

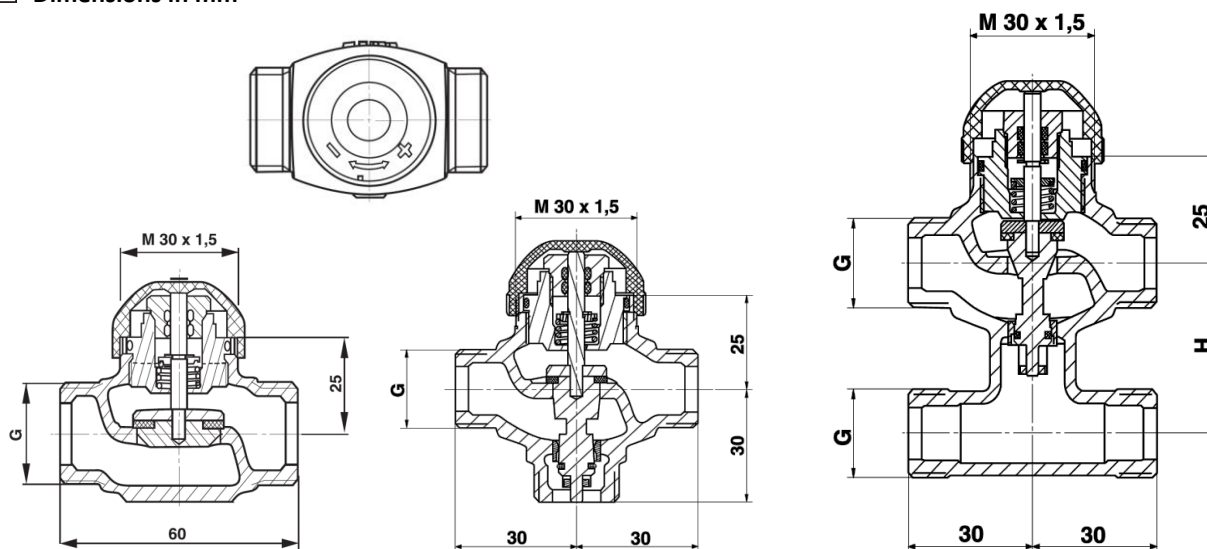
HERZ Unit valves for zone regulation

For constant regulation of chilled and hot water



Data sheet for **7760 / 7762 / 7763**, Issue 0916

☑ Dimensions in mm



7760

7762

7763

Order number		DN	G	Kvs-value Straight flow	Kvs value bypass flow	Rise	H
1 7762 50	1 7763 50	10	1/2	0,4	0,3	3,7	40
1 7762 60	1 7763 60	10	1/2	0,6	0,5	3,7	40
1 7762 70	1 7763 70	10	1/2	1,0	0,8	3,7	40
1 7762 80	1 7763 80	10	1/2	1,6	1,2	3,7	40
1 7762 51	1 7763 51	15	3/4	2,5	1,9	3,7	40
1 7762 61	1 7763 61	15	3/4	4,0	3,0	3,7	40
1 7762 62	1 7763 62	20	1	5,0	3,8	3,7	40

Order number	DN	G	Kvs-value	Rise
1 7760 21	10	1/2	0,16	40
1 7760 01	10	1/2	0,4	40
1 7760 02	10	1/2	0,6	40
1 7760 03	10	1/2	1,0	40
1 7760 04	10	1/2	1,6	40
1 7760 05	15	3/4	2,5	40
1 7760 07	15	3/4	4,0	40
1 7760 08	20	1	5,0	

☑ Model

3-way mixing or diverting valve with or without bypass T-piece, made of cast dezincification resistant brass nickel-plated with outside thread, according to ISO 228/1, flat seal without union nut. Pipe connections are not included. Spindle made of Niro steel with soft seal valve cone for regulating. With double O-ring seal. Version with or without bypass T-piece. Characteristic almost-parallel curve. For combination with M 30 x 1.5, lift 3.7 mm thermal actuating drives, closing dimension 11.5 mm.

☑ Further Models

HERZ-TS-90-H

HERZ-TS-98-VH

1 **7761**

1 **7723** 82

1 **7760** 51/52

7217

TS 98 V, TS 90, TS 90 E, TS E

For these objects separate data sheets are available.

valve without presetting

valve with stepless. Seeable presetting

HERZ-Calis TS-RTD, distribution valve

HERZ Unit valves for zone regulation

HERZ thermostatix valve with reserve action

HERZ thermostatic control valve with test points

☑ Technical data

Max. operating temperature

120°C

Max. operating pressure

16 bar

Temperature range

2° .. 120 °C (water)

Max. differential pressure

1,6 bar

Leak rage (control passage)

0,0001 % of the kvs-value

Leak rage (bypass)

0,1% of the kvs-value

If an actuator is used, the actual data of the actuator have to be followed. To avoid flow noises in silent rooms, following differential pressure should not exceed along the valve.

Order number		DN	Kvs-value	Δp in bar
1 7760 xx		10 – 20	0,16 – 5,0	0,8
1 7762 50	1 7763 50	10	0,4	0,5
1 7762 60	1 7763 60	10	0,6	0,6
1 7762 70	1 7763 70	10	1,0	0,8
1 7762 80	1 7763 80	10	1,6	0,8
1 7762 51	1 7763 51	15	2,5	0,6
1 7762 61	1 7763 61	15	4,0	0,8
1 7762 62	1 7763 62	20	5,0	0,5

Water quality according ÖNORM H 5195 or VDI- guideline 2035

Ethylene- and propylene glycol can be mixed to a ratio of 25- 50 Vol. (%)

☑ Material

Pressure pin

PTFE

Body

brass CW614N

Sealing

O-ring EPDM

Spring washer

brass CW614N

Nut

brass CW614N

☑ Connections

By the use of HERZ-connections for copper and steel pipes the permissible temperatures and pressures according to EN 1254-2:1998 pursuant to table 5 should be observed. For plastic pipes connections the maximum temperature is 80°C and maximum pressure 4 bar, as long as the pipe producer allows.

Copper and soft steel pipes can be connected with compression unions **6274**, **6276** (G 3/4") and **6273** (G 1"). Plastic pipes can be connected with compression unions **6098** (G 3/4") and **6198** (G 1").

☑ Application

The valves 7760 are used as control valves, 7762 and 7763 are used for the regulation of heating and cooling systems and to control the room temperature while using climatic equipment.

☑ Accessories

1 7711 18	0-10/ 24V	HERZ-thermo actuator for continuous control, M 30 x 1,5
1 7711 80	230V	HERZ-thermo actuator for 2-point and pulse control M 30 x 1,5
1 7711 81	24V	HERZ-thermo actuator for 2-point and pulse control M 30 x 1,5
1 7794 23	230V	HERZ-electronical climate control with PI-behaviour, M 30 x 1,5
1 7794 24	24V	HERZ-electronical climate control with PI-behaviour, M 30 x 1,5
1 7794 xx	230V or 3V	electronical climate control with PI-behaviour for individual control with programmable times and temperatures. Time switch with week- and year program.
1 7793 00		HERZ-flow sensor for cooling and heating controller
1 7793 01		HERZ-flow sensor for cooling and heating controller
1 7793 04		HERZ-safety transformer 230 V/24 V, 50 Hz, 50 VA
1 9420 88		HERZ- thermostatic head (20°C – 50°C) with Flow sensor and 2 m capillary pipe.
1 7790 xx	230V or 24V	Room temperature controller with switch contact set point range from 5°C to 30°C.
1 7791 xx	230V or 24V	Electronical room temperature controller with programmable times and temperatures. Time switch with week- and year program. set point range from 5°C to 30°C.
1 7795 01	230V or 24V	Electronical room temperature controller with LCD-display, adjustment range for day and night temperature 5-35°C, 9 presetted programs, and 4 individual programs for the user.
1 7795 02	3V	Electronical room temperature with mechanical time switch Changeable between day and week program, Adjustment range for day and night temperature 5-35°C.
3 F791 xx	230V or 24V	Mechanical room thermostat BELUX, adjustment range: 5-30°C
3 F791 02	230V	Mechanical room thermostat BELUX, adjustment range: 5-50°C with indicator lamp
3 F791 03	230V	Mechanical room thermostat BELUX, adjustment range: 5-50°C, with indicator lamp and resistance for a fast reaction time

☑ Function

7760

When the spindle is pressed, the regulating branch (A-AB) is closed

7762 and 7763

When the spindle is pressed, the regulating branch (A-AB) is closed and the bypass branch (B-AB) is opened. The provision occurs through the feather force of the valve. The valve can be controlled by an actuator in opened or closed setting. In combination with an actuator, which is closed when currentless, the regulation branch is closed during an energy cut.

With a continuously controlling actuator the valve can be controlled in every optional position. Dependent on the connection of the control voltage the valve is continuously controlled with a control voltage between 0 and 10V.

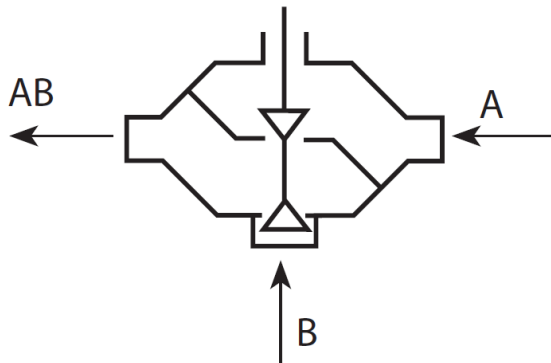
Connection in the red cable:

Opens the regulating branch (A-AB) with a continuously control voltage

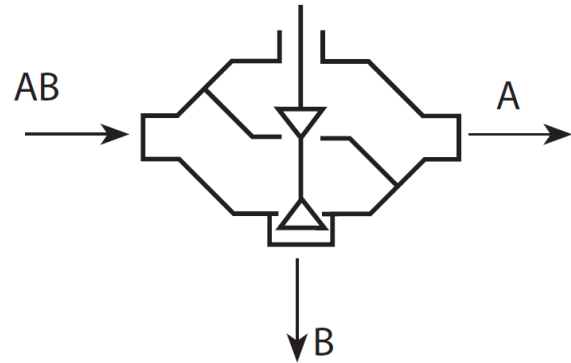
Connection in the white cable:

Closes the regulating branch (A-AB) with a continuously control voltage

Application as mixing valve



Application as diverting valve



☑ Maintenance, Setting and exchange

Herz unit valves are long-lasting and maintenance-free. A setting is not necessary. So there is no opportunity to change the top or other valve components.

☑ Montage

The valve can be mounted in any desired position except facing downwards. The entry of condensate, water and others into the actuator should be averted.

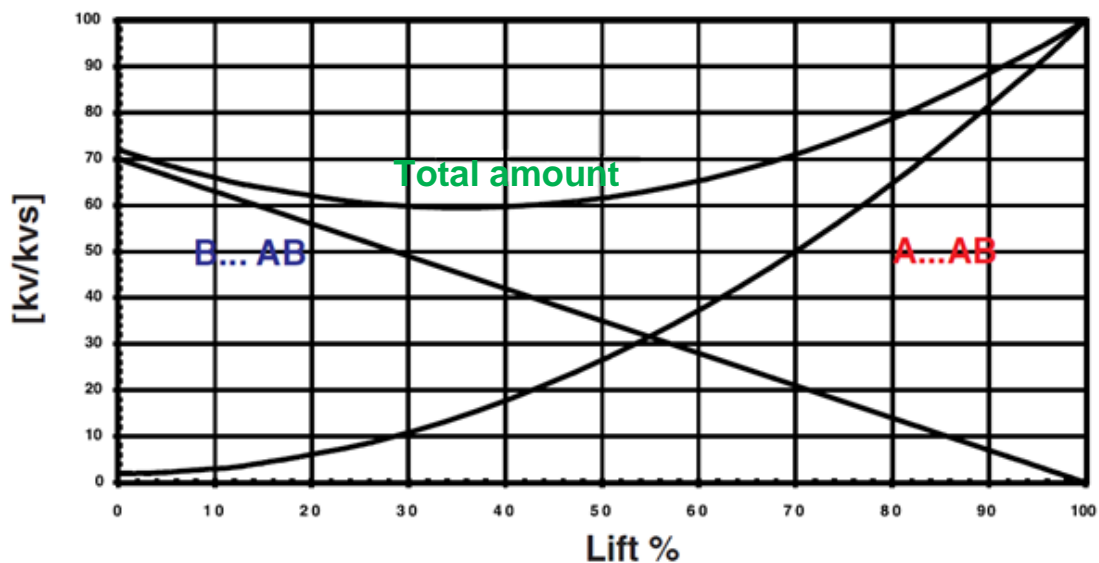
To minimize impurities, like globules and rust particles, in the used media and to protect the spindle sealing, HERZ advises to use HERZ Strainer **4111**, e.g. one in every riser or in every floor.

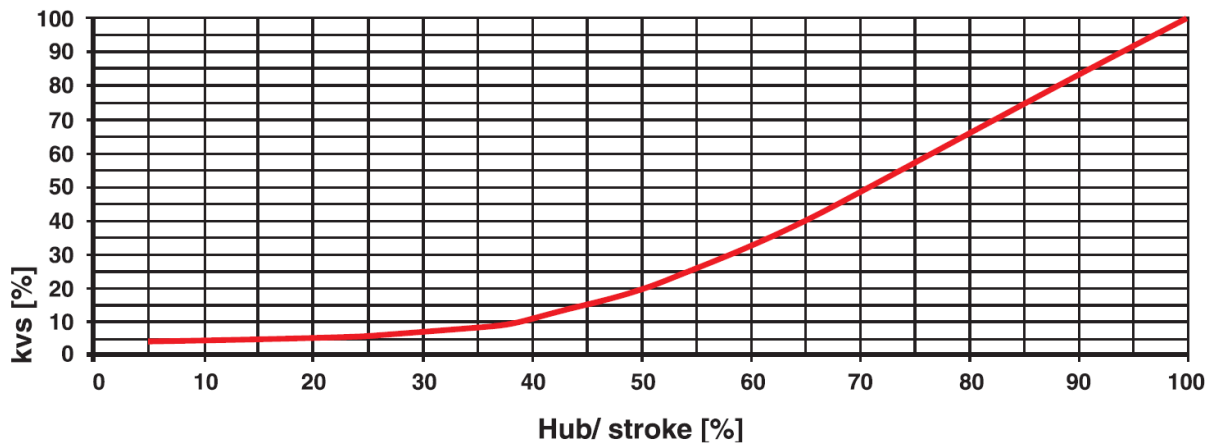
The valve can be isolated to the height of the nut of the actuator.

☑ Rest position, decommissioning

in longer, more weeks lasting plant downtimes it has to be ensured that the pressure pin is relieved. It prevents that the valve cone sticks to the valve seat and the water deposits on the valve stem.

☑ Characteristic curve





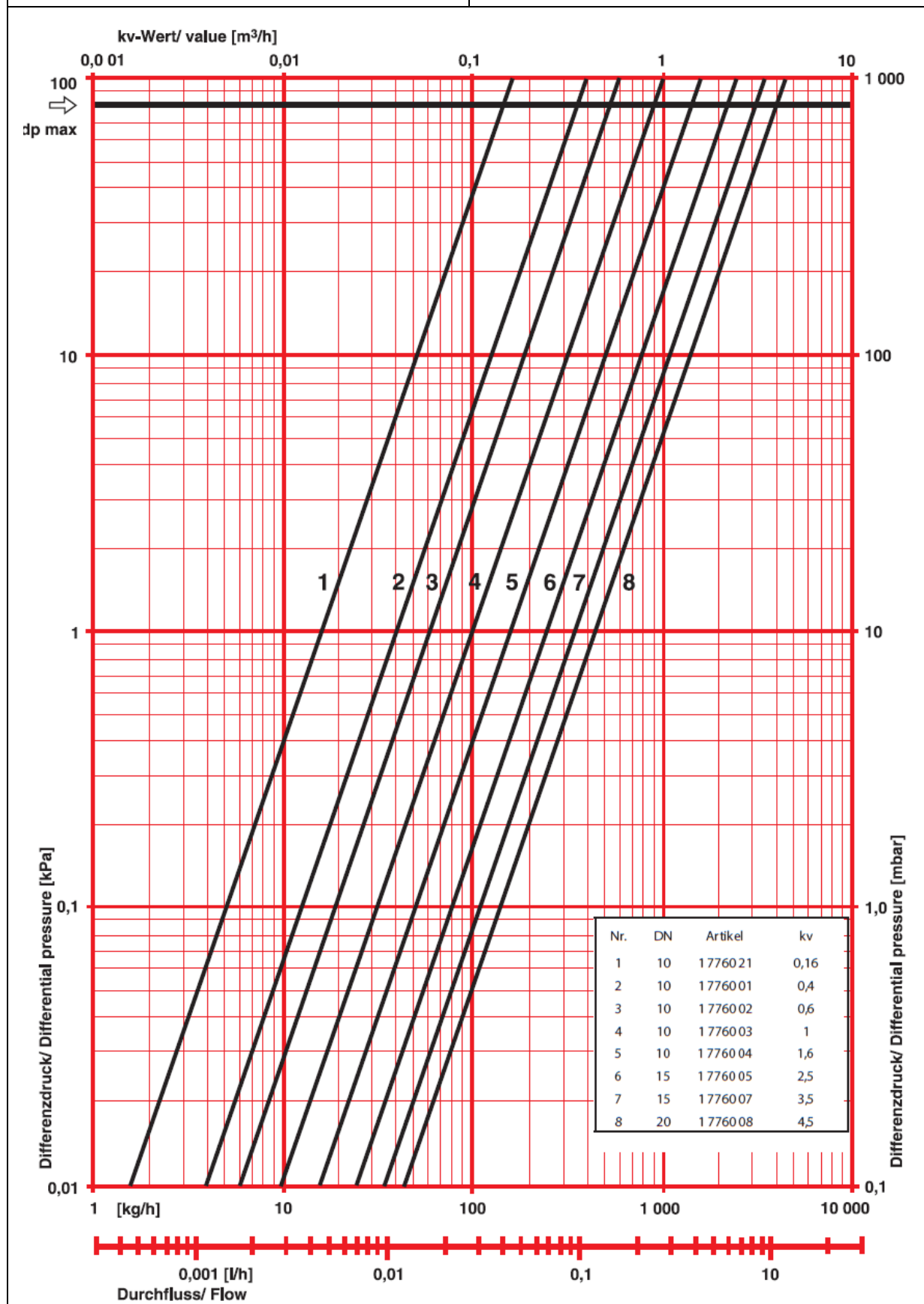
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HERZ Nomogram

Unit valve

Order Nr.: 1 **7760** xx

Dim. DN 10-20

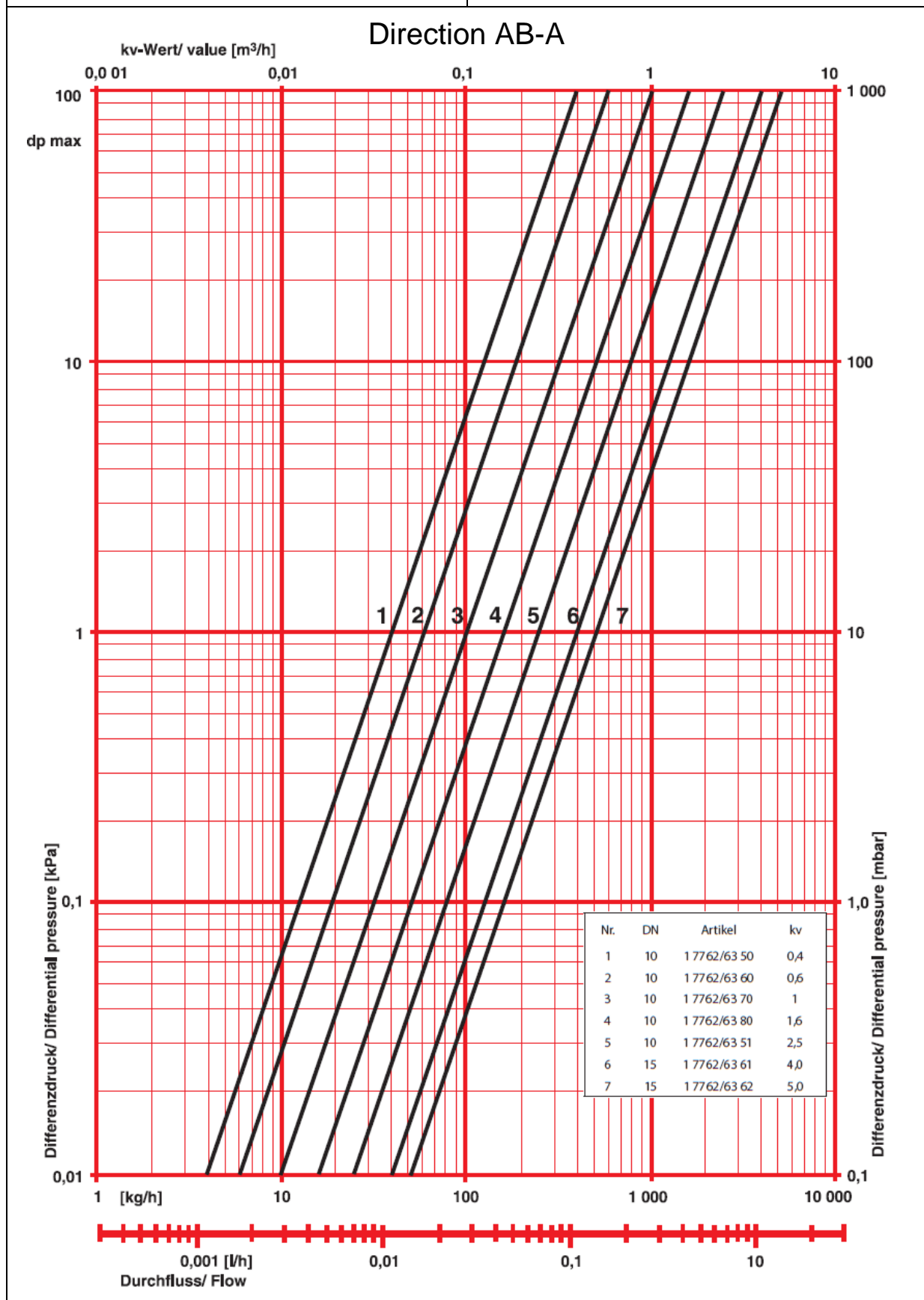


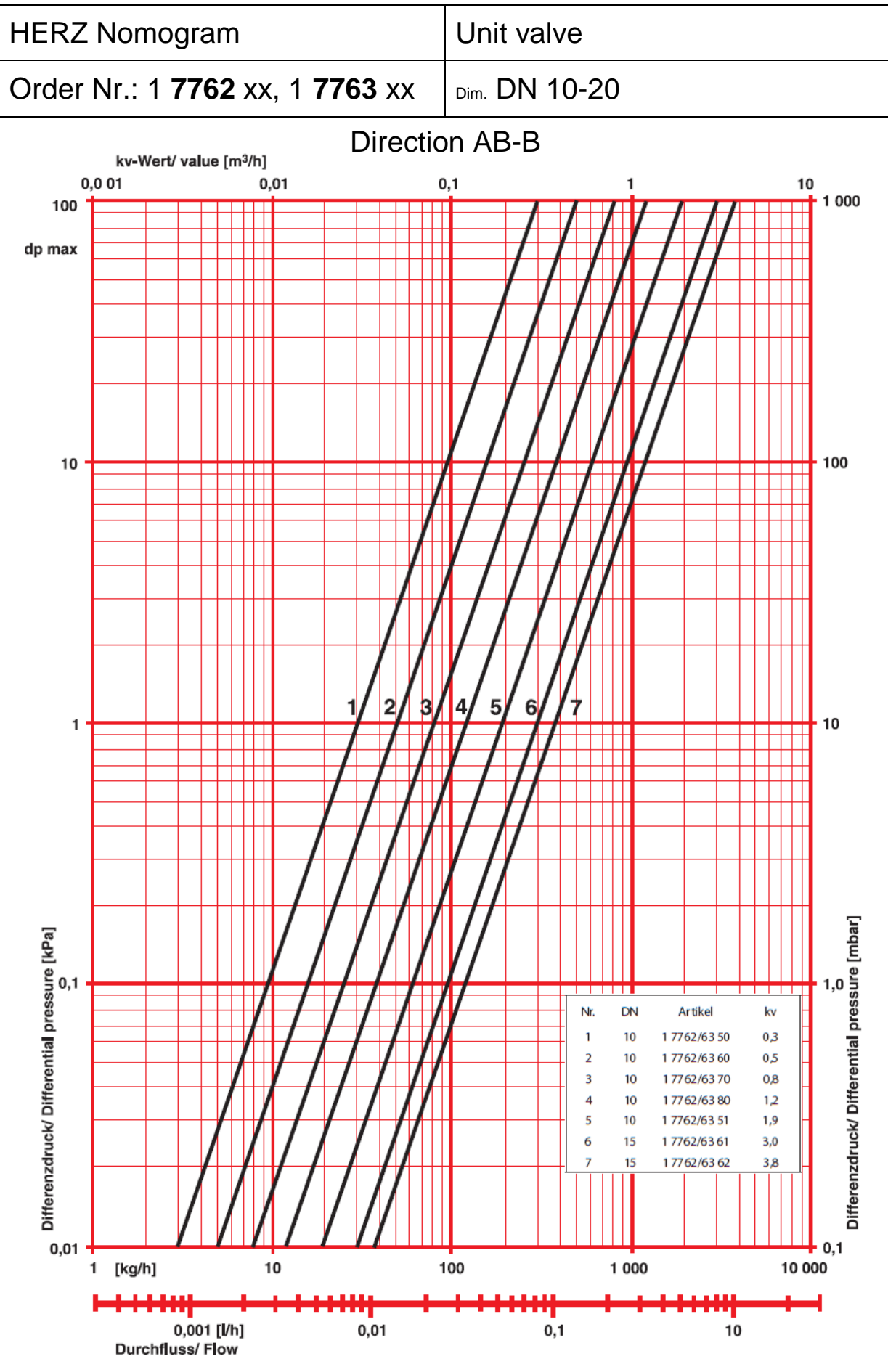
HERZ Nomogram

Unit valve

Order Nr.: 1 **7762** xx, 1 **7763** xx

Dim. DN 10-20





☑ **Application example for cooling and heating systems**

The direction of flow has to fit with the application purpose.

