AV 23 Balancing valves SETTER Inline

Application

Direct reading and balancing valve with visual flow indication.

Correct balancing of circuits ensure optimum efficiency of the system and can therefore help reduce energy consumption.

AV 23 balancing valves facilitate fast and accurate adjustment of flow rates through heating and air conditioning circuits.

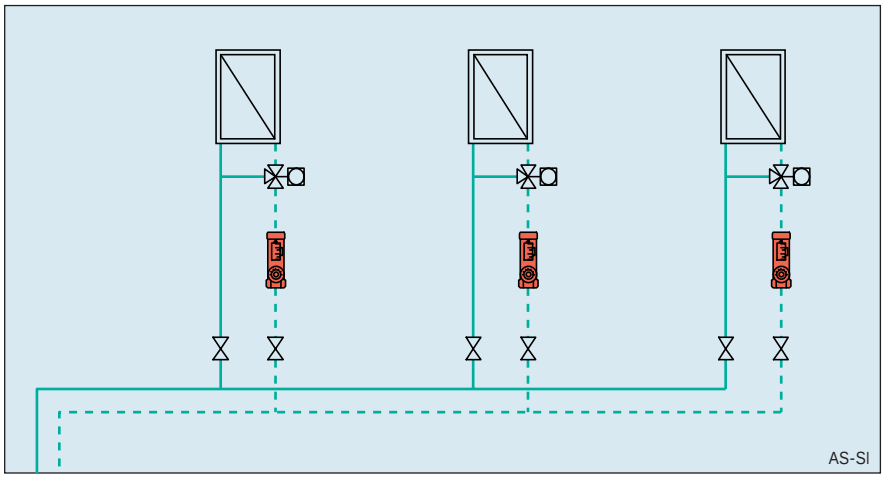
The required flow rate can be set without the need to consult curves, conversion charts or invest in expensive commissioning equipment.

Installation

The valve may be installed in vertical, horizontal or inclined position. Care should be taken in order to ensure that the arrow is pointing in the direction of the flow.

Advantages

- Precise and quick balancing without diagrams, tables or measuring devices
- Flow rate displayed directly in l/min
- Regulating valve with adjustment scale
- Regulating valve with isolating facility (rest leakage possible)
- Can be installed in any position
- Connection range fitting to the system
- Dezincing-resistant version



Operation

Measurement of the flow rate through the valve can be set by turning the adjustment screw until the required flow rate is read on the back edge of the float, which is situated within the measuring cylinder.

AV 23 SETTER Inline

taconova

Technical data

Max. operating temperature: 100 °C

Max. operating pressure: 10 bar

k_{vs}-value and measurement range:
refer to type program table

Valve housing: standard brass Ms 58
or dezincing resistant
refer to type program

Sightglass: high grade plastic

Seals: EPDM

Measuring accuracy: ±10%
(highest nominal flow)

Compression fitting joint with nut,
clamping ring and supporting sleeve

Connection with nut and tail piece

Fluids

- Water and proprietary additives used against corrosion and freezing
- Heating water
- Cooling water
- Potable water

Specification text

Balancing and setting valve SETTER Inline with adjustment, shut-off (however not isolating facility) and measuring of the flow.
Max. operating temperature 100 °C
Max. operating pressure 10 bar

SVGW SSIGE

Type program for SETTER Inline Standard out of brass

Item-no.	DN	G x Rp	Measurement range (l/min)	k_{vs} (m^3/h)
223.1202.000	15	3/4" x 1/2"	0,3 – 1,5	0,25
223.1203.000	15	3/4" x 1/2"	0,6 – 2,4	0,6
223.1204.000	15	3/4" x 1/2"	1 – 3,5	1,35
223.1208.000	15	3/4" x 1/2"	2 – 8	1,8
223.1209.000	15	3/4" x 1/2"	3 – 12	1,85
Item-no.	**DN**	**G x G**	**Measurement range (l/min)**	**k_{vs} (m^3/h)**
223.1233.000	15	3/4" x 3/4"	0,6 – 2,4	0,6
223.1234.000	15	3/4" x 3/4"	1 – 3,5	1,35
223.1238.000	15	3/4" x 3/4"	2 – 8	1,8
223.1239.000	15	3/4" x 3/4"	3 – 12	1,85
223.1300.000	20	1" x 1"	4 – 15	5,0
223.1302.000	20	1" x 1"	8 – 30	5,0

G = Fixing thread, male or female cylindrical, according to ISO 228

Type program for SETTER Inline out of dezincing-resistant brass

Item-no.	DN	G x Rp	Measurement range (l/min)	k_{vs} (m^3/h)
223.1204.104	15	3/4" x 1/2"	1 – 3,5	1,35
223.1208.104	15	3/4" x 1/2"	2 – 8	1,8
223.1209.104	15	3/4" x 1/2"	3 – 12	1,85
Item-no.	**DN**	**G x G**	**Measurement range (l/min)**	**k_{vs} (m^3/h)**
223.1233.104	15	3/4" x 3/4"	0,6 – 2,4	0,6
223.1234.104	15	3/4" x 3/4"	1 – 3,5	1,35
223.1238.104	15	3/4" x 3/4"	2 – 8	1,8

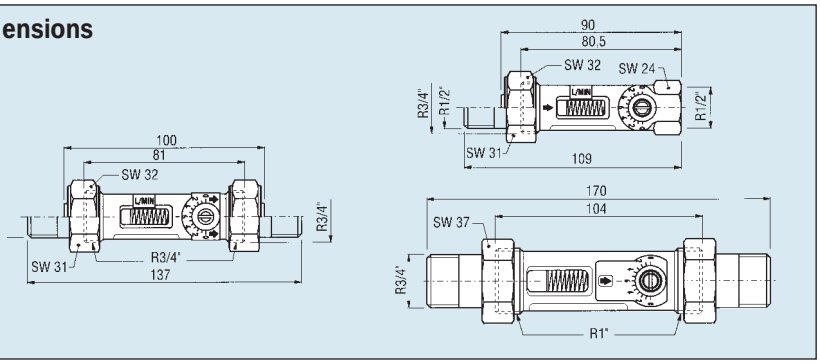
Rp= Pipe thread / female thread cylindrical, according to ISO 7 / DIN 2999

VF 10 System-connections

Item-no.	G x mm	Version for	suitable for
210.3325.000	3/4" x 15	Copper pipe 15/1	SETTER Inline DN 15
Item-no.	**G x R**	**pipe thread**	
210.6221.000	3/4" x 1/2"	Thread 1/2"	SETTER Inline DN 15
210.6632.000	1" x 3/4"	Thread 3/4"	SETTER Inline DN 20
210.6222.000	3/4" x 1/2"	Thread 1/2" self-sealing	SETTER Inline DN 15

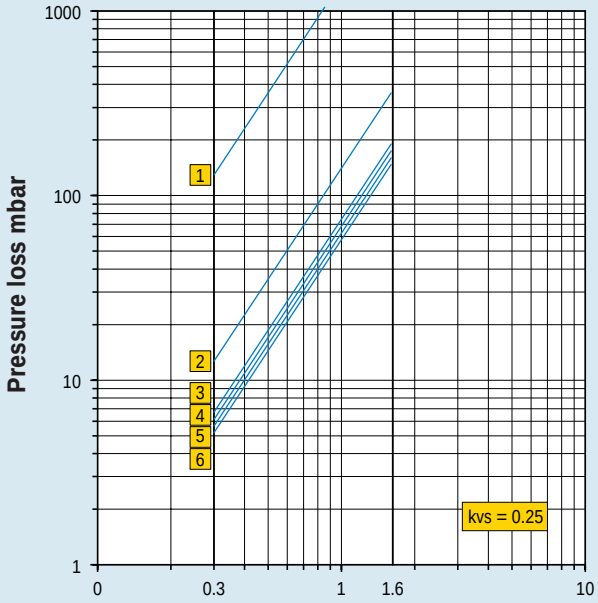
R = Pipe thread / male thread, according to ISO 7 / DIN 2999

Dimensions



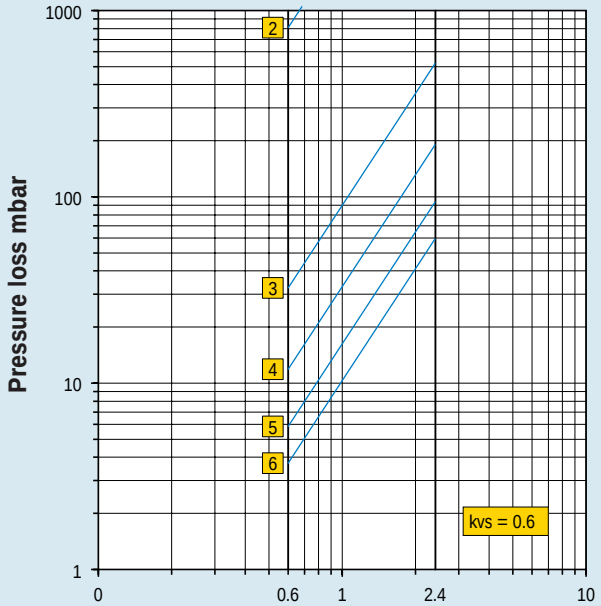
223.1202.000 **DN 15 0,3 ... 1,5 l/min**

1-6 = Valve position



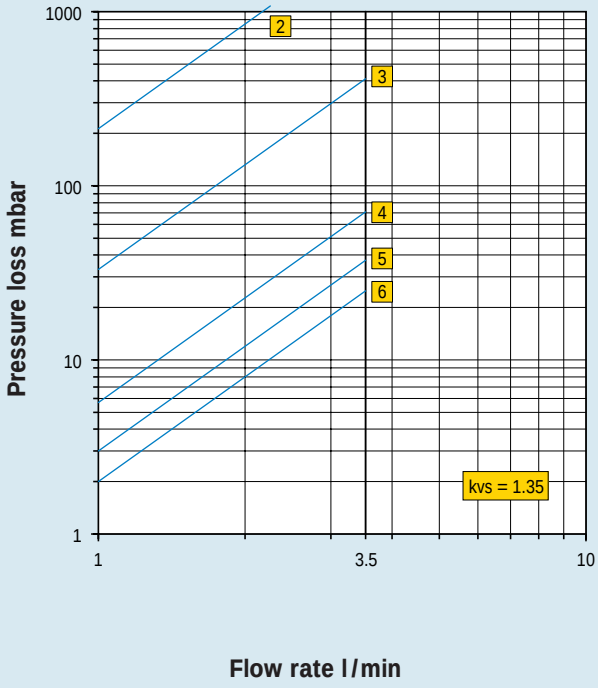
223.1203.000 **DN 15 0,6 ... 2,4 l/min** 223.1233.104
223.1233.000

2-6 = Valve position



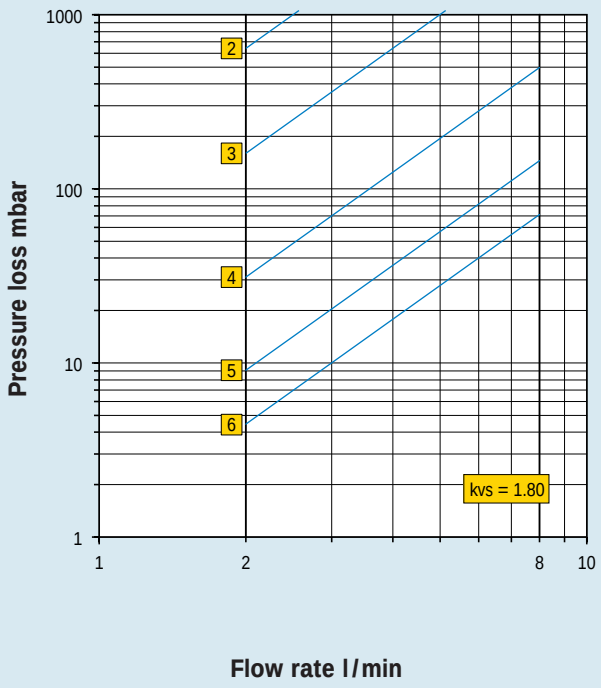
223.1204.000 **DN 15 1 ... 3,5 l/min** 223.1204.104
223.1234.000 223.1234.104

2-6 = Valve position



223.1208.000 **DN 15 2 ... 8 l/min** 223.1208.104
223.1238.000 223.1238.104

2-6 = Valve position



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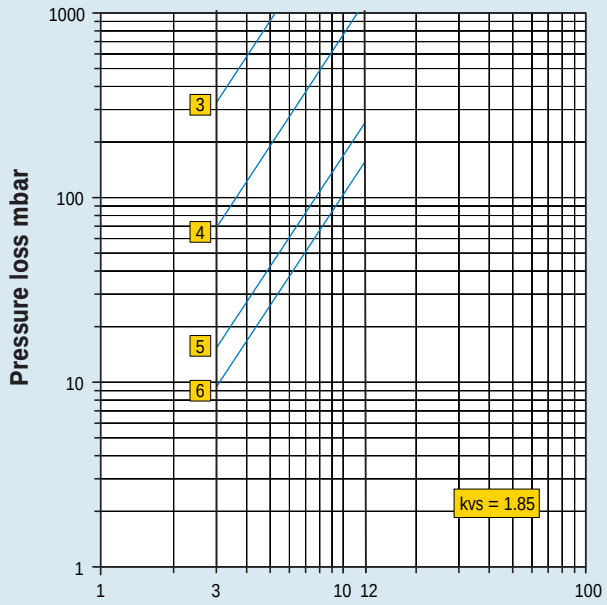
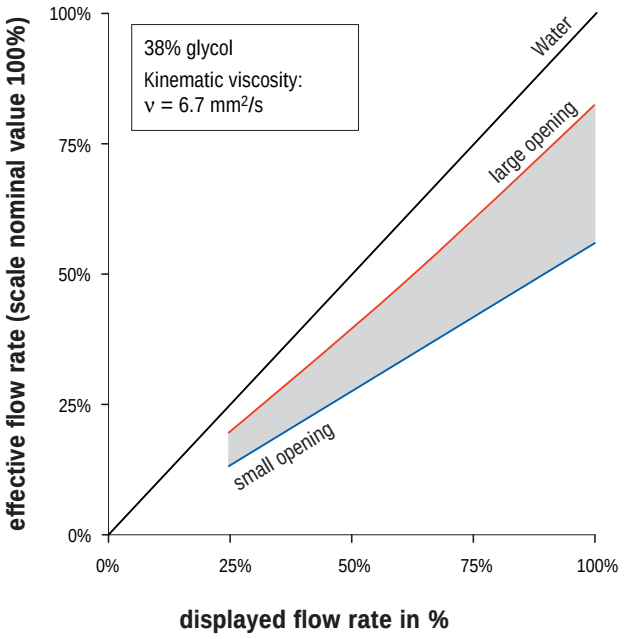
223.1209.000 **DN 15 3...12 l/min** 223.1209.104
223.1239.000

3-6 = Valve position



Correction curve water-glycol

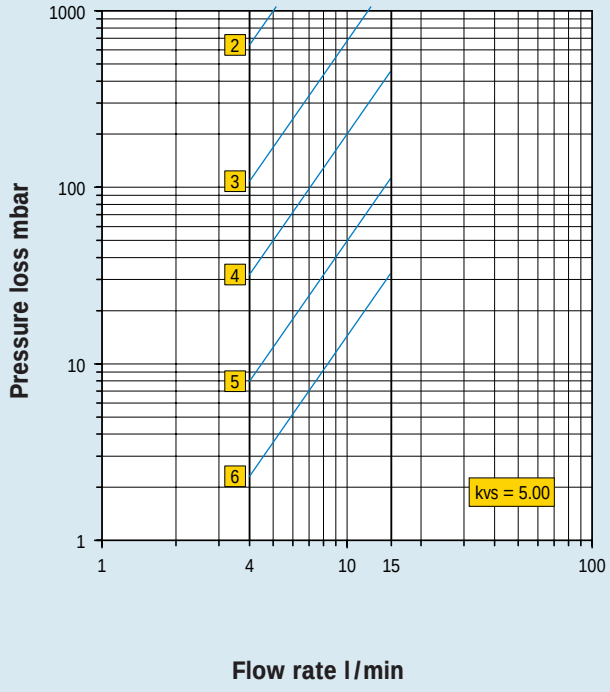
simplified representation for SETTER Inline in medium flow rate range



Specific diagrams available for each SETTER type

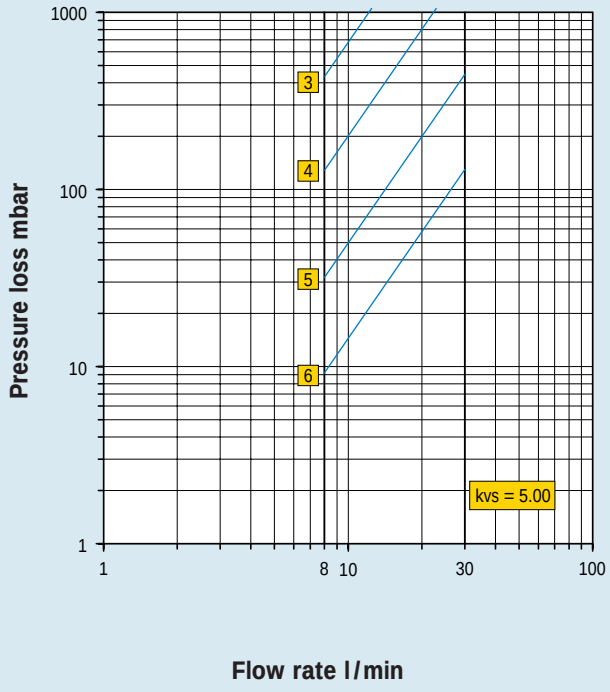
223.1300.000 **DN 20 4...15 l/min**

2-6 = Valve position



223.1302.000 **DN 20 8...30 l/min**

3-6 = Valve position



AV 23 Balancing valves
SETTER Inline PF

Application

Direct regulation, indication and isolation of flows in systems.

Direct hydraulic balancing and control of flows at the intake manifold of circulating pumps. SETTER balancing valves offer an easy and accurate method of adjusting the flow rates through heating, ventilation, air conditioning and cooling systems.

Correct balancing of hydraulic circuits ensures optimum energy distribution, resulting in more efficient and economical operation in accordance with the energy saving regulations provided for by legislation.

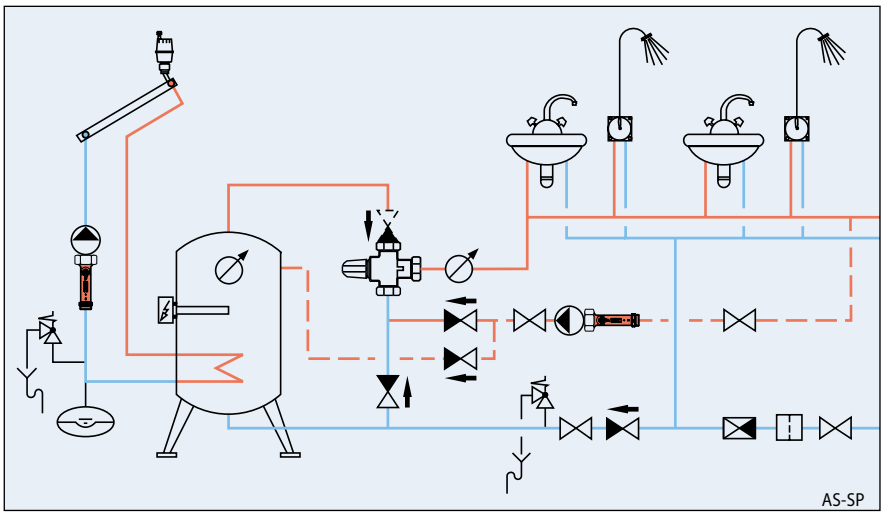
With SETTER Inline PF balancing valves, any qualified fitter can set the appropriate flow rate on the premises in question, thus avoiding investments in training and costly measuring devices.

Installation

The valve can be installed in a horizontal, vertical or inclined position. Care should be taken to ensure that the arrow is pointing in the direction of the flow. The SETTER Inline PF can be built into the 1 1/2" threaded pump connection to the intake manifold of the circulating pump thanks to its special housing design.

Advantages

- Direct connection to circulating pump (on suction side)
- Increased temperature resistance (130 °C)
- Precise and quick balancing without diagrams, tables or measuring devices
- Flow rate displayed directly in l/min
- 3 types cover the entire measurement range from 1.5–30 l/min
- Version with glycol scale in the standard product range
- Measuring accuracy ± 10% of the highest nominal value
- Regulating valve with adjustment scale and isolating facility
- Can be installed in any position
- Available for flat-sealing and clamping ring connectors
- System connector for Ø 18 and Ø 22 mm copper pipes available



Operation

The flow measurement is based on the principle of a baffle float. The flowmeter is built into the housing.

Important when using glycol

The system medium must be allowed to flow through the measuring body for at least 2 hours prior to reading the flow rate when performing the initial start-up or refilling the system.

AV 23 Balancing valves
SETTER Inline PF

Technical data

Max. operating temperature: TB 130 °C.
Max. operating pressure: PB 8 bar.
k_{vs} value at medium viscosity
ν = 1 mm²/s: see graphs below.
Measurement range: see Type Program.
Valve housing: brass.
Sight glass: high-quality plastic.
Seals: EPDM.
Measuring accuracy: ± 10%
(of the highest nominal value).

Fluids

- Water and proprietary additives used against corrosion and freezing (see document "Correction curves")
- Heating water
- Potable water
- Cooling water

Specification text

Regulating and check valve for attachment to the pump intake manifold with built-in flowmeter and direct indication of the set flow rate in l/min.
Can be installed in any position.
Minimum pressure loss.
Gauge with baffle float and return spring.
Measured values can be set and read directly without tables, diagrams or measuring devices.
Measuring accuracy ± 10% of the highest nominal value.
Thread G (cylindrical) acc. to ISO 228.
Housing: brass
Internal components: stainless spring steel, brass and plastic
Sight glass: heat and shock resistant plastic
Seals: EPDM
Operating temperature: TB 130°C
Operating pressure: PB 8 bar

Type Program for SETTER Inline PF

with 1" connection on **clamping ring connector**

Item no.	DN	G x (PF)	Measurement range (l/min)
223.7406.000	20	1" x (1 1/2")	1.5 - 7.0 (water)
223.7406.334	20	1" x (1 1/2")	1.5 - 6.0 (glycol ν = 2.3 mm²/s)
223.7416.000	20	1" x (1 1/2")	4.0 - 17.0 (water)
223.7416.334	20	1" x (1 1/2")	4.0 - 16.0 (glycol ν = 2.3 mm²/s)
223.7426.000	20	1" x (1 1/2")	10.0 - 30.0 (water)
223.7426.334	20	1" x (1 1/2")	8.0 - 28.0 (glycol ν = 2.3 mm²/s)

with 1" connection on **flat-sealing connector**

Item no.	DN	G x (PF)	Measurement range (l/min)
223.7456.000	20	1" x (1 1/2")	1.5 - 7.0 (water)
223.7456.334	20	1" x (1 1/2")	1.5 - 6.0 (glycol ν = 2.3 mm²/s)
223.7466.000	20	1" x (1 1/2")	4.0 - 17.0 (water)
223.7466.334	20	1" x (1 1/2")	4.0 - 16.0 (glycol ν = 2.3 mm²/s)
223.7476.000	20	1" x (1 1/2")	10.0 - 30.0 (water)
223.7476.334	20	1" x (1 1/2")	8.0 - 28.0 (glycol ν = 2.3 mm²/s)

Connectors / accessories

Item no.	Description
210.6665.000	VF 10 pump flange – swivel nut SW 52, G 1 1/2"
296.2335.000	AX 96 Solar seal suitable for PF 1 1/2" (glycol-resistant)
210.3428.000	VF 10 swivel nut G 1" / clamping ring suitable for Cu pipe Ø 18
210.3432.000	VF 10 swivel nut G 1" / clamping ring suitable for Cu pipe Ø 22
210.6632.000	VF 10 flat-sealing connector with R 3/4" (male thread)

Dimensions