

"TANK CARE" - Return filters

RA



TECHNICAL DATA

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DIMENSIONS OF THE FILTER ELEMENT

"TANK CARE" RETURN FILTERS

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MATERIALS

Head and cover	Aluminium alloy
Bowl	Polyamide for FRA21-31-32-33-41 Zinc plated steel for FRA11-51-52-53
Bypass valve	Polyamide
Seals	NBR Nitrile (FKM - on request fluoroelastomer)
Indicator housing	Brass

COMPATIBILITY

Full with fluids: HH-HL-HM-HR-HV-HG (according to ISO 6743/4)
For fluids different than the above mentioned, please contact our Sales Department.

PRESSURE

Max working	300 kPa (3 bar)
Test	500 kPa (5 bar)
Bursting	1 MPa (10 bar)
Collapse, differential for the filter element	300 kPa (3 bar)

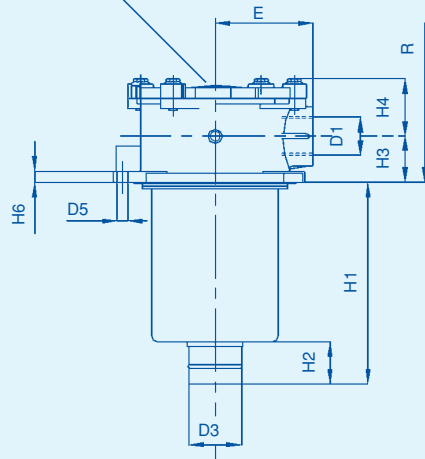
BYPASS VALVE

Setting	170 kPa (1,7 bar) +/-10%
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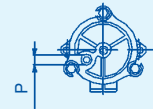
WORKING TEMPERATURE

From -25° to +110° C

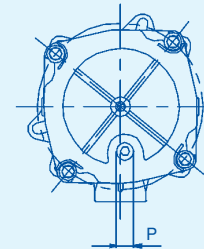
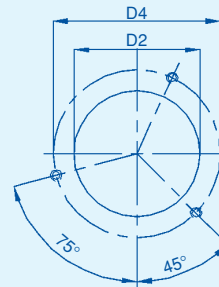
Indicator port



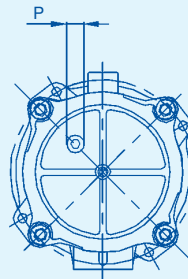
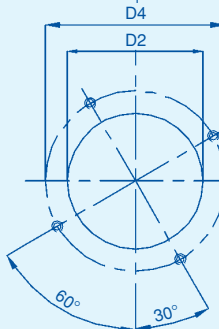
FRA 11 - 21
31 - 32 - 33



FRA 41



FRA
51-52-53



	D1	min D2	max D2	D3	D4	D5	E	H1	H2	H3	H4	H6	P	R	Weight Kg.
FRA 11	3/8"	50	50	12	80	6,5	40	59	16	12	33	9	1/8"	90	0,30
FRA 21	1/2"	67	68	24	90	6,5	50	80	20	22	33	9	3/8"	120	0,45
FRA 31	1/2" - 3/4"	89	90	28	115	9	67	102	25	28	47	10	3/8"	150	0,80
FRA 32	3/4" - 1"	89	90	28	115	9	67	150	25	28	47	10	3/8"	190	0,95
FRA 33	3/4" - 1"	89	90	40	115	9	67	234	30	28	47	10	3/8"	270	1,10
FRA 41	1" - 1 1/2"	126	131	40	175	10,5	95	248	50	35	56	13	1/2"	289	2,10
FRA 51	1 1/4" - 1 1/2"	174	180	50	220	10,5	115	178	50	55	69	13	1/2"	250	3,10
FRA 52	1 1/2" - 2" - 2 1/2"	174	180	63,5	220	10,5	115	240	50	55	69	13	1/2"	315	3,60
FRA 53	1 1/2" - 2" - 2 1/2"	174	180	63,5	220	10,5	115	285	50	55	69	13	1/2"	355	4,10

P = filling plug

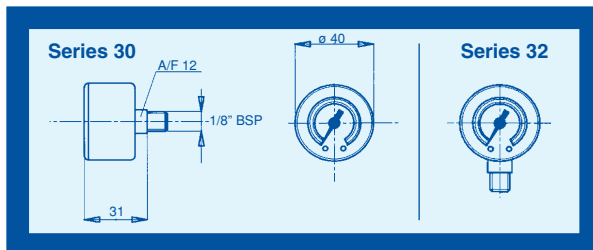
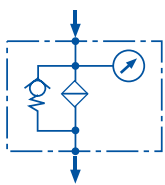
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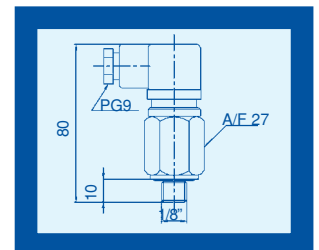
ORDERING AND OPTIONS CHART

F FILTER COMPLETE											ELEMENT		E		
R	A	FAMILY, NOMINAL SIZE & LENGTH									FAMILY SIZE & LENGTH		R	A	
		11	21	31	32	33	41	51	52	53					
PORT TYPE															
B = BSP thread		B	B	B	B	B	B	B	B	B					
N = NPT thread		N	N	N	N	N	N	N	N	N					
S = SAE thread		=	S	S	S	S	S	S	S	S					
F = SAE flange 3000 psi		=	=	=	=	=	=	F	F	F					
PORT SIZE															
03 = 3/8"		03	=	=	=	=	=	=	=	=					
04 = 1/2"		=	04	04	=	=	=	=	=	=					
06 = 3/4"		=	=	06	06	=	=	=	=	=					
08 = 1"		=	=	=	08	08	08	=	=	=					
10 = 1 1/4" (F10 not available)		=	=	=	=	=	10	10	10	=					
12 = 1 1/2" (F12 not available)		=	=	=	=	=	(**)	12	12	=				(**) F12 for FRA41 only	
16 = 2" (F16 not available)		=	=	=	=	=	=	16	16	16					
20 = 2 1/2" (F20 only)		=	=	=	=	=	=	20	20	20				(*) special mounting pattern, pls ask for relevant information	
BYPASS VALVE															
B = 170 kPa (1,7 bar)		X	B	B	B	B	B	B	B	B					
SEALS															
N = NBR Nitrile		N	N	N	N	N	N	N	N	N				N = NBR	
F = FKM Fluoroelastomer		F	F	F	F	F	F	F	F	F				F = FKM	
FILTER MEDIA															
FA = fiber 3μ β>200		FA	FA	FA	FA	FA	FA	FA	FA	FA				FA = fibra 3μ	
FB = fiber 6μ β>200		FB	FB	FB	FB	FB	FB	FB	FB	FB				FB = fibra 6μ	
FC = fiber 12μ β>200		FC	FC	FC	FC	FC	FC	FC	FC	FC				FC = fibra 12μ	
FD = fiber 25μ β>200		FD	FD	FD	FD	FD	FD	FD	FD	FD				FD = fibra 25μ	
CC = cellulose 10μ β>2		CC	CC	CC	CC	CC	CC	CC	CC	CC				CC = cellulose 10μ	
CD = cellulose 25μ β>2		CD	CD	CD	CD	CD	CD	CD	CD	CD				CD = cellulose 25μ	
ME = wire mesh 60μ		ME	ME	ME	ME	ME	ME	ME	ME	ME				ME = wire mesh 60μ	
CLOGGING INDICATOR															
01=1/8" port, plugged		01	01	01	01	01	01	01	01	01					
30 = press. gauge, rear connection		30	30	30	30	30	30	30	30	30					
32 = press. gauge, bottom connection		32	32	32	32	32	32	32	32	32					
80 = press. switch, N.O. contacts		80	80	80	80	80	80	80	80	80					
81 = press. switch, N.C. contacts		81	81	81	81	81	81	81	81	81					
P1 = SPDT, press. switch		P1	P1	P1	P1	P1	P1	P1	P1	P1					
ACCESSORIES															
W = without		W	W	W	W	W	W	W	W	W					
P = with filling plug		P	P	P	P	P	P	P	P	P					

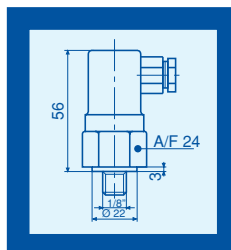
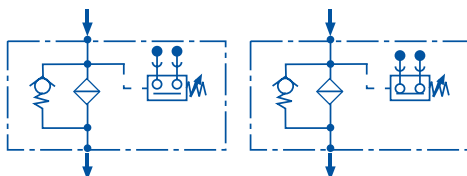
CLOGGING INDICATORS



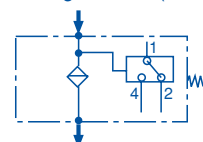
Series 30 (rear connection) & series 32 (bottom connection):
pressure gauge, scale 0 - 600 kPa (0 - 6 bar)



Series P1:
SPDT, pressure switch
max voltage 250V - 50Hz
max current 6A resistive, 1A inductive
protection IP65
setting 150 kPa (1,5 bar)



Series 80 (contatti N.O.) & series 81 (contatti N.C.):
pressure switch, max voltage 220 Vca 50-60 Hz
max current 0,5A resistive, 0,25A inductive -
switching power 100 VA,
setting 150 kPa (1,5 bar)
protection IP65.

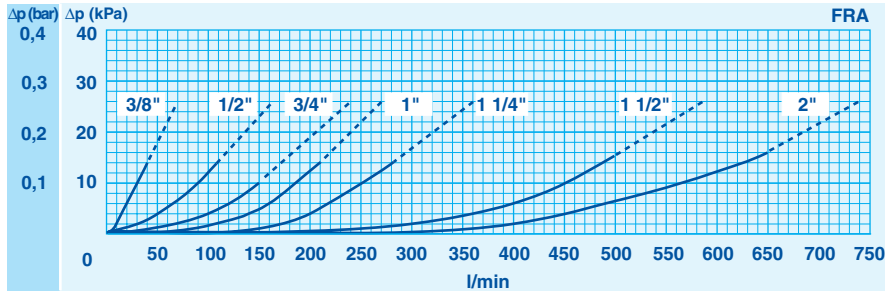


PRESSURE DROP (Δp) CURVES

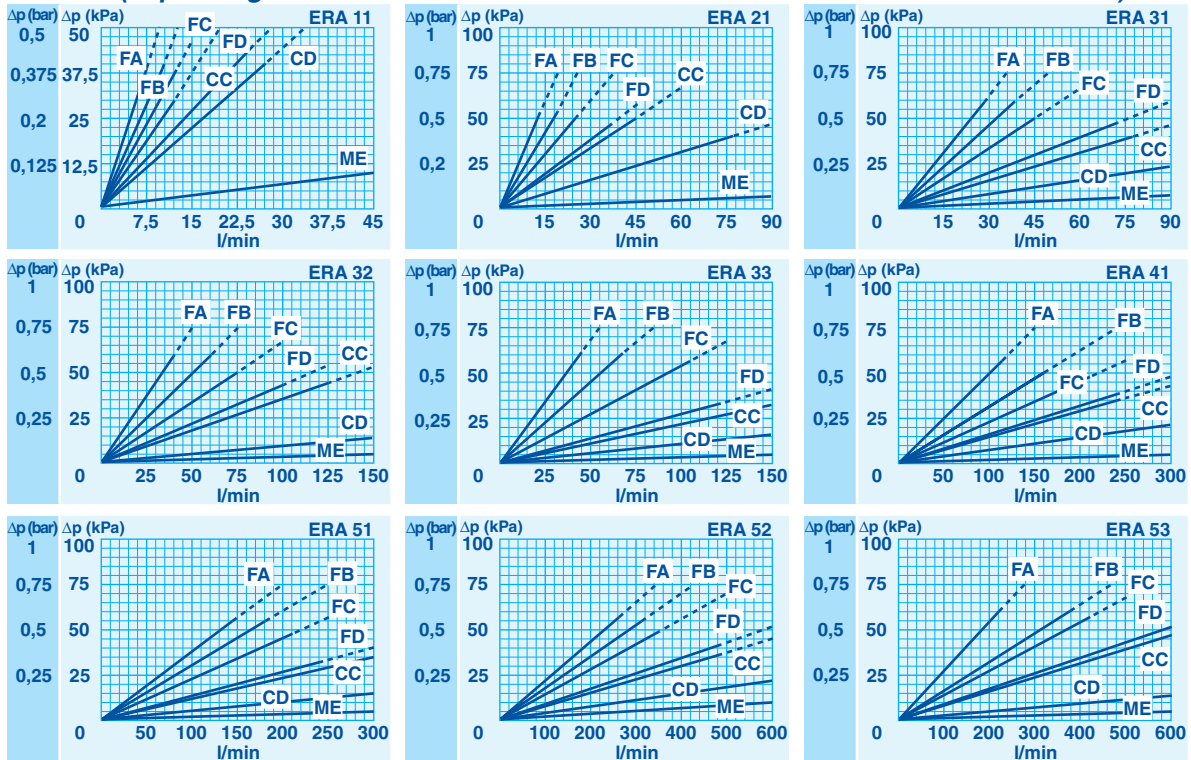
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the

considered Flow Rate and it must be lower than 50 kPa (0,5 bar).

FILTER HOUSING PRESSURE DROP (mainly depending on the port size)

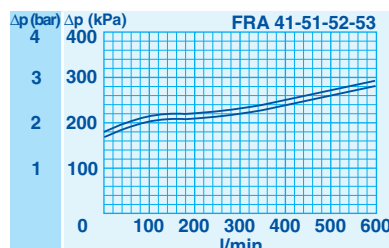
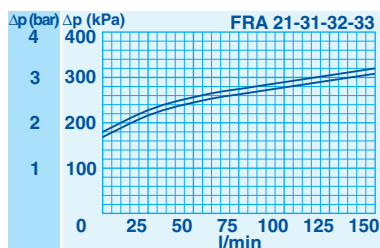


CLEAN FILTER ELEMENT PRESSURE DROP (depending both on the internal diameter of the element and on the filter media)



N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 ; for fluids with different features, please consider the factors described in the first part of this catalogue.

BYPASS VALVE PRESSURE DROP



When selecting the filter size, these curves must be taken into account if it is foreseen that any flow peak is to be absorbed by the bypass valve, it also must be of proper configuration to avoid pressure peaks.

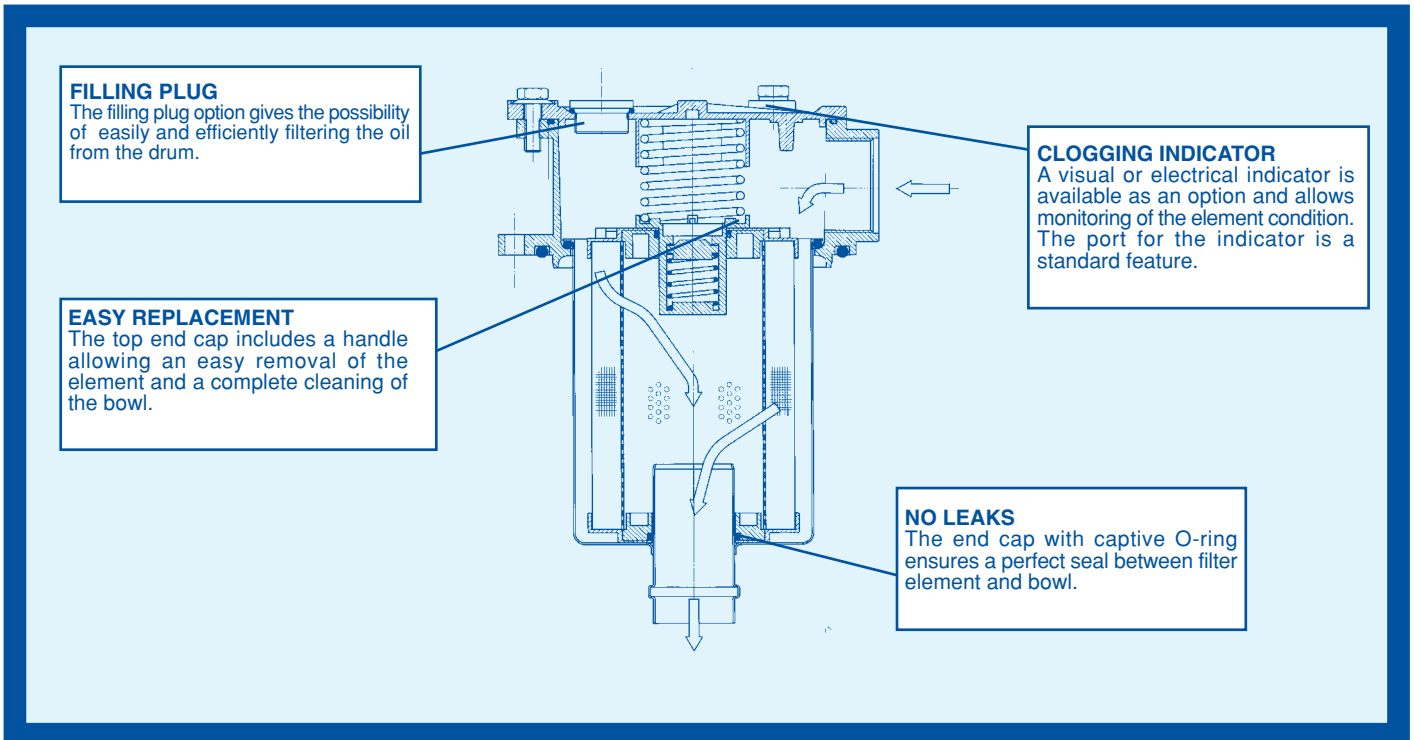
The valve pressure drop is directly proportional to fluid specific gravity.

N.B. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

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"TANK CARE" RETURN FILTERS

CROSS FUNCTIONAL VIEW

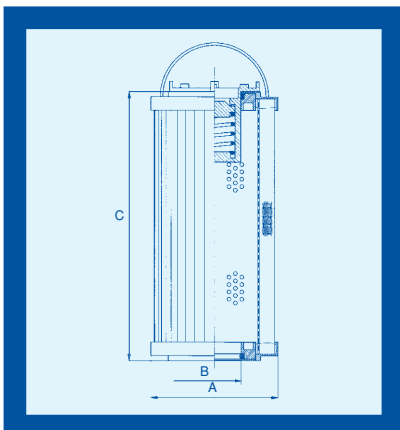


SPARE PARTS ORDERING INFORMATION

(from the code of the complete filter, fill the digits corresponding to the boxes)

Filter housing	B	R	A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cover	S	R	A	<input type="checkbox"/>	X	X	X	X	X	<input type="checkbox"/>	X	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Head	S	R	A	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>	X	X	X	X	X
Bowl	S	R	A	<input type="checkbox"/>	<input type="checkbox"/>	X	X	X	X	<input type="checkbox"/>	X	X	X	X	X
Seal kit	S	R	A	<input type="checkbox"/>	X	X	X	X	X	<input type="checkbox"/>	X	X	X	X	X

DIMENSIONS OF THE FILTER ELEMENTS



Type	A	B	C	Area (cm ²)	
				Media F+	Media C+
ERA11	38	13	50	270	345
ERA21	52	24	70	310	380
ERA31	70	28	85	620	990
ERA32	70	28	130	1.000	1.600
ERA33	70	40	210	1.660	2.670
ERA41	99	40	211	3.800	4.280
ERA51	130	51	140	4.140	4.360
ERA52	130	63	200	6.190	6.520
ERA53	130	63	251	7.930	8.350

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e-mail: info@planetfilters.it - http://www.ufifilter.com

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