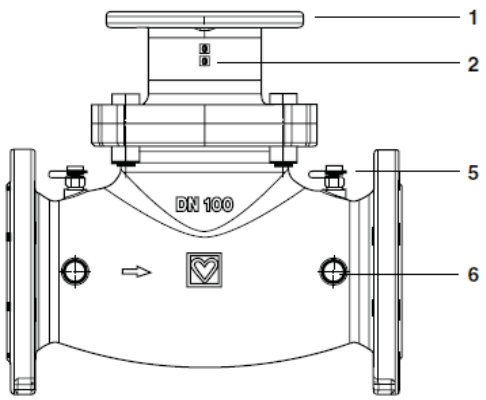
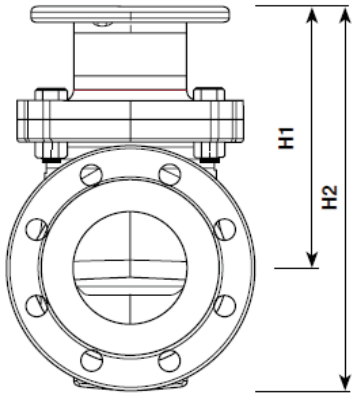
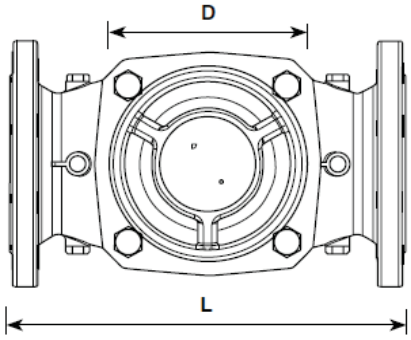
Circuit Regulating Valve
STRÖMAX 4218 GF

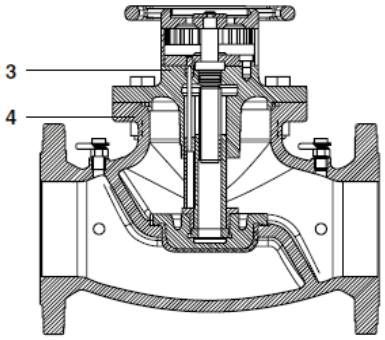
for Differential Pressure Measurement

Data sheet for 4218 GF, Issue 0915









1. Hand wheel
2. Digital display of presetting
3. Upper part made of grey cast iron GJL 250
4. Body made of grey cast iron GJL 250
5. Test Points 1/4
6. Plugs 1/4

Flange dimension according to EN 1092-2

Order number	DN	PN	L	H1	H2	D	kvs	kg
1 4218 80	50	16	230	169	252	150	49	16.8
1 4218 81	65	16	290	186	280	150	75	23.6
1 4218 82	80	16	310	208	308	175	110	30
1 4218 83	100	16	350	235	345	175	165	38
1 4218 84	125	16	400	260	385	265	241	63
1 4218 85	150	16	480	308	451	265	372	88
1 4218 86	200	16	600	449	619	450	704	161
1 4218 87	250	16	730	503	705	450	812	256
1 4218 88	300	16	852	562	842	450	1383	383

Models

STRÖMAX-GF-circuit regulating valve with test points, DN 50 - 300 Screw-down model, grey cast iron body GJL 250 acc. EN 1561, flange acc. EN 1092, PN 16, blue enamel coating. Upper part grey cast iron GJL 250, with non-rising spindle, spindle seal by means of triple O-Ring. Pre-setting step is shown on the digital display.

Transportation

Don't lift or carry the valve with the hand wheel!

The valve is pre-finished ex-factory delivered. To prevent the possible impurities on the seat during the storing and transportation the valve is closed. In order to avoid the fouling during the storing and transportation the flange covering must be mounted.

Storing: Temperature -10° bis + 50 °C, humidity max. 70%

Test points

Two test points 1 **0284** and pre-setting marker 1 **6517** 05 are included. Test points position optional. This alignment allows the best access in all kind of installations and optimal connection of measuring devices.

Bore size

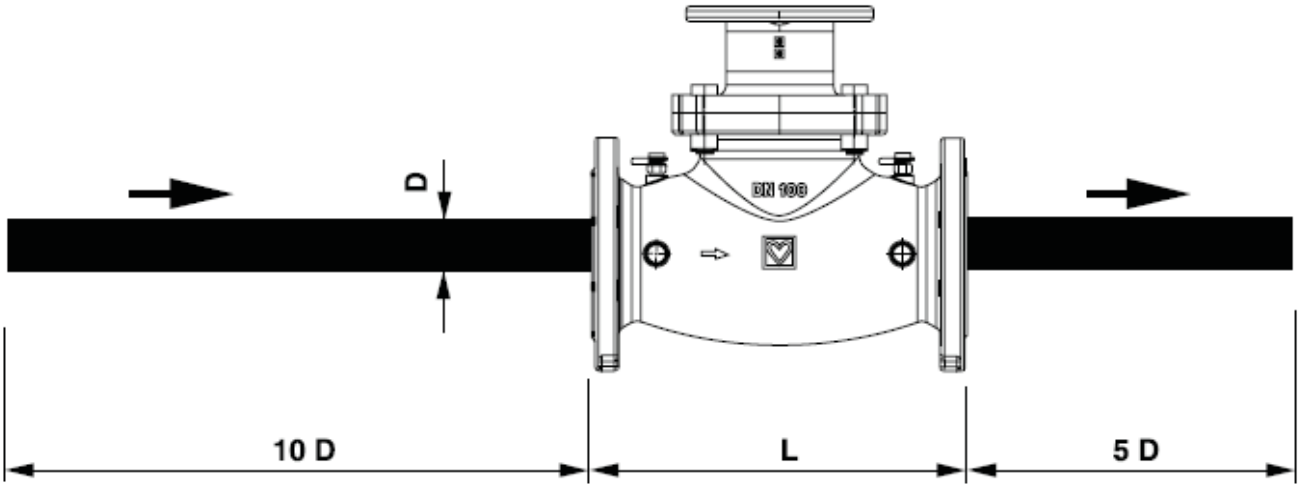
Pipe thread 1/4, for test points mounting

Field of application

For hydraulic balancing in heating or cooling systems for isolating of manifolds, risers, heat exchangers, heating and cooling systems.

Mounting

Mounting position optional. The flow direction according to the arrow marked on the valve body. It is recommended installing 10 x straight pipe diameters upstream and 5 x straight pipe diameters downstream of the valve.



Operational data

Maximum operating temperature : 110 °C,
minimum operating temperature : -10 °C
Maximum operating pressure : 16 bar
Water purity in accordance with the ÖNORM H 5195 and VDI 2035 standards
Ethylene and propylene glycol can be mixed to a ratio of 25 - 50 vol. [%]

Ammonia contained in hemp can damage brass valve bodies, EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection.

Materials

Upper part	: grey cast iron GJL 250 acc. EN 1561
Body	: grey cast iron GJL 250 acc. EN 1562
Spindle	: DN 50 - DN 100 brass, DN 125 - DN 300 stainless steel
Control	: spindle DZR / stainless steel
Valve cone	: grey cast iron GJL 250 acc. EN 1561/ EPDM coated
Counter	: plastic material
O-Rings	: EPDM

Coating

Base coat based on alkyd resins (resin primer) and contains lead and chromate anticorrosive.
Top coating with epoxy resin.
Solvent content is less than in the VOC plant regulation in 2002 accepted.
Gloss: matt Dry film thickness (DFT): ~ 100 microns

Constructional characteristics

Flow direction
Ensure that the flow direction is in accordance with the arrow shown on the valve body.
Mounting position
The non-rising valve spindle is mounted vertically to the valve axis and consequently offers optimum accessibility and easy valve handling in every position.
Seat seal
The spindle seal is equipped with a triple O-Ring.
Triple-O-Ring
The spindle seal is equipped with an elastic triple O-Ring and is guaranteed to be impermeable and offer easy handling.
Seal between Upper Part and body (EPDM)
The permanently elastic soft seal provides constant temperature. It is corrosion-resistant and allows minor closing pressure.

Differential pressure measurement

The Strömax GF Circuit regulating valve is equipped with two test points: so it is possible to measure the differential pressure by use of the proper measuring devices and to determine the flow rate accordingly.

Mass flow rate tolerance

The maximum deviation of mass flow rate to characteristic of circuit regulating valves according to VDI-guidelines.

Pre-adjustment

The valve will be delivered in closed position. The pre- setting permits the maximally possible stroke.
The hand wheel mechanics are so adjusted that with closed valve the digital display indicates 0.0.

Pre-setting and fixing

Pre-setting

1. Desired presenting stage in accordance with data (Digital display on hand wheel)
2. 1/10 of turn are the red numbers, full turn is the blue.
3. The presenting spindle is beneath the cover. The spindle can be adjusted with a screwdriver 8 mm. To pre-set turn anti clockwise up to stop. The valve is now able to close and open back to the pre-set position. Replace the cover on the hand wheel.
4. The pre-setting marker (1 6517 05) is fastened as a tag above the valve or pipe. The setting of the respective valve is marked by cutting or breaking off the teeth at the figures for full and partial turns. This permits checking and/or restoration of the original pre-setting made on the occasion of system set-up after servicing without having to rely on documentation.

The setting of flowrate is achieved with a measuring device referring to the flow charts. Please see the operating instructions from the measuring device.

Digital display factory setting

If the valve is closed valve 0.0 is displayed on the digital display. If you have to remove the complete hand wheel (turning handle, numeric wheels, baseplate) it is important to do this as following instruction:

1. Set the complete upper part and fastening the three Allen screws and the four hexagon screws.
2. Close the valve clockwise.
3. If you see 0.0 on the digital display it is correct.
4. After this you can assemble the hand wheel.
5. Fixing the attachment bolt.
6. Now you can pre-set the valve.

Accessories

1 **6517** 05 Pre-setting marker
1 **8900** 04 HERZ-Measuring computer for one-hand operation
1 **0276** 00 Draining valve 3/8 with handle and swivelling hose connection
1 **0284** 00 Test point adaptors

Spare Parts

1 **0273** 00 Screw plug 3/8
1 **0284** 01 test points, blue
1 **0284** 02 test points, red