

"TANK CARE" - Return filters

RB



TECHNICAL DATA

ORDERING AND OPTIONS CHART

CLOGGING INDICATORS

PRESSURE DROP (Δp) CURVES

CROSS FUNCTIONAL VIEW

SPARE PARTS ORDERING INFORMATION

DIMENSIONS OF THE FILTER ELEMENT

"TANK CARE" RETURN FILTERS

MATERIALS

Head	Aluminium alloy
Cover & bowl	Polyamide
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

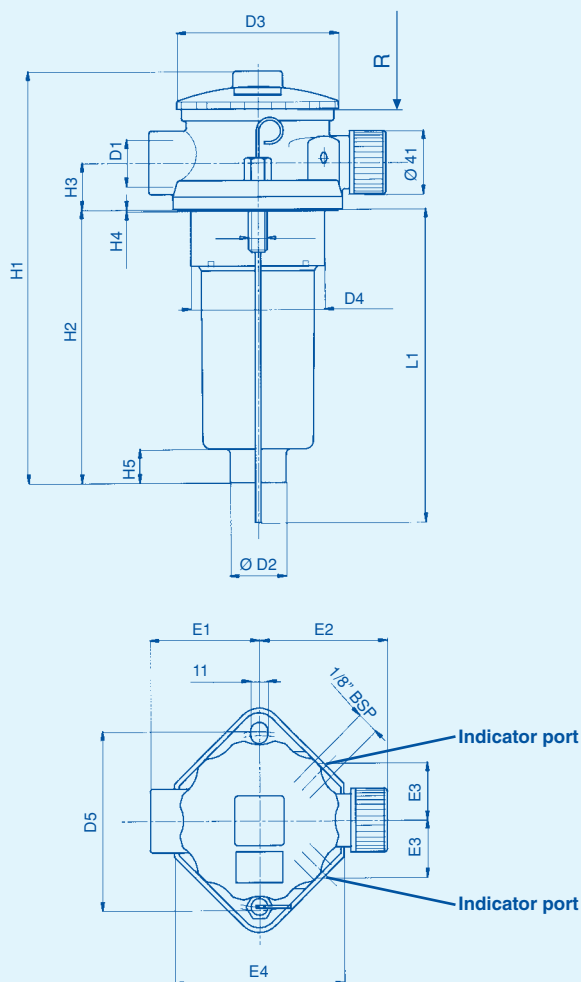
Max working	700 kPa (7 bar)
Test	1 MPa (10 bar)
Bursting	2,1 MPa (21 bar)
Collapse, differential for the filter element	300 kPa (3 bar)

BYPASS VALVE

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

From -25° to +110° C



Tank cut out = D4 + 1mm.

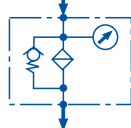
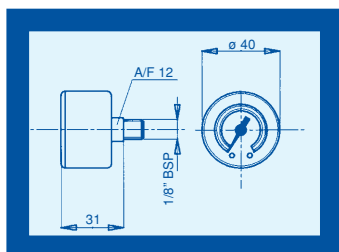
	D1	D2	D3	D4	D5	E1	E2	E3	E4	H1	H2	H3	H4	H5	L1	R	Weight(*) Kg.	NG DIN	
FRB11	1/2" ÷ 3/4"	28	75	60	82÷88	50	70	28	77	243	178	24	2	16	380	220	0,40		
FRB21	3/4" ÷ 1"	36	104	87	110 ÷ 115	70	83	37	103	200	110	30	1,5	22	370	240	190	0,84	
FRB22										265	175						240	0,87	
FRB23										365	275						350	0,92	
FRB31(*)										254	165						240	0,85	063
FRB32(*)										344	255						350	0,90	100

(*) Filters according to specification DIN 24550

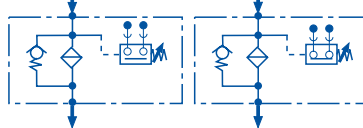
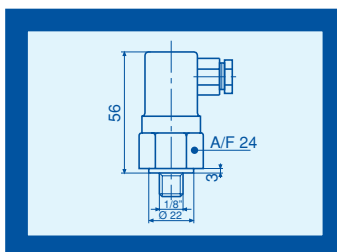
ORDERING AND OPTIONS CHART

F		FILTER COMPLETE						ELEMENT		E	
R	B	FAMILY NOMINAL SIZE & LENGTH						FAMILY SIZE & LENGTH		R	B
		11	21	22	23	31	32				
PORT TYPE								SEALS			
B = BSP thread		B	B	B	B	B	B	N = NBR			
N = NPT thread		N	N	N	N	N	N	F = FKM			
S = SAE thread		S	S	S	S	S	S	FILTER MEDIA			
PORT SIZE								FA = fiber 3 μ			
04 = 1/2"		04	=	=	=	=	=	FB = fiber 6 μ			
06 = 3/4"		06	06	06	06	06	=	FC = fiber 12 μ			
08 = 1"		=	08	08	08	=	08	FD = fiber 25 μ			
BYPASS VALVE								CC = cellulose 10 μ			
B = 170 kPa (1,7 bar) - 250 kPa (2,5 bar) for media F+		B	B	B	B	B	B	CD = cellulose 25 μ			
SEALS								CLOGGING INDICATORS			
N = NBR Nitrile		N	N	N	N	N	N	05 = nr. 2 x 1/8" ports, plugged			
F = FKM Fluoroelastomer		F	F	F	F	F	F	30 = pressure gauge, rear connection			
FILTER MEDIA								80 = pressure switch, N.O. contact			
FA = fiber 3 μ β > 200		FA	FA	FA	FA	FA	FA	81 = pressure switch, N.C. contact			
FB = fiber 6 μ β > 200		FB	FB	FB	FB	FB	FB	86 = pressure switch, N.O. contact			
FC = fiber 12 μ β > 200		FC	FC	FC	FC	FC	FC	87 = pressure switch, N.C. contact			
FD = fiber 25 μ β > 200		FD	FD	FD	FD	FD	FD	P1 = SPDT, pressure switch			
CC = cellulose 10 μ β > 2		CC	CC	CC	CC	CC	CC	P6 = SPDT, pressure switch			
CD = cellulose 25 μ β > 2		CD	CD	CD	CD	CD	CD	ACCESSORIES			
CLOGGING INDICATORS								W = without			
05 = nr. 2 x 1/8" ports, plugged		05	05	05	05	05	05	C = with paper air filter			
30 = pressure gauge, rear connection		30	30	30	30	30	30	D = with metal air filter			
80 = pressure switch, N.O. contact		80	80	80	80	80	80	E = with "C" air filter + dipstick			
81 = pressure switch, N.C. contact		81	81	81	81	81	81	H = with "D" air filter + dipstick			
86 = pressure switch, N.O. contact		86	86	86	86	86	86				
87 = pressure switch, N.C. contact		87	87	87	87	87	87				
P1 = SPDT, pressure switch		P1	P1	P1	P1	P1	P1				
P6 = SPDT, pressure switch		P6	P6	P6	P6	P6	P6				
ACCESSORIES											
W = without		W	W	W	W	W	W				
C = with paper air filter		C	C	C	C	C	C				
D = with metal air filter		D	D	D	D	D	D				
E = with "C" air filter + dipstick		E	E	E	E	E	E				
H = with "D" air filter + dipstick		H	H	H	H	H	H				

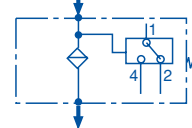
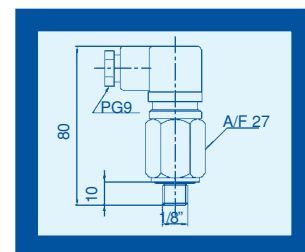
CLOGGING INDICATORS



Series 30
(rear connection)
pressure gauge,
scale 0 - 600 kPa (0 - 6 bar)



**Series 80 & 86 (N.O. contacts)
& series 81 & 87 (N.C. contacts):**
pressure switch, max voltage 220 Vca 50-60 Hz
max current 0,5A resistive, 0,25A inductive -
switching power 100VA, setting 150 kPa
(1,5 bar) for 80 & 81, setting 200 kPa (2 bar)
for 86 & 87 - protection IP65



**Series P1
& Series P6:**
SPDT, pressure switch
max voltage 250V - 50Hz - max current 6A
resistive, 1A inductive - protection IP65
setting 150 kPa (1,5 bar) for P1
setting 200 kPa (2 bar) for P6

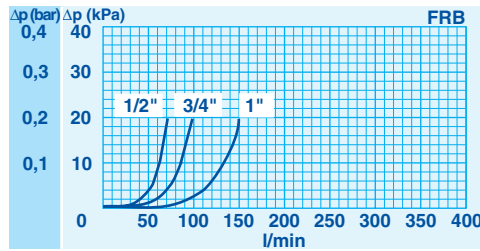
86, 87 and P6 to be used with F+ elements only.

PRESSURE DROP (Δp) CURVES

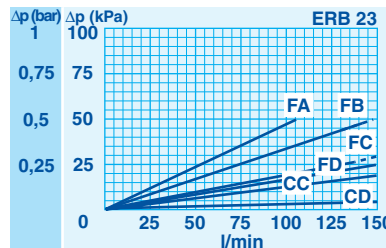
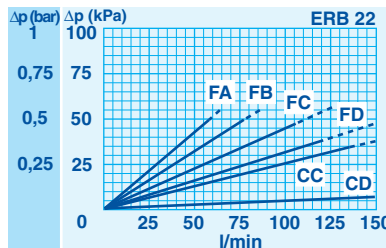
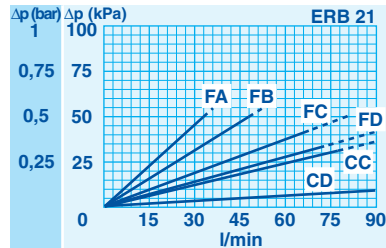
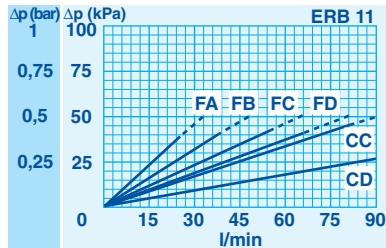
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the

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)

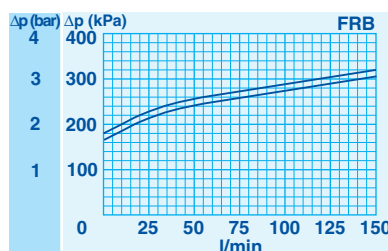


N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 ; for fluids with different features, please consider the factors described in the first part of this catalogue.

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.

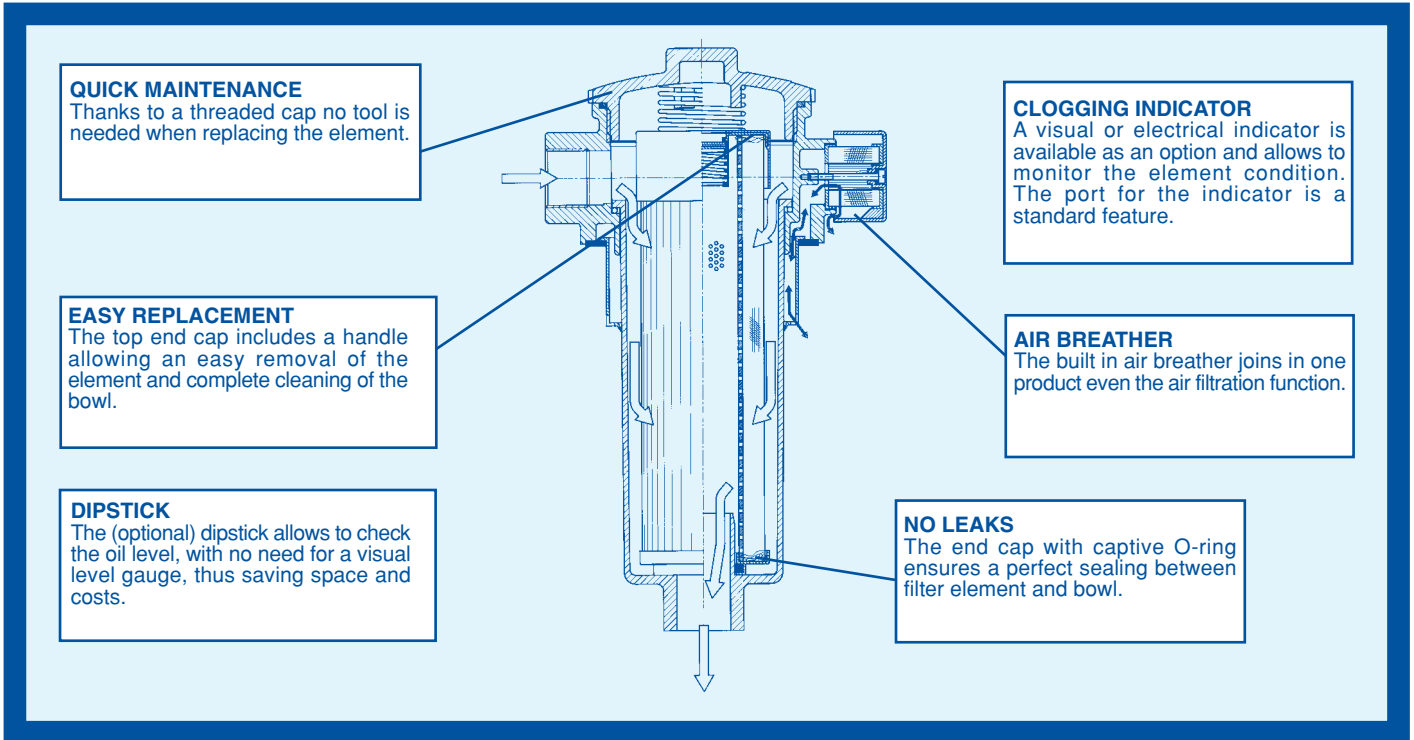


N.B. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

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"TANK CARE" RETURN FILTERS

CROSS FUNCTIONAL VIEW

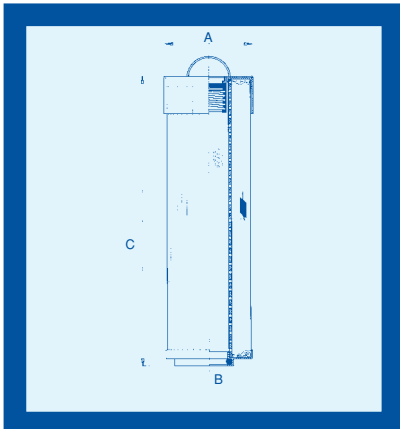


SPARE PARTS ORDERING INFORMATION

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

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

DIMENSIONS OF THE FILTER ELEMENTS



Type	(*) NG DIN	A	B	C	Area (cm ²)	
					Media F+	Media C+
ERB 11		43	20	200	1.225	1.225
ERB 21		59	28	134	1.500	1.500
ERB 22		59	28	200	2.295	2.295
ERB 23		59	28	300	3.495	3.495
ERB 31	063	59	32	160	1.650	1.650
ERB 32	100	59	32	250	2.640	2.640