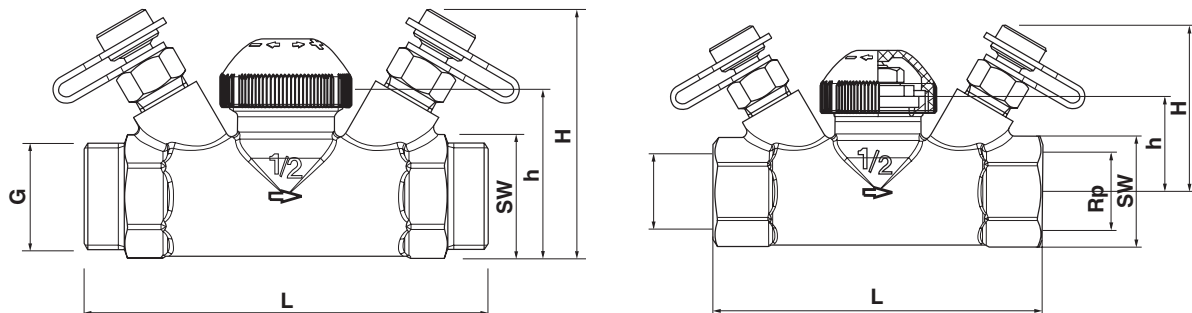


# HERZ 7217 TS 98 V / TS 99 FV

for thermostatic control

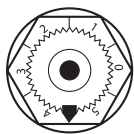
Data sheet for 7217 TS, Issue 0915

☑ Assembly dimensions in mm



STRÖMAX	Order Nr.	DN	L	G	Rp	SW	h	H	kvs
<b>TS-98-V</b>	1 <b>7217</b> 67	15	100	3/4	-	27	41	65	1,10
<b>TS-98-V</b>	1 <b>7217</b> 37	15	92	-	1/2	27	41	65	1,10
<b>TS-99-FV</b>	1 <b>7217</b> 38	15	62	-	1/2	27	41	65	0,4
<b>TS-99-FV</b>	1 <b>7217</b> 68	15	100	3/4	-	27	41	65	0,4

☑ Valve TS-98-V 1 7217 67



**Circuit control valve TS-98-V with test points, DN 15**

Straight model TS-98-V pre-settable thermostatic upper part, brass version, pipe connection on both sides with G 3/4 connections external screw thread. Externally adjustable continuous pre-setting. The TS-98-V pre-setting key (1 6919 98) has to be ordered separately. 2 test points are mounted next to the thermostatic insert, body made of DZR brass. M 28 x 1.5 thread connection. Compression unions and press connections must be ordered separately.

☑ Valve TS-98-V 1 7217 37

**Circuit control valve TS-98-V with test points, DN 15**

Straight model with TS-98-V pre-settable thermostatic upper part, brass version, pipe connections on both sides with RP1/2 female thread. Externally adjustable continuous pre-setting. 2 test points are mounted next to the thermostatic insert, body made of DZR brass. M 28 x 1,5 connection, compression unions with 1 6266 01 adapter must be ordered separately.

☑ Valve-TS-99-FV 1 7217 38

**Circuit control valve TS-99-FV with test points, DN 15**

Straight model TS-99-FV thermostatic upper part can be pre-set for lower flow rates, brass version, pipe connection on both sides with RP1/2 female thread. Externally adjustable pre-setting. The pre-setting key (1 6919 98) has to be ordered separately. 2 test points are mounted next to the thermostatic insert, body made of DZR brass. M 28 x 1.5 thread connection. Compression unions with 1 6266 01 adapter must be ordered separately.

☑ Valve-TS-99-FV 1 7217 68

**Circuit control valve TS-99-FV with test points, DN 15**

Straight model TS-99-FV thermostatic upper part can be pre-set for lower flow rates, brass version, pipe connection on both sides with G 3/4 connections external screw thread. Externally adjustable pre-setting. The pre-setting key (1 6919 98) has to be ordered separately. 2 test points are mounted next to the thermostatic insert, body made of DZR brass. M 28 x 1.5 thread connection. Compression unions and press connections must be ordered separately.

#### ☑ Other models

<b>4017 M</b>	<b>1/2 - 2</b>	Circuit control valve M with test points and fixed orifice
<b>4217 GM</b>	<b>1/2 - 3</b>	Circuit control valve GM with test points, straight pattern
<b>4218 GMF</b>	<b>DN 25-DN 150</b>	Circuit control valve GMF with test points, straight pattern, flanged
<b>4218 GF</b>	<b>DN 50-DN 300</b>	Circuit control valve MFS with test points, straight pattern, flanged

#### ☑ Function

If no protective cap, thermostatic head or manual drive is mounted, the valve is in the open position.

#### ☑ Test points

2 test points are mounted next to the hand wheel or next to the thermostatic upper part. This layout ensures the best access in all installations and the optimum connection of measuring devices.

#### ☑ Operating data HERZ compression union

Maximum operating temperature 2 - 130 °C, for operation with actuators the maximum temperature of the actuators should be respected.

Maximum operating pressure 10 bar

Maximum permissible differential pressure 0.2 bar

Water purity in accordance with the ÖNORM H 5195 and VDI 2035 standards

Ethylene and propylene glycol can be mixed to a ratio of 25 - 50 vol. [%].

HERZ compression adapters for copper and steel pipes, allowable temperature and pressure ratings according to EN 1254-2 1998 Table 5. HERZ plastic pipe connections max. operating temperature 95 °C and max. operating pressure 10 bar, if approved by the pipe manufacturer.

Ammonia contained in hemp can damage brass valve bodies, EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection.

#### ☑ Plastic pipe connection

The circuit control valves can be used in equipment with plastic pipes. Adapters and plastic pipe connections can be fitted. Models and dimensions are to be found in the HERZ brochure.

#### ☑ Field of application

Heating and Cooling for Fan coils and other terminal units, for control and balancing with high accuracy and good repeatability. Also used as zone control valve for heating and cooling circuits

#### ☑ Constructive special features

##### Changing the thermostatic valve upper part.

The HERZ thermostatic valve upper part can be changed under pressure using the HERZ change-fix tool to: Clean the seat seal on the spindle or change the valve upper part. In this way, faults in the radiator thermostat valves, e.g. from foreign bodies such as dirt, welding, soldering remains, etc. can be easily removed.

The operating instructions with the Change-fix tool should be adhered to when replacing the thermostatic upper part.

#### ☑ Flow direction

When installing the valve the flow direction arrow must be followed.

#### ☑ Installation location

Depending on the installation location

For installation locations and use of actuators, the appropriate accessories should be used.

#### ☑ Adjustment procedure for HERZ-TS-98-V



1. Remove the HERZ thermostatic head, manual drive, or actuator.
2. Adjust the orange adjuster knob (factory setting between "4" and "5") by hand or with the adjuster key (1 **6819** 98) adjust directly to the desired per-setting stage 1-6 (0).
3. Install the HERZ thermostatic head, manual drive or actuator.

### ☑ HERZ-STRÖMAX-TS compatibility changing the thermostatic valve upper parts



The HERZ-STRÖMAX-TS valves are distinguishable by the design of the valve upper part.

If, during operation of the equipment, it becomes apparent that another upper part design is preferable for the individual adjustment of amounts of water, the upper part of the equipment can be changed easily and whilst in operation, using the HERZ Changefix service device.

The cleaning of the seat seal can also be carried out. In this way faults in the radiator thermostatic heads, e.g. from foreign bodies such as dirt, welding and soldered remains, can be easily rectified.

The operating instructions packed with the equipment should be followed when using the HERZ Changefix.

### ☑ Spindle seal for HERZ-TS-98-V upper part

A special sealing ring serves as a spindle seal, and this ensures maximum freedom from maintenance and lasting ease of movement of the valve. For worn out spindle seals the valve upper part must be changed and at the same time the damaged seat seal replaced.

The existing pre-setting should be re-set after changing the upper part.

1. Remove the HERZ thermostatic head, manual drive or actuator.
2. Unscrew the valve upper part and replace it with a new one.
3. Re-install the HERZ thermostatic head, manual drive or actuator.

Changing of the upper part can be carried out on the equipment under pressure by using the HERZ Changefix and the operating instructions for the HERZ Changefix must be adhered to.

Order Nr. for HERZ-TS-98-V valve upper part: 1 **6367 98**.

### ☑ Spindle seal for HERZ-TS-99-FV upper part

A special sealing ring serves as a spindle seal, and this ensures maximum freedom from maintenance and lasting ease of movement of the valve. For worn out spindle seals the valve upper part must be changed and at the same time the damaged seat seal replaced.

The existing pre-setting should be re-set after changing the upper part.

1. Remove the HERZ thermostatic head, manual drive or actuator.
2. Unscrew the valve upper part and replace it with a new one.
3. Re-install the HERZ thermostatic head, manual drive or actuator.

Changing of the upper part can be carried out on the equipment under pressure by using the HERZ Changefix and the operating instructions for the HERZ Changefix must be adhered to.

Order Nr. for HERZ-TS-99-V valve upper part: 1 **6367 99**.

### ☑ HERZ thermostatic valve Nominal lift

The screw cap allows activation during the installation phase flushing.

Setting the nominal lift using the screw cap:

Across the screw cap in the edge areas are two adjustment markings (visual markers) with “+” and “-”.

1. Close the valve using the screw cap by turning clockwise.
2. Mark the position corresponding to the “+” adjustment marking.
3. Turn the screw cap anti-clockwise to reach the “-” adjustment marking which is located under the 2nd marked position.

### ☑ Differential pressure measurement the valve-TS

The STRÖMAX-TS control valve is fitted with two test points: When using a suitable measuring device the differential pressure can be measured and the thus flow rate measured. The HERZ measuring computer (1 **8900 04** or 1 **8904 02**) is suitable for this operation (see device handbook).

### ☑ Measuring valve activation the valve-TS

The HERZ measuring computer has suitable couplings, 1 **0284 00**, which guarantee perfect connection to the test points.

### ☑ Installation

The HERZ-STRÖMAX-TS valve is installed in the flow or return with the flow in the direction of the arrow on the casing. If a HERZ thermostatic head is used this should be mounted horizontally in order to ensure optimum control of the room temperature for the smallest faults. The installation location should take into account the use of a manual drive or actuator.

### ☑ Installation instructions

The HERZ thermostatic head should never be positioned in direct sunlight or devices giving out intense heat such as TVs. If the radiator is covered (by curtains) so that the thermostat cannot sense the room temperature and can therefore not control it.

In these cases the HERZ thermostat should be used with a remote sensor.

Details of HERZ thermostats can be found in the current Standard specification sheets.

If an actuator is used then the maximum permissible operating temperature of the actuator should be taken into account.

### ☑ HERZ TS manual drive

If in exceptional cases a HERZ-STRÖMAX-TS valve is not fitted with a HERZ thermostatic head or a actuator, the HERZ-TS manual drive replaces the protective cap.

The installation instructions included should be consulted.

### ☑ Accessories

- 1 6807 90** HERZ-TS-90 Installation key
- 1 7780 00** HERZ Changefix, exchange device for thermostat upper parts
- 1 9102 80** HERZ-TS-90 manual drive
- 1 6819 98** HERZ pre-setting key (TS-98-V)
- 1 8900 04** Measuring computer
- 1 8904 02** Measuring computer
- 1 7420 06** Thermostat with surface-mounted sensor, nominal value range 20-50 °C
- 1 7421 00** Thermostat with surface-mounted sensor, nominal value range 40-70 °C

### ☑ Spare parts

- 1 6367 98** HERZ-TS-98-V Thermostat upper part
- 1 6367 99** HERZ-TS-99-FV Thermostat upper part
- 1 0284 01** Test point, blue cap
- 1 0284 02** Test point, red cap

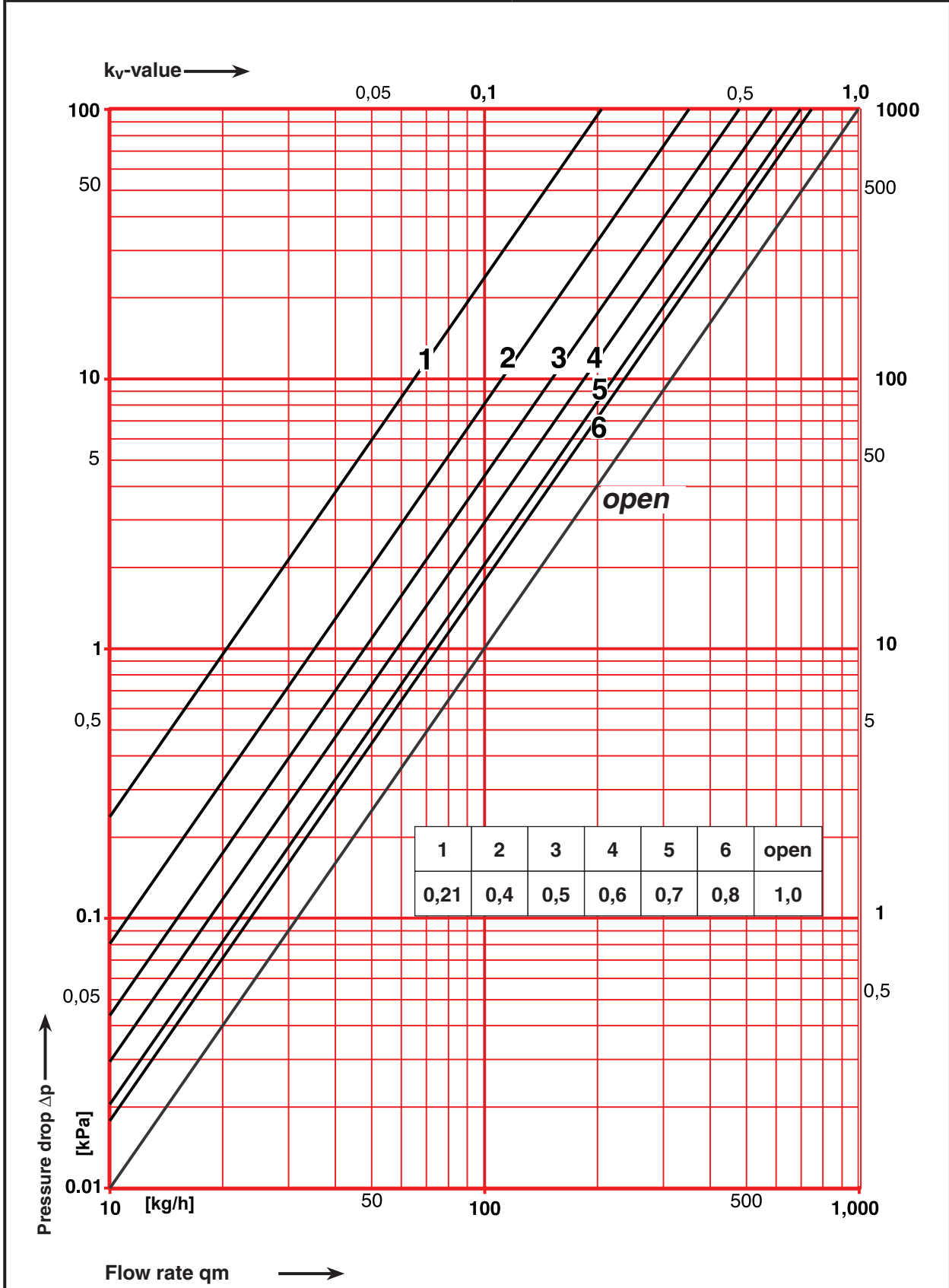
Proportional band

7217 TS-98-V	kv-value							
p-variation [K]	0,5	1	1,5	2	2,5	3	3,5	4
<b>Pre-setting</b>								
1	0,05	0,11	0,14	0,14	0,14	0,14	0,14	0,14
2	0,13	0,25	0,29	0,30	0,30	0,30	0,30	0,30
3	0,14	0,26	0,38	0,42	0,44	0,44	0,45	0,45
4	0,14	0,27	0,39	0,50	0,54	0,55	0,56	0,57
5	0,15	0,28	0,40	0,53	0,66	0,70	0,72	0,73
6	0,15	0,28	0,41	0,56	0,70	0,76	0,80	0,81

7217 TS-99-FV	kv-value							
p-variation [K]	0,5	1	1,5	2	2,5	3	3,5	4
<b>Pre-setting</b>								
1	0,018	0,019	0,019	0,019	0,019	0,019	0,019	0,019
2	0,037	0,042	0,042	0,042	0,042	0,042	0,042	0,042
3	0,065	0,085	0,089	0,091	0,091	0,091	0,091	0,091
4	0,089	0,134	0,149	0,158	0,171	0,174	0,177	0,180
5	0,095	0,174	0,228	0,266	0,296	0,313	0,326	0,329
6	0,095	0,180	0,240	0,291	0,329	0,357	0,373	0,383

HERZ-Standard diagram	STRÖMAX TS-98-V
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Order Nr. 1 <b>7217 37</b> • 1 <b>7217 67</b>	DN 15
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HERZ-Standard diagram	STRÖMAX TS-99-FV
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Oder Nr. 1 <b>7217</b> 38 / 1 <b>7217</b> 68	DN 15
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Valve dimensioning [ $\Delta p$ ] has to be performed in accordance with the "VDMA Instruction Sheet for Planning and Hydraulic Balancing of Heating Systems with Thermostatic Radiator Valves"

