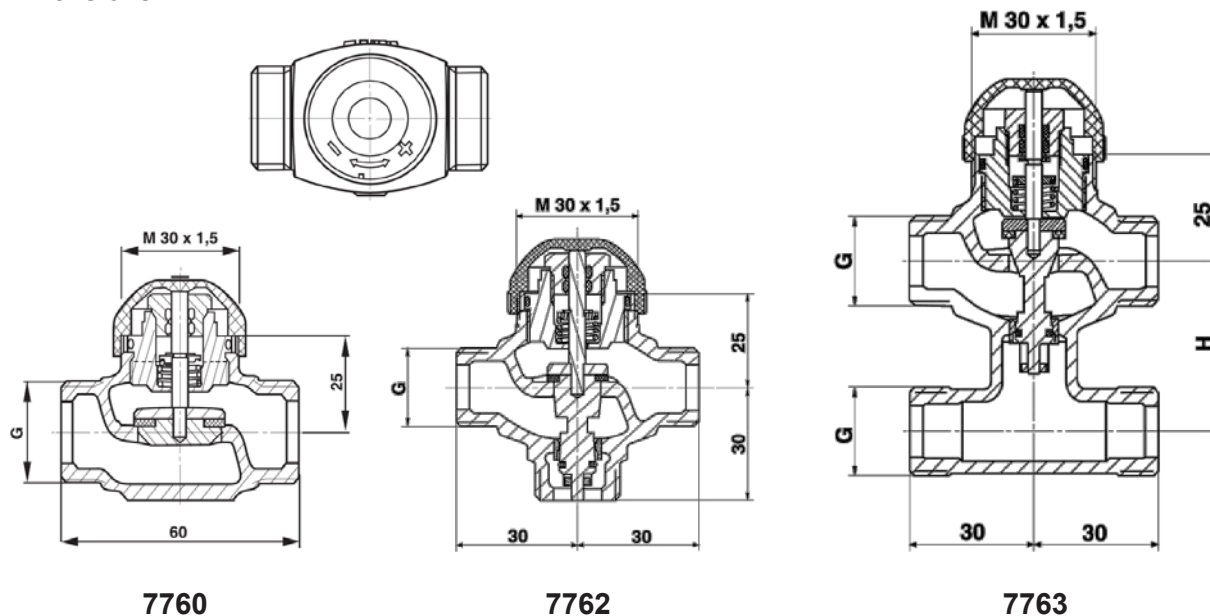


# HERZ Control valves for zone regulation

## For constant regulation of chilled and hot water

Data sheet for 7760 / 7762 / 7763, Issue 0823

### ☑ Dimensions in mm



Order number		DN	G	Kvs-value straight flow [m³/h]	Kvs value bypass flow [m³/h]	Stroke [mm]	H [mm]
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	0,63	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 [m³/h]	Stroke [mm]
1 7760 21	10	1/2	0,16	4
1 7760 01	10	1/2	0,4	4
1 7760 02	10	1/2	0,6	4
1 7760 03	10	1/2	1,0	4
1 7760 04	10	1/2	1,6	4
1 7760 05	15	3/4	2,5	4
1 7760 07	15	3/4	3,5	4
1 7760 08	20	1	4,5	4

### ☑ 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 stainless steel with soft seal valve cone for regulating. With double O-ring seal. Version with or without bypass T-piece. Characteristic almost-parallel curve.

### Further models

HERZ-TS-90-H	valve without presetting, dimensional series „D“
HERZ-TS-98-VH	valve with stepless, seeable presetting, dimensional series „D“
1 7761	HERZ-Calis TS-RTD, distribution valve
1 7723 82	HERZ unit valves for zone regulation
1 7760 51/52	HERZ thermostatic valve with reserve action
7217	HERZ thermostatic control valve with test points

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

For these objects separate data sheets are available.

### Technical data

Max. operating temperature	130 °C
Max. operating pressure	16 bar
Temperature range	2 °C .. 120 °C (water)
Max. permissible differential pressure	0,2 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 has to be followed. To avoid flow noises in silent rooms, following differential pressure should not exceed across the valve.

Order number		DN	Kvs-value [m³/h]	Δp in bar
1 7760 XX		10-20	0,16 - 4,5	0,8
1 7762 50	1 7763 50	10	0,4	0,5
1 7762 60	1 7763 60	10	0,63	0,6
1 7762 70	1 7763 70	10	1,0	0,8
1 7762 80	1 7763 80	15	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	stainless steel
Body	brass
Sealing	O-ring EPDM
Spring washer	brass
Nut	brass

### 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 7708 52	24V / AC	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves. NC "normally closed", M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 5 mm stroke, adapter M 28 x 1.5. Colour red integrated, cable fixed, without limit switch. Closing force 100 N. Power consumption 1 watt. Adapter 1 7708 98 be ordered separately.
1 7708 53	230V / AC	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves. NC "normally closed", M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 5 mm stroke, adapter M 28 x 1.5. Colour red integrated, cable fixed, without limit switch. Closing force 100 N. Power consumption 1 watt. Adapter 1 7708 98 be ordered separately.
1 7708 24	230V / AC	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves. NO "normally open", M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 5 mm stroke, adapter M 28 x 1.5. Colour red integrated, cable fixed, without limit switch. Closing force 100 N. Power consumption 1 watt. Adapter 1 7708 98 be ordered separately.
1 7708 87	230V / AC	HERZ actuating drive for 2-point control for floor heating circuit distributors and valves. NC "normally closed", M 28 x 1.5, 2-point, also suitable for pulse-pause operation, 5 mm stroke, adapter M 28 x 1.5. Colour red integrated, cable fixed, with limit switch. Closing force 100 N. Power consumption 1 watt. Adapter 1 7708 98 be ordered separately.
1 7990 31	24 V/AC control signal 0 ... 10 V/DC	HERZ actuating drive for continuous control M 28 x 1.5, 0..10 V, 5 mm stroke, normally closed, adapter M 28 x 1.5 colour blue integrated, male connector, cable loose, without limit switch. Closing force 100 N, 1.2 watt.
1 7990 32	24 V/AC control signal 0 ... 10 V/DC	HERZ actuating drive for continuous control M 28 x 1.5, 0..10 V, 6.5 mm stroke, normally closed, adapter M 28 x 1.5 colour blue integrated, male connector, cable loose, without limit switch. Closing force 125 N, 1.2 watt with valve stroke detection.
1 7709 51	230 V / AC	HERZ actuating drive M 30 x 1,5, 50 Hz NC "normally closed", closing force 110 N, operating voltage 230 V / AC, threaded connection M 30 x 1,5, stroke 4,5 mm.
1 7709 53	230 V / AC	HERZ actuating drive M 30 x 1,5, 50 Hz NO "normally open", closing force 110 N, operating voltage 230 V / AC, threaded connection M 30 x 1,5, stroke 4,5 mm.
3 F799 11	230V / AC	Electronic room temperature controller with switch contact set point range from 10 °C to 28 °C.
1 7795 01	230V / AC	Digital thermostat with 7 day program. Setting range for day and night temperature 5 °C to 37 °C. Five fixed and four variable programs for the user.
3 F791 00	230V / AC	Mechanical room thermostat BELUX, adjustment range: 5-30 °C
3 F799 15	230V / AC	Electronic room thermostat with display. Heating, lowering, freeze protection function, setting range 5 °C to 30 °C

### 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 without power, the regulation branch is closed during an energy cut.

With continuously controlling actuators 1 7990 31 and 1 7990 32 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.

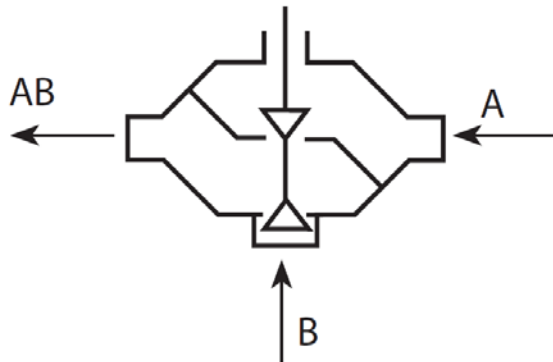
Connection in the red cable:

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

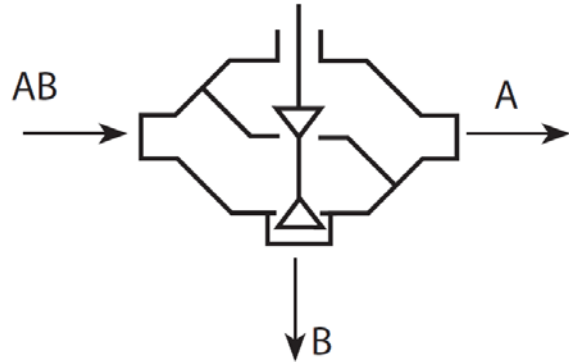
Connection in the white cable:

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

Application as mixing valve



Application as diverting valve



#### ☒ Maintenance, setting and exchange

Herz control 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. It is recommended to operate the valve once a week to prevent it from getting stuck.

#### ☒ Assembly

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

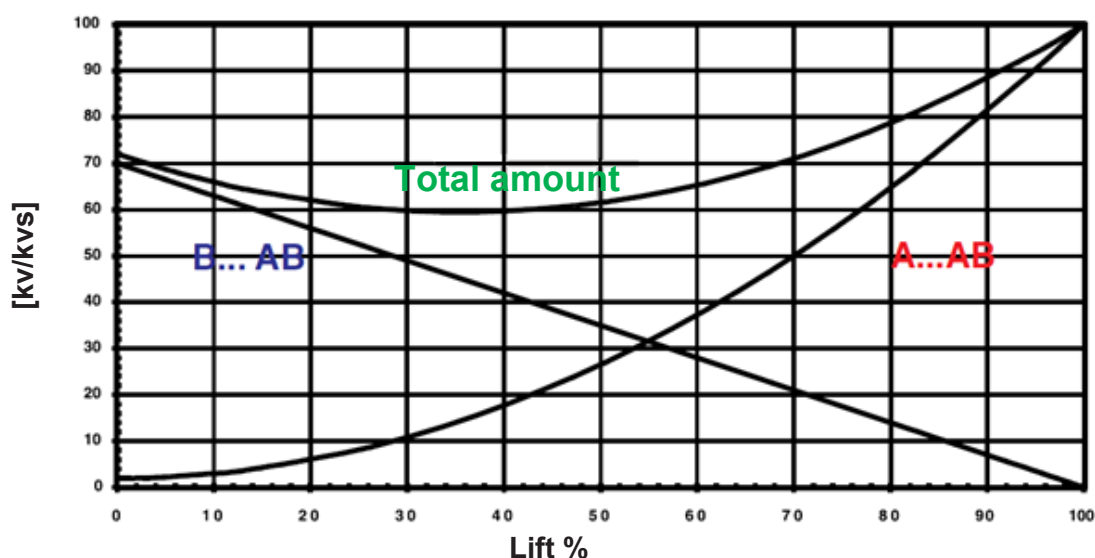
To minimize impurities, like globules and rust particles, in the used media and to protect the spindle sealing, HERZ advises to use HERZ Strainer **4111**, e.g. one in every riser or in every floor.

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

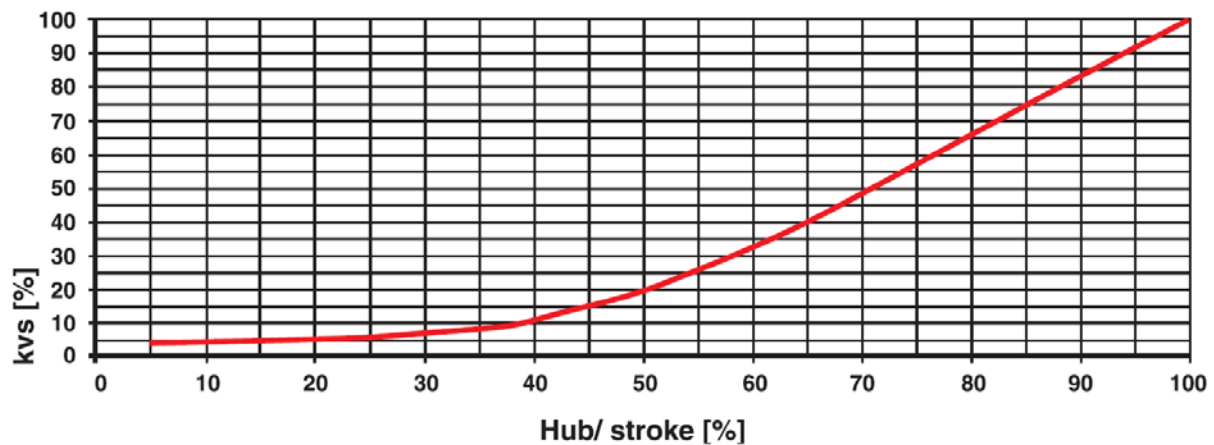
#### ☒ Rest position, decommissioning

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



### ☒ Stroke

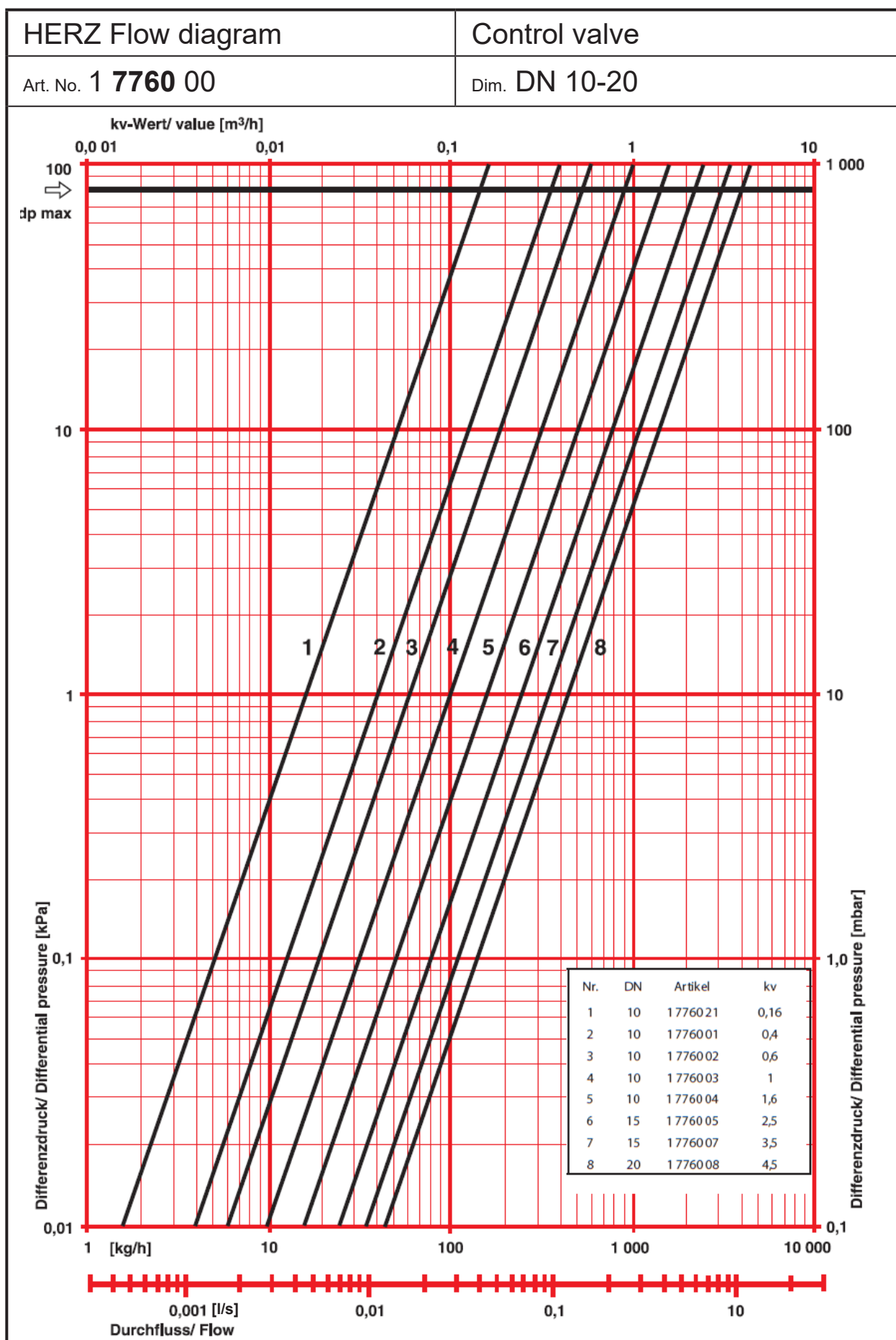


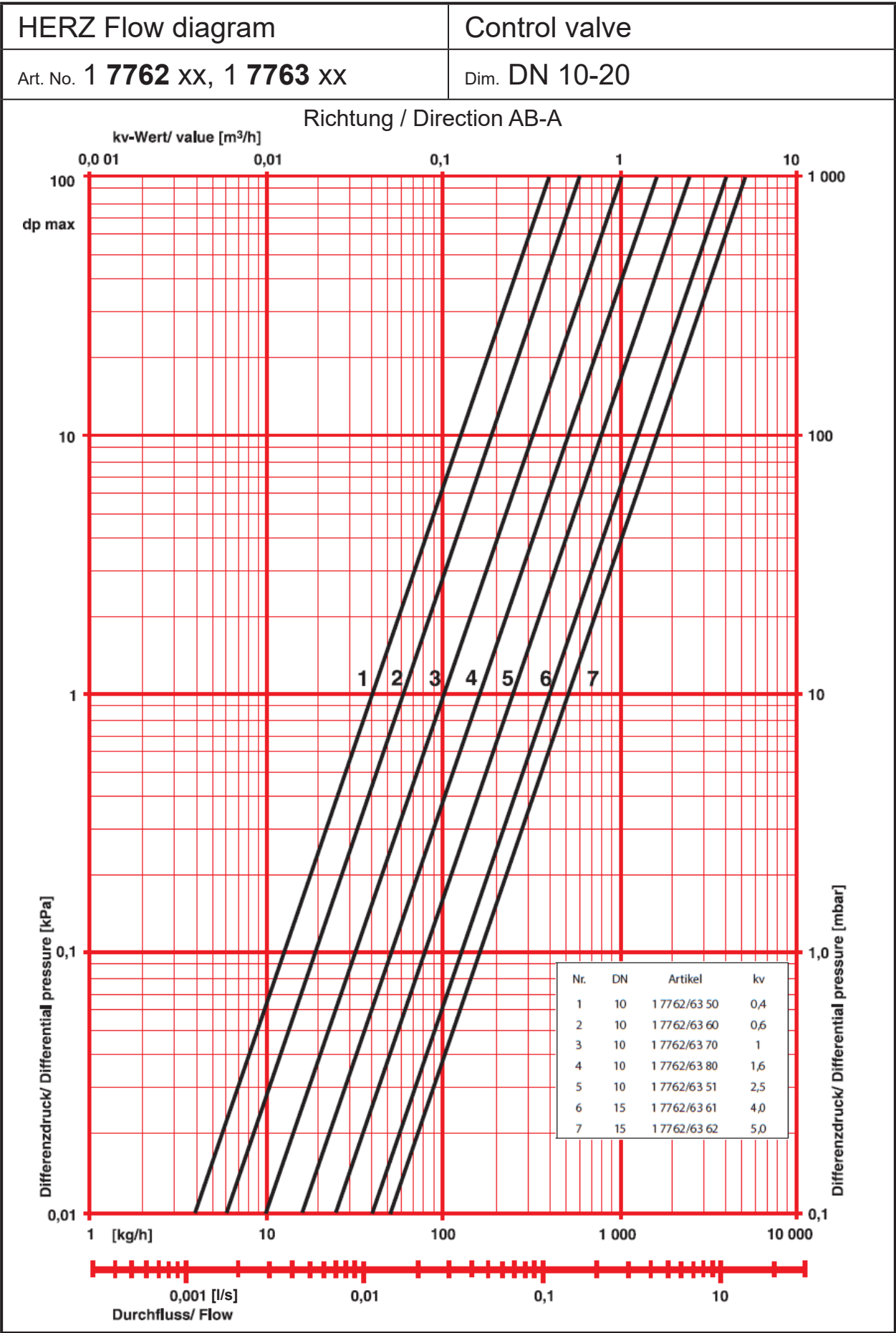
### ☒ Disposal

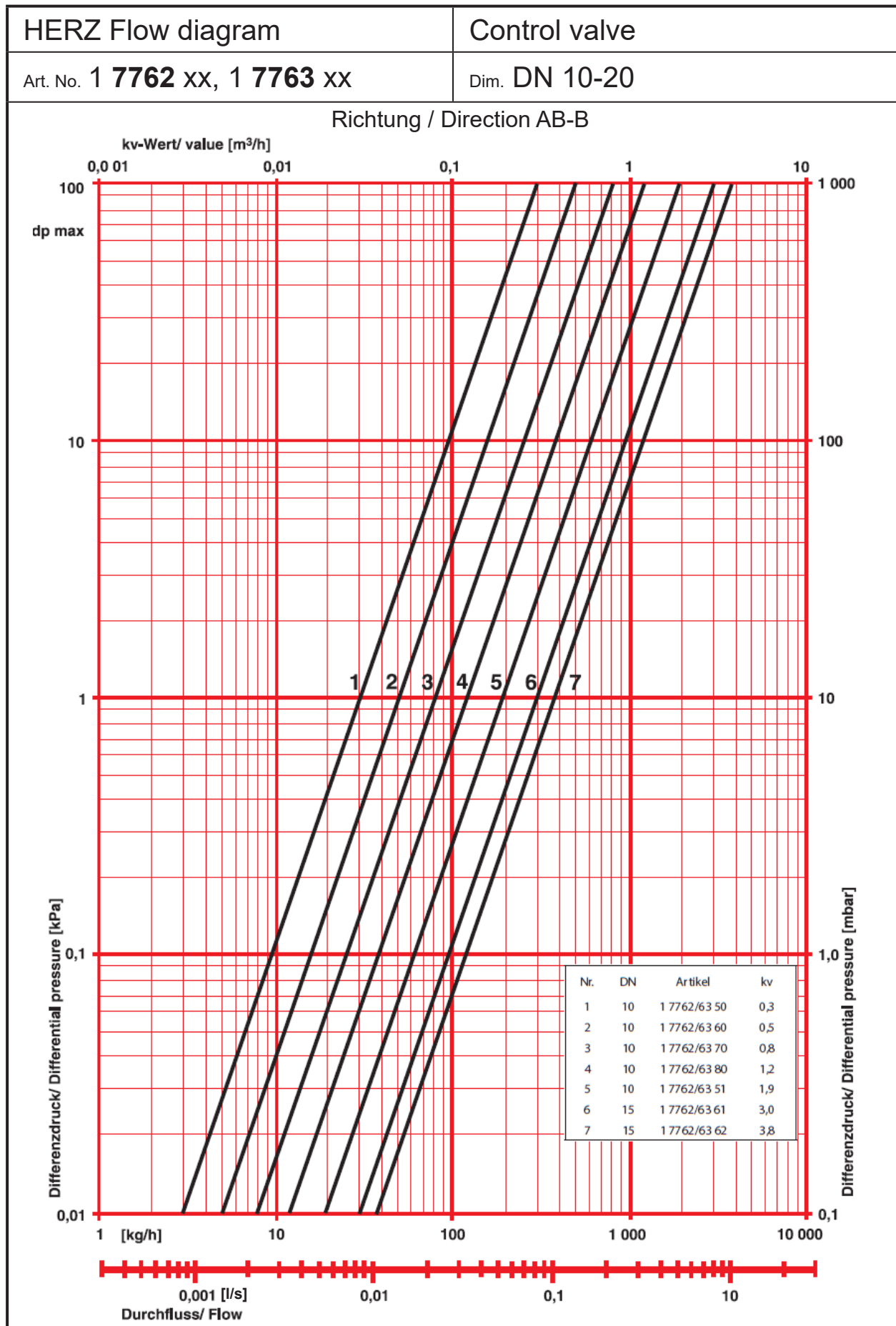
The disposal of HERZ valves must not endanger the health or the environment. National legal regulations for proper disposal of the HERZ valves have to be followed.

### ☒ Brass

Pursuant to Article 33 of the REACH Regulation (EC No. 1907/2006), we are obliged to point out that the material lead is listed on the SVHC list and that all brass components manufactured in our products exceed 0.1 % (w / w) lead (CAS: 7439-92-1 / EINECS: 231-100-4). Since lead is a component part of an alloy, actual exposure is not possible and therefore no additional information on safe use is necessary.









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

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

