



ORELL

RETURN FILTERS RB



MATERIALS

Head:
Aluminium alloy

Cover & bowl:
Polyamide

Bypass valve:
Polyamide

Seals:
NBR Nitrile

Indicator housing:
Brass

PRESSURE (ISO 10771-1:2002)

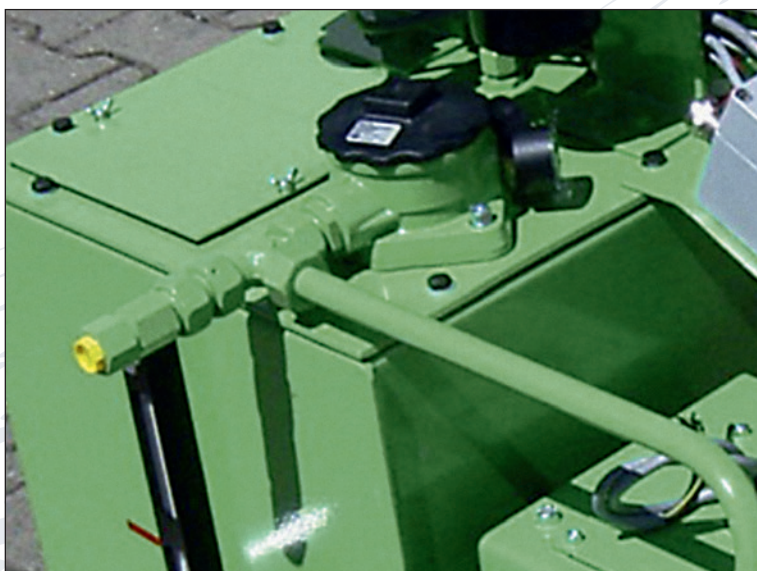
Max working:
700 kPa (7 bar)

Test:
1 MPa (10 bar)

Bursting:
2,1 MPa (21 bar)

Collapse, differential
for the filter element (ISO 2941):
300 kPa (3 bar)

APPLICATION EXAMPLE



BYPASS VALVE

Setting:
170 kPa (1,7 bar) $\pm 10\%$

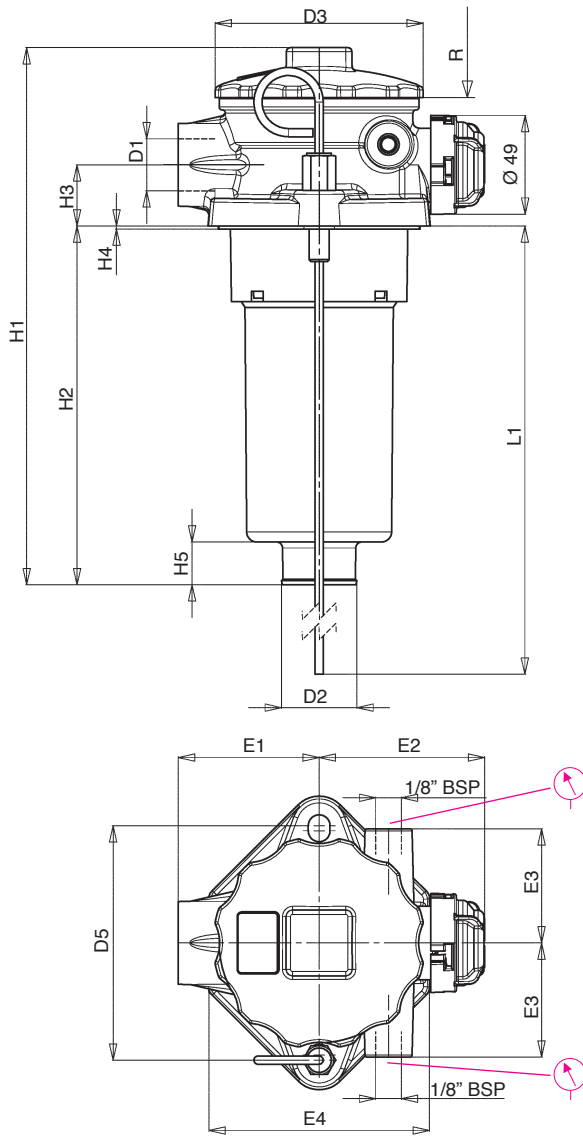
WORKING TEMPERATURE

From -25° to $+110^{\circ}$ C

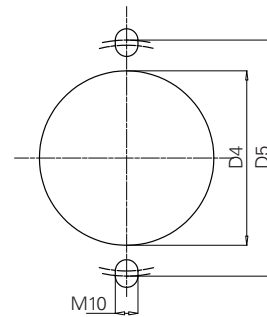
COMPATIBILITY (ISO 2943:1999)

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

OHF 410



Tank mounting pattern



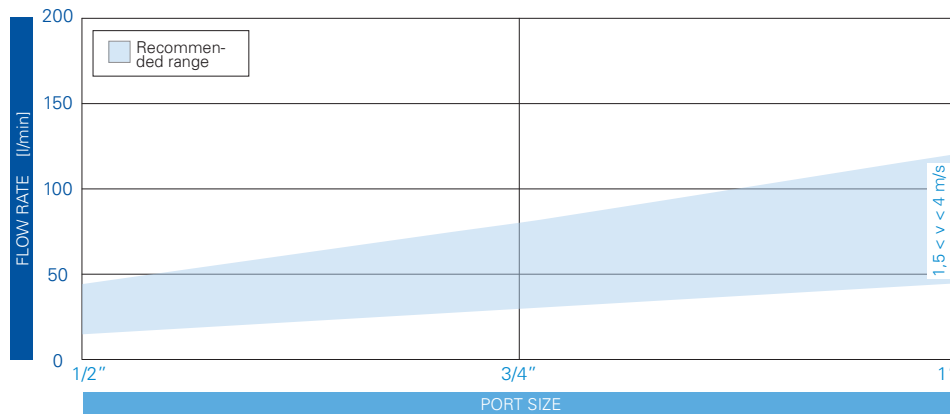
FILTER HOUSING																	
	D1	D2	D3	D4	D5	E1	E2	E3	E4	H1	H2	H3	H4	H5	L1	R	kg
FRB11	1/2" - 3/4"	28	75	61	82÷88	50	70	28	77	243	178	24	2	16	380	220	0,40
FRB21	3/4" - 1"	36	104	89	110÷115	70	83	37	108	200	110	30	1,5	22	370	190	0,84
FRB22	3/4" - 1"	36	104	89	110÷115	70	83	37	108	265	175	30	1,5	22	370	240	0,87
FRB23	3/4" - 1"	36	104	89	110÷115	70	83	37	108	365	275	30	1,5	22	370	350	0,92

		TYPE					
		F = FILTER COMPLETE	F	F	F	F	
		B = FILTER HOUSING	B	B	B	B	ELEMENT E
R	B	FAMILY NOMINAL SIZE & LENGTH				FAMILY SIZE & LENGTH R B	
		11	21	22	23		
		PORT TYPE					
		B = BSP thread	B	B	B	B	
		N = NPT thread	N	N	N	N	
		S = SAE thread	S	S	S	S	
		PORT SIZE					
		04 = 1/2"	04	-	-	-	
		06 = 3/4"	06	06	06	06	
		08 = 1"	-	08	08	08	
B		BYPASS VALVE					
		B = 170 kPa (1,7 bar)- 250 kPa (2,5 bar) for media F+	B	B	B	B	
N		SEALS				SEALS N	
		N = NBR Nitrile	N	N	N	N	N = NBR
		FILTER MEDIA				FILTER MEDIA	
		FA = fiber 5 μm _(e) β>1.000	FA	FA	FA	FA	FA = fiber 5 μm _(e)
		FB = fiber 7 μm _(e) β>1.000	FB	FB	FB	FB	FB = fiber 7 μm _(e)
		FC = fiber 12 μm _(e) β>1.000	FC	FC	FC	FC	FC = fiber 12 μm _(e)
		FD = fiber 21 μm _(e) β>1.000	FD	FD	FD	FD	FD = fiber 21 μm _(e)
		CC = cellulose 10 μm β>2	CC	CC	CC	CC	CC = cellulose 10 μm
		CD = cellulose 25 μm β>2	CD	CD	CD	CD	CD = cellulose 25 μm
		CLOGGING INDICATORS					
		05 = nr. 2 x 1/8" ports, plugged	05	05	05	05	
		30 = pressure gauge, rear connection	30	30	30	30	
		P1 = SPDT, pressure switch	P1	P1	P1	P1	
		P6 = SPDT, pressure switch	P6	P6	P6	P6	
		ACCESSORIES					
		W = without	W	W	W	W	
		C = with paper air filter	C	C	C	C	
		D = with metal air filter	D	D	D	D	
		ACCESSORIES					
		W = without	W	W	W	W	
		H = with dipstick	H	H	H	H	

FILTER ELEMENT						
	A	B	C	kg	Area (cm ²)	
					Media F+	Media C+
ERB11	43	20	200	0,20	1.225	1.225
ERB21	59	28	134	0,30	1.500	1.500
ERB22	59	28	200	0,40	2.295	2.295
ERB23	59	28	300	0,50	3.495	3.495

FLUID SPEED

when selecting the filter size, we suggest to consider also the max recommended fluid speed (in return lines normally $1,5 < v < 4$ m/s)

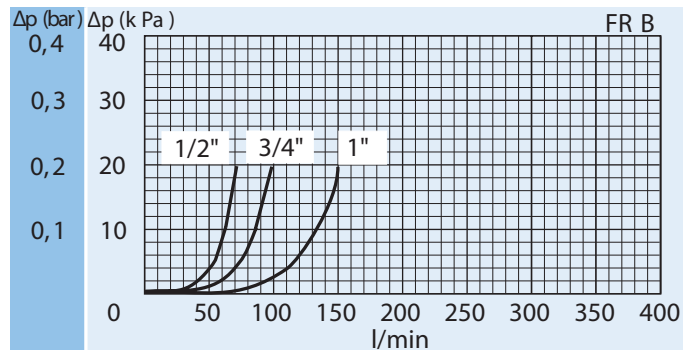


PRESSURE DROP CURVES (Δp)

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)

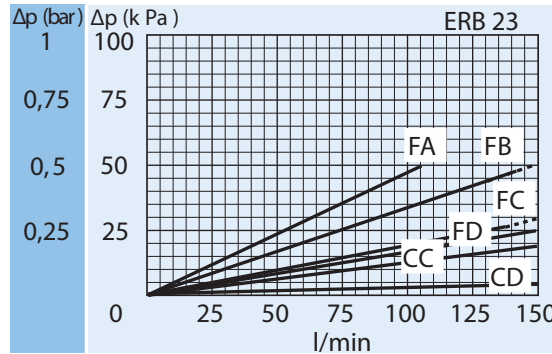
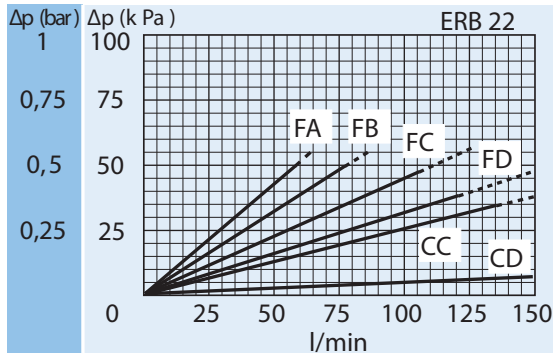
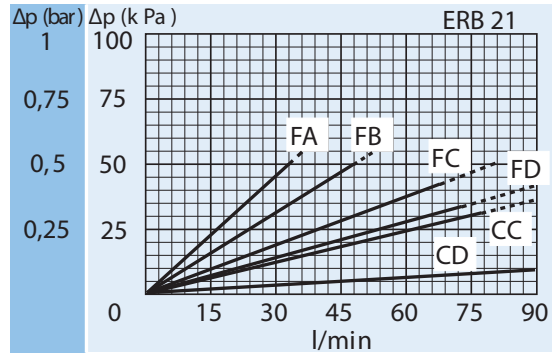
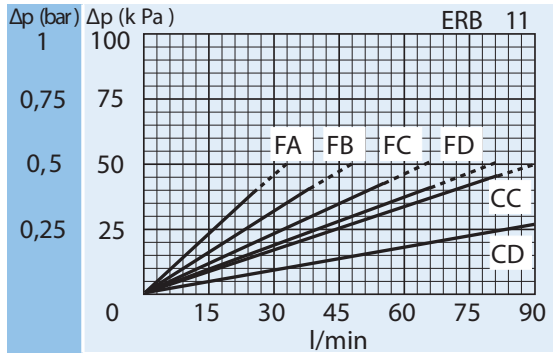


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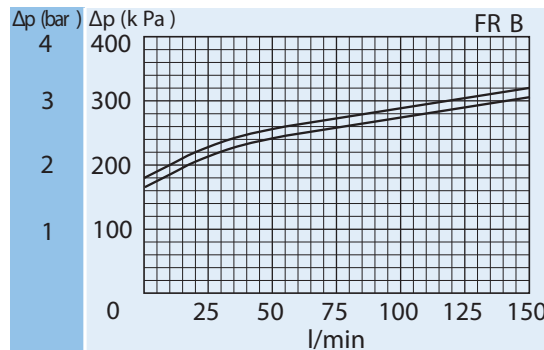
CLEAN FILTER ELEMENT PRESSURE DROP WITH F+ AND C+ MEDIA

(depending both on the internal diameter of the element and on the filter media)



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 have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue.

