



ORELL

RETURN FILTERS RC



MATERIALS

Head:
Aluminium alloy

Spin-on cartridge:
Steel

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%

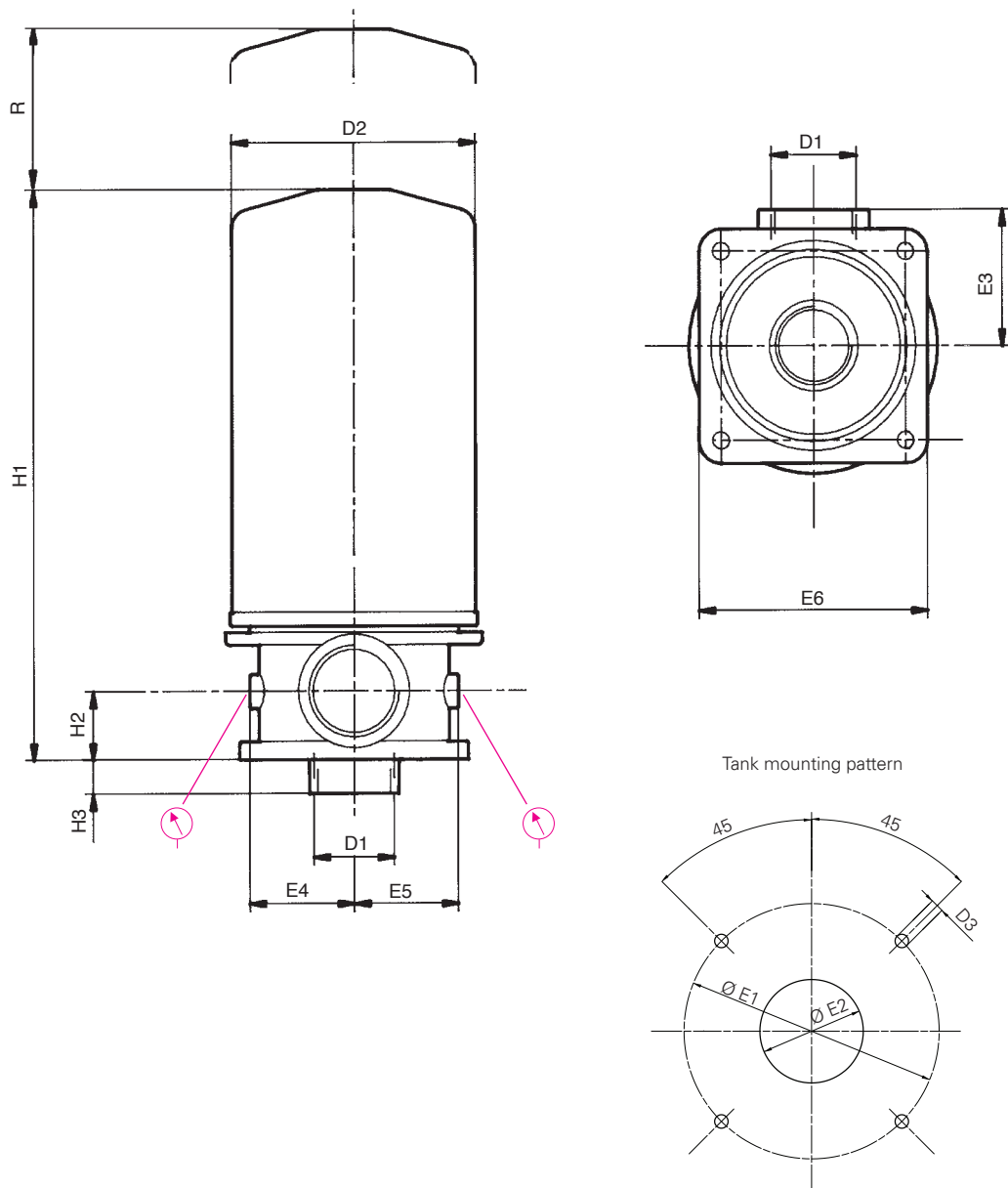
WORKING TEMPERATURE

From -25° to +110° C

COMPATIBILITY (ISO 2943:1999)

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

OHF 420



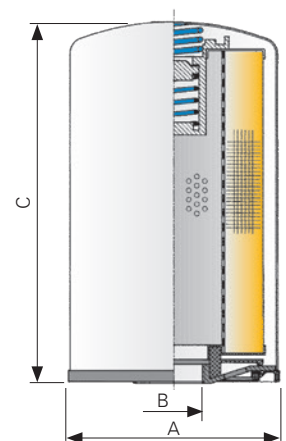
FILTER HOUSING

	D1	D2	D3	H1	H2	H3	E1	E2	E3	E4	E5	E6	R	kg
FRC11	3/4"	95	7	196	25	18	99	40÷45	50	38	38	90	15	0,3+1,0
FRC12	3/4"	95	7	241	25	18	99	40÷45	50	38	38	90	15	0,3+1,3
FRC21	1" 1/2	130	9	252	36	18	141	65÷70	72	56	56	124	30	0,8+1,3
FRC22	1" 1/2	130	9	297	36	18	141	65÷70	72	56	56	124	30	0,8+1,4

TYPE									
F = FILTER COMPLETE		F	F	F	F				
B = FILTER HOUSING		B	B	B	B	ELEMENT	E		
R	C	FAMILY SIZE & LENGTH				FAMILY SIZE & LENGTH		R	C
		11	12	21	22				
PORT TYPE									
B = BSP thread		B	B	B	B				
PORT SIZE									
06 = 3/4"		06	06	-	-				
12 = 1" 1/2		-	-	12	12				
BYPASS VALVE									
B = 170 kPa (1,7 bar)		B	B	B	B				
SEALS						SEALS	N		
N = NBR Nitrile		N	N	N	N	N = NBR			
FILTER MEDIA						FILTER MEDIA			
FB = fiber 7 $\mu\text{m}_{(e)}$ $\beta > 1.000$		FB	FB	FB	FB	FB = fiber 7 $\mu\text{m}_{(e)}$			
FC = fiber 12 $\mu\text{m}_{(e)}$ $\beta > 1.000$		FC	FC	FC	FC	FC = fiber 12 $\mu\text{m}_{(e)}$			
FD = fiber 21 $\mu\text{m}_{(e)}$ $\beta > 1.000$		FD	FD	FD	FD	FD = fiber 21 $\mu\text{m}_{(e)}$			
CC = cellulose 10 μm $\beta > 2$		CC	CC	CC	CC	CC = cellulose 10 μm			
CD = cellulose 25 μm $\beta > 2$		CD	CD	CD	CD	CD = cellulose 25 μm			
CLOGGING INDICATOR									
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				
ACCESSORIES									
X X = no accessory available		XX	XX	XX	XX				

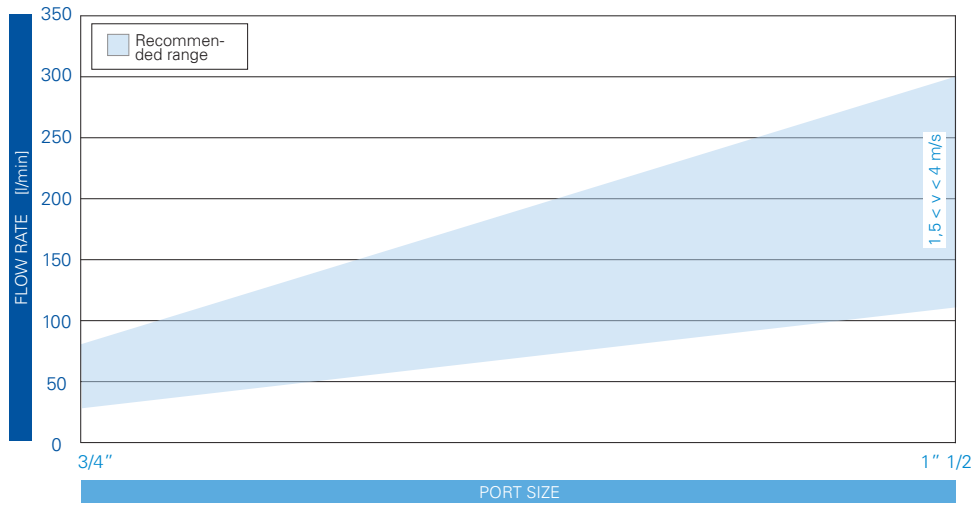
FILTER ELEMENT

	A	B	C	kg	Area (cm ²)	
					Media F+	Media C+
ERC11	96,5	3/4" BSP	146	1,00	2.140	3.305
ERC12	96,5	3/4" BSP	191	1,20	3.630	4.745
ERC21	129	1" 1/4 BSP	181	1,40	4.450	5.560
ERC22	129	1" 1/4 BSP	226	1,50	5.890	7.360



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)

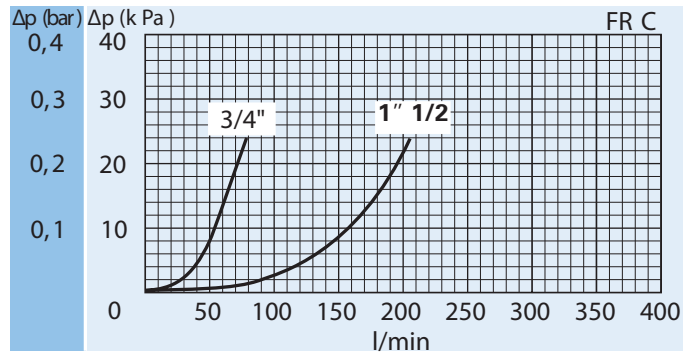


PRESSURE DROP CURVES (Δp)

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)

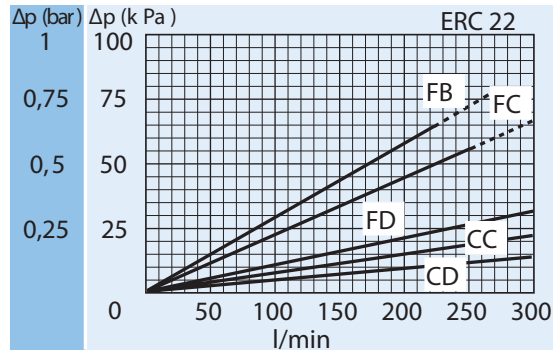
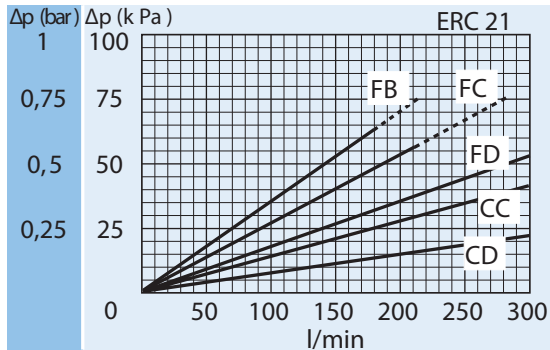
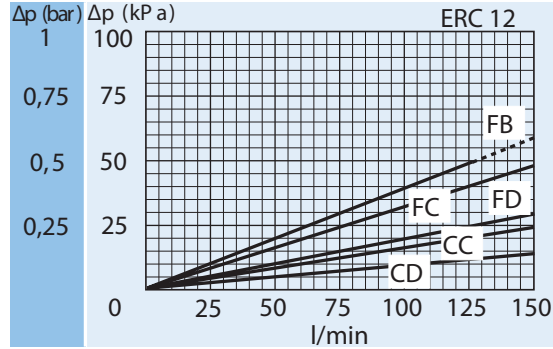
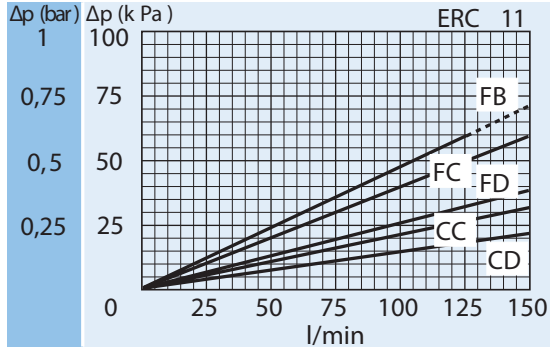


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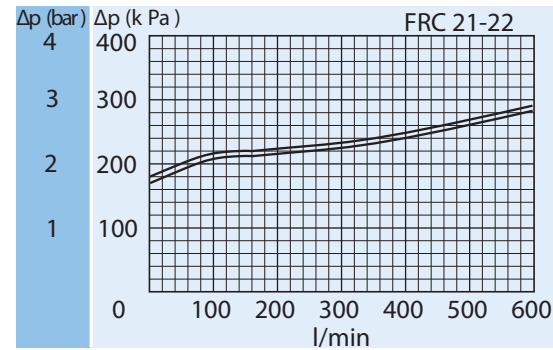
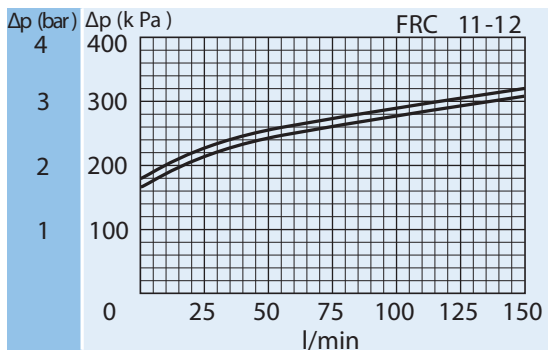
CLEAN FILTER ELEMENT PRESSURE DROP WITH F+ AND C+ MEDIA

(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.

CLOGGING INDICATOR

A visual or electrical indicator is available as an option and allows monitoring of the element condition. The port for the indicator is a standard feature.

QUICK MAINTENANCE

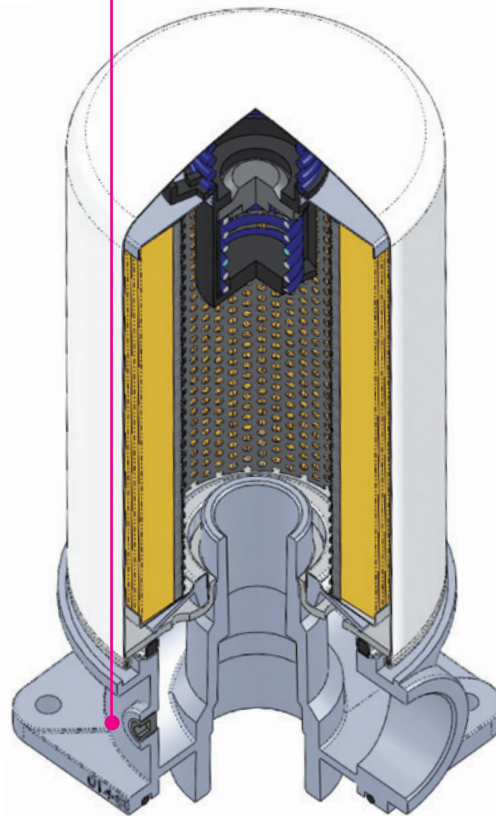
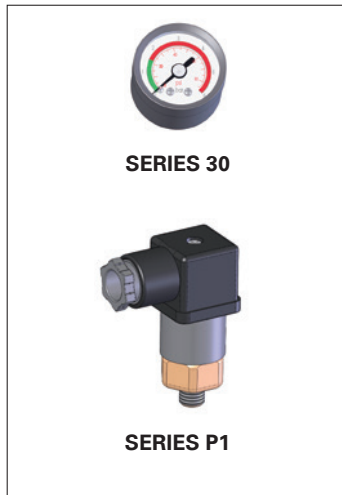
The spin-on type filter element ensures a quick and easy replacement.

EASY REPLACEMENT

A anti-drain membrane keeps the oil inside the cartridge and avoid oil losses during the replacement.

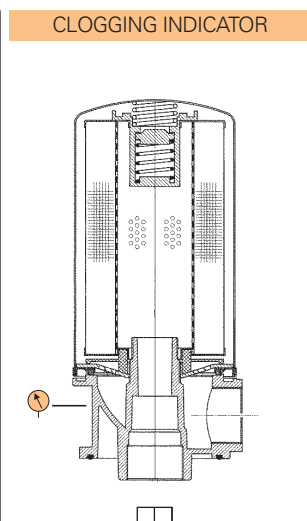
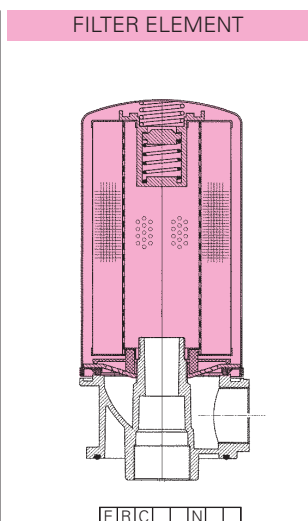
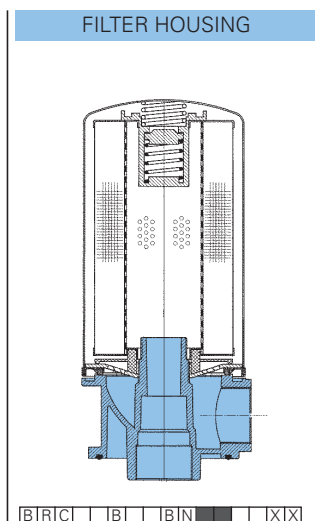
CLOGGING INDICATOR

For further technical informations and other options see page 184.



SPARE SEAL KIT

	NBR
FRC11	521.0018.2
FRC12	521.0018.2
FRC21	521.0036.2
FRC22	521.0036.2



SPARE PARTS ELEMENTS
(For filling up see table "Ordering and option chart")

Technical data subject to variations without prior notice. RC - EN - 03/2011