



Braukmann FK74CS/FKN74CS (DN40, DN50)

Filter combination

with pressure reducing valve and reverse rinsing fine filter

APPLICATION

The 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.

The filter combinations are fitted in systems where a pressure reducing valve is required. Both horizontal and vertical installation is possible.

APPROVALS

- DVGW

approval for all filters with 100 µm mesh sizes and with rotatable connection piece

SPECIAL FEATURES

- Integral pressure reducing valve with balanced seat
- Inlet pressure balancing – no influence on outlet pressure by fluctuating inlet pressure
- 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
- Large filter surface
- Shock resistant clear synthetic material filter bowl enables easy checking of filter contamination
- Filter insert fully replaceable
- Standardised discharge connection
- ACS certified
- All materials are KTW approved
- All materials are UBA conform
- Approved by TÜV LGA for low noise, Group 1 without limitations



TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection sizes:	1½" - 2" (with rotatable connector piece)
Pressure values	
Operating pressure range:	1.5 - 16.0 bar
Max. inlet pressure:	16 bar (up to 12.0 bar long*-term)
Outlet pressure:	1.5 - 6.0 bar adjustable
Operating temperatures	
Operating temperature range medium accord. to EN 1567:	5 - 30 °C
Specifications	
Installation position:	Horizontal or vertical, with filter bowl downwards

* For maintaining the measuring accuracy of the manometer, a continuous maximum pressure load of 12.0 bar is permitted.

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 Adjustment handle	Plastic
	2 Spring bonnet with internal adjustment screw	High-quality synthetic material
	3 Housing with pressure gauge	Lead-free brass
	4 Rotatable connector piece, flange sealings, connecting nuts and fittings (FK74CS only)	Lead-free brass (rotatable connection piece, tail pieces), dezincification-resistant brass (connection nuts), unitec 300 (flange sealing)
	5 Clear filter bowl	Shock-resistant, clear transparent synthetic material
	6 Fine filter	Stainless steel
	7 Ball valve with drain connection	Lead-free brass (Ball Valve body), Lead-free material (ball), Plastic-durethan (drain adapter)
Not depicted components:		
	Memory ring	Plastic
	Allen key WS8	Metal
	Valve insert complete with diaphragm and valve seat	High-quality synthetic material, stainless steel
	Wrench for filter bowl and spring bonnet	Plastic
	Covers and reverse rinsing handle	Plastic
	Diaphragm	Fibre-reinforced Elastomer
	Sealing washers	EPDM

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 insert 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 % *

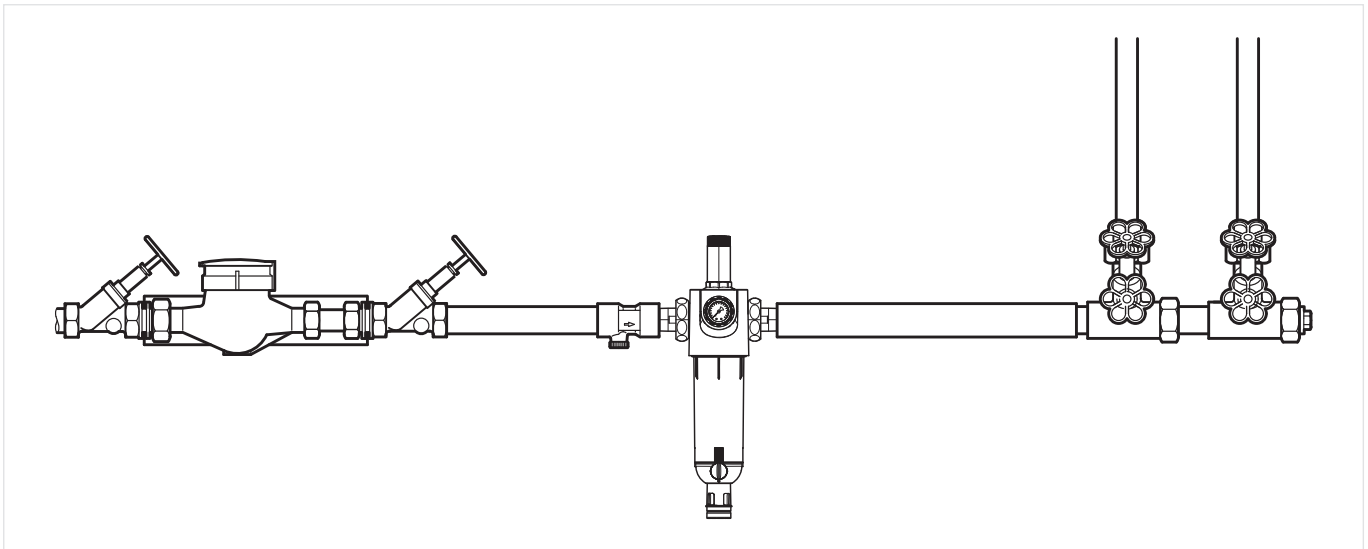
*non condensing

INSTALLATION GUIDELINES

Setup requirements

- The installation site has to be frost-proof and the protection of the device from chemicals, paints, detergents, solvents and their vapours and environmental influences must be guaranteed
- Install in horizontal or vertical pipework with filter bowl downwards
 - This position ensures optimum filter efficiency
- Install shut-off valves
- These filters are armatures which need to be maintained regularly
- 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
- It is recommended that a straight section of pipework at least five times the nominal valve size is provided after the filter (according to DIN EN 806-2)
- Fit immediately after water meter
- 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

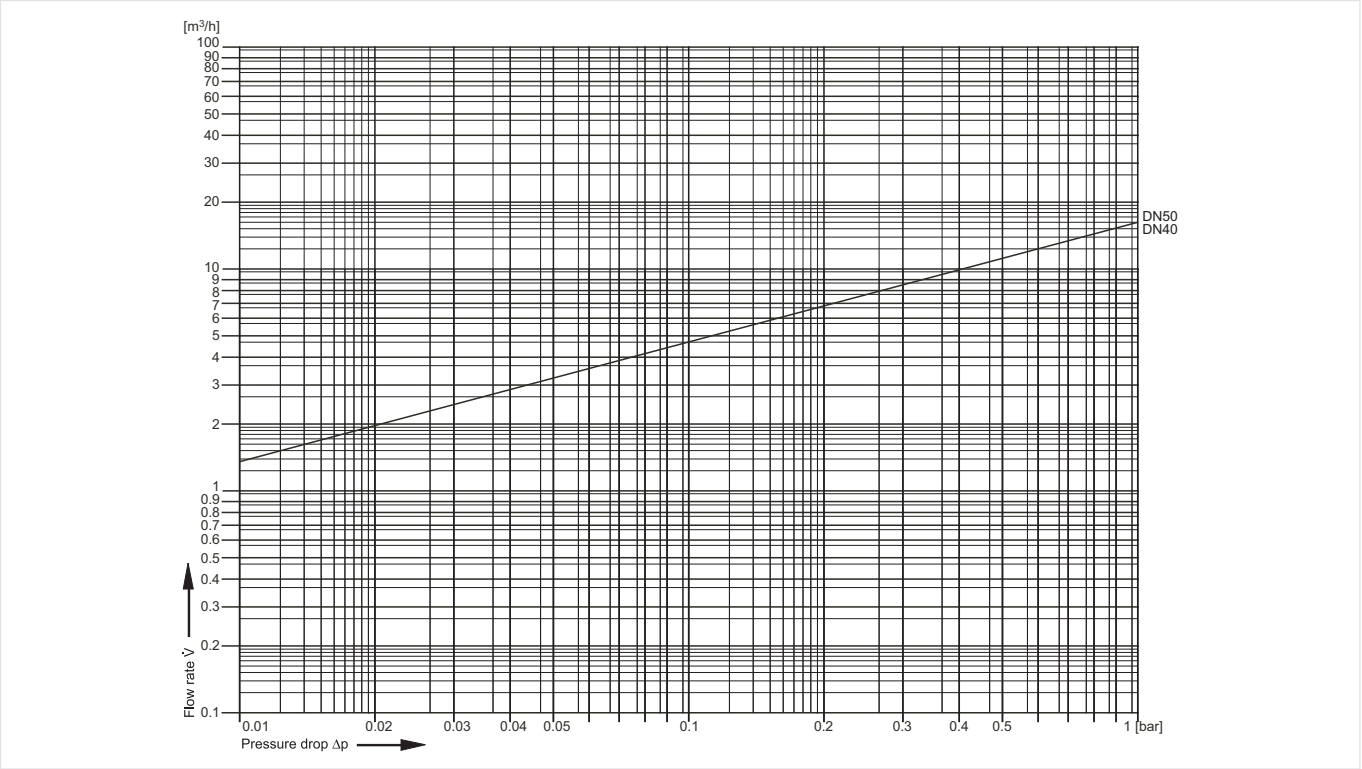


TECHNICAL CHARACTERISTICS

kvs-Values

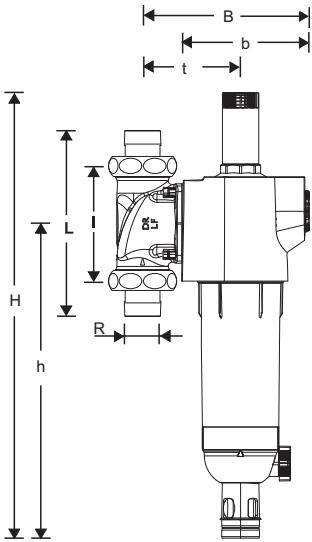
Connection sizes:	40	50
k _{VS} -value (m ³ /h):	11.5	11.5

Pressure drop characteristics



DIMENSIONS

Overview



Parameter		Values	
Connection sizes:	R	1½"	2"
Nominal sizes:	DN	40	50
Weight:	kg	9.753	10.652
Dimensions:	H	590	590
	h	416	416
	L	246	267
	l	150	150
	B	216	216
	b	187	187
	t	130	130
	ØT	50	50
DVGW registration number:		on request	

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: 1½" and 2".

- standard
- not available





with pressure reducing valve

		FK74CS-...LFAA	FKN74CS-2LFA
Connection type:	With rotatable connector piece, filter mesh size 95/110 µm, lead-free materials	•	-
	Retrofit version without rotatable connector piece, filter mesh size 95/110 µm, lead-free materials	-	•

Note: ... = space holder for connection size

Note: Ordering number example for 2" and type LFAA valve: FK74CS-2LFAA

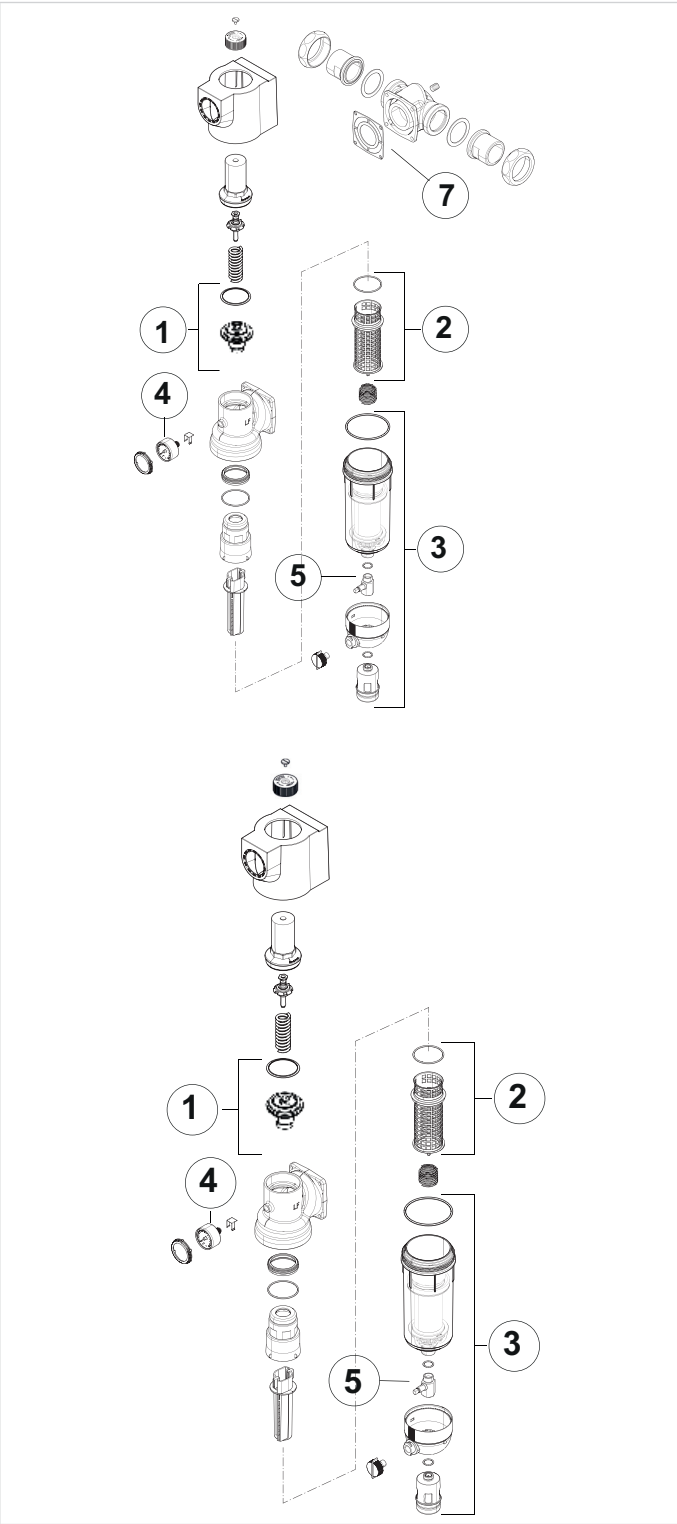
Accessories

	Description	Dimension	Part No.
	DA74CS Rotatable connector piece		
	For connection of retrofit filters and filter combinations		
		1½" 2"	DA74CS-11/2LFA DA74CS-2LFA
	ZR10K Double ring wrench for removing the filter bowl		
			ZR10K-11/2
	VST Lead-free connection set		
	Threaded connections		
		1½" 2"	VST74CS-11/2LFA VST06-2LFA
	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

Spare Parts

Filter combinations FK74CS / FKN74CS from 2018 onwards

Overview



Description	Dimension	Part No.
1 Valve insert complete		
		D06FI-11/2
2 Filter insert complete		
100µm		AF11S-11/2A
20 µm		AF11S-11/2B
50 µm		AF11S-11/2C
200 µm		AF11S-11/2D
3 Complete clear filter bowl		
		KF11SB-2A
4 Pressure gauge rear connection thread G1/4"		
	0 - 16 bar	M74CS-A16
5 Ball valve complete		
		KH11S-1LFA
6 Double ring wrench for removing the filter bowl (no fig.)		
		ZR10K-11/2
7 Flange seal		
		5975901



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