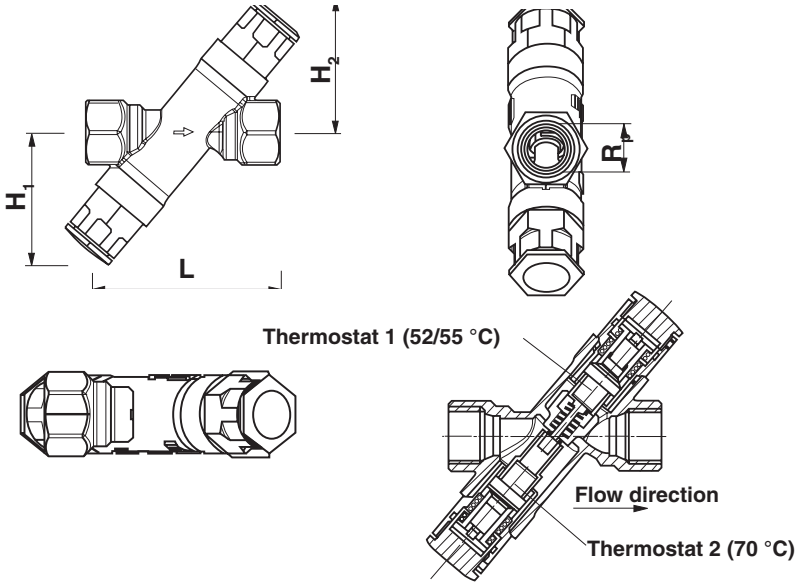
Circulation Temperature Controller

with automatic thermal pasteurisation

Data sheet for

4011

Issue 0521



Dimensions in mm

Order number	Dimension	Rp	L	H1	H2
2 **4011** 01	15	1/2	81	55	56
2 **4011** 02	20	3/4	102	51	54
2 **4011** 11	15	1/2	81	55	56
2 **4011** 12	20	3/4	102	51	54

kvs-value

DN	m³/h
15	0.45
20	0.45

Models

HERZ-CTC, DZR brass version. Shut-off spindle, springs and guide parts are made of stainless chrome-nickel steel. O-rings EPDM are made of materials which are recognized as safe and WRAS approved. Socket thread according ISO 7/1 (Rp).

Model with two sensors, pre-set 52 °C and 70 °C

2 **4011** 01 Dimension DN 15 (1/2), socket x socket, compression union 1 **6292** 01 for 15 mm copper pipe, and 1 **6092** xx for 14 x 2.0 and 16 x 2.0 plastic pipe are to be ordered separately.

2 **4011** 02 Dimension DN 20 (3/4), socket x socket, compression union 1 **6292** 02 for 18 mm copper pipe has to be ordered separately.

preset 55 °C and 70 °C:

2 **4011** 11 Dimension DN 15 (1/2), other specifications see 2 **4011** 01

2 **4011** 12 Dimension DN 20 (3/4), other specifications see 2 **4011** 02

Operational data

Maximum operating temperature 80 °C
Maximum operating pressure 10 bar

Operation

The HERZ Circuit Temperature Controller is a thermostatically operated proportional controller, requiring no supplementary energy, for pumped return domestic hot water systems. The return temperature from each branch is controlled to induce flow to other areas.

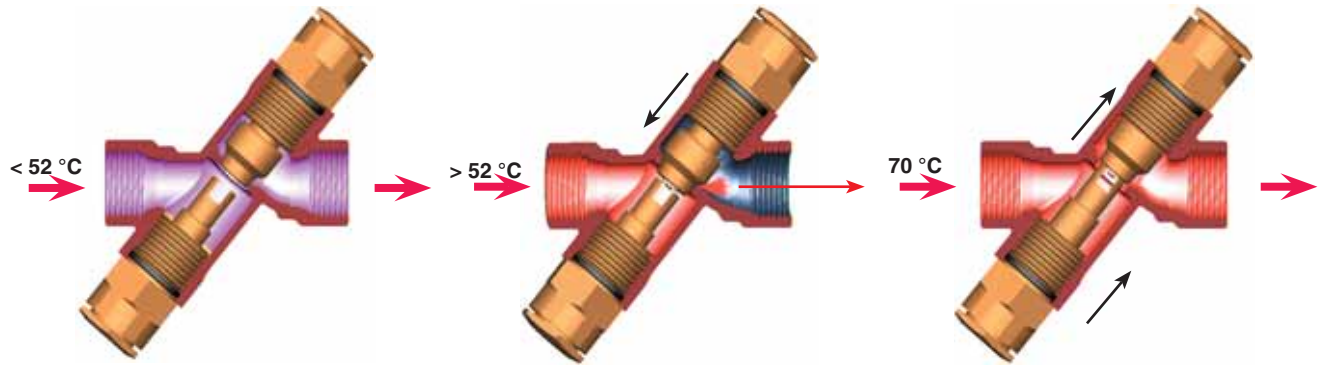
The water volume is limited to the minimum required to guarantee a constant return temperature and thus circulation losses are reduced.

The valve also allows the system to be pasteurised by raising the boiler outlet temperature as it then allows increased flow to maintain the higher temperature.

As the medium temperature increases the valve closes until at the set temperature of 52 or 55 degrees the valve is closed, except for a small bleed path to maintain the temperature. As the medium temperature reduces the valve opens to allow the higher flows until the set temperature is reached. During pasteurisation the boiler outlet temperature is raised above 70 degrees and the second element then pushes the first element back allowing the valve to open fully giving full flow to maintain the higher temperature to pasteurise and clean the system. After the required period the return temperature is reduced to normal and the valve returns to its normal operation.

According to the graph the valve has a leakage flow of 0,65 l/min at 10 kPa differential pressure.

We reserve the right to make modifications in line with progress in engineering



Normal operation below 52/55 °C valve fully open

Temperature higher than 52/55 °C thermostat 1 is closed, to a bleed

For pasteurisation at over at 70 °C, thermostat 2 opens the valve

Both control sets including thermostatic elements and cone can be changed without dismounting of body. The function of the models with 55 ° / 70 ° is similar to this description.

Installation in circulation return pipe is possible in any orientation. Please note the flow direction cast in the valve body.

compression unions

1 **6292** 01 HERZ compression unions for pipe external diameter 15 mm.
1 **6092** 02 HERZ compression unions for pipe dimension 14 x 2.0 mm.
1 **6092** 01 HERZ compression unions for pipe external dimension 16 x 2.0 mm.
1 **6292** 02 HERZ compression unions for pipe external diameter 18 mm.

HERZ compression unions guarantee a secure and joint connection with copper and thin-walled steel pipes. It is recommended to use support sleeves. To ensure trouble-free installation we recommend to lubricate the olive screw and the olive with silicone oil. The HERZ Installation guidelines have to be respected.

Installation accessories

1 **6266** 01
1 **6266** 20 Adapter
1 **6220** XX Iron pipe connection, with flat seal
P **192X** XX Coupling with external thread
P **70XX** 11
P **70XX** 12 Press transition with external thread
P **70XX** 61
P **70XX** 62 Press connection with external thread and flat seal

Spare Parts

2 **4010** 81 Control sets including thermostatic element and cone, valve dimension 1/2
2 **4010** 82 dito, valve dimension 3/4
1 **0271** 09 Draining valve with handle 1/4
1 **0273** 09 Screw plug 1/4
1 **0284** 01 Test point for pressure measuring FlowPlus, 8903 or 8900.

Further HERZ flow temperature limiter see standard sheet

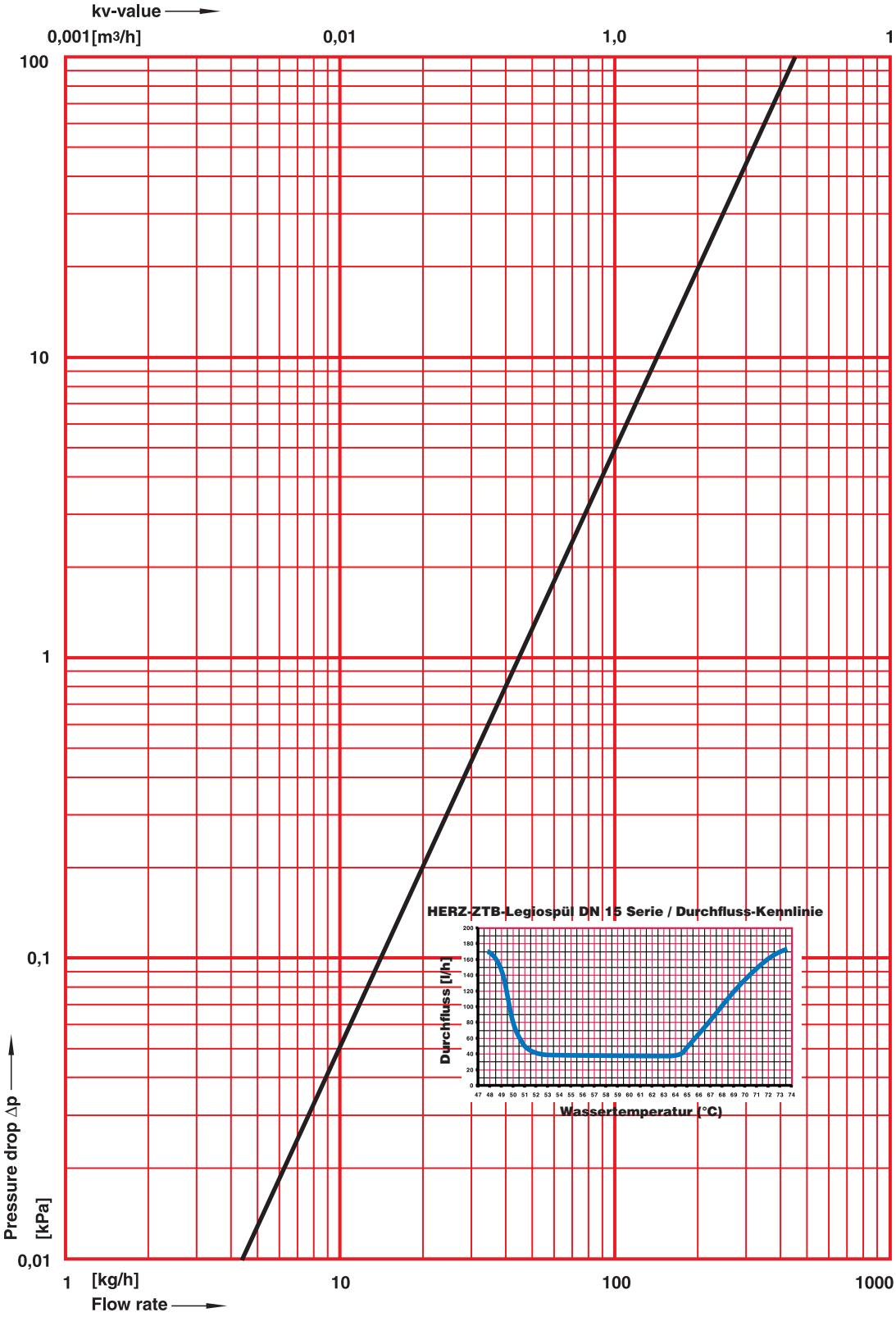
2 **4010** 01 HERZ flow temperature limiter without shut-off function, DN 15, pre-set to 48 °C
2 **4010** 02 HERZ flow temperature limiter without shut-off function, DN 20, pre-set to 48 °C
2 **4010** 11 HERZ flow temperature limiter without shut-off function, DN 15, pre-set to 43 °C
2 **4010** 12 HERZ flow temperature limiter without shut-off function, DN 20, pre-set to 43 °C
2 **4010** 51 HERZ flow temperature limiter FWW with shut-off function, DN 15, pre-set to 52 °C
2 **4010** 52 HERZ flow temperature limiter FWW with shut-off function, DN 20, pre-set to 52 °C

Tips

Please respect national and local regulations for maximum temperatures in hot water circuits.

The dimensioning of circulation pipes is either done according a short and simplified process or according a derivative process according DVGW-Technische Regel, working sheet W553 and the DVGW working sheets W551 and W552 in combination with standards ON EN 805, ON B2531, DIN 1988 and DIN 4701.

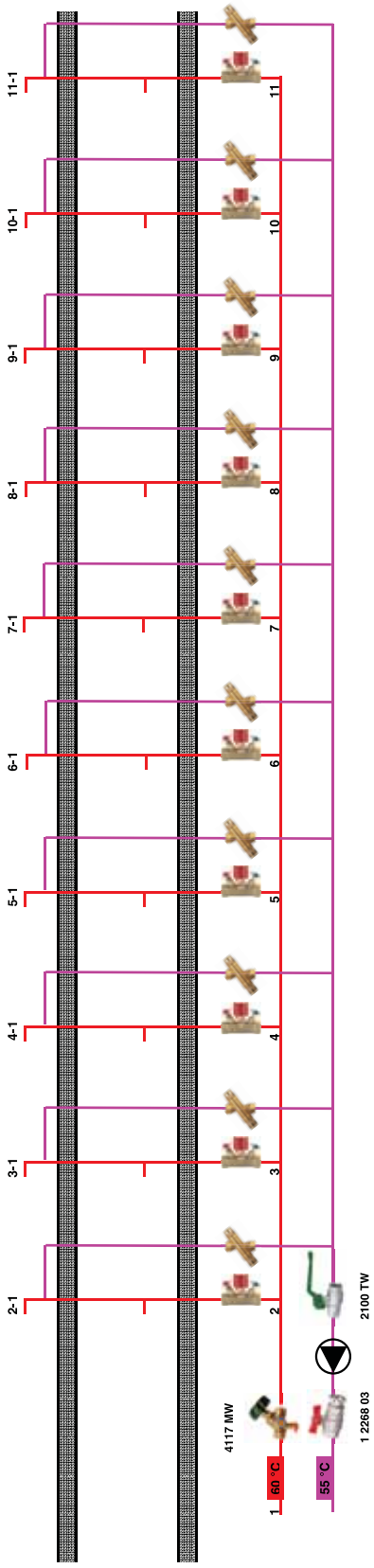
Standard diagram	CTC
Order number 2 **4011** 01 • 2 **4011** 02 ... 2 **4011** 11 • 2 **4011** 12	Dim. DN 15 • DN 20



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Application Example	CTC-FWW



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