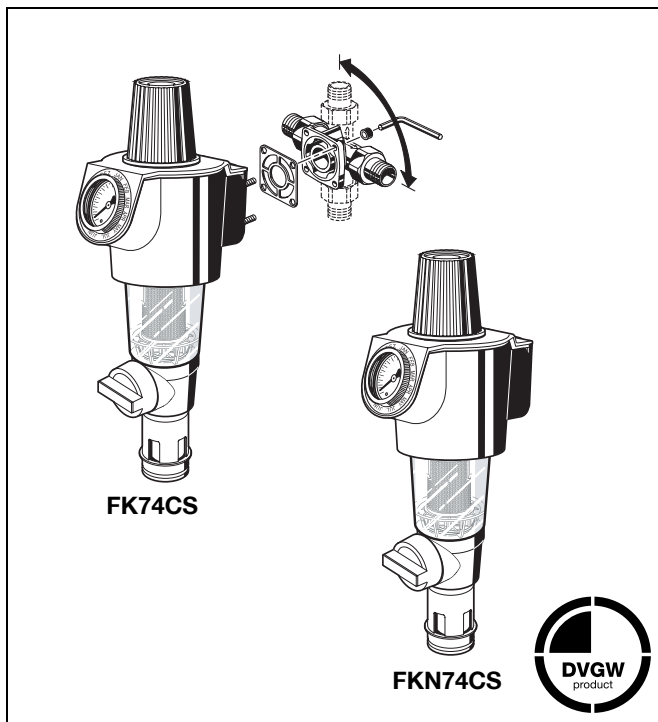


## FK74CS / FKN74CS

Filter combination  
with pressure reducing valve and reverse rinsing fine filter

### Product specification sheet



#### 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. 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.

#### Special Features

- DVGW approved
- Integral pressure reducing valve with balanced seat
- Inlet pressure balancing - fluctuating inlet pressure does not influence outlet 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
- Meets KTW recommendations for potable water

#### Range of Application

Medium	Water
Inlet pressure	Max. 16.0 bar (up to 12.0 bar long-term)
Outlet pressure	1.5-6 bar adjustable

The filter is constructed for drinking water installations. In case of a process water application the filter has to be proven individually. For maintaining the measuring accuracy of the manometer, a continuous maximum pressure load of 12.0 bar is permitted.

#### Technical Data

Installation position	Vertical or horizontal, with filter bowl downwards
Operating pressure	Min. 1.5 bar; Max. 16.0 bar
Operating temperature	5 - 30 °C
Connection size R with rotatable connector piece	1/2, 3/4", 1", 1 1/4"

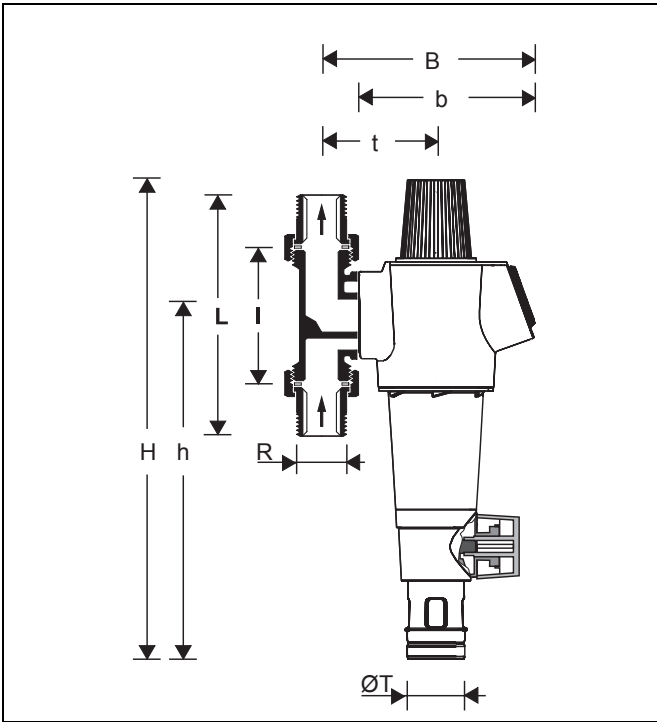
#### Construction

The filter combination comprises:

- Housing with pressure gauge
- Spring bonnet with internal adjustment screw
- Adjustment handle with cover cap
- Valve insert complete with diaphragm and valve seat
- Clear filter bowl
- Fine filter
- Ball valve with drain connection
- Reverse rinsing handle
- Rotatable connector piece, flange sealings, connecting nuts and fittings (FK74CS only)
- Memory ring
- Covers
- Wrench for filter bowl and spring bonnet
- Allen key WS6

#### Materials

- High quality synthetic material housing, spring bonnet and guide piece
- Synthetic material valve insert, filter mesh carrier, adjustment handle, reverse rinsing handle and covers
- Dezincification resistant brass connector piece (FK74CS only)
- Stainless steel fine filter
- Shock-resistant, clear transparent synthetic material filter bowl
- Fibre-reinforced NBR diaphragm
- EPDM sealing washers



**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.

**Options**

- FK74CS-...AA = With rotatable connector piece, filter mesh size 95/110 µm
- FK74CS-...AC = With rotatable connector piece, filter mesh size 50 µm
- FK74CS-...AD = With rotatable connector piece, filter mesh size 200 µm
- Connection size
- FKN74CS-1A = Retrofit version without rotatable connector piece, filter mesh size 95/110 µm
- FKN74CS-1C = Retrofit version without rotatable connector piece, filter mesh size 50 µm

Connection size	R	1/2"	3/4"	1"	1 1/4"
Weight	approx. kg	2.3	2.3	2.6	2.9
Dimensions	mm				
	H	415	415	415	415
	h	298	298	298	298
	L	150	158	179	197
	l	90	90	100	105
	B	178	178	178	182
	b	150	150	150	150
	t	92	92	92	96
	ØT	50	50	50	50
k <sub>vs</sub> -value		4.5	5.8	6.2	6.5
DVGW-Approval No.		NW-9311 CM 0032			

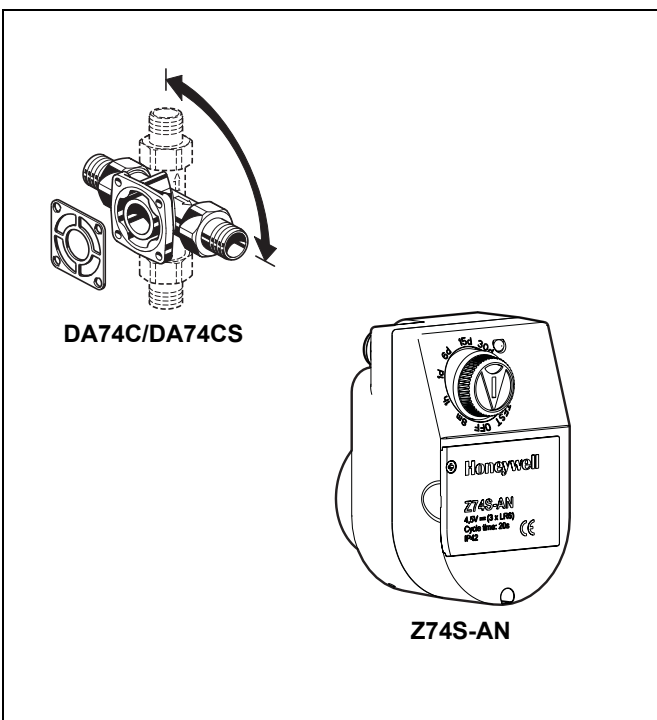
**Accessories**

**DA74C/CS Rotatable connector piece**

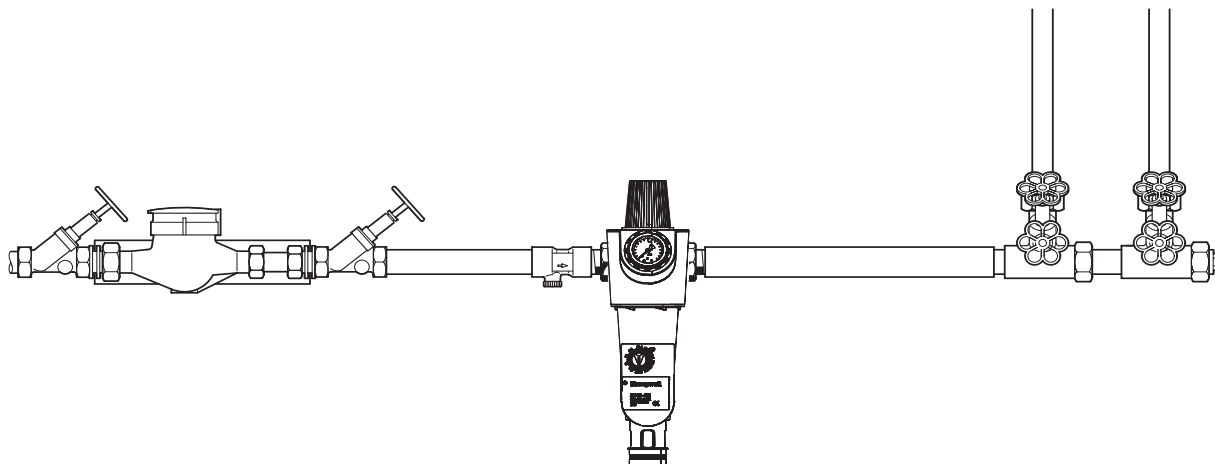
- For connection of retrofit filters and filter combinations
- DA74CS for connection size 1/2"
- DA74C for connection sizes 3/4", 1", 1 1/4"

**Z74S-AN Automatic reverse rinsing actuator**

- For automatic filter cleaning at presettable intervals



## Installation Example



### Installation Guidelines

- 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 shutoff valves
- Ensure good access
  - Pressure gauge can be read off easily
  - Degree of contamination can be 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 combination (according to DIN EN 806, part 2)
- Fit immediately after water meter

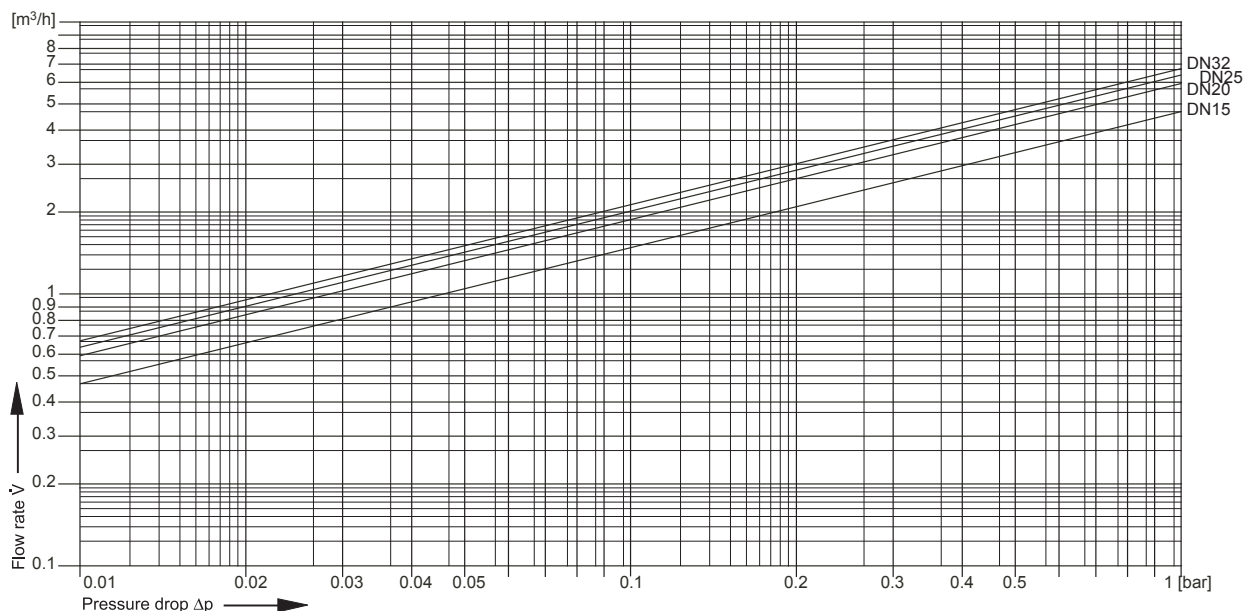
### Typical Applications

Filter combinations of this type are suitable for all types of household installations. They can also be used for commercial and industrial applications within the limits of their specifications.

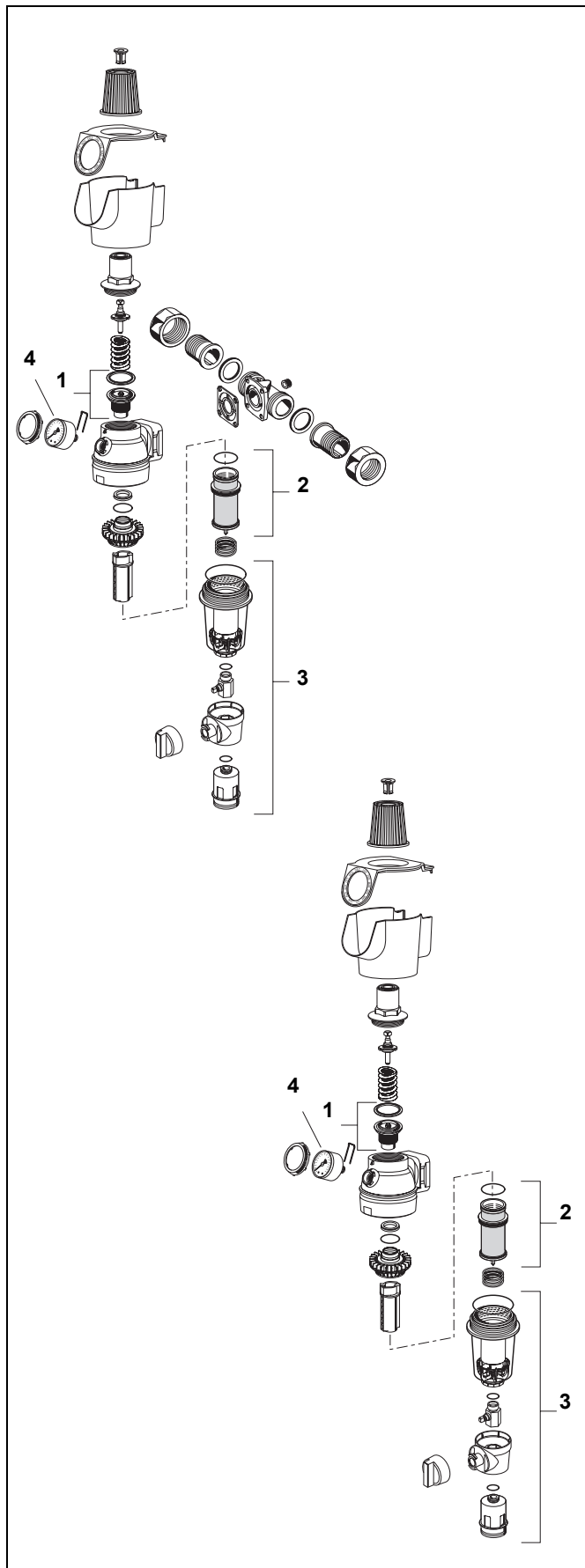
Filter combinations of this type are installed:

- Where there is existing metal or plastics pipework
- For installation in horizontal or vertical pipework
- As replacement for an existing filter
- Where space is a problem, particularly where clearance from the wall is limited
- For protection against noise when the static pressure at take off points exceeds 5.0 bar (DIN 4109)
- If the static pressure exceeds the maximum permissible operating pressure of an installation
- If pressure fluctuations in the downstream system must be avoided

### Flow Diagram



**Filter combinations FK74CS / FKN74CS (from 2010 onwards)**



No.	Description	Dimension	Part No.
1	Valve insert complete	1/2" - 1 1/4"	D06FA-1B
2	Filter insert complete		
	Filter mesh 95/110 µm	1/2" - 1 1/4"	AF74-1A
	Filter mesh 50 µm	1/2" - 1 1/4"	AF74-1C
	Filter mesh 200 µm	1/2" - 1 1/4"	AF74-1D
3	Clear filter bowl complete	1/2" - 1 1/4"	KF74CS-1A
4	Pressure gauge rear connection thread G1/4" Range 0 - 16 bar		M74CS-A16
5	Wrench for removing filterbowl and spring bonnet (no fig.)		ZR74CS

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