# resideo Filter

# Braukmann F74CS/FN74CS

Reverse rinsing fine filter

## **APPLICATION**

The reverse rinsing filters ensure a continuous supply of filtered water. The fine filter prevents the ingress of foreign bodies, for example rust particles, strands of hemp and grains of sand and thus reduces the probability of corrosion. The fine filters are used in systems where an existing pressure reducing valve is fitted or where one is not required. Both horizontal and vertical installation is possible.

#### **APPROVALS**

DVGW

approval for all filters with 100  $\mu\text{m}$  mesh sizes and with rotatable connection piece

#### **SPECIAL FEATURES**

- LEAD-FREE: Pb content of all materials less than 0.1 %
- 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
- ACS certified
- 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:	<sup>1</sup> / <sub>2</sub> " - 2" (with rotatable connector piece)
Pressure values	
Operating pressure range:	1.5 - 16 bar
Max. inlet pressure:	16 bar
	(up to 12 bar long-term*)
Operating temperatures	
Operating temperature range medium accord. to EN 1567:	5 - 30 °C
Specifications	
Installation position:	Horizontal or vertical, with filter bowl downwards
+ F	filter bowl downwards

<sup>\*</sup> For maintaining the measuring accuracy of the manometer, a continuous maximum pressure load of 12 bar is permitted.

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

## **CONSTRUCTION**

	Components	Materials			
1	Housing with pressure gauge	F74CS-xx/xxLF 1/2" - 11/4":			
		High-quality synthetic			
		material			
		F74CS-xxLF 1 <sup>1</sup> / <sub>2</sub> " - 2":			
		Lead-free brass			
2	Rotatable connector piece,	F74CS-xx/xxLF 1/2" - 11/4":			
	flange sealings, connecting nuts and fittings (F74CS only)	Dezincification-resistant brass (rotatable connection piece, tail pieces, connection nuts), unitec 300 (flange sealing)			
		F74CS-xxLF 1/2" - 2":			
		Lead-free brass (rotatable			
		connection piece, tail pieces,			
		connection nuts), united 300			
2	Clear filter howl	(flange sealing) Shock-resistant, clear			
3	Clear filler bowl	transparent synthetic material			
4	Fine filter	Stainless steel			
5	Ball valve with drain	Lead-free brass (Ball Valve			
	connection	body), Stainless steel (ball), Plastic-durethan (drain adapter)			
	Not depicted components:				
	Memory ring	Plastic			
	Allen key	Stainless steel			
	F74CS-xx/xxLF <sup>1</sup> / <sub>2</sub> " - 1 <sup>1</sup> / <sub>4</sub> ":				
	WS6				
	<b>F74CS-xxLF 1 <sup>1</sup>/<sub>2</sub>" - 2":</b> WS8				
	Wrench for filter bowl and	Plastic			
	spring bonnet				
	Covers and reverse rinsing handle	Synthetic material filter mesh carrier, reverse rinsing handle and covers			
	Diaphragm	Fibre-reinforced NBR			
	Sealing washers	EPDM			
	2 3 4	<ul> <li>Housing with pressure gauge</li> <li>Rotatable connector piece, flange sealings, connecting nuts and fittings (F74CS only)</li> <li>Clear filter bowl</li> <li>Fine filter</li> <li>Ball valve with drain connection</li> <li>Not depicted components: <ul> <li>Memory ring</li> <li>Allen key</li> <li>F74CS-xx/xxLF ¹/2" - 1¹/4": </li> <li>WS6</li> <li>F74CS-xxLF 1 ¹/2" - 2": </li> <li>WS8</li> <li>Wrench for filter bowl and spring bonnet</li> <li>Covers and reverse rinsing handle</li> <li>Diaphragm</li> </ul> </li> </ul>			

## **METHOD OF OPERATION**

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.

#### 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 % *

<sup>\*</sup>non condensing

#### **INSTALLATION GUIDELINES**

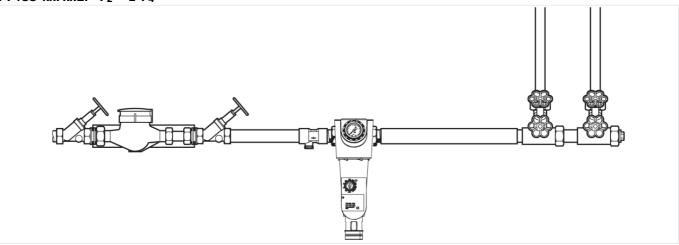
#### **Setup requirements**

- 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

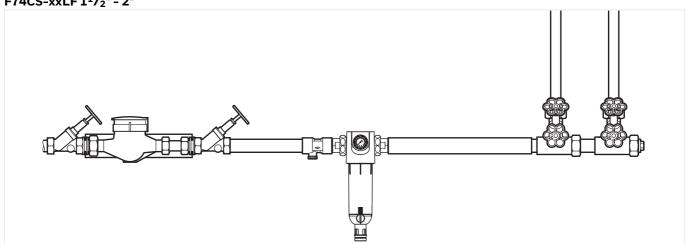
- It is recommended that a straight section of pipework at least five times the nominal valve size is provided after the filter (according to DIN EN 806-2)
- Fit immediately after water meter
- Related to the EN 806-2 it is recommended to install the filter immediately after the water meter
- In order to avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection

### **Installation Example**

#### F74CS-xx/xxLF 1/2" - 11/4"





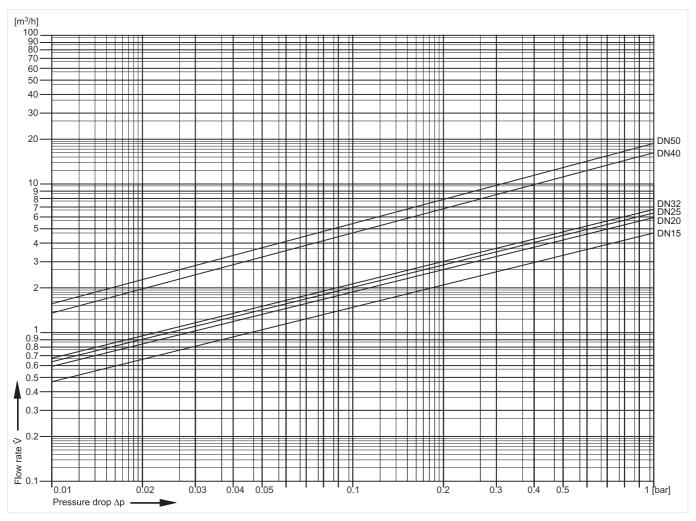


## **TECHNICAL CHARACTERISTICS**

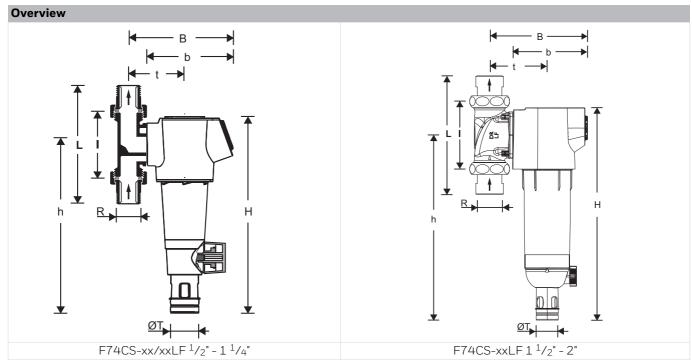
#### kvs-Values

Connection sizes:	15	20	25	32	40	50
$k_{vs}$ -value (m <sup>3</sup> /h):	5.3	7.9	9.0	10.0	16.0	20.0

## **Pressure drop characteristics**



## **DIMENSIONS**



Parameter		Values						
Connection sizes:	R	1/2"	3/4"	1"	11/4"	11/2"	2"	
Nominal sizes:	DN	15	20	25	32	40	50	
Weight:	kg	2.1	2.1	2.3	2.6	9.273	10.121	
Dimensions:	Н	353	353	353	353	478	478	
	h	298	298	298	298	416	416	
	L	150	158	179	197	246	267	
	1	90	90	100	105	150	150	
	В	178	178	178	182	216	216	
	b	150	150	150	150	187	187	
	t	92	92	92	96	130	130	
	ØT	50	50	50	50	50	50	
Flow value at $\Delta p$ =0.2 bar	m <sup>3</sup> /h	2.4	3.4	3.9	4.4	7.2	8.9	
Flow value at $\Delta p$ =0.5 bar:	m <sup>3</sup> /h	3.8	5.5	6.2	7.0	11.5	14.1	
DVGW registration number:	NW-9301 CL 0456							

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 is available in the following sizes:  $^{1}/_{2}$ ",  $^{3}/_{4}$ ",  $^{1}/_{2}$ ",  $^{1}/_{4}$ ",  $^{1}/_{2}$ ",  $^{1}$ " and  $^{2}$ ".

- standard
- not available

## for connection sizes $^{1}/_{2}$ " - $1^{1}/_{4}$ "

		F74CSAA	F74CS-AC	F74CSAD	FN74CS-1A
Connection type:	With rotatable connector piece, filter mesh size 100 $\mu\text{m}$	•	-	-	-
	With rotatable connector piece, filter mesh size 50 $\mu\text{m}$	-	•	-	-
	With rotatable connector piece, filter mesh size 200 $\mu\text{m}$	-	-	•	-
	Retrofit version without rotatable connector piece, filter mesh size 100 $\mu\text{m}$	-	-	-	•

Note: ... = space holder for connection size

#### for connection sizes $\frac{1}{2}$ " - 2"

		F74CSLFAA	FN74CS-1LFA	FN74CS-2LFA
Connection type:	With rotatable connector piece, filter mesh size 95/110 $\mu\text{m},$ lead-free materials	•	-	-
	Retrofit version without rotatable connector piece, filter mesh size 95/110 $\mu$ m, lead-free materials (for DA74CS-xxLFA rotatable connections $^1/_2$ " - 1 $^1/_4$ ")	-	•	-
	Retrofit version without rotatable connector piece, filter mesh size 95/110 $\mu$ m, lead-free materials (for DA74CS-xxLFA rotatable connections 1 $^1/_2$ " - 2")	-	-	•

Note: ... = space holder for connection size

Note: Ordering number example for 2" and type LFAA valve: F74CS-2LFAA

## **Accessories**

lead-free $3/4$ " DA74CS-3/4LFA lead-free 1" DA74CS-1LFA lead-free $1^1/4$ " DA74CS-11/4LFA lead-free $1^1/4$ " DA74CS-11/4LFA lead-free $1^1/2$ " DA74CS-11/2LFA lead-free 2" DA74CS-2LFA lead-free, no connection parts $1/2$ " - $3/4$ " DA74CS-1/2LFA lead-free, no connection parts 1" DA74CS-1LFE		Description		Dimension	Part No.		
1/2'   DA74CS-1/2A		DA74	Rotatable connector piece				
3/4"   DA74C-3/4A   1"   DA74C-1A   1"   DA74CS-1/2LFA   Lead-free   3/4"   DA74CS-3/4LFA   Lead-free   1"   DA74CS-1L/ALF   DA74CS-1L/ALF   Lead-free   1"   DA74CS-1L/ALF   DA74CS-1L/ALF   Lead-free   1"   DA74CS-1L/ALF   DA74CS-1L/ALF   Lead-free, no connection parts   1"   L			For connection of retrofit filters and filter combinations				
1. DA74C-1A  11/4" DA74C-11/4A  lead-free 1/2" DA74C-11/4A  lead-free 1/2" DA74CS-12/LEF  lead-free 1. DA74CS-3/LEFA  lead-free 1. DA74CS-11/4E  lead-free, no connection parts 1. DA74CS-11/2E  2R74CS  Double ring wrench for removing the filter bowl 1. DA74CS-11/4E  ZR74CS  ZR10K  Double ring wrench for removing the filter bowl 1. ZR10K  ZR10K  Double ring wrench for removing the filter bowl 1. ZR10K-11/2  ZR10K  ZR10K  Double ring wrench for removing the filter bowl 1. ZR10K-11/2				1/2"	DA74CS-1/2A		
lead-free 11/4" DA74C-11/4A lead-free 3/4" DA74CS-1/ZLFA lead-free 3/4" DA74CS-3/ALFA lead-free 11" DA74CS-11/ALFA lead-free 11/4" DA74CS-11/4LFA lead-free 11/4" DA74CS-11/4LFA lead-free 11/2" DA74CS-11/2LFA lead-free 11/2" DA74CS-11/2LFA lead-free 11/2" DA74CS-11/2LFA lead-free, no connection parts 1/2"-3/4" DA74CS-11/2LFA lead-free, no connection parts 11/4" DA74CS-11/4LFA lead-free, no connection parts 11/4" DA74CS-11/4LFA lead-free, no connection parts 11/2"-2" DA74CS-11/4LFA lead-free, no connection parts 11/4" DA74CS-11/4LFA lead-				3/4"	DA74C-3/4A		
lead-free   1/2*   DA74CS-1/2LFA   lead-free   3/4*   DA74CS-1/2LFA   lead-free   1*   DA74CS-1LFA   lead-free   1*   DA74CS-1LFA   lead-free   1*   DA74CS-11/2LF   lead-free   1*   DA74CS-11/2LF   lead-free   1*   DA74CS-11/2LF   lead-free   1*   DA74CS-1/2LFA   lead-free   2*   DA74CS-1/2LFA   lead-free, no connection parts   1*   DA74CS-1/2LFA   lead-free, no connection parts   1*   DA74CS-1/2LFA   lead-free, no connection parts   1*   DA74CS-1/2LFE   lead-free, no connection parts   1*   LFA   lead-free, no				1"	DA74C-1A		
lead-free lead-free lead-free lead-free lead-free lead-free ll-1/4" DA74CS-1LFA lead-free lead-free, no connection parts lead-free no connection pa				11/4"	DA74C-11/4A		
lead-free lead-free, no connection parts lead-free bowl  ZR74CS  Double ring wrench for removing the filter bowl  1/2" + 11/4" ZR74CS  ZR10K  Double ring wrench for removing the filter bowl  1/2" + 11/4" ZR10K-11/2  Z74S-ANfor Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals  Z74S-AN  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  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination			lead-free	1/2"	DA74CS-1/2LFA		
lead-free 11/4," DA74CS-11/4LF lead-free 11/2," DA74CS-11/2LF lead-free 11/2," DA74CS-11/2LF lead-free 2," DA74CS-12LFE lead-free, no connection parts 1/2," - 3/4," DA74CS-12LFE lead-free, no connection parts 1, DA74CS-12LFE lead-free, no connection parts 1, DA74CS-11/4LF lead-free, no connection parts 11/4," DA74CS-11/4LF lead-free, no connection parts 11/2," - 2, DA74CS-2LFE  ZR74CS Double ring wrench for removing the filter bowl 1/2," + 11/4," ZR74CS  ZR10K Double ring wrench for removing the filter bowl 1/2," + 11/4," ZR74CS  ZR10K Double ring wrench for removing the filter bowl 27/2," - 11/4," ZR10K-11/2  Z74S-AN for 1/2," - 11/4," For automatic filter cleaning at presettable intervals 27/4S-AN  Z11S Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals 230 V, 50/60 Hz, 10 with moulded Schuko electrical plug 211S-A 24 V, 50/60 Hz, 10 without electrical plug 211S-B  D06FR Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination			lead-free		DA74CS-3/4LFA		
lead-free 11/2' DA74CS-11/2LF lead-free, no connection parts 1/2' - 3/4' DA74CS-2LFA lead-free, no connection parts 1/2' - 3/4' DA74CS-1/2LFE lead-free, no connection parts 1'/4' DA74CS-11/4LF lead-free, no connection parts 11/4' DA74CS-11/4LF lead-free, no connection parts 11/2' - 2" DA74CS-2LFE DA74CS-2			lead-free	1"	DA74CS-1LFA		
lead-free lead-free, no connection parts li1/2" - 2" DA74CS-2LFE  DA74CS-2LFE  DA74CS-2LFE  ZR74CS  ZR74CS  ZR74CS  ZR74CS  ZR10K-11/2  ZR74CS  ZR10K-11/2			lead-free	11/4"	DA74CS-11/4LFA		
lead-free, no connection parts lattice part of par			lead-free		DA74CS-11/2LFA		
lead-free, no connection parts li/2* - 2* DA74CS-2LFE  ZR74CS  Double ring wrench for removing the filter bowl l/2* + 11/4* ZR74CS  ZR10K  Double ring wrench for removing the filter bowl l1/2* + 2" ZR10K-11/2  Z74S-AN for l/2" - 11/4"  For automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals  Z74S-AN  Z11S  Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals 230 V, 50/60 Hz, 10 with moulded Schuko electrical plug 24 V, 50/60 Hz, 10 without electrical plug  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination			lead-free		DA74CS-2LFA		
lead-free, no connection parts			lead-free, no connection parts		DA74CS-1/2LFE		
Lead-free, no connection parts   11/2* - 2*   DA74CS-2LFE			lead-free, no connection parts				
ZR10K  Double ring wrench for removing the filter bowl  2R10K  Double ring wrench for removing the filter bowl  2R10K  Double ring wrench for removing the filter bowl  11/2" + 2"  ZR10K-11/2					DA74CS-11/4LFE		
ZR10K  Double ring wrench for removing the filter bowl  11/2" + 2"  ZR10K-11/2  Z74S-AN for Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals  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  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination			· ·	_	DA74CS-2LFE		
Z74S-AN for 1/2" - 11/4"  Z11S  Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals  Z14S-AN  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  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination		ZR74CS	Double ring wrench for removing the fil				
Z74S-AN for 1/2" - 11/4"  Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals  Z74S-AN  Z74S-AN  Z74S-AN  Z74S-AN  Z74S-AN  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination				1/2" + 11/4"	ZR74CS		
Z74S-AN for 1/2" - 11/4"  For automatic filter cleaning at presettable intervals  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  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination		ZR10K	Double ring wrench for removing the fil	ter bowl			
Z11S  Automatic reverse rinsing actuator For automatic filter cleaning at presettable intervals  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  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination				11/2" + 2"	ZR10K-11/2		
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  D06FR  Retrofit pressure reducing valve insert set  For retrofitting to upgrade to a filter combination		Z74S-AN for	Automatic reverse rinsing actuator				
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  D06FR  Retrofit pressure reducing valve insert set  For retrofitting to upgrade to a filter combination		<sup>1</sup> / <sub>2</sub> " - 1 <sup>1</sup> / <sub>4</sub> "	For automatic filter cleaning at presettabl	e intervals			
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  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination	2 ZYAS-AA Disputation CE		ŭ .		Z74S-AN		
230 V, 50/60 Hz, 10 with moulded Schuko electrical plug Z11S-A 24 V, 50/60 Hz, 10 without electrical plug  D06FR  Retrofit pressure reducing valve insert set For retrofitting to upgrade to a filter combination		Z11S	Automatic reverse rinsing actuator				
D06FR Retrofit pressure reducing valve insert set  For retrofitting to upgrade to a filter combination			For automatic filter cleaning at presettabl	e intervals			
D06FR Retrofit pressure reducing valve insert set  For retrofitting to upgrade to a filter combination	0 0		230 V, 50/60 Hz, 10 with moulded Schuke	o electrical plug	Z11S-A		
For retrofitting to upgrade to a filter combination			24 V, 50/60 Hz, 10 without electrical plug		Z11S-B		
For retrofitting to upgrade to a filter combination	-	D06FR	Retrofit pressure reducing valve insert set				
			The state of the s				
					D06FR-1A		

## **Spare Parts**

F74CS/FN74CS Fine filters from 2010/2020 (lead-free) onwards

Overview		Description	Dimension	Part No.
	1	Filter insert comple	te	
1/2" - 11/4"		50 <b>µ</b> m	<sup>1</sup> / <sub>2</sub> " - 1 <sup>1</sup> / <sub>4</sub> "	AF74-1C
		100 <b>µ</b> m	1/2" - 11/4"	AF74-1A
		200 µm	<sup>1</sup> / <sub>2</sub> " - 1 <sup>1</sup> / <sub>4</sub> "	AF74-1D
		20 <b>µm</b>	11/2" - 2"	AF11S-11/2B
5		50 <b>μm</b>	11/2" - 2"	AF11S-11/2C
3		100 <b>µ</b> m	11/2" - 2"	AF11S-11/2A
		200 <b>µm</b>	11/2" - 2"	AF11S-11/2D
00/	2	Clear filter bowl		
			<sup>1</sup> / <sub>2</sub> " - 1 <sup>1</sup> / <sub>4</sub> "	KF74CS-1A
		lead-free	1/2" - 11/4"	KF11SB-1A
		lead-free	11/2" - 2"	KF11SB-2A
11/2" - 2"	3	Pressure gauge real		thread G1/4"
7 (2)			0 - 16 bar	M74CS-A16
	4	Connection set thre		
			1/2"	VST06-1/2AR
3			3/4"	VST06-3/4A
00.			1"	VST06-1A
			11/4"	VST06-11/4A
		lead-free	1/2"	VST74CS-1/2LFA
		lead-free	3/4"	VST06-3/4LFA
		lead-free	1"	VST06-1LFA
		lead-free	11/4"	VST06-11/4LFA
		lead-free	11/2"	VST74CS-11/2LFA
		lead-free	2"	VST06-2LFA
7)-8	5	Union seal washer (		0004777
			3/4"	0901444
<b>9</b> •			1"	0901445
			11/4"	0901446
			11/2"	0901447
			2"	0901448
	6	Flange seal	37 11 4 1 7 11	F07F000
			3/4" - 11/4"	5975900
	_	D. II I	11/2" - 2"	5975901
	7	Ball valve complete		I/I I 1 1 C 1 I F 1
		lead-free		KH11S-1LFA

