# Honeywell Home Filter Combinations



# FK76CS/FKN76CS

Reverse rinsing filter combination with rotatable connector flange

# 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.

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

# APPROVALS

• DVGW

approval for all filters with 100  $\mu$ m mesh sizes

# SPECIAL FEATURES

- Double Spin Technology
  - Cartridge with external rotor enabling simultaneous cleaning in lower and upper filter areas
  - Visual function check possible
- Balanced seat valve
- 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
- Valve and filter inserts fully interchangeable
- Large filter surface
- Filter and complete filter bowl are replaceable
- Standardised discharge connection
- All materials are KTW approved
- Approved by TÜV LGA for low noise, Group 1 without limitations

# **TECHNICAL DATA**

Media				
Medium:	Drinking water			
Connections/Sizes				
Connection sizes:	3/4" - 11/4"			
Pressure values				
Min. operating pressure:	1.5 bar			
Max. inlet pressure with clear	16 bar			
filter bowl:				
Outlet pressure:	1.5 - 6.0 bar			
Operating temperatures				
Max. operating temperature	40 °C with clear filter bowl			
medium:				
Specifications				
Installation position:	Horizontal or vertical,			
	with filter bowl downwards			
	drinking water installations. In case of a			

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

# CONSTRUCTION

#### Overview



## **METHOD OF OPERATION**

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

The downstream reverse rinsing fine filter holds back any dirt particles in the water. These particles are then completely flushed out by reverse rinsing.

Filters with Double Spin Technology have turbine blades which circulate the water and thereby set the rotor on the upper filter into a rotational motion. The internal impeller rinses off particles that have adhered to the upper filter at the intersecting points with the rotor.

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

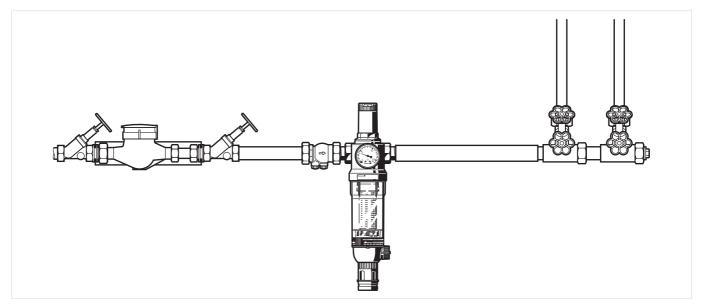
	Components	Materials			
1	Spring bonnet with adjustment knob and setting scale	High-quality synthetic material			
2	Threaded male connections	Brass			
3	Rotatable connector piece (FK76CS only)	Red bronze			
4	Housing with pressure Red bronze gauge				
5	Fine filter in clear filter bowl	Shock-resistant, clear transparent synthetic material filter bowl, stainless steel fine filter			
6	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			
	Double wring wrench	Plastic			
	Seals	NBR			

# **INSTALLATION GUIDELINES**

#### Setup requirements

- 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
- The installation location should be protected against frost
- 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

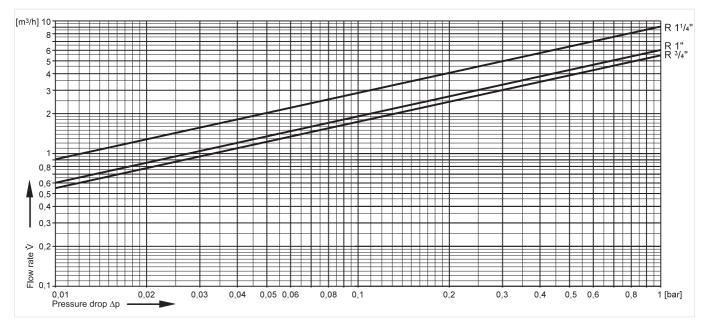


# **TECHNICAL CHARACTERISTICS**

#### kvs-Values

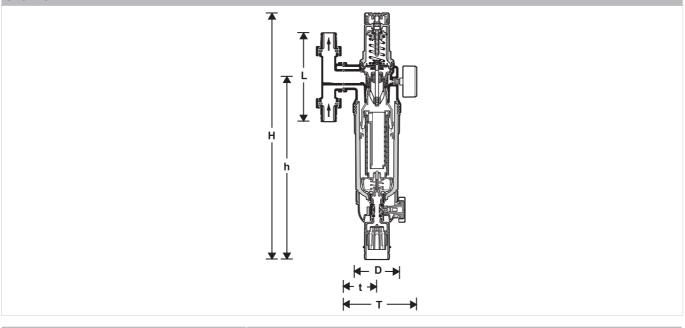
Connection sizes:	15	20	25	32
k <sub>vs</sub> -value (m <sup>3</sup> /h):	4.5	5.8	6.2	6.5

#### **Pressure drop characteristics**



# DIMENSIONS

#### Overview



Parameter		Values		
Connection sizes:	R	3/4"	1"	11/4"
Nominal sizes:	DN	20	25	32
Weight:	kg	3.9	4.0	4.1
Dimensions:	L	158	179	197
	Т	177	177	181
	t	95	95	99
	Н	493	493	493
	h	363	363	363
	D	97	97	97
DVGW registration number:	NW-9311AT2317			

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: 3/4", 1" and 11/4".

- standard
- not available

		FK76CSAA	FKN76CS-1A
Connection type:	Filter mesh size 100 µm, incl. rotatable connector piece DA74C with threaded male connections	•	-
	Filter mesh size 100 $\mu\text{m},$ rotatable connector piece DA74C has to be ordered separately - see accessories	-	•

Note: ... = space holder for connection size

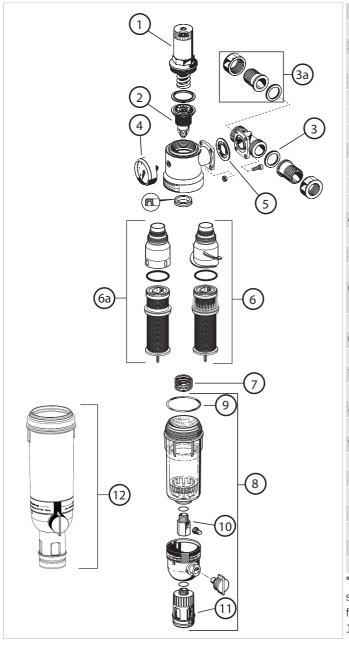
#### Accessories

Descri Z11S	Automatic reverse rinsing actuator				
	Automatic reverse mising actuator				
	For automatic filter cleaning at presettabl	For automatic filter cleaning at presettable intervals			
0 Q. 100 0 0.	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 1 Switzerland	230 V, 50/60 Hz, 10 with moulded Type 12 electrical plug for			
ZA760	Connector piece				
		For conversion of the fine filters with rotatable connector pieces $(1^{1}/_{4}" \text{ and } 1^{1}/_{2}")$ into retrofit filter combinations (Converts 63 mm hole centres to 45 mm hole			
		3/4"	ZA76C-3/4A		
		1"	ZA76C-1A		
		11/4"	ZA76C-11/4A		
VST06	Connection set				
	Solder connections	Solder connections			
		1/2"	VST06-1/2B		
		3/4"	VST06-3/4B		
		1"	VST06-1B		
		$1^{1}/_{4}$ "	VST06-11/4B		
		$1^{1}/_{2}$ "	VST06-11/2B		
		2"	VST06-2B		
DA740	Rotatable connector piece				
	For connection of retrofit filters FN76CS.				
		3/4"	DA74C-3/4A		
		1"	DA74C-1A		
		11/4"	DA74C-11/4A		
ZR10K	Double ring wrench for removing the fil	ter bowl			
		1/2" + 3/4"	ZR10K-1/2		
		$1" + 1^{1}/4"$	ZR10K-1		
		$1^{1}/_{2}$ " + 2"	ZR10K-11/2		

#### **Spare Parts**

Filter combinations FK76CS / FKN76CS from 1997 onwards

#### Overview



	Description	Dimension	Part No.				
1	Spring bonnet complete with setting scale						
		$3/4$ " - $1^{1}/4$ "	0901517				
2	Valve insert complete (without sieve)						
		$3/4$ " - $1^{1}/4$ "	D06FA-1A				
3	Union seal washer (10 pcs.)						
		3/4"	0901444				
		1"	0901445				
		$1^{1}/4$ "	0901446				
3a	Connection set threade						
		3/4"	VST06-3/4A				
		1"	VST06-1A				
		$1^{1}/4$ "	VST06-11/4A				
4	Pressure gauge						
		0 - 16 bar	M07M-A16				
5	Flange seal						
		$3/4$ " - $1^{1}/4$ "	5536400				
6	Filter insert complete*, for filters with Double Spin Technology, Filter mesh 100 µm						
		$3/4$ " - $1^{1}/4$ "	AF11DS-1A				
6a	Filter insert complete*, filter mesh 100 µm						
		$3/4$ " - $1^{1}/4$ "	AF11S-1A				
7	Spring						
		$3/4$ " - $1^{1}/4$ "	2074900				
8	Clear filter bowl						
		$3/4$ " - $1^{1}/4$ "	KF11S-1A				
9	O-ring set (10 pcs.)						
		$3/4$ " - $1^{1}/4$ "	0900747				
10	Ball valve complete						
		$3/4$ " - $1^{1}/4$ "	KH11S-1A				
11	Drain connector						
		$3/4$ " - $1^{1}/4$ "	AA76-1/2A				
12	Red bronze filter bowl	0					
		$3/4$ " - $1^{1}/4$ "	FT09RS-1A				

\*The filter guide (either with double spin or without double spin feature) is included in the packaging of the replacement filter inserts (AF11DS and AF11S) only for the sizes 1/2" up to  $1^{1}/4$ "!

#### For more information

homecomfort.resideo.com/europe



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