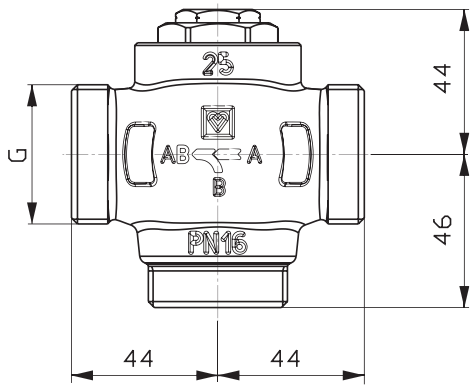
HERZ Teplomix

Thermostatic three-way control valve for boiler return bypass

Datasheet for 1 **7766** XX**,** Issue 0117

Dimensions in mm



Order number	Dimension	G	Δp_{max}	kvs (m3/h) Normal Flow	kvs (m3/h) Bypass
1 **7766** 03	DN 25	G 5/4 B	0,5	11	17
1 **7766** 04	DN 32	G 6/4 B	0,5	14	19
1 **7766** 13	DN 25	G 5/4 B	0,5	11	16
1 **7766** 14	DN 32	G 6/4 B	0,5	14	16

Order number	T_{max} Mixer Temperature.	p_{max} (bar)	T_{min} Water	T_{min} Frost protection
1 **7766** 03	110 °C	16	+2 °C	-20 °C
1 **7766** 04	110 °C	16	+2 °C	-20 °C
1 **7766** 13	110 °C	16	+2 °C	-20 °C
1 **7766** 14	110 °C	16	+2 °C	-20 °C

Design / application

Three-way mixer valve with continuously controllable thermostatic input, factory pre-set. The bypass is operated automatically from the thermostat with no electrical link to the boiler. External thread according to ISO 228/1, class B flat-sealing. Pipe connections must be ordered separately. Casing made of standard brass for use in heating equipment

1 **7766** 03	The models 1 7766 03 and 1 7766 04 incorporate a fixed bypass, control temperature for path A --- AB: approx 61 °C
1 **7766** 04	Installation of a regulating valve in the bypass between the boiler flow and return is recommended (see diagram)
1 **7766** 13	The models 1 7766 13 and 1 7766 14 are designed with a closing function on the bypass At a mixing temperature of approx 63 °C the bypass is closed (B-AB branch) and opens again at a temperature of approx 55 °C.
1 **7766** 14	The installation of a regulating valve in the bypass is not necessary.

Water quality

The ammonia contained in hemp damages brass valve casings and EPDM seals may be macerated by mineral oils or lubricants containing mineral oils and may cause damage to the seals. Frost and corrosion protection products made using ethylene and propylene glycol are permitted in the ratio of 25 – 50% vol. Water quality according to ÖNORM H 5195 and VDI 2035.

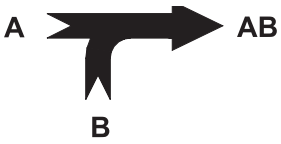
Installation

The valves are installed using HERZ connections with flat seals in the pipe system according to the designated use. The ingress of dirt into the valves should be avoided.

Notes on installation



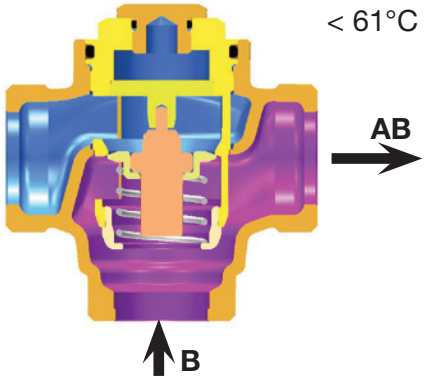
The flow direction should be noted at installation. This is marked on the casing by an arrow.



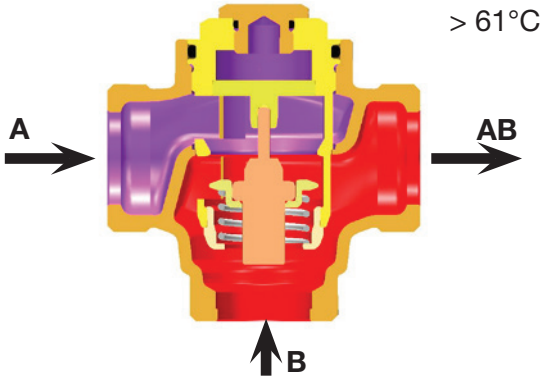
Filling / emptying and dirt removal of the heating unit can be carried out by removing the R3/8 plug at the top of the valve and installing a drain valve.

Functioning 1 7766 03 - 1 7766 04

Leakage: For A-AB approx. 3% from kvs- value



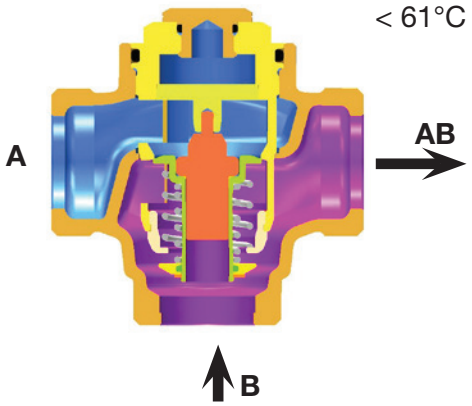
Valve closed
(Starting position)
The system return (A) is closed. The water from the bypass (B) is taken directly in unmixed condition to the boiler.



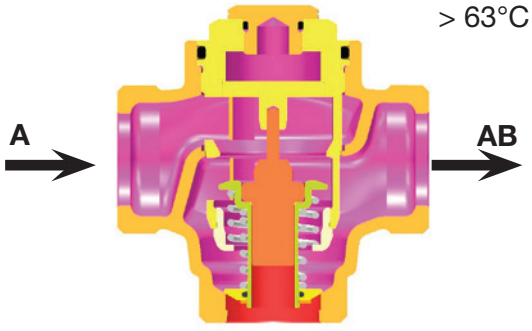
Valve open
(Operational setting)
Cold return water from the heating system and hot water from the bypass are mixed and fed to the boiler.

Functioning 1 7766 13 - 1 7766 14

Leakage: For A-AB approx. 3% from kvs- value
For B-AB approx. 0,03 from kvs- value.



The system return (A) is closed. The water from the bypass (B) is taken directly and unmixed to the boiler.



Cold return water from the heating system (A) is taken into the boiler. Bypass (B) is closed.

Accessories

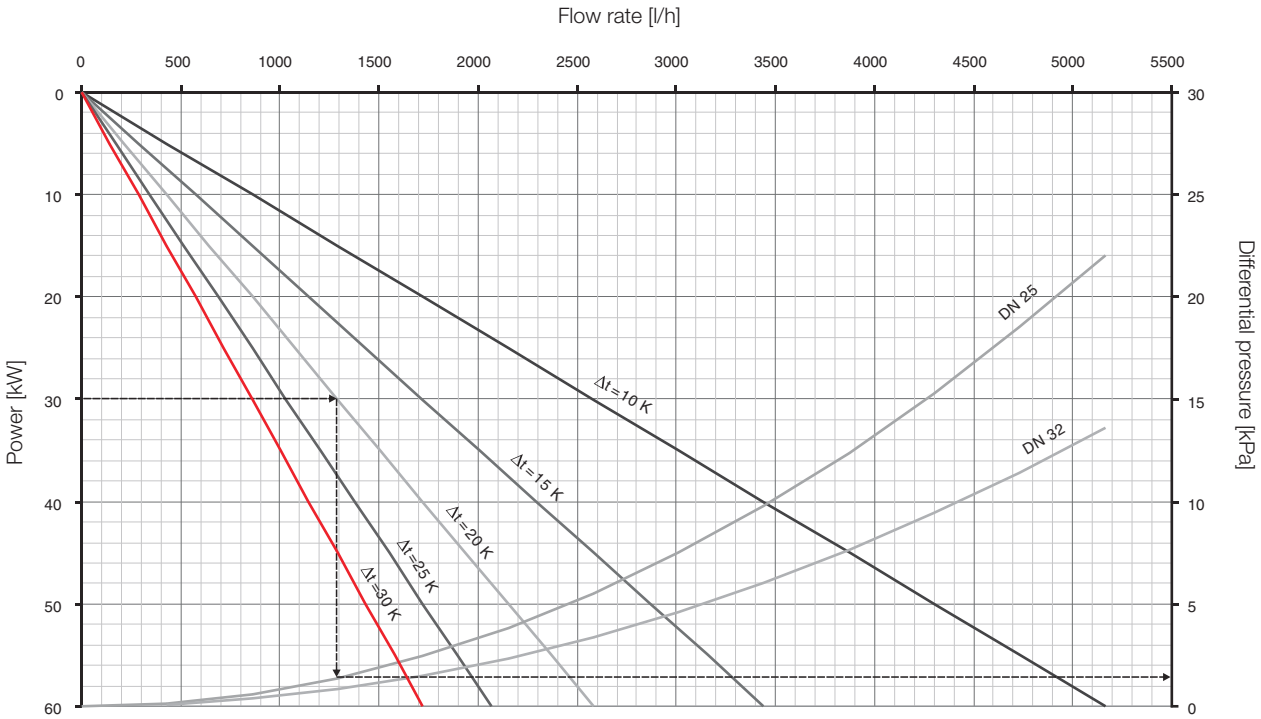
Connections, consisting of seal, nut and nipple for each valve – 3 sets required.

	for Teplomix DN 25
1 **6220** 63	Iron pipe connection, AG R1
1 **6236** 63	Soldered connection for 28mm copper pipe
1 **6240** 63	Welded connection for 33.7mm pipe
P **70xx** 43	Junction press fitting, flat seal for 25 x 3.5 mm and 40 x 3.5 mm aluminium connection pipes
	for Teplomix DN 32
1 **6220** 64	Iron pipe connection R 1¼
1 **6236** 63	Soldered connection for 35mm copper pipe
1 **6240** 63	Welded connection for 42.4 mm pipe
P **70xx** 44	Junction press fitting, flat seal for 32 x 3 mm and 50 x 4 mm aluminium connection pipes
4111	Strainer, mesh 0.40 or 0.75 mm
4119	“Thermoflex” boiler fill and drain tap
1 **0276** 00	Drain valve with handle and pivotable hose connection, DN 10, O-ring seal
4112/ 4113	STRÖMAX shut-off and circuit regulating valve

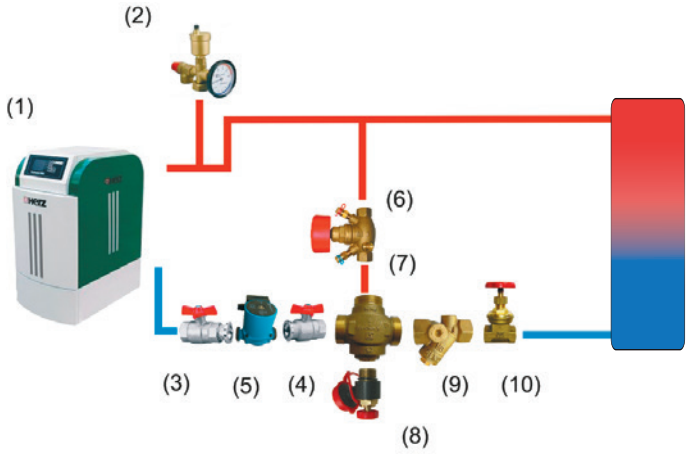
Other products

1 **7761** xx	Distributor valve, CALIS-RD, DN15 - DN32 for thermal actuation
1 **7762** xx	Three way mixer and distributor valve, DN10 - DN20 for thermal actuation
1 **4037** xx	Three way mixer and distributor valve, DN15 – DN50 suitable for motor actuation
2 **7766** xx	Thermostatic Mixer valve for use in drinking water systems
1 **2137** xx	Three-Port Mixing Valve

Dimensioning



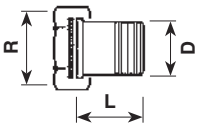
Example of application:



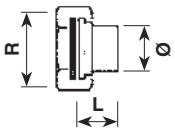
Description of the products used

1		HERZ Boiler
2	1 **2104** 04	Boiler group, consisting of vent, safety valve, Manometric Thermometer and insulation jacket
3	1 **2268** 03	Ball valve for direct installation, with non-return valve
4	1 **2269** 03	Ball valve for direct installation
5		HERZ Circulation Pump
6	1 **4217** xx	Circuit regulating valve, for limiting the volume of bypass water
7	1 **7766** xx	TEPLOMIX, thermostatic control valve
8	1 **0276** 00	Drain valve with handle and hose connection,DN 10, O-ring seal Alternative:
	1 **4119** 00	“Thermoflex” boiler fill and drain tap without O-ring seal.
9	1 **4111** xx	Strainer
10	1 **4112** xx	Shut-off valve

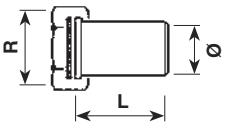
* The items used are examples. In case of any technical questions please contact closest HERZ Branch-office for support.



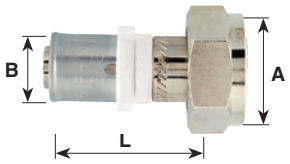
6220/6221



6236



6240/6241



Dimension	Order #	R	D	ø	L
DN 25	1 **6220** 63	1¼	1	–	35
DN 32	1 **6220** 64	1½	1	–	40
DN 25	1 **6236** 63	1¼	–	28	24
DN 32	1 **6236** 64	1½	–	35	27
DN 25	1 **6240** 63	1¼	–	34	51
DN 32	1 **6240** 64	1½	–	42	54

Dimension	Order #	A	B	L
DN 25	P **7026** 43	G 1¼	26 x 3	50
DN 25	P **7032** 43	G 1¼	32 x 3	50
DN 25	P **7040** 43	G 1¼	40 x 3,5	70
DN 32	P **7032** 44	G 1½	32 x 3	50
DN 32	P **7040** 44	G 1½	40 x 3,5	70
DN 32	P **7050** 44	G 1½	50 x 4	70

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