HERZ-Thermostatic and Return Valves “DE LUXE”

Standard Sheet for

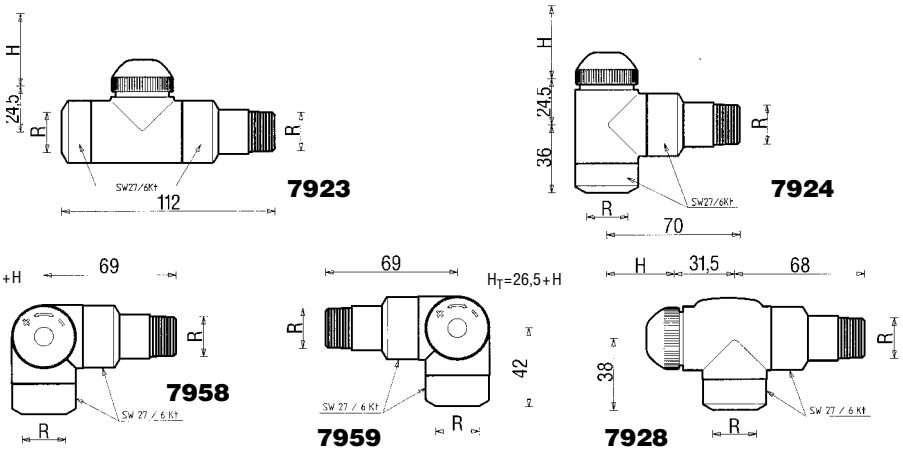
DE LUXE

Edition 1000 (0999)

This series consists of HERZ radiator thermostats, HERZ-TS-90 thermostatic valves and HERZ return valves. These components all have a special smooth coating.

A separate standard sheet is available for HERZ thermostatic heads DE LUXE.

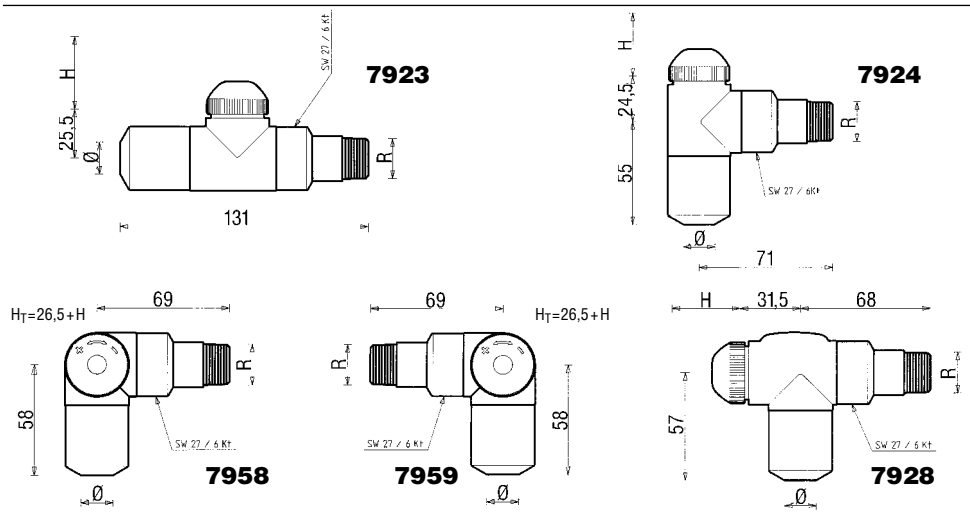
Valve Series “DE LUXE”



Thermostatic Valves Universal Models

H = Dimension HERZ thermostat

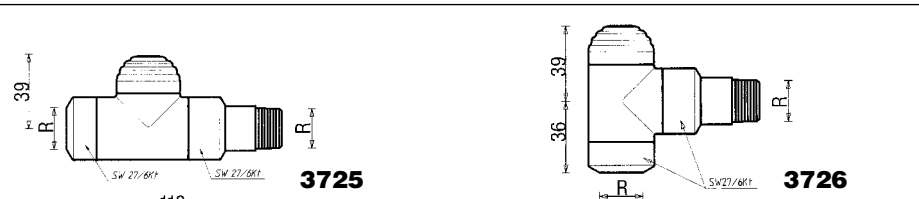
R = 1/2"



Thermostatic Valves with Compression Union

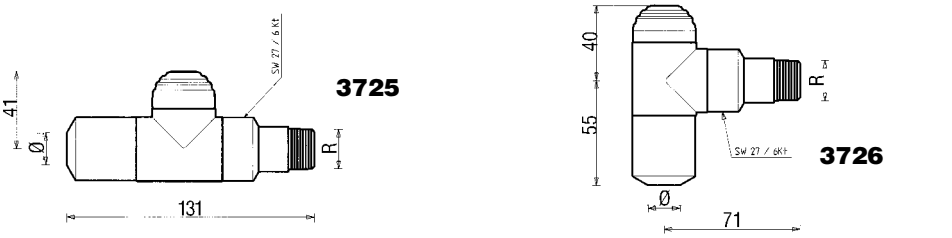
H = Dimension HERZ thermostat

R = 1/2"
Ø = 10–16



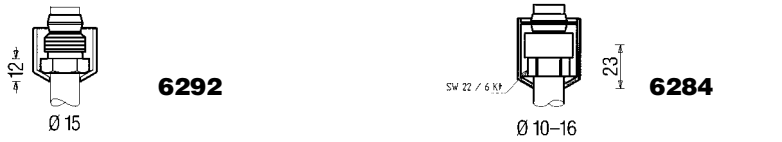
Return Valves Universal Models

R = 1/2"



Return Valves with Compression Union

R = 1/2"
Ø = 10–16



Compression Union

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

HERZ Armaturen

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Explanations

HERZ-TS-90 Thermostatic Valves "DE LUXE"

Universal Models
Radiator connection with cone seal, special socket for threaded pipe and compression union, R = 1/2", with screw cap. Compression union **6292** for pipe external diameter 15 mm with cover sleeve to be ordered separately.

Models with Compression Union
Radiator connection with cone seal R = 1/2", pipe connection with male thread M 22 x 1.5 for compression union, with crew cap and compression union cover. Compression union **6284** for pipe external diameters 10–16 mm to be ordered separately.

Order Numbers

Universal Models					
Colours	Straight valve	Angle model	Reverse angle model	Valve to the left of radiator	Valve to the right of radiator
Chrome	1 **7923** 41	1 **7924** 41	1 **7928** 41	1 **7958** 41	1 **7959** 41
Anthracite (ruthenium plated)	1 **7923** 42	1 **7924** 42	1 **7928** 42	1 **7958** 42	1 **7959** 42
Gold	1 **7923** 43	1 **7924** 43	1 **7928** 43	1 **7958** 43	1 **7959** 43
White (RAL 9010)	1 **7923** 44	1 **7924** 44	1 **7928** 44	1 **7958** 44	1 **7959** 44
Black matt	1 **7923** 49	1 **7924** 49	1 **7928** 49	1 **7958** 49	1 **7959** 49
Models with Compression Union					
Colours	Straight valve	Angle model	Reverse angle model	Valve to the left of radiator	Valve to the right of radiator
chrome	1 **7923** 51	1 **7924** 51	1 **7928** 51	1 **7958** 51	1 **7959** 51
Anthracite (ruthenium plated)	1 **7923** 52	1 **7924** 52	1 **7928** 52	1 **7958** 52	1 **7959** 52
gold	1 **7923** 53	1 **7924** 53	1 **7928** 53	1 **7958** 53	1 **7959** 53
White (RAL 9010)	1 **7923** 54	1 **7924** 54	1 **7928** 54	1 **7958** 54	1 **7959** 54
Black matt	1 **7923** 59	1 **7924** 59	1 **7928** 59	1 **7958** 59	1 **7959** 59

HERZ Return Valves "DE LUXE"

Universal Models
Radiator connection with cone seal, special socket for threaded pipe and compression union, R = 1/2", with screw cap. Compression union **6292** for pipe external diameter 15 mm with cover to be ordered separately.

Models with Compression Union
Radiator connection with cone seal R = 1/2", pipe connection with male thread M 22 x 1.5 for compression union, with crew cap and compression union cover. Compression union **6284** for pipe external diameters 10–16 mm to be ordered separately.

Order Numbers

	Universal Models		Models with Compression Union	
Colours	Straight valve	Angle model	Straight valve	Angle model
Chrome	1 **3725** 41	1 **3726** 41	1 **3725** 51	1 **3726** 51
Anthracite (ruthenium plated)	1 **3725** 42	1 **3726** 42	1 **3725** 52	1 **3726** 52
Gold	1 **3725** 43	1 **3726** 43	1 **3725** 53	1 **3726** 53
White (RAL 9010)	1 **3725** 44	1 **3726** 44	1 **3725** 54	1 **3726** 54
Black matt	1 **3725** 49	1 **3726** 49	1 **3725** 59	1 **3726** 59

Compression Union

For universal models
Compression union cover (coloured), locking nut (male thread) and olive for pipe external diameter 15 mm.

For models with compression union
Locking nut (female thread) and olive for pipe external diameters 10, 12, 14, 15 and 16 mm. The coloured compression union cover is supplied with the valve.

Order Numbers

Universal Models		Models with Compression Union	
Colours	Order Numbers	For pipe external diameter	Order Numbers.
Chrome	1 **6292** 41	10 mm	1 **6284** 00
Anthracite (ruthenium plated)	1 **6292** 42	12 mm	1 **6284** 01
Gold	1 **6292** 43	14 mm	1 **6284** 03
White (RAL 9010)	1 **6292** 44	15 mm	1 **6284** 04
Black matt	1 **6292** 49	16 mm	1 **6284** 05

Special Colours

Special colours, colour combinations and other metallic coatings can be supplied upon request.

HERZ-Thermostat- und Rücklaufventile „DE LUXE”

Operating Data

Max. operating temperature 90 °C
Max. operating pressure 10 bar

Hot water purity in conformity with ÖNORM H 5195 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.

Field of Application

Water heating systems.

Radiator Connection

Iron pipe connection with cover cap and cover sleeve, with cone seal, installed.
Spare part order number: 1 **6210** 44, without cap and cover sleeve.

Compression Union Connections

Universal Models

HERZ universal models are equipped with special sockets. They are suitable for connecting either a threaded pipe R = 1/2" or a calibrated soft-steel or copper pipe with an external diameter of 15 mm. The compression union **6292** must be ordered separately.

During installation, replace the socket cover ring of the valve with the compression union cover. The compression union cover (two parts) is snapped on **after** installation of the compression union.

Valves with Compression Union Connections

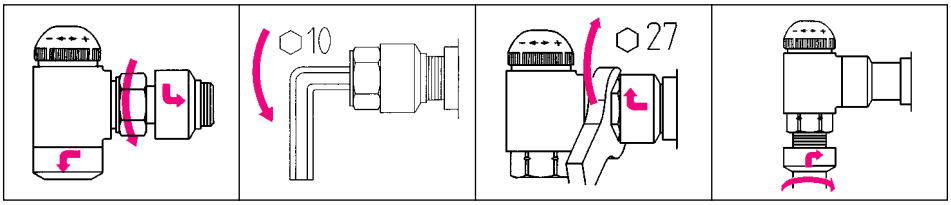
Valves with connections for compression unions are fitted with a male thread M 22 x 1.5 on the pipe side and have been prepared for the installation of compression union **6284.**

The compression union cover (two parts) is snapped on **after** installation of the compression union.

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.

Valve Installation

1. Unlock the nut cover ring by shortly turning anti-clockwise. Subsequently, pull it back and slacken the nut.
2. Install the connection with cover sleeve and nut cover ring by means of a 10 mm Allen key.
3. Unlock the socket sleeve by shortly turning anti-clockwise and remove it.
   Install the valve onto the threaded pipe and align.
   Slide the sleeve onto the valve and lock it by shortly turning clockwise.
4. Connect the valve and the nut and fasten by means of a 27 mm key. Slide the cover ring onto the nut and lock it by shortly turning clockwise.



Order Numbers Accessories

Spare Parts

	HERZ-TS-90	HERZ Return Valve
O-ring set	1 **6890** 00	1 **6810** 90
HERZ changing tool	1 **7780** 00 For changing the O-ring and/or the thermostat upper part	1 **7780** 00 For changing the O-ring
Keys	1 **6807** 90 For changing the O-ring and/or the thermostat upper part	1 **6807** 90 For changing the O-ring
Valve upper part	1 **6390** 91	
Radiator connection without cover cap and cover sleeve	1 **6210** 44	1 **6210** 44
Compression union cover for models with compression union connection		
Chrome	1 **6280** 51	
Anthracite (ruthenium plated)	1 **6280** 52	
Gold	1 **6280** 53	
white (RAL 9010)	1 **6280** 54	
Black matt	1 **6280** 59	

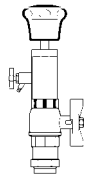
Changing the Thermostatic Upper Part

The thermostatic upper part can be removed and/or changing by means of the HERZ-changing tool while the system is under pressure:

- retrofitting the valve with a thermostatic valve upper part with fixed, stepped k_V-value or with an upper part with pre-setting function. This permits regulation of the radiator flow rate to individual requirements;
- in order to clean the spindle seat seal and/or change the thermostatic upper part. This permits easy removal of defects in thermostatic radiator valves, caused, e.g., by foreign substances such as dirt, welding or soldering residues.

Follow the operating instructions supplied with the HERZ-changing tool.

Special Design Features



HERZ-Changing Tool

An O-ring is used as a spindle seal. It is located in a brass chamber which can be changed during operation. The O-ring keeps maintenance requirements at a minimum and permits lasting ease of valve operation.

Changing the O-Ring Chamber

1. Remove the HERZ-thermostatic head.
2. Unscrew the O-ring chamber with the O-ring and replace with a new one. During this change use a wrench to hold the upper part. After removal of the thermostatic head the valve is completely open and therefore sealed tight towards upstream. However, a few drops of water may leak out.
3. For re-assembly follow the above steps in reverse sequence.

Order number of O-ring set: 1 **6890** 00

Spindle Seal

HERZ-TS-90 O-Ring Chamber

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 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.

HERZ-Thermostatic Valve

Nominal Lift

The thermostatic valve is installed in the radiator intake in such a way that the flow comes from the socket side, or the compression union side. Wherever possible, the thermostatic head should be in a horizontal position in order to guarantee optimum room temperature control with minimum interference.

Installation

HERZ Return Valves “DE LUXE”

Field of Application

The return valve permits shut off on the radiator return connection. When both, the intake and return valves are shut off (thermostatic head in position “0”) the radiator can be removed while the system is under pressure without having to close off the rest of the system.

The return valve permits exact control of the water flow rate through the radiator in accordance with the desired heat output, as well as hydraulic balancing of the system.

Shutting off the Radiator

After removing the cover plate, the valve spindle is screwed in completely by turning it clockwise with a screwdriver.

Any pre-setting steps must be set again after opening the valve.

Pre-Setting

1. Unscrew cover plate.
2. Screw the valve spindle in completely with a screwdriver. After doing so, the valve is shut.
3. Unscrew the valve spindle by means of a screwdriver in accordance with the value to be set (according to diagram); e.g. for pre-setting step 3 make 3 anti-clockwise turns.
4. Re-install cover plate.

The valve spindle is secured against unintended unscrewing.

Spindle Seal

Changing the O-Ring Chamber

An O-ring is used as a spindle seal. It is located in a brass chamber which can be changed during operation. The O-ring keeps maintenance requirements at a minimum and permits lasting ease of valve operation.

The O-ring chamber is changed by means of the HERZ changing tool. For detailed instructions consult the operating instructions supplied with the HERZ changing tool, item “HERZ-DE-T-90-Changing the O-Ring”.

Seat Seal

The seat seal is metallic and therefore wear.resistant.

Anti-Tamper Security

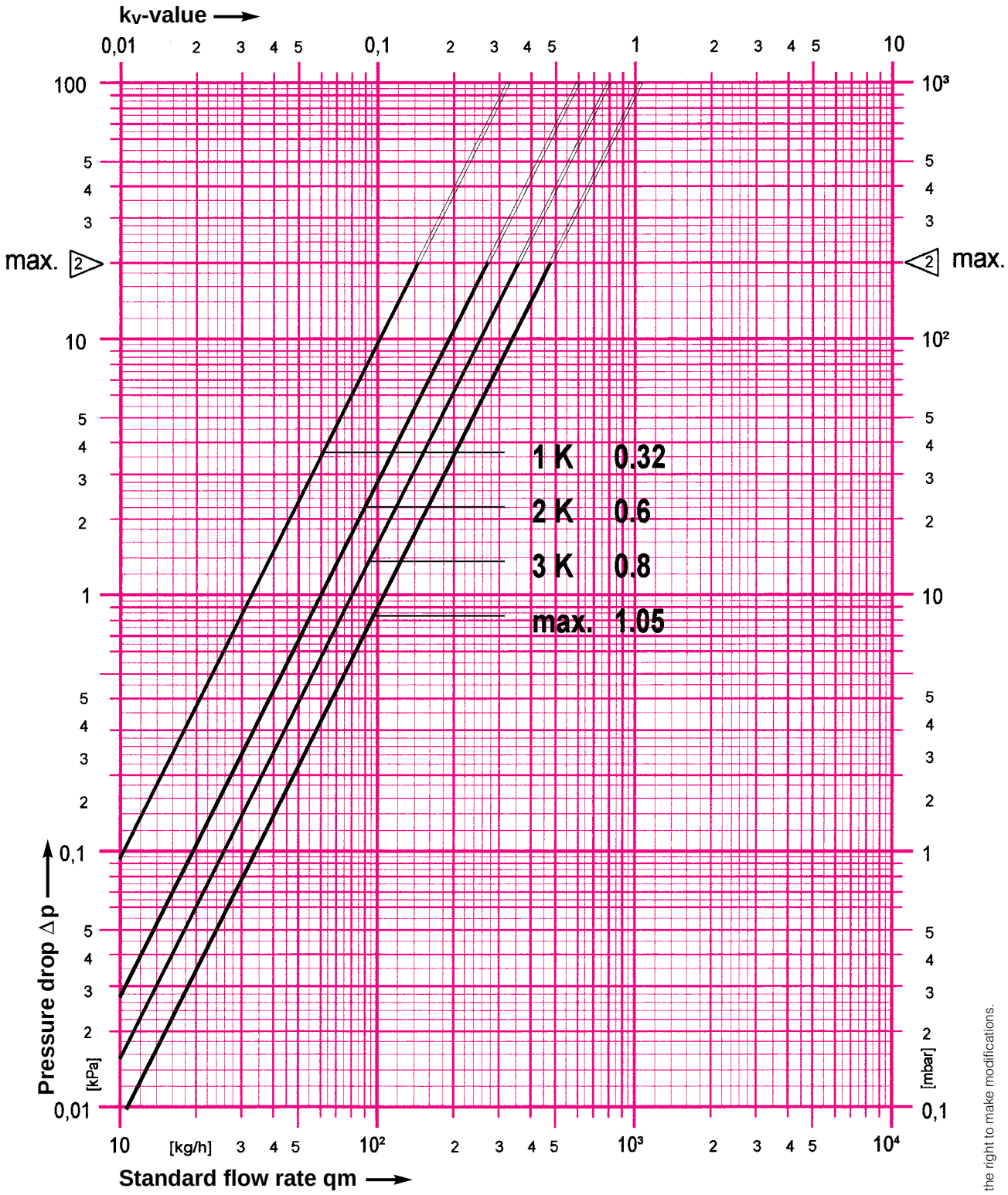
The valve is protected against unauthorized operation by a plastic screw cap.

k_V-Value Table Return Valves “DE LUXE”

Pre-setting step = turns	Return Valve 3725 Straight Version	Return Valve 3726 Angle Version
0.25	0.12	0.12
0.5	0.3	0.3
0.75	0.5	0.5
1	0.65	0.65
1.25	0.9	0.9
1.5	1.1	1.15
1.75	1.35	1.5
2	1.55	1.75
2.5	1.9	2.2
3	2.1	2.5
open	2.3	2.8

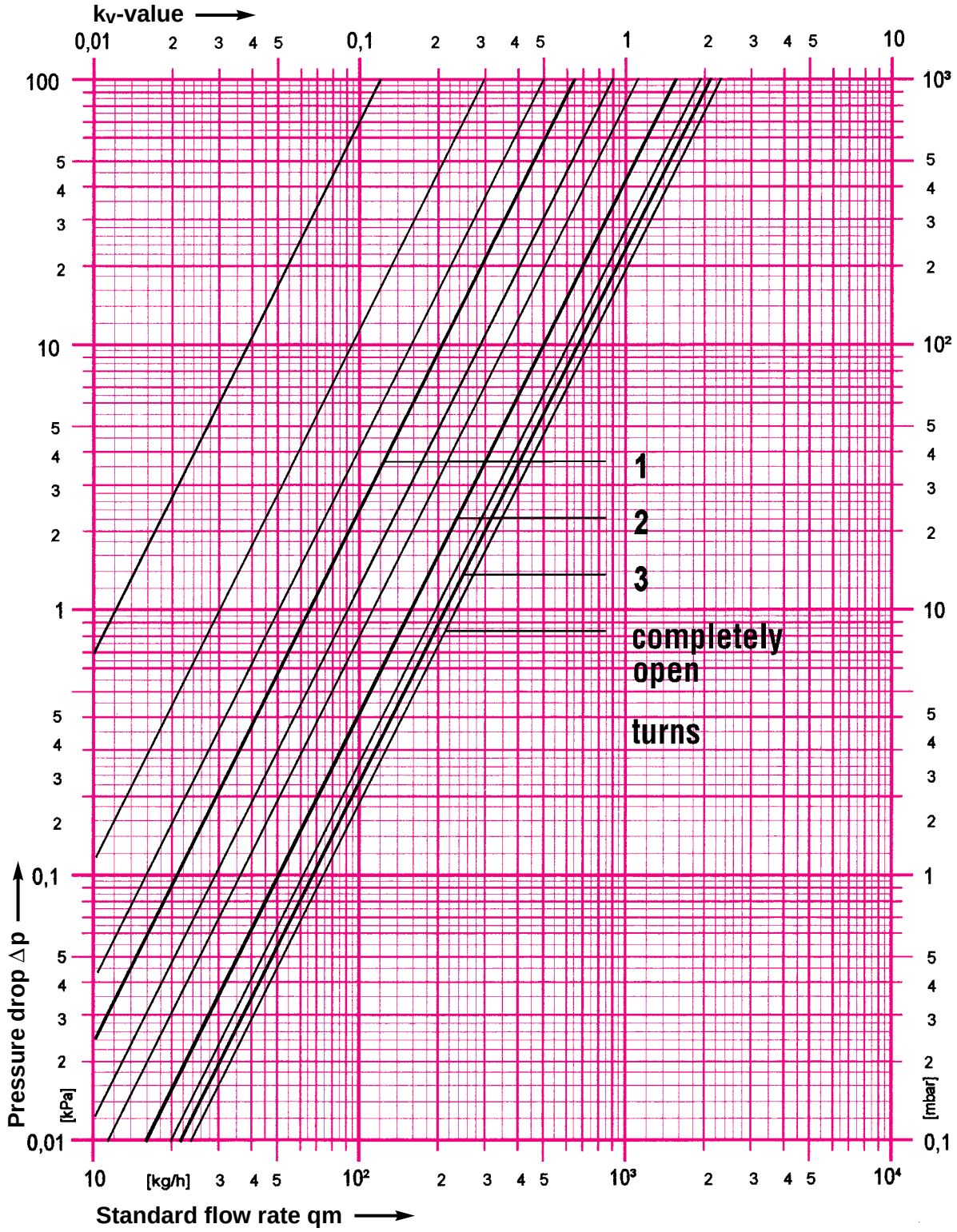
HERZ-Standard Diagram	HERZ-TS-90
Art. No. **7923 · 7924**	Dim. DN 15 R=1/2"

Valve dimensioning [Δp] has to be performed in accordance with the "VDMA-Instruction Sheet for Planning and Hydraulic Balancing of Heating Systems with Thermostatic Radiator Valves" (Δp max. = 0.2 bar).



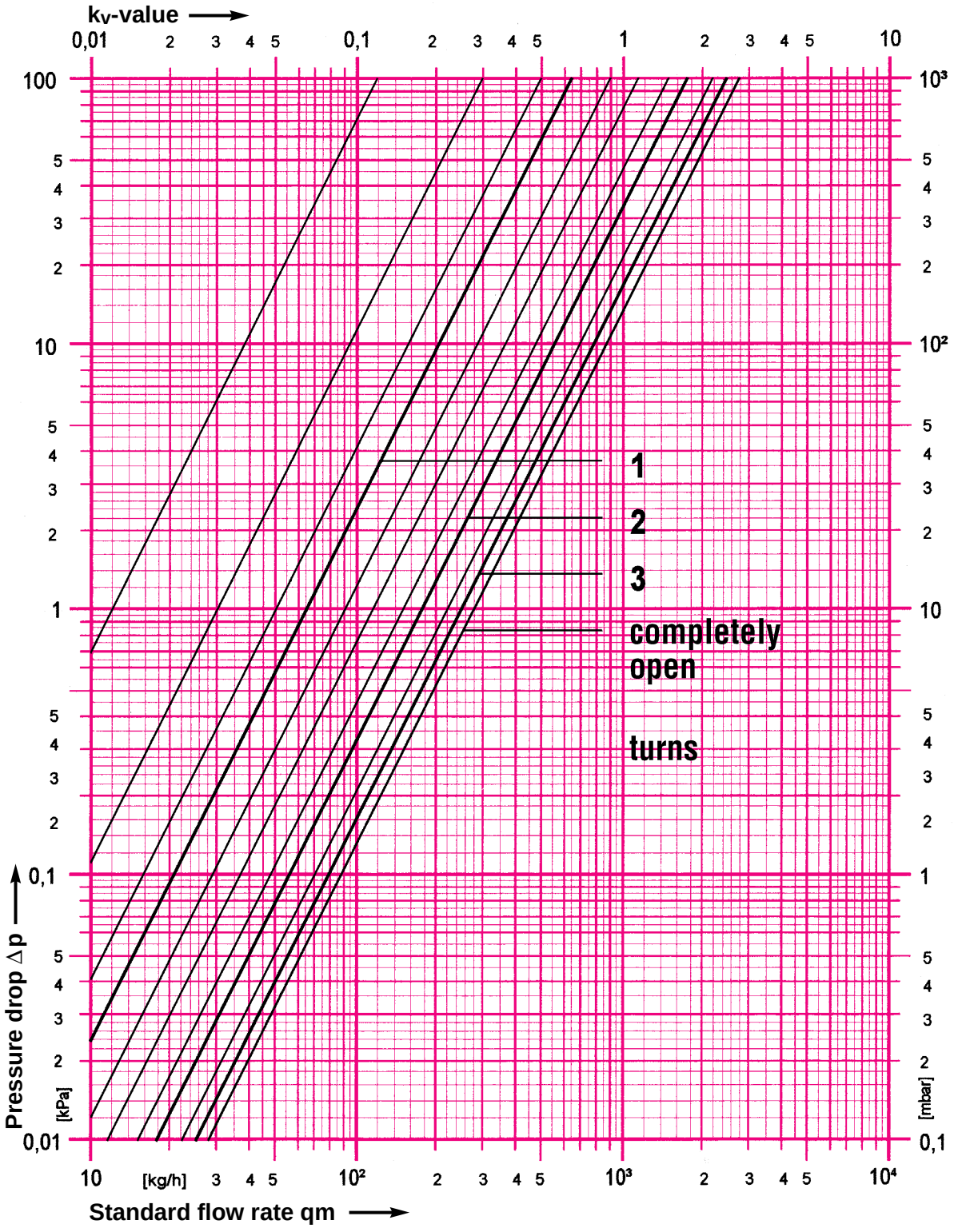
We reserve the right to make modifications.

HERZ-Standard Diagram	HERZ-Return Valves
Art. No. **3725**	Dim. DN 15 R=1/2"



We reserve the right to make modifications.

HERZ-Standard Diagram	HERZ-Return Valves
Art. No. **3726**	Dim. DN 15 R=1/2"



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