



Braukmann
FK09S

Filter combination with reverse rinsable fine filter
clear filter bowl and balanced-seat pressure reducing valve

APPLICATION

The FK09S filter combinations comprise reverse rinsing filter and pressure reducing valve in one appliance. They ensure a continuous supply of filtered water. The fine filter stops the ingress of foreign bodies, for example rust particles, strands of hemp and grains of sand and thus reduces the probability of corrosion. The pressure reducing valve prevents pressure damage and reduces water consumption.

All individual units correspond to the requirements of current DIN/DVGW specifications. Technical features of each unit also apply to the combination assembly.

SPECIAL FEATURES

- Filtered water supplied even during reverse rinsing
 - Patented reverse rinsing system - fast and thorough cleaning of the filter with small amount of water
 - Memory ring indicates when next manual reverse rinsing is due
 - Automatic reverse rinsing actuator with bayonet connector can be retrofitted
 - Shock resistant clear synthetic material filter bowl enables easy checking of filter contamination
 - Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
 - Filter and complete filter bowl are replaceable
 - The valve insert is of high-quality synthetic material and can be fully exchanged
 - Large filter surface
 - Standardised discharge connection
 - All materials are KTW approved



TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection sizes:	1/2" - 2"
Pressure values	
Min. operating pressure:	1.5 bar (dynamic pressure)
Max. inlet pressure with clear filter bowl:	16 bar
Outlet pressure:	1.5 - 6 bar
Operating temperatures	
Max. operating temperature medium accord. to EN 1567:	30 °C
Specifications	
Installation position:	Horizontal with filter bowl downwards

Note:
The filter is constructed for drinking water installations. In case of a process water application the filter has to be proven individually.

CONSTRUCTION

Overview		Components	Materials
	1	Spring bonnet with adjustment knob and setting scale	High-quality synthetic material
	2	Housing with pressure gauge connections on both sides	Dezincification-resistant brass
	3	Threaded or soldered union connections	Brass
	4	Fine filter in clear filter bowl	Stainless steel, shock-resistant, transparent synthetic material filter bowl
	5	Ball valve with drain connection	Brass (Ball Valve body), Stainless steel (ball), Plastic-durethan (drain adapter)
Not depicted components:			
Valve insert complete with diaphragm and valve seat			High-quality synthetic material, fibre-reinforced NBR diaphragm
Seals			NBR
Double wring wrench			Plastic

METHOD OF OPERATION

The filter combination combines reverse rinsing filter and pressure reducing valve in one appliance.

The filter insert comprises an upper part and a lower combination section. When in the „filtering“ position, the small upper filter is closed so that the water can only pass through the main filter from outside to inside. When the ball valve is opened for reverse rinsing, the filter is pushed downwards until the water supply to the outer side of the main filter is stopped. Simultaneously, the water flow is opened to the upper part of the filter. The water needed for cleaning the filter passes through the upper sieve, the rotating impeller and the main filter from inside to outside. By this means, the filter is fully cleaned over its whole surface area at the full inlet pressure. The filter automatically switches over to the operating position when the ball valve is closed again.

The integral pressure reducing valve functions on a balanced force principle whereby the force exerted by a diaphragm is balanced against the force of an adjustment spring. The inlet pressure has no influence on opening or closing of the valve. Inlet pressure fluctuation does not therefore affect the outlet pressure.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

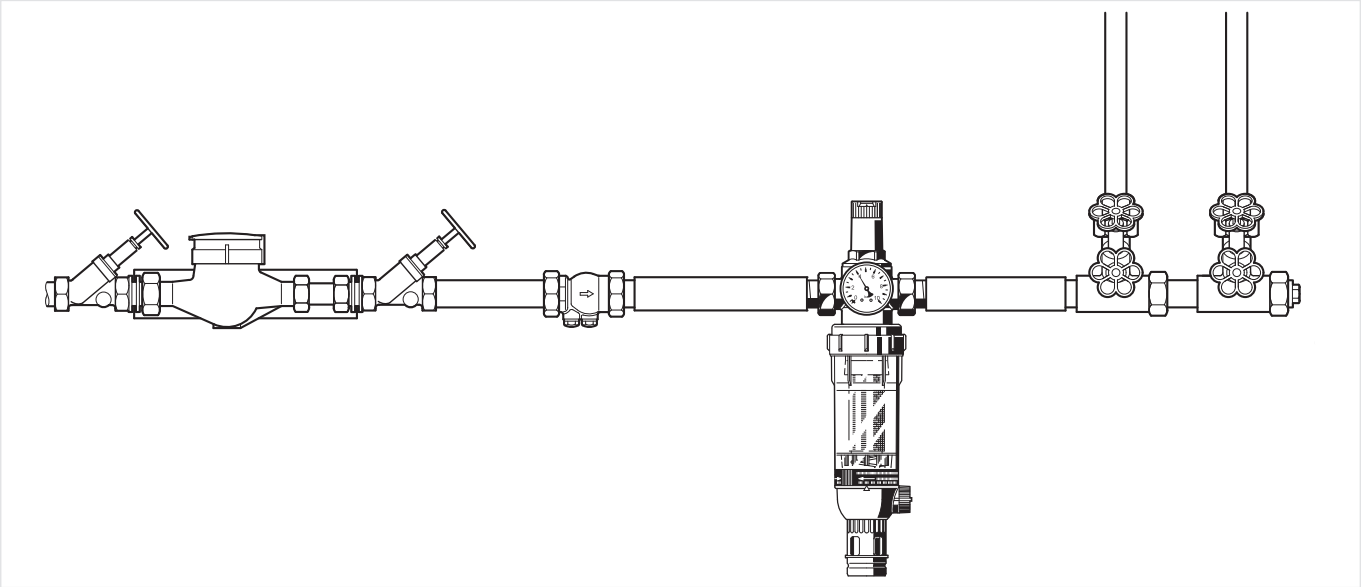
*non condensing

INSTALLATION GUIDELINES

Setup requirements

- Install in horizontal pipework with filter bowl downwards
 - This position ensures optimum filter efficiency
- Install shut-off valves
- Ensure good access
 - Pressure gauge can be read off easily
 - Degree of contamination can be easily seen with clear filter bowl
 - Simplifies maintenance and inspection
- The installation location should be protected against frost
- Related to the EN 806-2 it is recommended to install the filter immediately after the water meter
- In order to avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection

Installation Example

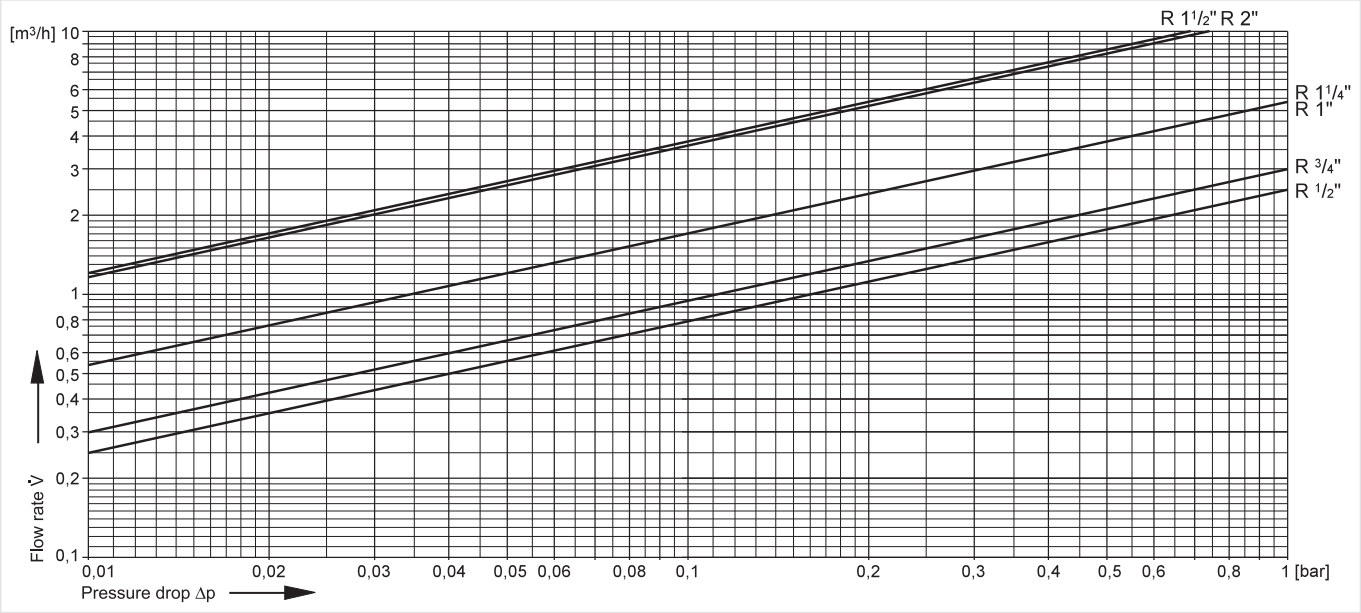


TECHNICAL CHARACTERISTICS

kvs-Values

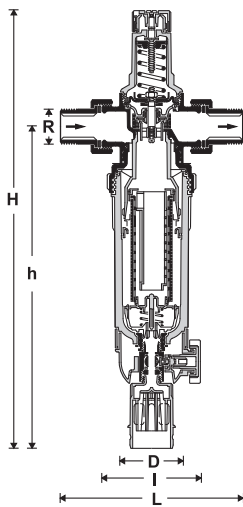
Connection sizes:	15	20	25	32	40	50
k _{VS} -value (m ³ /h):	2.5	3.0	5.8	5.9	5.9	5.9

Pressure drop characteristics



DIMENSIONS

Overview



Parameter		Values					
Connection sizes:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Nominal size diameter:	DN	15	20	25	32	40	50
Dimensions:	L	140	158	179	197	226	257
	I	80	90	100	100	130	140
	H	466	466	489	489	617	617
	h	377	377	379	379	444	444
	D	100	100	100	100	122	122
Weight:	kg	3.0	3.2	3.5	3.8	6.4	7.6

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

The filter combination is available in the following sizes: 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2".

- standard
- not available

		FK09S-...AA	FK09S-...EA
Connection type:	Threaded union connectors, filter mesh size 100 µm	•	-
	Without connections, filter mesh size 100 µm	-	•

Note: ... = space holder for connection size

Note: Ordering number example for 1" and type AA valve: FK09S-1AA

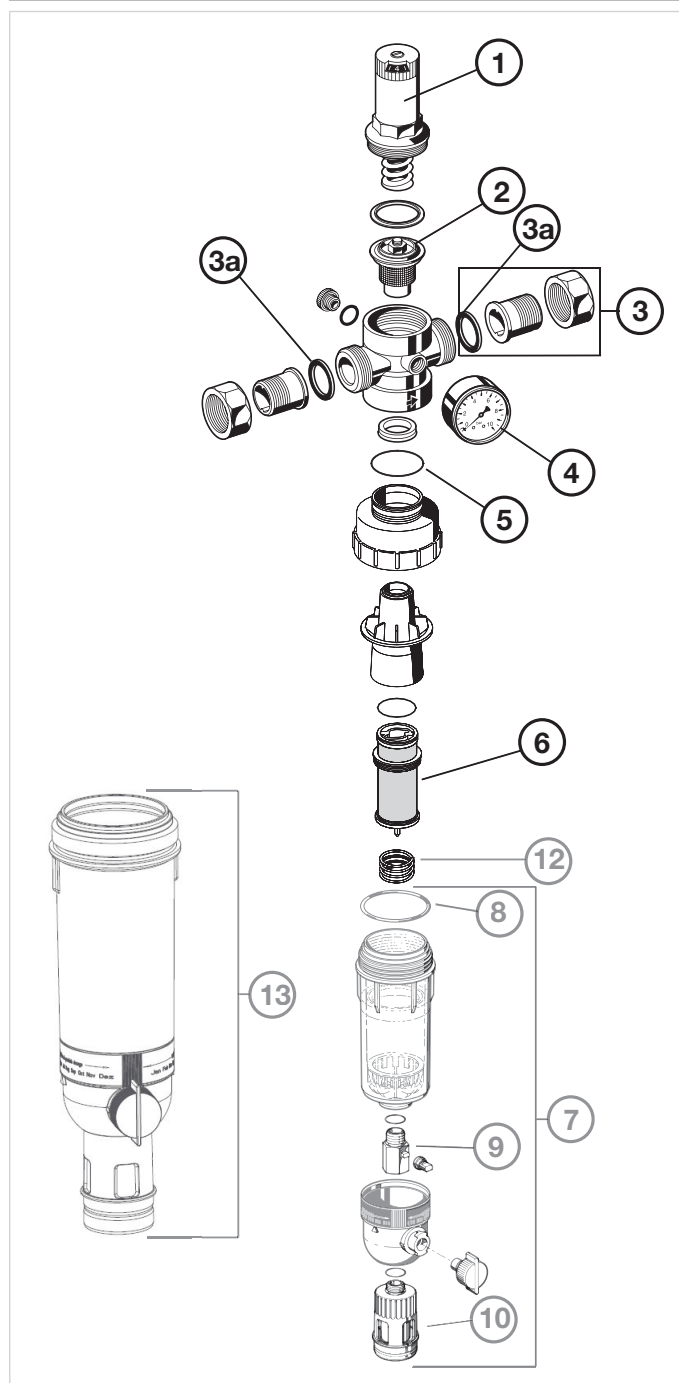
Accessories

	Description	Dimension	Part No.
	Z11S Automatic reverse rinsing actuator		
	For automatic filter cleaning at presettable intervals		
	230 V, 50/60 Hz, 10 with moulded Schuko electrical plug		Z11S-A
	24 V, 50/60 Hz, 10 without electrical plug		Z11S-B
	230 V, 50/60 Hz, 10 with moulded Type 12 electrical plug for Switzerland		Z11S-Z
	VST06B Connection set		
	Solder connections		
		1/2"	VST06-1/2B
		3/4"	VST06-3/4B
		1"	VST06-1B
		1 1/4"	VST06-1 1/4B
		1 1/2"	VST06-1 1/2B
		2"	VST06-2B
	ZR10K Double ring wrench for removing the filter bowl		
		1/2" + 3/4"	ZR10K-3/4
		1" + 1 1/4"	ZR10K-1
		1 1/2" + 2"	ZR10K-1 1/2

Spare Parts

FK09S Filter Combinations from 1997 onwards

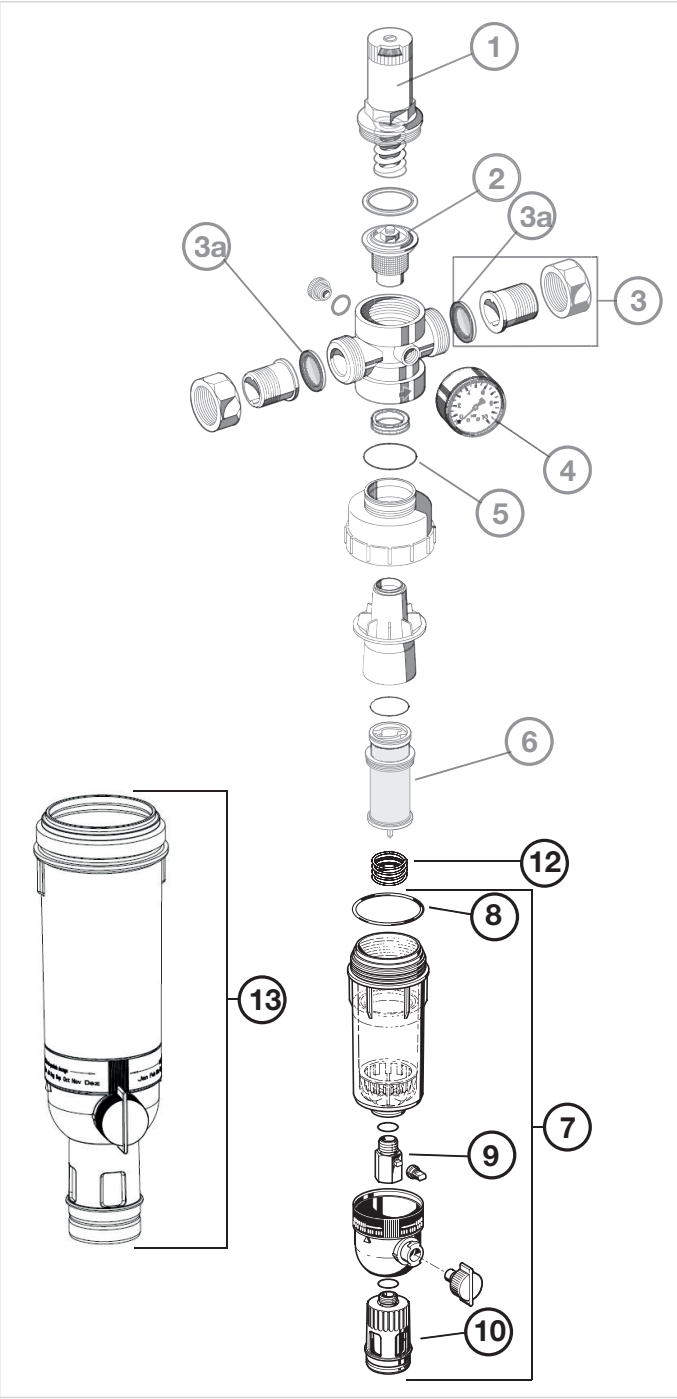
Overview



	Description	Dimension	Part No.
1	Spring bonnet complete with setting scale		
		1/2" + 3/4"	0901515
		1" + 1 1/4"	0901516
		1 1/2" + 2"	0901518
2	Valve replacement set complete (without strainer)		
		1/2" + 3/4"	D06FA-1/2
		1" + 1 1/4"	D06FA-1B
		1 1/2" + 2"	D06FA-11/2
3	Connection set threaded connection		
		1/2"	VST06-1/2A
		3/4"	VST06-3/4A
		1"	VST06-1A
		1 1/4"	VST06-11/4A
		1 1/2"	VST06-11/2A
		2"	VST06-2A
3a	Union seal washer (10 pcs.)		
		1/2"	0901443
		3/4"	0901444
		1"	0901445
		1 1/4"	0901446
		1 1/2"	0901447
		2"	0901448
4	Pressure gauge		
		0 - 10 bar	M07M-A10
5	O-ring set (10 pcs.)		
		1/2" + 3/4"	0901246
		1" + 1 1/4"	0901499
		1 1/2" + 2"	0901248
6	Filter insert complete		
	Filter mesh 100 µ	1" - 1 1/4"	AF11S-1A
	Filter mesh 100 µ	1/2" - 3/4"	AF11S-1/2A
	Filter mesh 100 µ	1 1/2" - 2"	AF11S-11/2A
	Filter mesh 20 µ	1" - 1 1/4"	AF11S-1B
	Filter mesh 20 µ	1/2" - 3/4"	AF11S-1/2B
	Filter mesh 20 µ	1 1/2" - 2"	AF11S-11/2B
	Filter mesh 50 µ	1" - 1 1/4"	AF11S-1C
	Filter mesh 50 µ	1/2" - 3/4"	AF11S-1/2C
	Filter mesh 50 µ	1 1/2" - 2"	AF11S-11/2C
	Filter mesh 200 µ	1" - 1 1/4"	AF11S-1D
	Filter mesh 200 µ	1/2" - 3/4"	AF11S-1/2D
	Filter mesh 200 µ	1 1/2" - 2"	AF11S-11/2D
	Filter mesh 300 µ	1" - 1 1/4"	AF11S-1E
	Filter mesh 300 µ	1/2" - 3/4"	AF11S-1/2E
	Filter mesh 300 µ	1 1/2" - 2"	AF11S-11/2E
	Filter mesh 500 µ	1" - 1 1/4"	AF11S-1F
	Filter mesh 500 µ	1/2" - 3/4"	AF11S-1/2F
	Filter mesh 500 µ	1 1/2" - 2"	AF11S-11/2F

Note: 7 - 13 see on page 7

Overview



Description	Dimension	Part No.
7 Clear filter bowl		
	1/2" - 1 1/4"	KF11S-1A
	1 1/2" - 2"	KF11S-11/2A
8 O-ring set (10 pcs.)		
	1/2" - 1 1/4"	0900747
	1 1/2" - 2"	0900748
9 Drain connector		
	1/2" - 2"	AA76-1/2A
10 Ball valve complete		
	1/2" - 2"	KH11S-1A
11 Double ring wrench for removing the filter bowl and spring bonnet (no fig.)		
	1/2" - 1 1/4"	ZR10K-1
	1 1/2" + 2"	ZR10K-11/2
12 Spring		
	1/2" - 1 1/4"	2074900
	1 1/2" - 2"	2159400
13 Red bronze filter bowl		
	3/4" - 1 1/4"	FT09RS-1A
	1 1/2" - 2"	FT09RS-11/2A

Note: 1 - 6 see on page 6



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