WASSERTECHNIK

USER MANUAL

Universal Connection Fittings

For Water Softening and Dosing Systems

Valve Blocks: Series A | Series B | Series F | Blending Valve

TECHNICAL DATA

- Maximum operating pressure: 10 bar
- Maximum operating temperature: 90 °C
- Brass housing compliant with Drinking Water Ordinance DIN 50930-6
- Blue handle made of glass-fiber reinforced plastic
- Materials in contact with media comply with the guidelines of the German Environment Agency
- EPDM seal in accordance with DVGW Worksheet W270 requirements
- Optional with differential pressure compensation valve

Fine adjustment valve, test valve, and backflow preventer:

- Variable connection options with internal or external threads

Calculation of flow rate [m³/h]

$$\dot{V} = K_V \cdot \sqrt{\frac{\Delta p \cdot 1000}{p}}$$

APPLICATION AND USAGE AREAS

The valve is used in drinking water softening systems with a pressure rating of PN 10 for industrial, commercial, and household applications.

Caution! Safety Instructions

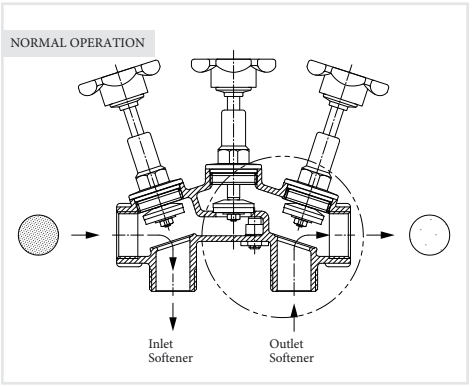
1. Follow the user manual!
2. Use the device:
    a. As intended
    b. In perfect condition
    c. With safety and hazard awareness!
3. Note that the device is exclusively intended for the application specified in this user manual. Any other or extended use is considered improper!
4. Ensure that all assembly, commissioning, maintenance, and adjustment work is carried out only by authorized professionals.
5. Immediately address any malfunctions that could compromise safety.

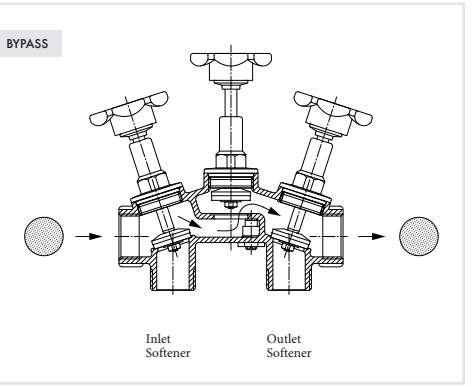
NORMAL OPERATION

In normal operation, the inlet and outlet valves are fully open, and the bypass valve is closed. The medium flows from the water inlet to the "softener inlet." After treatment, the medium re-enters the valve through the "softener outlet" and exits with 0 ° dH. Typically, a hardness level of > 0 °dH is used, which can be adjusted through fine dosing (blending).

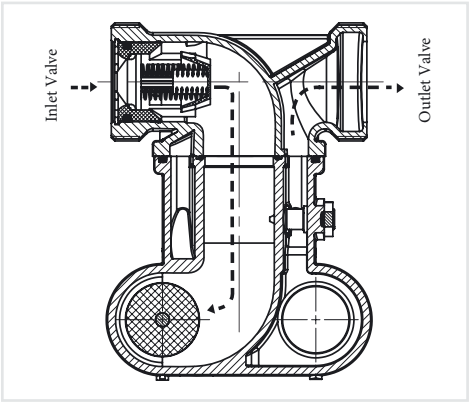
BYPASS OPERATION

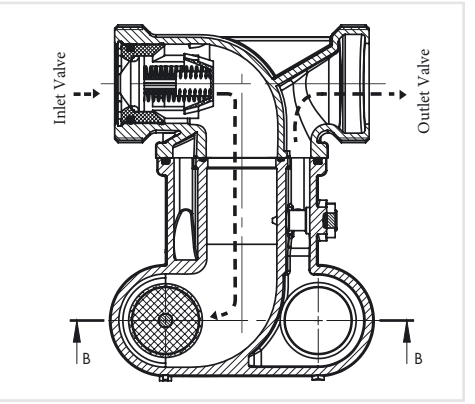
In bypass operation, the inlet and outlet valves are closed, and the bypass valve is open. This allows the connected device to be removed from the universal connection fitting for cleaning, repair, or maintenance.

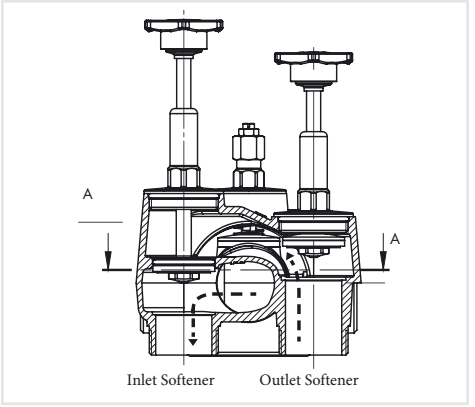


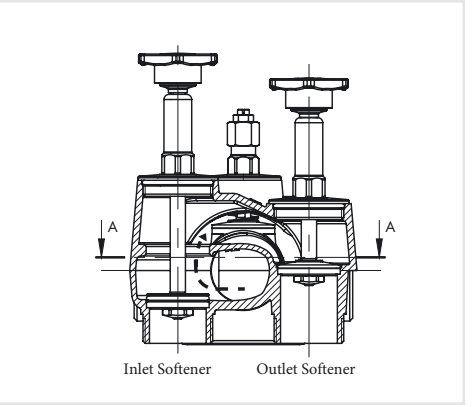


SCHEMATIC REPRESENTATION OF THE F-BLOCK



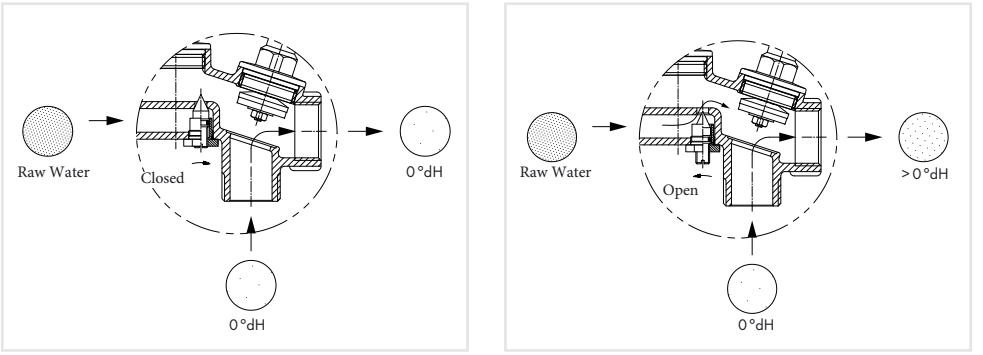






BLENDING ADJUSTMENT FOR ALL SERIES

First, turn the adjustment screw fully to the right until it stops. Then, adjust the screw so that the desired service water hardness is achieved at approximately 10 to 20% (typically around 300 l/h) of the maximum water consumption. If the water hardness is too low, turn the adjustment screw to the left; if it is too high, turn it to the right.

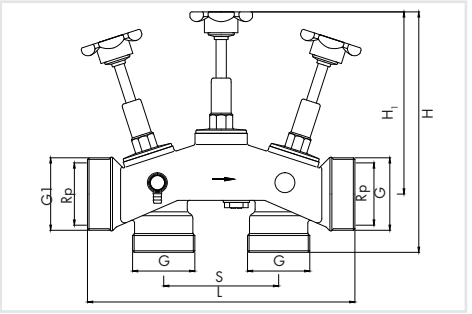


Schematic Representations Series A

FUNCTION DESCRIPTION/ ADJUSTMENT/DIFFERENTIAL

At lower withdrawal rates, the built-in fine adjustment valve can mix softened water to the desired hardness level consistently and precisely. At above-average withdrawal rates, a differential pressure arises due to the pressure loss in the softener between the inlet and outlet, which acts on the closing piston of the differential pressure compensation valve. This overcomes the spring force of the valve, causing the closing piston to start lifting. Depending on the selected setting, a larger or smaller amount of raw water can be mixed with the softened water. At maximum flow, the differential pressure compensation valve corrects the water hardness to 8.4° dH. To achieve this, the adjustment screw of the differential pressure compensation valve is turned to the left. Once the correct setting is achieved, the adjustment screw is secured with the locknut.

OVERVIEW



SERIE A	DN	K_V-Value	Thread			Product Options				Dimensions			
Art.-Nr.			Rp	G	G_1	DV*	FD*	PV*	RV*	S	L	H	H_1
		m³/h								mm			
71005.110.2	25	13,2	1	1						86	166	176	136
71005.112.2		12	1 1/4	1 1/4						86	200	178	134
71005.114.2		13,7	1 1/2	1 1/2						86	216	178	136
71005.239.2		12,5	1	1 1/4						86	166	176	136
71005.246.2		12,5	1 1/4	1						86	200	176	134
71005.247.2		12	1 1/4	1 1/2						86	216	178	136
71006.110.2	25	13,2	1	1				•		86	166	176	136
71006.112.2		12	1 1/4	1 1/4				•		86	200	178	134
71006.114.2		13,7	1 1/2	1 1/2				•		86	216	178	136
71006.239.2		12,5	1	1 1/4				•		86	166	176	136
71006.246.2		12,5	1 1/4	1				•		86	200	176	134
71006.247.2		12	1 1/4	1 1/2				•		86	216	178	136
71015.112.2	25	13,2	1	1	1 1/4			•		86	180	176	136
71003.110.2	25	8,3	1	1	1		•	•	•	86	215	176	136
71004.110.2	25	8,3	1	1	1		•	•	•	86	215	176	136
71008.110.2	25	13,2	1	1			•			86	166	176	136
71008.112.2		12	1 1/4	1 1/4			•			86	200	178	134
71008.114.2		13,7	1 1/2	1 1/2			•			86	216	178	136
71008.239.2		12,5	1	1 1/4			•			86	166	176	136
71008.246.2		12,5	1 1/4	1			•			86	200	176	134
71008.247.2		12	1 1/4	1 1/2			•			86	216	178	136

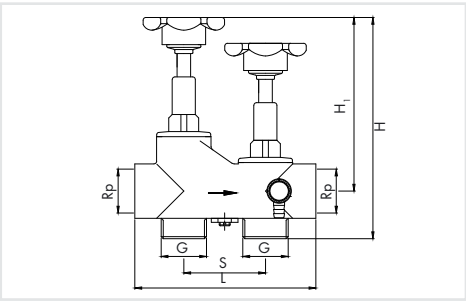
Product Options: DV = Differential Pressure Compensation Valve; FD = Fine Dosing; PV = Test Valve; RV = Backflow Preventer

OVERVIEW

SERIE A	DN	K_V-Value	Thread			Product Options				Dimensions			
Art.-Nr.			Rp	G	G_1	DV*	FD*	PV*	RV*	S	L	H	H_1
		m^3/h								mm			
71017.110.2	25	13,2	1	1			•	•		86	166	176	136
71017.112.2		12	1 1/4	1 1/4			•	•		86	200	178	134
71017.114.2		13,7	1 1/2	1 1/2			•	•		86	216	178	136
71017.239.2		12,5	1	1 1/4			•	•		86	166	176	136
71017.246.2		12,5	1 1/4	1			•	•		86	200	176	134
71017.247.2		12	1 1/4	1 1/2			•	•		86	216	178	136
71015.110.2	25	13,2	1	1	1 1/4		•	•		86	180	176	136
71016.023.2[1]	32/50	-	2	2	2 3/8		•	•$_{2x}$		110	256	230	175
71016.120.2[1]		-	2	2			•	•$_{2x}$		110	256	230	175
71009.110.2	25	13,2	1	1		•	•			86	164	164	124
71009.112.2		12	1 1/4	1 1/4		•	•			86	200	166	122
71009.114.2		13,7	1 1/2	1 1/2		•	•			86	216	166	124
71009.239.2		12,5	1	1 1/4		•	•			86	166	164	124
71009.246.2		12,5	1 1/4	1		•	•			86	200	164	122
71009.247.2		12	1 1/4	1 1/2		•	•			86	216	166	124
71013.110.2	25	7,9	1	1	1 1/4	•	•	•	•	86	215	164	124
71015.012.2	25	12,4	1	1	1 1/4	•	•	•		86	180	164	124
71018.110.1	25	13,2	1	1		•	•	•		86	164	164	124
71018.112.2		12	1 1/4	1 1/4		•	•	•		86	200	164	122
71018.114.2		20,7	1 1/2	1 1/2		•	•	•		86	216	166	124
71018.239.2		12	1	1 1/4		•	•	•		86	166	164	124
71018.246.2		12,5	1 1/4	1		•	•	•		86	200	164	122
71018.247.2		16,9	1 1/4	1 1/2		•	•	•		86	216	166	124

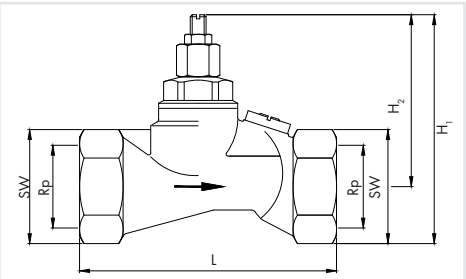
1 = DN 32/50: Application for multi-unit residential buildings, industrial, or large-scale systems

OVERVIEW

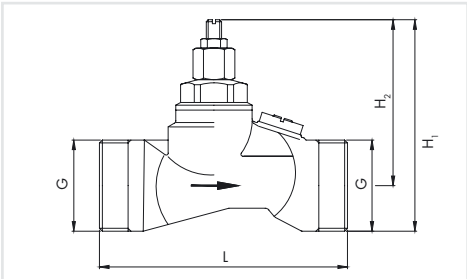


- Available with optional 3/4" external thread
- Article No. 71010.229.2 (double nipple sealed)

SERIE B Art.-Nr.	DN	K_V-Value	Thread			Product Options				Dimensions			
			Rp	G	G_1	DV*	FD*	PV*	RV*	S	L	H	H_1
		m^3/h								mm			
71010.110.2	25	11	1	1			•	•		65	138	166	131
71010.239.2		11	1	1 1/4			•	•		65	138	166	131
71010.229.2	19	-	1	1	3/4		•	•		65	138	166	131



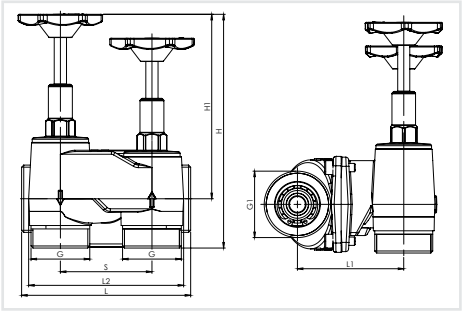
71014.012.2; 71014.020.2



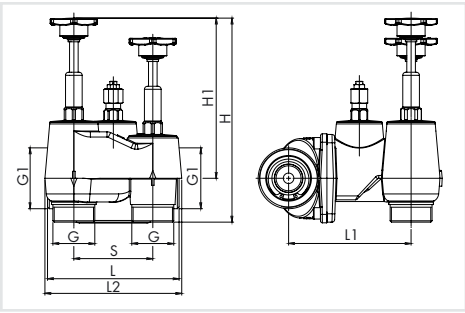
71014.114.2

DN 32/50 Art.-Nr.	DN	K_V-Value	Thread		Product Options				Dimensions				
			Rp	G	DV*	FD*	PV*	RV*	S	L	H_1	H_2	SW
		m^3/h							mm				
71014.012.2	32	10,2	1 1/4		•	•			-	130	115	88	50
71014.114.2		10,2		1 1/2	•	•			-	130	111	88	-
71014.020.2	50	-	2		•	•			-	145	132	93	72

Product Options: DV = Differential Pressure Compensation Valve; FD = Fine Dosing; PV = Test Valve; RV = Backflow Preventer



SERIE F	DN	K_V-Value	Thread		Product Options				Dimensions					
Art.-Nr.			G	G_1	DV*	FD*	PV*	RV*	S	L	L_1	L_2	H	H_1
		m^3/h							mm					
71039.001.2			1	1 1/4		•		•	65	100	72	110	166	131
71039.002.2	**25**		1 1/4	1 1/4		•		•	65	100	72	110	166	131
71039.003.2			1 1/4	1 1/2		•		•	65	120	76	110	166	131
71039.110.2	**25**	-	1			•			65	-	-	110	166	131
71039.239.2	**25**	-	1 1/4			•			65	-	-	110	166	131



SERIE F	DN	K_V-Value	Thread			Product Options				Dimensions					
Art.-Nr.			G	G	G_1	DV*	FD*	PV*	RV*	S	L	L_1	L_2	H	H_1
		m^3/h								mm					
71019.004.2	**40/40**		1 1/2		1 3/4	•	•		•	90	145	139	156	234	184
71019.005.2[1]	**40/50**	23,7	1 1/2		2 3/8	•	•		•	90	150	139	156	234	184
71019.020.2[1]		-	1 1/2		-	•	•			90	150	-	156	234	184

1 = DN 40/50: Application for multi-unit residential buildings, industrial, or large-scale systems
Product Options: DV = Differential Pressure Compensation Valve; FD = Fine Dosing; PV = Test Valve; RV = Backflow Preventer

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