WattFlow BP, WattFlow OL Series

Balancing valves

Technical Data Sheet

WattsWater.eu

WATTS®

Description WattFlow BP

Regulation of heating, ventilation and air-conditioning systems. Balancing of solar and heat pump systems.

Excess or insufficient feed to consumer circuits in HVAC systems is not seldom the cause of malfunctions. **WattFlow Series** balancing valves take care of hydraulic balancing in no time at all; they are also easy to operate and require no special training of personnel. **WattFlow Series** balancing valves can therefore be used to regulate HVAC systems quickly and with maximum precision without the need for expensive measuring computers or special tools. The VOB/C – DIN 18380 standard requires the hydraulic balancing of pipelines, as does DIN EN 12828. The pipe systems must be designed in such a way that heating water is fed to all parts of the heating system with the necessary heating energy. The following factors (among others) must be taken into account: temperature, operating pressure, pressure loss and noise levels (due to flow speed, for example). Optimum energy distribution through pipe systems that are correctly hydraulically balanced is also a necessary and expedient measure in the context of the German energy efficiency regulations (EnEV).

Type	Part No.	DN	Connection	Flow rate (l/min)	Kvs	MemoStop
SRV-AG	10010136	15	1" AG	0,5÷7	1,5	without
SRV-AG	10010138	15	1" AG	2÷16	3,0	without
SRV-AG	10010140	20	1" AG	4÷36	3,5	without
SRV-KVSR	10010142	15	KVSR 15 mm	0,5÷7	1,5	without
SRV-KVSR	10010143	15	KVSR 15 mm	2÷16	3,0	without
SRV-KVSR	10010145	20	KVSR 15 mm	4÷36	3,5	without
SRV-KVSR	10010146	15	KVSR 22 mm	0,5÷7	1,5	without
SRV-KVSR	10010148	15	KVSR 22 mm	2÷16	3,0	without
SRV-KVSR	10010150	20	KVSR 22 mm	4÷36	3,5	without
SRV-KVSR	10010131	15	KVSR 15/22 mm	0,5÷7	1,5	without
SRV-KVSR	10010133	15	KVSR 15/22 mm	2÷16	3,0	without
SRV-KVSR	10010135	20	KVSR 15/22 mm	4÷36	3,5	without
SRV-IG	10010156	25	1" IG	5÷50	5,5	with
SRV-IG	10010159	32	1 ¼" IG	10÷80	9,0	with
SRV-IG	10010160	40	1 ½" IG	15÷120	13,0	with
SRV-IG	10010162	50	2" IG	20÷200	18,0	with
SRV-AG	10010152	25	1 ¼" AG	5÷50	5,5	with
SRV-AG	10010154	32	1 ½" AG	10÷80	9,0	with

Technical features	
Maximum operating temperature	100°C[1)]
Minimum operating temperature	-20°C[2)]
Maximum operating pressure	10 bar[1)]
Accuracy of flowmeter	±10% of measuring value

1) Pay attention to the pressure/temperature diagram 2) When using appropriate antifreezing compounds

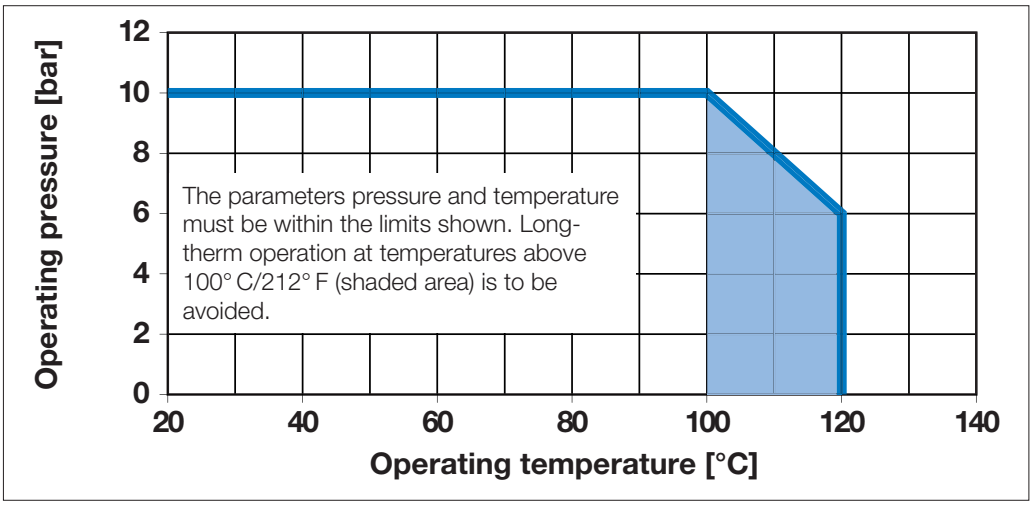
Materials	
Housing	Brass
Flowmeter	Impact and temperature resistant plastic
Spring	Stainless steel
Gaskets	EPDM

Operation

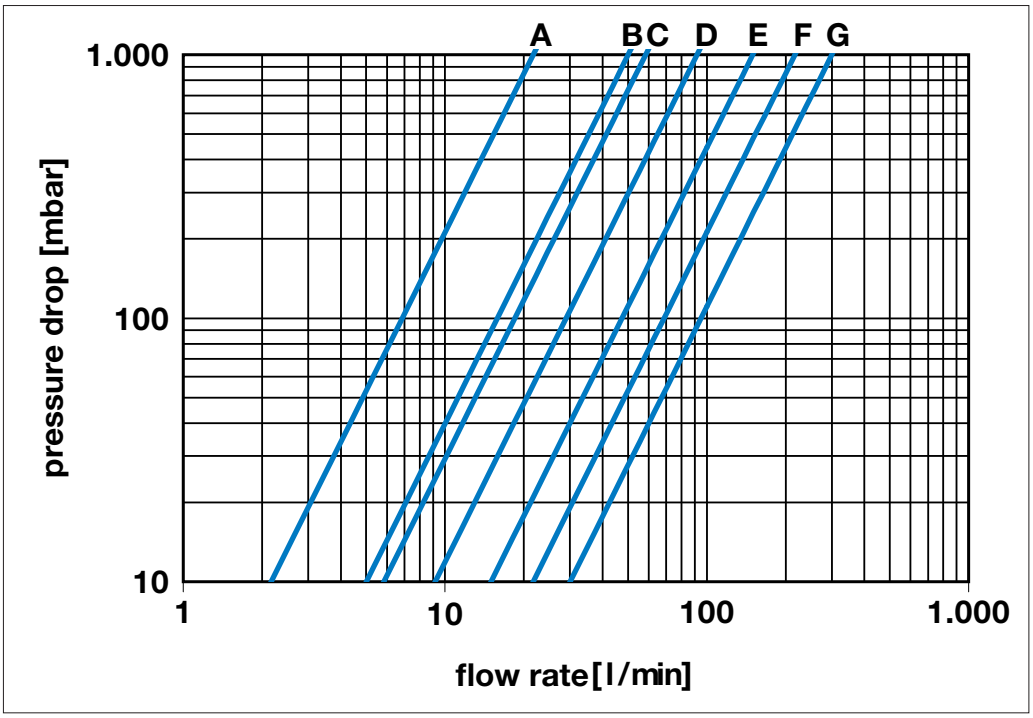
All **WattFlow BP Series** balancing valves are equipped as standard with an integrated flowmeter which continuously measures the current flow volume and indicates it on a scale protruding from the side of the housing. The scale is graduated in l/min and can be rotated about its own axis, thereby allowing optimum positioning for convenient and accurate read-off of values. The display is located away from the flow measurement zone to protect it against dirt and debris. In other words, the medium does not flow directly past the sight glass. The inclined seat valve with regulating cone (also integrated) regulates the flow volume. The selected valve characteristic ensures that the valve stroke is spread across several rotations of the spindle. This guarantees maximum setting accuracy. The flow-friendly valve design ensures minimum noise emissions. The **WattFlow BP Series** balancing valves are not affected by the flow profile at the inlet, and a straight inlet route of the same length as the housing is therefore generally adequate. The valves can be mounted in any desired orientation, and the correct direction of flow is indicated by an arrow on the housing.

Charts

Pressure/temperature diagram

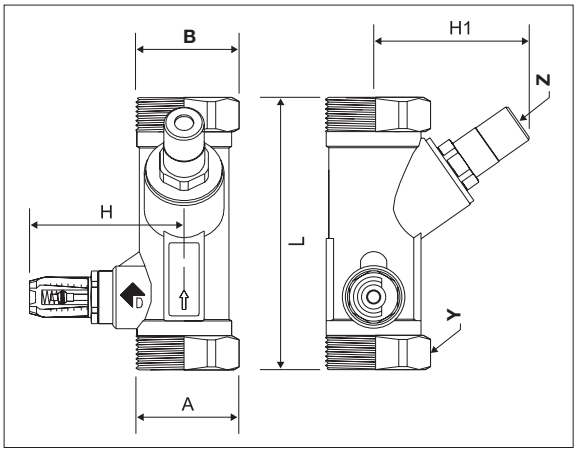


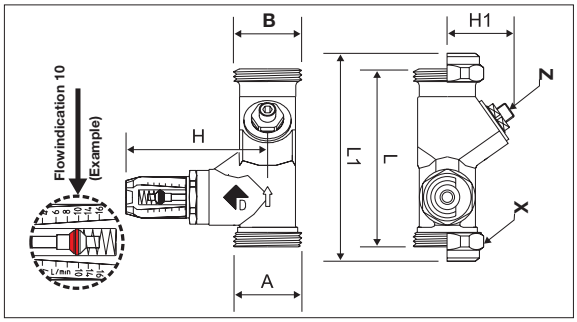
Pressure drop diagram



Pressure drop curve	Flow Rate (l/min)	Kvs
A	0,5÷7	1,3
B	2÷16	3,0
C	4÷36	3,5
D	5÷50	5,5
E	10÷80	9,0
F	15÷120	13,0
G	20÷200	18,0

Overall dimensions (mm)





Type	Part No.	DN	A	B	L	L1	H	H1	X	Y	Z
SRV15-AG	10010136	15	1" AG	= A	86	---	68	37	---	---	SW 4
SRV15-AG	10010138	15	1" AG	= A	86	---	68	37	---	---	SW 4
SRV20-AG	10010140	20	1" AG	= A	86	---	68	37	---	---	SW 4
SRV15-KVSR	10010142	15	15/22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010143	15	15/22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010145	20	15/22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010146	15	22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010148	15	22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV20-KVSR	10010150	20	22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010131	15	15/22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010133	15	15/22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV15-KVSR	10010135	20	15/22 mm	= A	86	106	68	37	SW 32	---	SW 4
SRV25-IG	10010156	25	1" IG	= A	120	---	73	69	---	SW 43	SW 6
SRV32-IG	10010159	32	1 ¼" IG	= A	135	---	77	77	---	SW 49	SW 6
SRV40-IG	10010160	40	1 ½" IG	= A	153	---	80	78	---	SW 61	SW 6
SRV50-IG	10010162	50	2" IG	= A	176	---	85	87	---	SW 70	SW 6
SRV25-AG	10010152	25	1 ¼" AG	= A	120	---	73	69	---	---	SW 6
SRV32-AG	10010154	32	1 ½" AG	= A	135	---	77	77	---	---	SW 6
SRV40-AG	on request	40	2" AG	= A	153	---	80	78	---	---	SW 6
SRV50-AG	on request	50	2 ¼" AG	= A	176	---	85	87	---	---	SW 6

AG = male thread, IG = female thread, KVSR = compression fitting

Specification text

WattFlow BP Series

Balancing valve, **WattFlow BP Series** - WATTS Brand, for rapid and exact balancing of consumer circuits in HVAC systems. Integrated flow display with rotatable indicator scale marked in l/min. Actual flow volume can be read off directly without the need for measuring computers or charts. The sight glass of the flow indicator is not installed directly in the medium flow and is therefore protected against soiling. Measuring accuracy ± 10% of measuring value. The flow volume is adjusted via several spindle rotations of an angle seat valve. Installation orientation as desired in the flow or return lines. Nominal diameter DN15÷50, housing 15 made of brass. Sight glass made of impact- and temperature-resistant plastic. Spring made of stainless steel. Gaskets made of EPDM. Max. operating temperature TB 100° C at max. operating pressure PB 10 bar.

Description WattFlow OL

Regulation of consumer circuits in heating, ventilation and air-conditioning systems. Excess or insufficient feed to consumer circuits in HVAC systems is not seldom the cause of malfunctions. **WattFlow OL Series** balancing valves were developed to provide planners and operators with an extremely simple, cost-efficient and effective means of regulating consumer circuits in heating and cooling systems. **WattFlow OL Series** balancing valves can be used to regulate HVAC systems rapidly and with maximum precision without the need for training of personnel.

Hydraulically correctly balanced systems can be regulated with greater precision and therefore save both energy and hard cash!

Type	Part No.	DN	Connection	Flow rate (l/min)	Kvs
SRVOL15-AG	10010098	15	¾" AG**	1 – 8 l/min	1,7
SRVOL15-IGAG	on request	15	½" IG x ¾" AG**	1 – 8 l/min	1,7
SRVOL15-IG	10010101	15	½" IG	1 – 8 l/min	1,7
SRVOL20-KVSR	10010103	20	15 mm*	1 – 8 l/min	1,7
SRVOL20-KVSR	10010104	20	22 mm*	1 – 8 l/min	1,7
SRVOL20-KVSR	10010105	20	15/22 mm*	1 – 8 l/min	1,7
SRVOL20-AG	10010106	20	1" AG	2 – 16 l/min	2,0
SRVOL20-IG	10010108	20	¾" IG	2 – 16 l/min	2,0
SRVOL20-KVSR	10010110	20	15 mm*	2 – 16 l/min	2,0
SRVOL20-KVSR	10010112	20	22 mm*	2 – 16 l/min	2,0
SRVOL20-KVSR	10010114	20	15/22 mm*	2 – 16 l/min	2,0

* eurocone.

AG = male thread, IG = female thread, KVSR = compression fitting

Technical features	
Maximum operating temperature	100°C[1)]
Minimum operating temperature	-10°C[2)]
Maximum operating pressure	6 bar[1)]
Accuracy of flowmeter	±10% of measuring value [3)]

1) Pay attention to the pressure/temperature diagram

2) When using appropriate antifreezing compounds

3) Valid for Water-Glycol above 20°C!

Materials	
Housing	Brass
Flowmeter	Impact and temperature resistant plastic
Spring	Stainless steel
Gaskets	EPDM

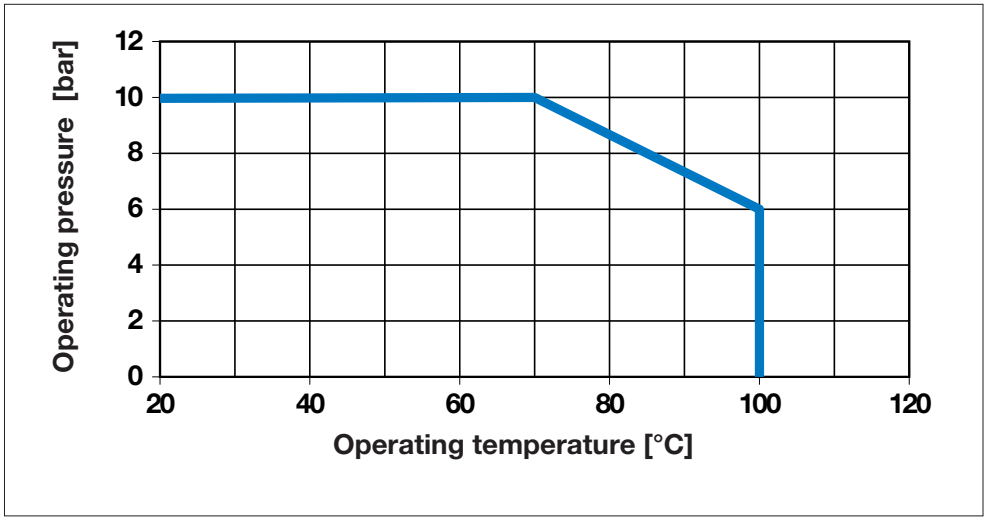
Operation

All **WattFlow OL Series** balancing valves are equipped with an integrated flowmeter which continuously displays the current flow volume in litres/min.

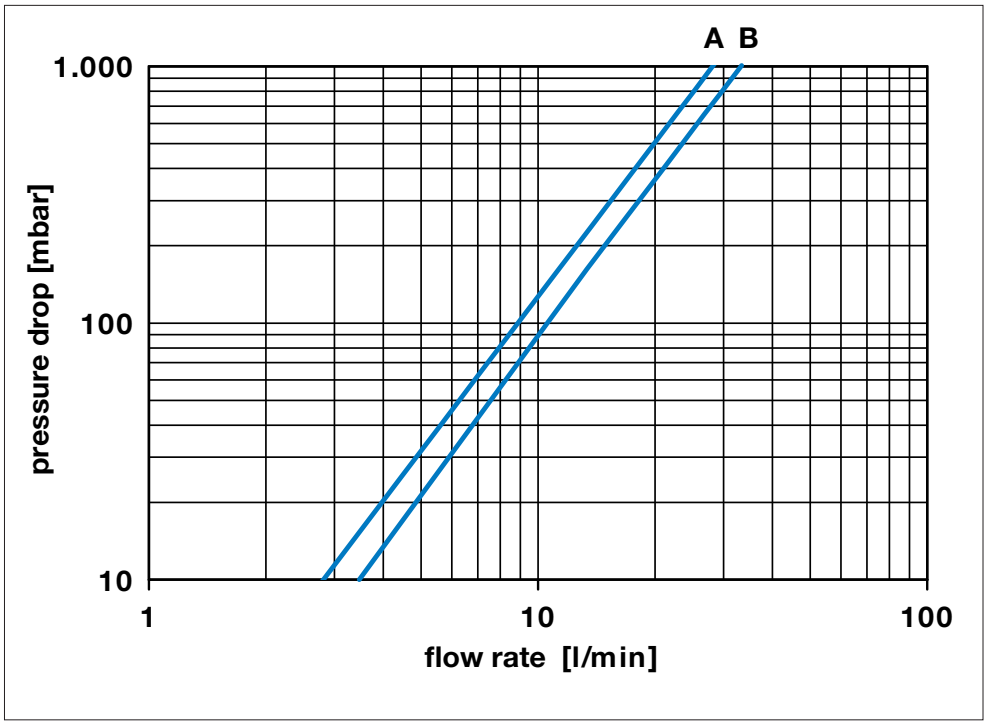
- The advantages of the flow indicator mounted outside the housing axis are as follows: As the flow indicator is not positioned directly in the medium flow, the display is protected against dirt and stays clearly visible for long periods.
- The scale element graduated in litres/min can be rotated about its own axis, thereby allowing convenient read-off of the indicated volume flow in any mounting orientation.
- **WattFlow OL Series** balancing valves and their flow indicators do not require any special inlet route. The length of the straight pipe may also be lower than the recommended straight pipe length (equal to the housing length).
- The valves can be mounted in any desired orientation; the correct direction of flow is indicated by an arrow on the housing.

Charts

Pressure/temperature diagram

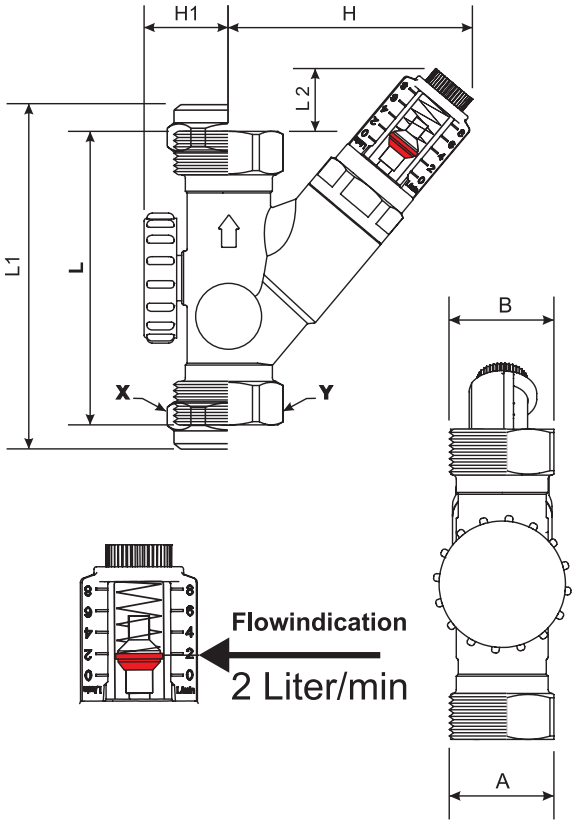


Pressure drop diagram



Pressure drop curve	Flow Rate (l/min)	Kvs
A	1÷8	1,7
B	2÷16	2,0

Overall dimensions (mm)



Part No.	Type	DN	A	B	L	L1	L2	H	H1	X	Y
SRVOL15-AG	10010098	15	¾" AG*	= A	81	---	17	67	23	---	---
SRVOL15-IGAG	on request	15	½" IG	¾" AG*	81	---	17	67	23	---	SW 27
SRVOL15-IG	10010101	15	½" IG	= A	81	---	17	67	23	---	SW 27
SRVOL20-KVSR	10010103	20	15 mm	= A	86	106	7	71	27	SW 32	---
SRVOL20-KVSR	10010104	20	22 mm	= A	86	106	7	71	27	SW 32	---
SRVOL20-KVSR	10010105	20	15/22 mm	= A	86	106	7	71	27	SW 32	---
SRVOL20-AG	10010106	20	1" AG	= A	86	---	15	71	27	---	---
SRVOL20-IG	10010108	20	¾" IG	= A	86	---	15	71	27	---	SW 34
SRVOL20-KVSR	10010110	20	15 mm	= A	86	106	5	71	27	SW 32	---
SRVOL20-KVSR	10010112	20	22 mm	= A	86	106	5	71	27	SW 32	---
SRVOL20-KVSR	10010114	20	15/22 mm	= A	86	106	5	71	27	SW 32	---

*eurocone, AG = male thread, IG = female thread, KVSR = compression fitting

Specification text

WattFlow OL Series

Balancing valve, **WattFlow OL Series** - WATTS Brand, with inclined seat valve for rapid and exact hydraulic balancing of consumer circuits in HVAC systems. Balancing valve with integrated flow indicator which is not installed directly in the medium flow and is therefore protected against soiling. Flow indicator with rotatable indicator scale. Nominal diameter DN 15 e 20 max. operating temperature 100°C at an operating pressure of 6 bar or 70°C at 10 bar. Housing made of brass. Flow indicator made of impact- and heat-resistant plastic. Spring made of stainless steel. Gaskets made of EPDM.

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Watts Industries Italia S.r.l.
Via Brenno, 21 • 20853 Biassono (MB) • Italy
Tel. +39 039 4986.1 • Fax +39 039 4986.222
infowattsitalia@wattswater.com • www.watts.com

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