.3 |

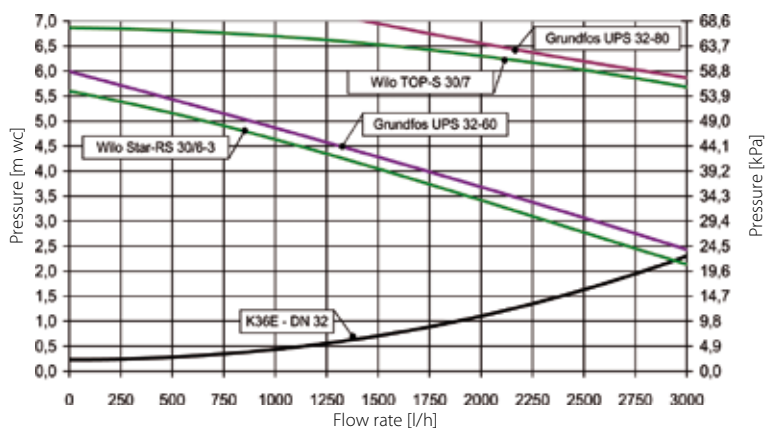
Dimensions

| | |
|----------------------|---------------------|
| Connection generator | 1¼" internal thread |
| Connection consumer | 2" internal thread |
| Centre distance | 125 mm |
| Installation length | 455 mm |
| Width | 250 mm |
| Height | 448 mm |

Recommended range of application, max.

| | | |
|-----------------------------|----------------|-------------|
| Temperature difference 20 K | up to 2600 l/h | up to 60 kW |
|-----------------------------|----------------|-------------|

Differential pressure diagram K36E



Thermal control valve with bypass and integrated overflow valve

Function:

The thermal valve shuts off the connection to the consumers, as long as the water in the boiler circuit is colder than the opening temperature of the thermal control valve. The pump in the K36E circulates the water in the boiler circuit by means of the automatic bypass which is completely open.

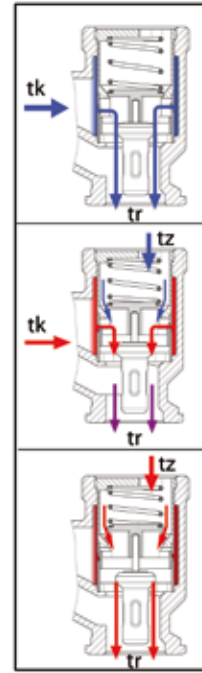
When the water in the boiler circuit has obtained the opening temperature (+/- 3 K) of the thermal control valve, the valve opens the connection from/to the consumers. The bypass shuts off to the same extent as the connection to the consumers is opened.

The control valve opens the return line to the consumers and thus enables the water to circulate in the consumer circuit depending on the setting of the integrated overflow valve. The cold water from the consumer return line is mixed in the control valve with the hot water from the bypass. Depending on the temperature and the flow rate of the water from the return line the thermal control valve shuts off or opens the line to the consumers. Thus the return line which leads to the boiler always remains at a certain temperature level.

With rising temperature in the flow line of the boiler or with rising temperature from the return line of the consumers the thermal control valve opens the connection to the consumers. The temperature of the return line of the boiler remains nearly constant (+/- 3 K).

Please note:

When the boiler output is controlled by the boiler temperature the boiler must heat up 20 K above the opening temperature of the K36E. Otherwise there will not be enough power available for the consumers (the boiler output may be reduced before the thermal control valve opens completely).



| Illustration | K36E - DN 32 | Energy | Item no. |
|---|--|---------------|---------------|
| | K36E opening temperature 50 °C | | |
| | Wilo Star-RS 30/6, 3-speed | B | 390352W16 |
| | Wilo TOP-S 30/7-1, 3-speed | D | 390352W17 |
| | Grundfos UPS 32-60, 3-speed | C | 390352GR6 |
| | Grundfos UPS 32-80, 3-speed | D | 390352GR8 |
| | for pumps with 2" external thread x 180 mm | | 390352 |
| | K36E opening temperature 55 °C | | |
| | Wilo Star-RS 30/6, 3-speed | B | 390362W16 |
| | Wilo TOP-S 30/7-1, 3-speed | D | 390362W17 |
| | Grundfos UPS 32-60, 3-speed | C | 390362GR6 |
| | Grundfos UPS 32-80, 3-speed | D | 390362GR8 |
| | for pumps with 2" external thread x 180 mm | | 390362 |
| | K36E opening temperature 60 °C | | |
| | Wilo Star-RS 30/6, 3-speed | B | 390372W16 |
| | Wilo TOP-S 30/7-1, 3-speed | D | 390372W17 |
| Grundfos UPS 32-60, 3-speed | C | 390372GR6 | |
| Grundfos UPS 32-80, 3-speed | D | 390372GR8 | |
| for pumps with 2" external thread x 180 mm | | 390372 | |
| | Wall bracket for heating circuit DN 32 Wall bracket for PAW heating circuit DN 32 the wall bracket allows for centre distances of 142.5 mm or 167.5 mm from the wall. The set consists of the wall bracket and mounting equipment. | | |
| | Wall bracket DN 32 | | 3722 |
| | Connection set DN 32 Connection set for DN 32, consists of 2 screw-in fittings with 2" external thread and 1 1/4" internal thread for the connection of pipes 1 1/4" external thread. | | |
| | Connection set DN 32 | | 3732 |