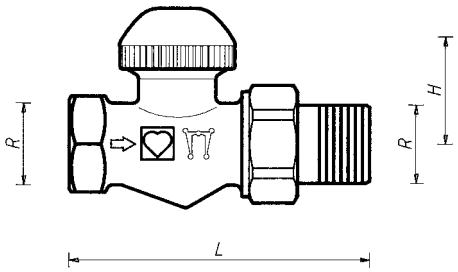
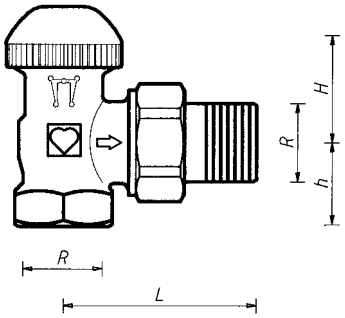
HERZ-TS-90

Thermostatic Valve – Lower Parts

Standard sheet for
7723/7724/7728
7758/7759
Edition 1000 (0999)



7723



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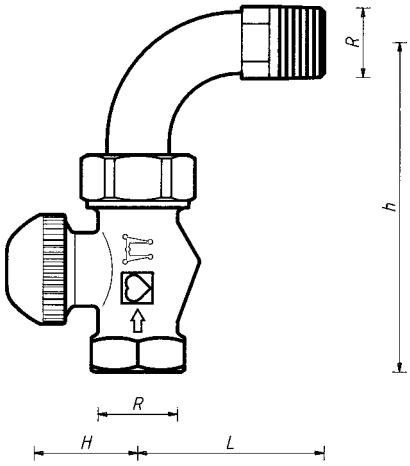
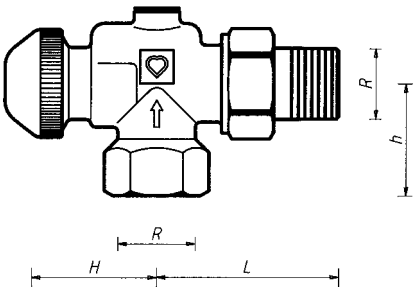


7723 + 6249



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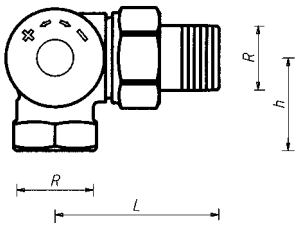

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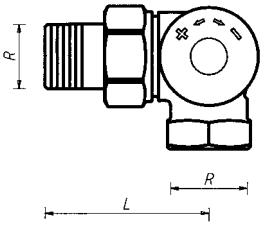

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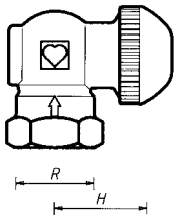
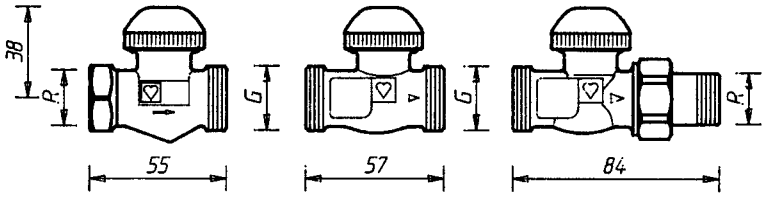
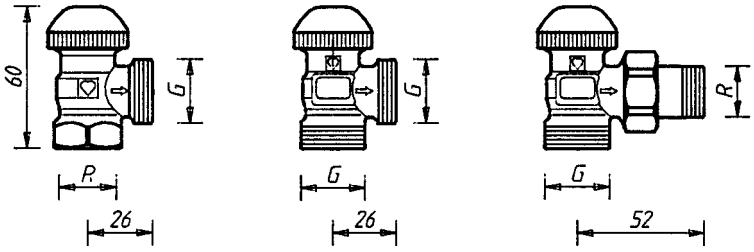




1 **7723** 61 | 1 **7737** 91 | 1 **7733** 81



1 **7724** 58 | 1 **7724** 41 | 1 **7724** 37

Special Models

R = R 1/2"
G = G 3/4

We reserve the right to make modifications necessitated by technological progress.

HERZ Armaturen

Richard-Strauss-Straße 22 • A-1230 Wien

Dimensions in mm for Standard Series EN 215 T 2 HD 1215

Art. No.	Designation	DN	R	Ø	L	H	h	Order No.
7723	Dimensional Series“F” Straight Valve	10	3/8"	12	75	27	—	1 **7723** 90
		15	1/2"	15	83	27	—	1 **7723** 91
		20	3/4"	18	98	27	—	1 **7723** 92
7724	Dimensional Series“F” Angle Valve	10	3/8"	12	49	27	20	1 **7724** 90
		15	1/2"	15	54	23	23	1 **7724** 91
		20	3/4"	18	63	23	23	1 **7724** 92

Dimensions in mm for HERZ-Series

Art. No.	Designation	R	Ø	L	H	h	Order No.
7723	Straight Model	1"	—	126	27	—	1 **7723** 93
7724	Angle Model	1"	—	70	23	33	1 **7724** 93
7723 + 6249	Dimensional Series“F” Straight Model with elbow	3/8"	12	40	27	84	Valve and elbow must be ordered separately
		1/2"	15	54	27	94	
		3/4"	18	60	27	114	
7728	Reverse Angle Model	3/8"	12	49	35	27	1 **7728** 90
		1/2"	15	55	35	33	1 **7728** 91
		3/4"	18	66	32	33	1 **7728** 97
7758	AB	1/2"	15	53	26	31	1 **7758** 91
7759	CD	1/2"	15	53	26	31	1 **7759** 91

Models and Versions

All models are nickel plated and supplied with a screw cap.

Universal models with special socket for threaded pipe and compression union:

7723	**3/8"–3/4"**	Straight model dimensional series “F”
7724	**3/8"–3/4"**	Angle model dimensional series “F”
7728	**3/8"–3/4"**	Reverse angle model
7758	**1/2"**	3-axis valve “AB”, radiator to the right of the intake valve
7759	**1/2"**	as above “CD”, radiator to the left.

HERZ-TS-90

Universal models with threaded socket:

1 **7723** 93	**1"**	Straight model
1 **7724** 93	**1"**	Angle model

Other Models

HERZ-TS-90 Special Valve Models, dimension 1/2"

1 **7723** 61	Straight model, universal socket x male thread G 3/4, with cone seal
1 **7737** 91	Straight model, 2 x male thread G 3/4, with cone seal
1 **7733** 81	Straight model, radiator connection with cone seal, pipe connection male thread G 3/4
1 **7724** 58	Angle model, universal socket x male thread G 3/4, with cone seal
1 **7724** 41	Angle model, 2 x male thread G 3/4, with cone seal
1 **7724** 37	Angle model, radiator connection with cone seal, pipe connection male thread G 3/4

HERZ-3-D

Other Versions

HERZ-TS-90-E	Valves with reduced resistance for one-pipe systems
HERZ-TS-E	Valves with maximum flow for one-pipe systems
HERZ-TS-90-V	Valves with continuous, concealed pre-setting
HERZ-TS-98-V	Valves with continuous, read-out pre-setting
HERZ-TS-90-kv	Valves with fixed kv-values for district heating systems

Separate standard sheets are available for these models.

Operating Data

Maximum operating pressure 110 °C
Maximum operating temperature 10 bar

Heating water purity according to Austrian standard ÖNORM H 5195 and/or VDI-guideline 2035.

Compression Union

When using HERZ compression unions for copper and steel pipes, observe the permissible temperatures and pressures as specified in EN 1254-2:1998 Table 5. A maximum operating temperature of 80 °C and maximum operating pressure of 4 bar applies for plastic pipe connections, if permitted by the pipe manufacturer.

Field of Application

Radiator Connection

Iron pipe connection 6210, with cone seal.
It is recommended that the HERZ assembly key 6680 be used.

Further Connecting Options

To be used instead of the radiator connection and on the male thread G 3/4:

6210	1/2"	Iron pipe connection, lengths 26 mm and 35 mm.
6211	1/2"	Reducing connection, 1/2" x 3/8".
6213	3/8"	Reducing connection, 3/8 x 1/2".
6218	3/8"–3/4"	Long threaded bush, without nut, can be shortened to compensate for differences in structural dimensions, lengths 3/8" x 40: 1/2" x 76; 3/4" x 70 mm.
6218	1/2"	Threaded bush, without nut, lengths 36, 39, 42, 48 and 76 mm.
6235	3/8"–3/4"	Soldering connection 3/8" x 12; 1/2" x 12, 15 and 18; 3/4" x 18 mm.
6249	3/8"–3/4"	Connection elbow for iron pipes, without nut, with cone seal
6274	G 3/4	Compression union for copper and thin-walled steel pipes, external pipe diameters 8, 10, 12, 14, 15, 16, 18.
6275	G 3/4	HERZ compression union with soft seal for copper and thin-walled steel pipes, particularly suitable for hard special steel pipes and pipes with hard-galvanised surfaces. For external pipe diameters 12, 14, 15 mm.
6098	G 3/4	HERZ compression union for PE-X-, PB and plastic composite pipes.

For use on the socket side of the valve:

6219	1/2"–3/4"	Reduction socket, brass, for connecting pipe and valve, female thread (pipe) x male thread (valve) 1" x 1/2", 1 1/4" x 1/2", 1 x 3/4", 1 1/4" x 3/4".
6066	M 22 x 1,5	Plastic pipe connection for PE-X-, PB and plastic composite pipes, for use with adapter 1 **6272** 01 (R 1/2 x M 22 x 1.5).
6098	G 3/4	Plastic pipe connection for PE-X, PB and plastic composite pipes, for use with adapter 1 **6266** 01 (R 1/2 x G 3/4).

For pipe dimensions of plastic pipe connections refer to the HERZ catalogue.

Pipe Connecting Universal Models

The universal models are equipped with special sockets offering the option of connecting either a threaded pipe or calibrated soft-steel or copper pipe, the latter two by means of a compression union. The compression union must be ordered separately.

When using R = 1/2" valves for external pipe diameters of 10, 12, 14, 16 and 18 mm use adapter Art. No. 6272 between valve and the compression union.

Pipe Ø D mm		12	10	12	14	15	16	18	18
Valve	R =	3/8"	1/2"						3/4"
Adapter	Order No.		1 **6272** 01	1 **6272** 01	1 **6272** 01		1 **6272** 01	1 **6272** 11	
Comp. Union	Order No.	1 **6292** 00	1 **6284** 00	1 **6284** 01	1 **6284** 03	1 **6292** 01	1 **6284** 05	1 **6289** 01	1 **6292** 02

We recommend use of support sleeves for the installation of soft steel or copper pipes with compression unions. For perfect installation, it is imperative to lubricate the thread of the locking nut (male thread and female thread) as well as the olive itself with silicon oil. We refer to our instructions for installation.

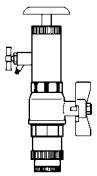
Special Design Features

Changing the Upper Part of a Thermostat Valve

The upper part of the HERZ thermostatic valve can be changed under pressure by means of the HERZ changing tool for the purpose of:

- Equipping the valve with another thermostatic valve upper part with fixed, stepped k_V-values or with pre-adjustable upper part. This allows for adaption of the volume flows trought the individual radiators to actual requirements.
- Cleaning the seal at the spindle and/or changing the upper part of the valve. These are easy methods of removing defects in radiator thermostat valves, caused, e. g. by foreign substances such as dirt, welding and soldering residues.

When using the valve with the new upper part follow the instructions enclosed with the changing tool.



Spindle Seal

An O-Ring is used as a spindle seal. It is located in a brass chamber which can be changing during operation. The O-Ring keeps maintennance requirements to a minimum and permits smooth valve operation over a long period of time.

Changing the O-Ring

1. Dismantle the HERZ thermostatic head and/or the HERZ-TS-handwheel.
2. Then, the O-Ring chamber, including the O-Ring, is unscrewed and replaced with a new one. During this change, use a wrench to hold the upper part. During dismantling, the valve is completely open and therefore sealed tight. However, a few drops of water may leak out.
3. For re-assembley follow the above steps in reverse sequence. When installing the HERZ-TS handwheel, make sure that the valve closes by turning.

Article number for O-Ring set: 1 **6890** 00

HERZ-TS-90
O-Ring-Chamber

HERZ-Thermostat Valve

Nominal Lift

The screw cap serves for operation during the installation phase (pipe flushing). The thermostatic valve is formed by removing the screw cap and screwing in the HERZ thermostatic head without draining the heating system.

Setting the nominal lift with the screw cap:

On the knurled part of the circumference of the screw cap there are two setting marks (webs) in alignment with the "+" and "–" marks.

1. Close the valve by turning the screw cap clockwise.
2. Mark the position corresponding to the setting mark "+".
3. Turn the screw cap anti-clockwise until the setting mark "–" is at the position marked under item 2.

Installation

The lower part of the thermostatic valve is incorporated into the radiator intake with the flow in the direction of the arrow (arrow on the valve body). If possible, the HERZ thermostatic head should be in a horizontal position in order to permit optimum room temperature control and minimise interference.

Important for Installation

Under no circumstances should the HERZ thermostatic head be exposed to direct sunlight or to the effects of equipment emitting relevant quantities of heat, e. g. TV sets. If the radiator is covered by curtains this will lead to the formation of a heat accumulation zone in which the thermostat cannot sense the room temperature properly and consequently cannot control it. In such cases, use the HERZ thermostat with remote sensor or the HERZ thermostat with remote adjustment.

For detailed information on the HERZ thermostats consult the individual standard sheets.

Summer Setting

After the end of the heating period open thermostats or handwheels completely by turning anti-clockwise, this prevents dirt particles accumulating at the valve seat.

HERZ-TS Handwheel

In case the lower part of a HERZ thermostatic valve is not equipped with a HERZ thermostatic head the HERZ-TS handwheel will replace the screw cap.

During assembly follow the enclosed instructions.

Accessories

1 **6680** 00 HERZ assembly key for connections
1 **6807** 90 HERZ-TS-90 assembly key
1 **7780** 00 HERZ changing tool for thermostat upper parts

Handwheel

1 **7102** 80 HERZ-TS-90 handwheel, Series 7000 with pre-setting and locking function
1 **9102** 80 HERZ-TS-90 handwheel, Series 9000 "Design"

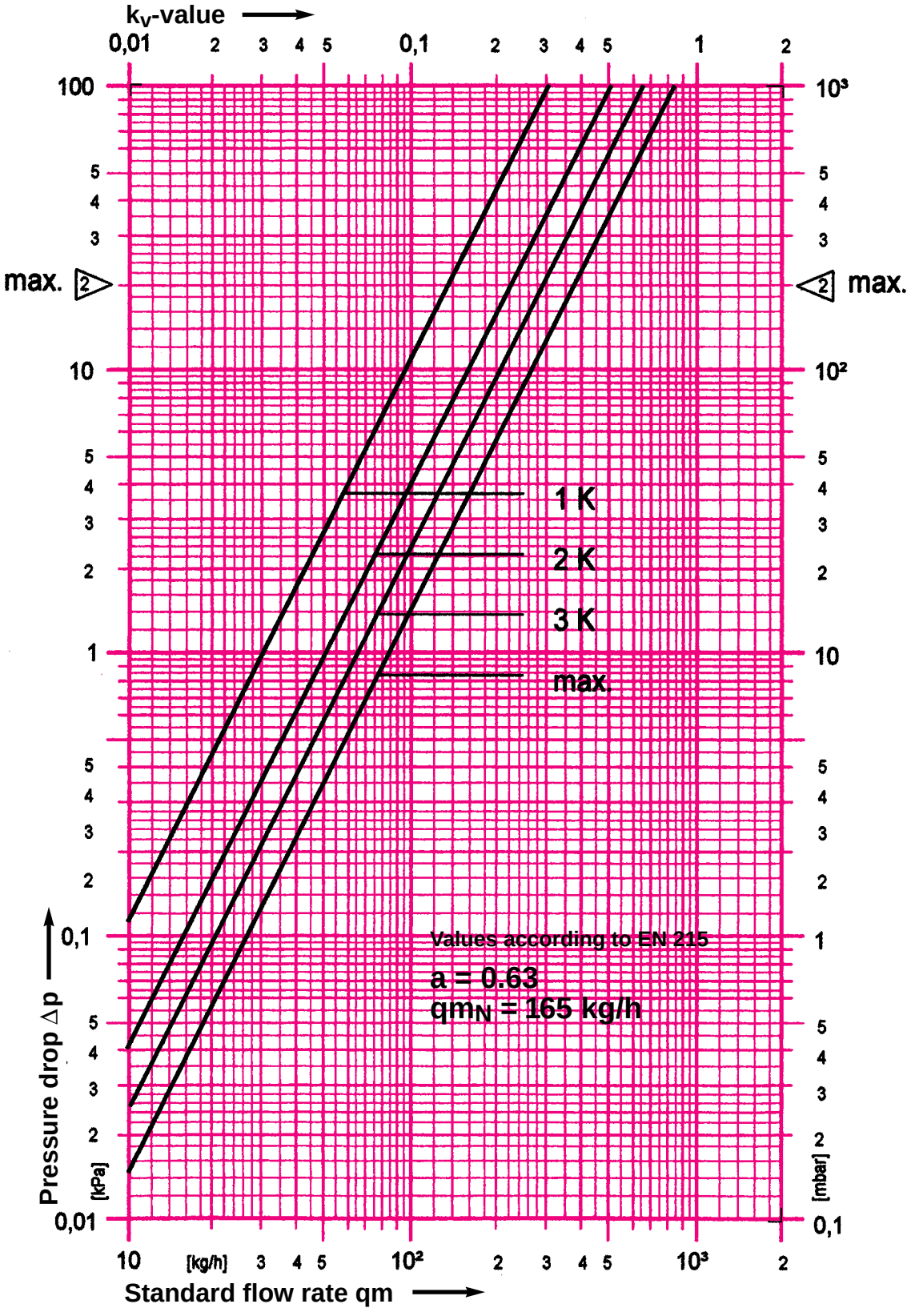
Spare Parts

1 **6390** Thermostatic upper parts
for order numbers please refer to the HERZ catalogue.

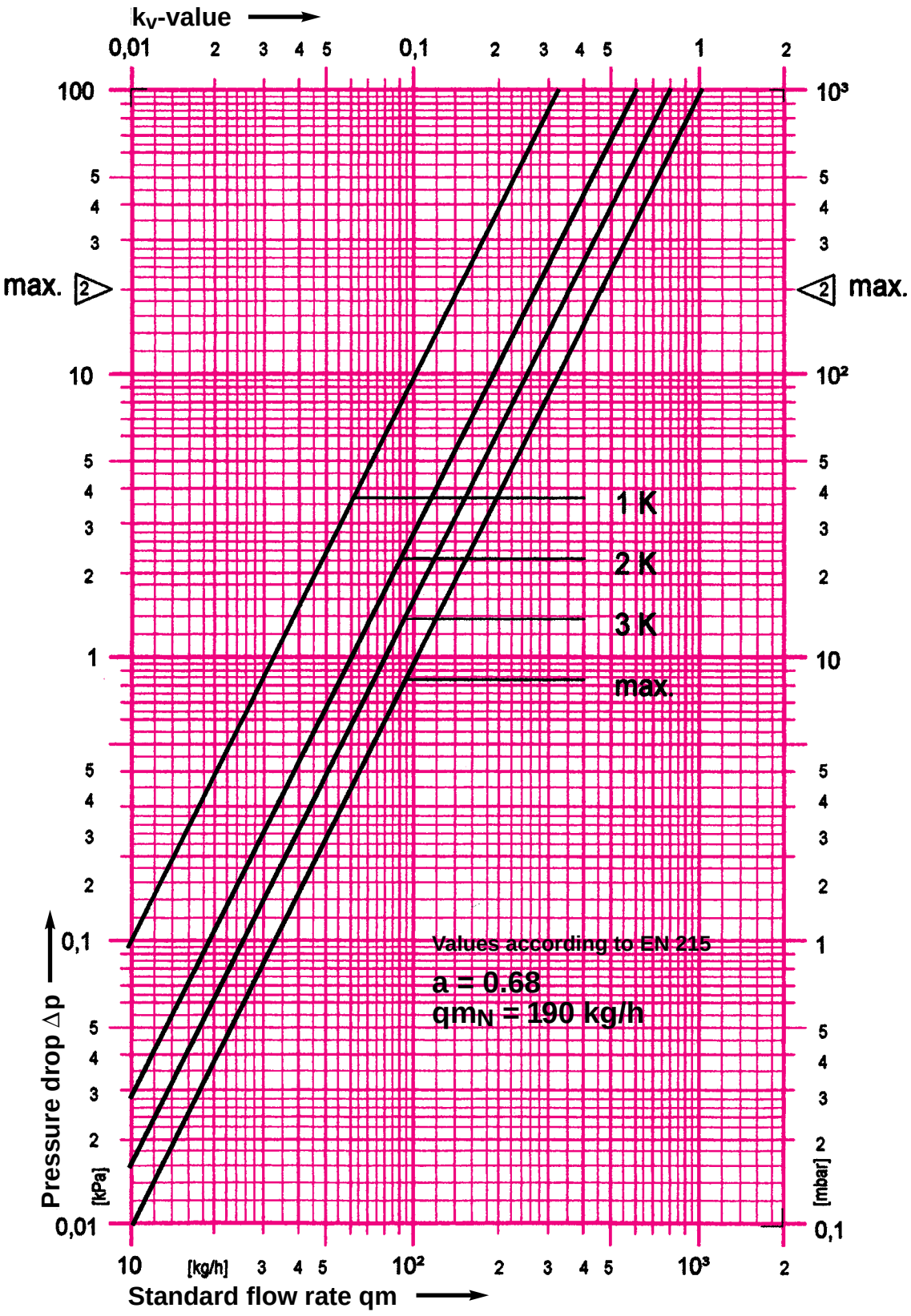
1 **6890** 00 HERZ-TS-90 O-ring set

HERZ Standard Diagram	HERZ-TS-90
Art. No. 7723 – 7759	Dim. DN 10 R = 3/8"

Valve dimensioning [Δ p] shall be performed in accordance with the "VDMA-Instruction Sheet for Planning and Hydraulic Balancing of Heating System with Thermostatic Radiator Valves". VDMA = Association of German Constructors.

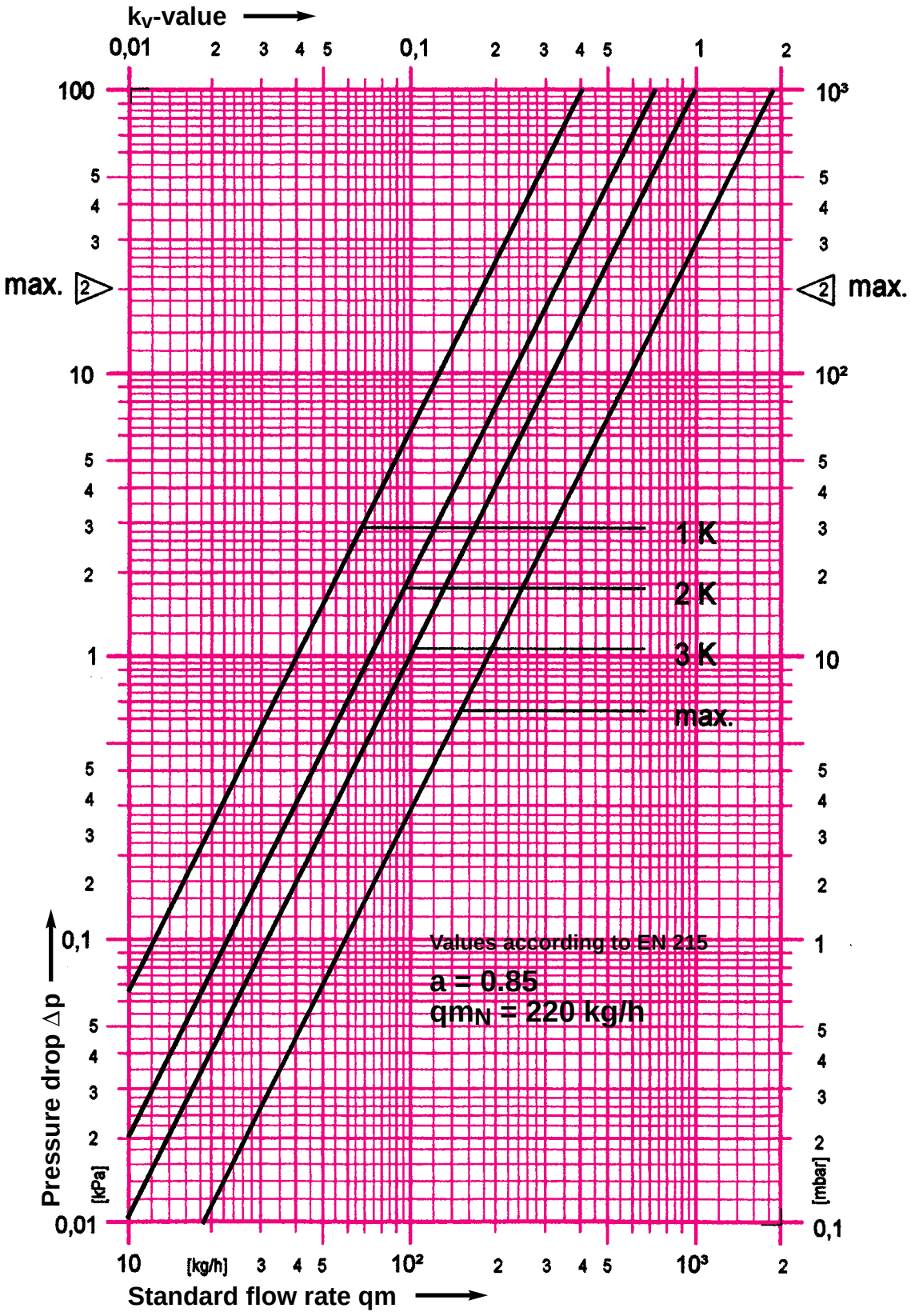


HERZ Standard Diagram	HERZ-TS-90
Art. No. 7723 – 7759	Dim. DN 15 R = 1/2"



HERZ Standard Diagram	HERZ-TS-90
Art. No. 7723 – 7759	Dim. DN 20 R = 3/4"

Valve dimensioning [Δ p] shall be performed in accordance with the "VDMA-Instruction Sheet for Planning and Hydraulic Balancing of Heating System with Thermostatic Radiator Valves". VDMA = Association of German Constructors.



We reserve the right to make modifications.