



ORELL

PRESSURE FILTERS PM



MATERIALS

Housing:
Anodized aluminium alloy

Bypass valve:
Steel

Seals:
NBR Nitrile
(FKM - on request fluoroelasto-
mer)

Indicator housing:
Brass

PRESSURE (ISO 10771-1:2002)

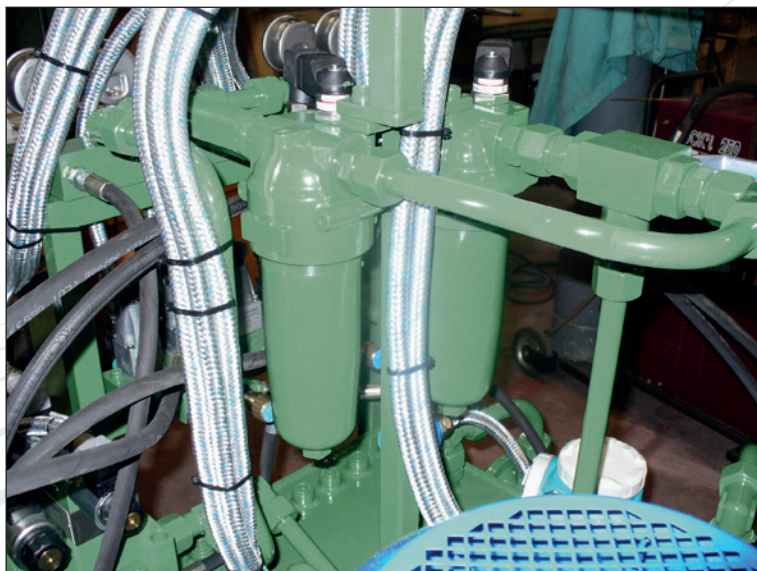
Max. working: 22 MPa (220 bar)

Test: 33 MPa (330 bar)

Bursting: 66 MPa (660 bar)

Collapse, differential
for the filter element (ISO
2941):
2,1 MPa (21 bar)

APPLICATION EXAMPLE



BYPASS VALVE

Setting:
600 kPa (6 bar) \pm 10%

WORKING TEMPERATURE

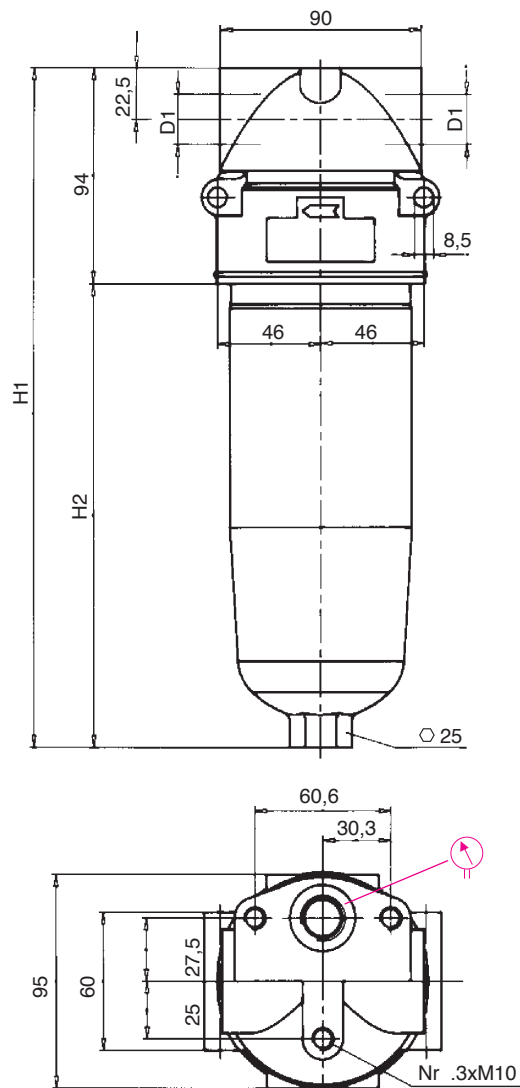
From -25° to +110° C

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 380

FPM 21 - 22



FILTER HOUSING					
	D1	H1	H2	R	kg
FPM21	1/2"-3/4"-1"	205	111	100	1,5
FPM22	1/2"-3/4"-1"	298	197	100	2,0

		TYPE					
		F = FILTER COMPLETE	F	F			
		B = FILTER HOUSING	B	B	ELEMENT	E	
P	M	FAMILY, SIZE & LENGTH					
			21	22	FAMILY SIZE & LENGTH	P	A
					P	B	
		PORT TYPE					
		B = BSP thread	B	B			
		N = NPT thread	N	N			
		S = SAE thread	S	S			
		PORT SIZE					
		04 = 1/2"	04	04			
		06 = 3/4"	06	06			
		08 = 1"	08	08			
		BYPASS VALVE					
		W = without	W	W			
		C = 600 kPa (6 bar)	C	C			
		SEALS			SEALS		
		N = NBR Nitrile	N	N	N = NBR		
		F = FKM Fluoroelastomer	F	F	F = FKM		
		FILTER MEDIA			FILTER MEDIA		
		FA = fiber 5 $\mu\text{m}_{(c)}$ $\beta > 1.000$	FA	FA	FA = fiber 5 $\mu\text{m}_{(c)}$		
		FB = fiber 7 $\mu\text{m}_{(c)}$ $\beta > 1.000$	FB	FB	FB = fiber 7 $\mu\text{m}_{(c)}$		
		FC = fiber 12 $\mu\text{m}_{(c)}$ $\beta > 1.000$	FC	FC	FC = fiber 12 $\mu\text{m}_{(c)}$		
		FD = fiber 21 $\mu\text{m}_{(c)}$ $\beta > 1.000$	FD	FD	FD = fiber 21 $\mu\text{m}_{(c)}$		
		CC = cellulose 10 μm $\beta > 2$	CC	CC	CC = cellulose 10 μm		
		CLOGGING INDICATOR					
		03 = port, plugged	03	03			
		5E = visual differential 500 kPa (5 bar)	5E	5E			
		6E = electrical differential 500 kPa (5 bar)	6E	6E			
		7E = indicator 6E with LED	7E	7E			
		T2 = elect. diff. 500 kPa (5 bar) with thermostat 30°C	T2	T2			
		ACCESSORIES					
X	X	XX = no accessory available	XX	XX			

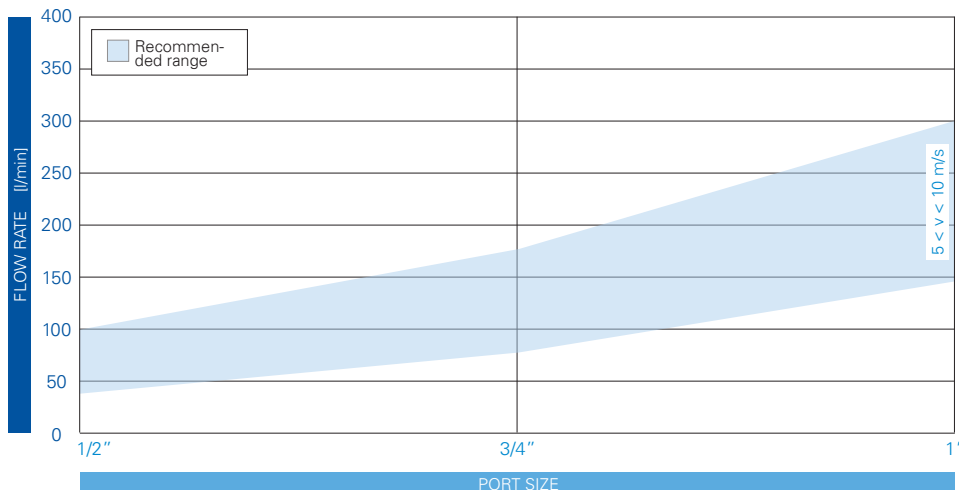
When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 182 - 183).

N.B.
Indicator series 72 only on request

FILTER ELEMENT						
	A	B	C	kg	Area (cm ²)	
					Media F+	Media C+
EPB21	23,5	52	115	0,25	975	780
EPB22	23,5	52	210	0,35	1.830	1.465

FLUID SPEED

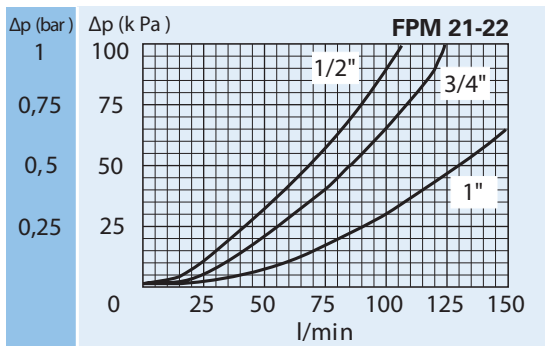
when selecting the filter size, we suggest to consider also the max recommended fluid speed (in pressure lines normally $5 < v < 10$ m/s)



PRESSURE DROP CURVES (Δp)

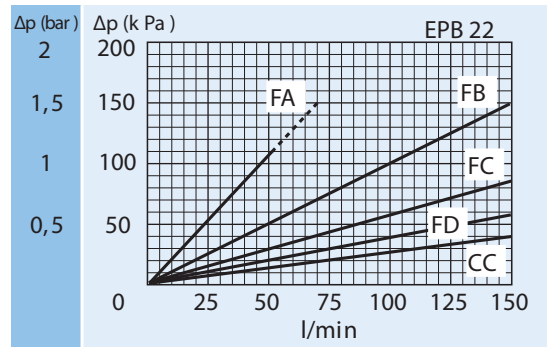
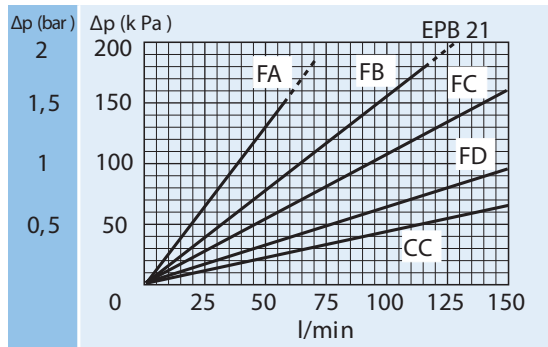
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 120 kPa (1,2 bar).

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



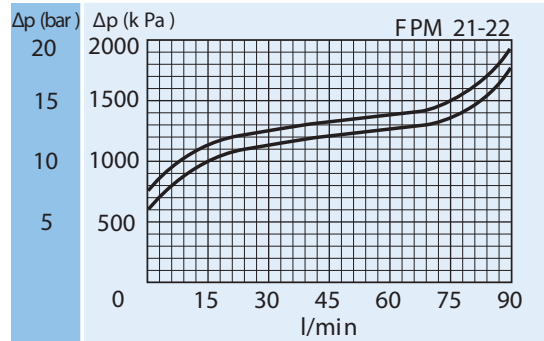
**CLEAN FILTER ELEMENT PRESSURE DROP
WITH F+ AND C+ MEDIA**

(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 visual-electrical differential indicator is available as an option and allows monitoring of the element conditions, giving an exact indication of the right time to replace the element.

CLOGGING INDICATOR

For further technical informations and other options see page 182-183.

Differential

FILTER HOUSING

Head and bowl are made by high performance aluminium alloy ensuring the best fatigue resistance.

FILTER ELEMENT

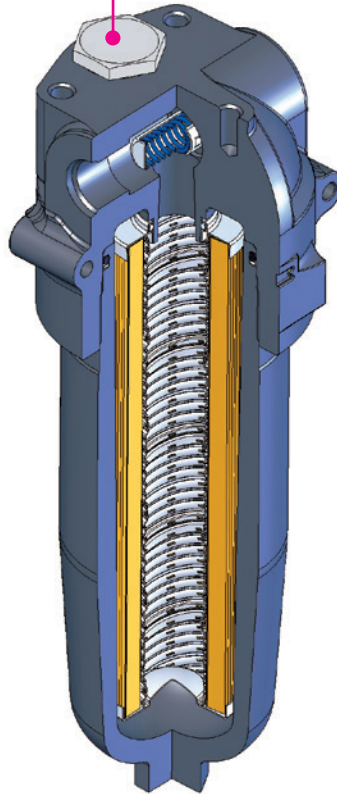
The filter element is manufactured with filter medias selected in our laboratory and mechanically supported to maintain the highest performance even at high differential pressures.

SEAL GUARANTEED

A perfect O-ring seal is always ensured as it is not dependent on the tightening torque applied to the bowl.

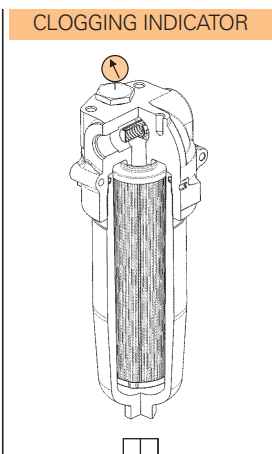
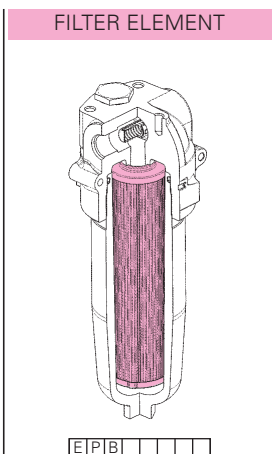
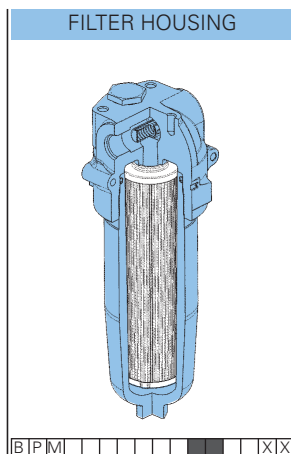
EASY MAINTENANCE

The hexagon end of the bowl allows for easy maintenance by using a simple hexagon wrench.



SPARE SEAL KIT

	NBR	FKM
FPM21	521.0011.2	521.0010.2
FPM22	521.0011.2	521.0010.2



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

Technical data subject to variations without prior notice. PM - EN - 04/2013