

PL



MATERIALS

Head:
Cast iron

Bowl:
Steel

Bypass valve:
Steel

Seals:
NBR Nitrile
(FKM - on request fluoroelastomer)

Indicator housing:
Brass

PRESSURE (ISO 10771-1:2002)

Max working:
31,5 MPa (315 bar)

Test:
47 MPa (470 bar)

Bursting:
95 MPa (950 bar)

Collapse, differential
for the filter element (ISO 2941):
series standard: 2 MPa (20 bar)
series H+: 21 MPa (210 bar)

BYPASS VALVE

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

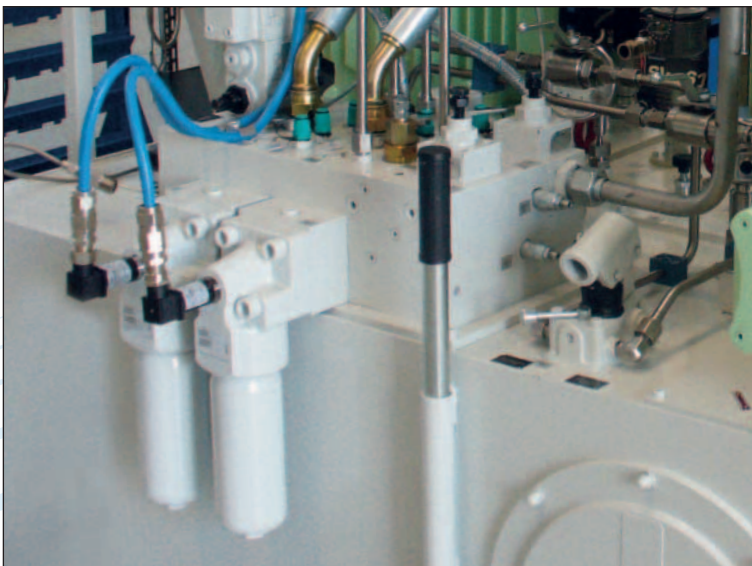
WORKING TEMPERATURE

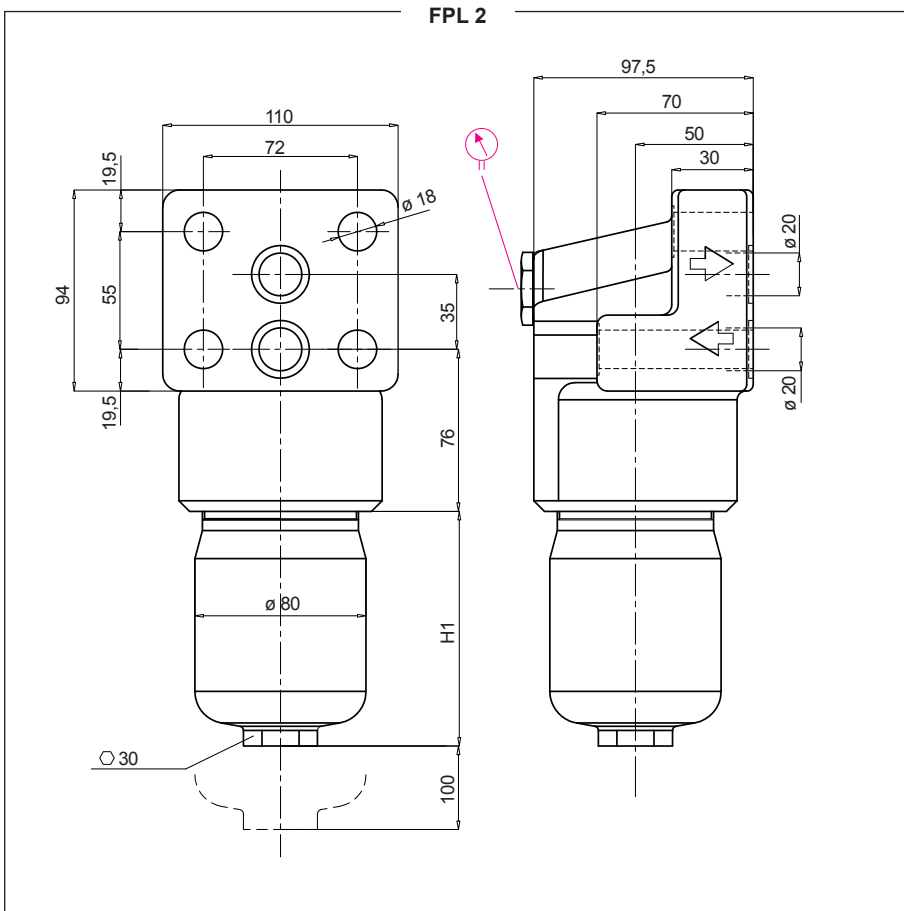
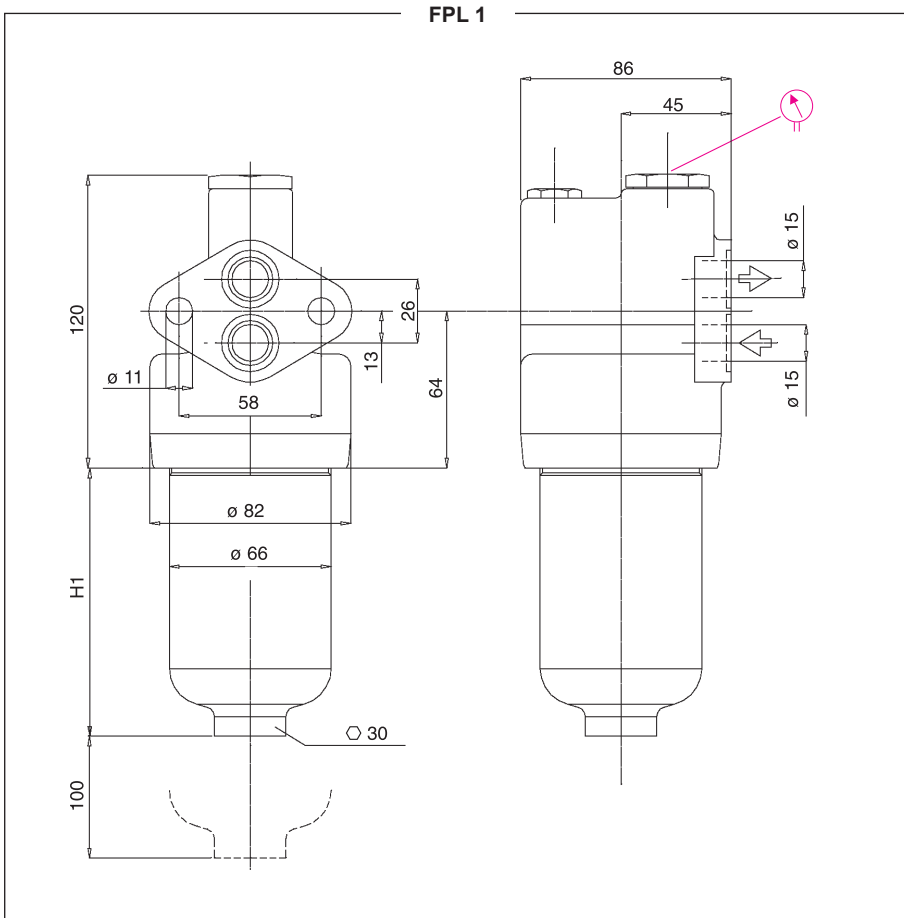
From -25° to +110° C

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.

APPLICATION EXAMPLE





FILTER HOUSING		
	H1	kg
FPL11	79	4,4
FPL12	109	4,6
FPL13	209	5,2
FPL21	116	6,6
FPL22	207	8,2

		TYPE						
		F	F	F	F	F		
		F = FILTER COMPLETE						
		B	B	B	B	B	ELEMENT	
		B = FILTER HOUSING					E	
P	L	FAMILY SIZE & LENGTH					FAMILY	
		11	12	13	21	22	SIZE & LENGTH	
							P	B
		C PORT TYPE						
		C	C	C	C	C		
		C = flanged 90° (manifold)						
		PORT SIZE						
		15	15	15	-	-		
		15 = size 15						
		-	-	-	20	20		
		20 = size 20						
		BYPASS VALVE						
		W	W	W	W	W		
		W = without						
		C	C	C	C	C		
		C = 600 kPa (6 bar)						
		SEALS					SEALS	
		N	N	N	N	N	N = NBR	
		N = NBR Nitrile					F = FKM	
		F	F	F	F	F	F = FKM	
		F = FKM Fluoroelastomer						

FILTER MEDIA						FILTER MEDIA	
FA	FA	FA	FA	FA	FA	FA = fib.	5µm _(e) 20 bar
FA = fiber 5 µm _(e) β > 1.000 Δp 2 MPa (20 bar)							
FB	FB	FB	FB	FB	FB	FB = fib.	7µm _(e) 20 bar
FB = fiber 7 µm _(e) β > 1.000 Δp 2 MPa (20 bar)							
FC	FC	FC	FC	FC	FC	FC = fib.	12µm _(e) 20 bar
FC = fiber 12 µm _(e) β > 1.000 Δp 2 MPa (20 bar)							
FD	FD	FD	FD	FD	FD	FD = fib.	21µm _(e) 20 bar
FD = fiber 21 µm _(e) β > 1.000 Δp 2 MPa (20 bar)							
HA	HA	HA	HA	HA	HA	HA = fib.	5µm _(e) 210 bar
HA = fiber 5 µm _(e) β > 1.000 Δp 21 MPa (210 bar)							
HB	HB	HB	HB	HB	HB	HB = fib.	7µm _(e) 210 bar
HB = fiber 7 µm _(e) β > 1.000 Δp 21 MPa (210 bar)							
HC	HC	HC	HC	HC	HC	HC = fib.	12µm _(e) 210 bar
HC = fiber 12 µm _(e) β > 1.000 Δp 21 MPa (210 bar)							
HD	HD	HD	HD	HD	HD	HD = fib.	21µm _(e) 210 bar
HD = fiber 21 µm _(e) β > 1.000 Δp 21 MPa (210 bar)							
CC	CC	CC	CC	CC	CC	CC = cel.	10µm 20 bar
CC = cellulose 10 µm β > 2 Δp 2 MPa (20 bar)							

CLOGGING INDICATOR							
03	03	03	03	03	03		
03 = port, plugged							
5E	5E	5E	5E	5E	5E		
5E = visual differential 500 kPa (5 bar)							
5F	5F	5F	5F	5F	5F		
5F = visual differential 800 kPa (8 bar)							
6E	6E	6E	6E	6E	6E		
6E = electrical differential 500 kPa (5 bar)							
6F	6F	6F	6F	6F	6F		
6F = electrical differential 800 kPa (8 bar)							
7E	7E	7E	7E	7E	7E		
7E = indicator 6E with LED							
7F	7F	7F	7F	7F	7F		
7F = indicator 6F with LED							
T2	T2	T2	T2	T2	T2		
T2 = elect. diff. 500 kPa (5 bar) with thermostat 30°C							
T3	T3	T3	T3	T3	T3		
T3 = elect. diff. 800 kPa (8 bar) with thermostat 30°C							

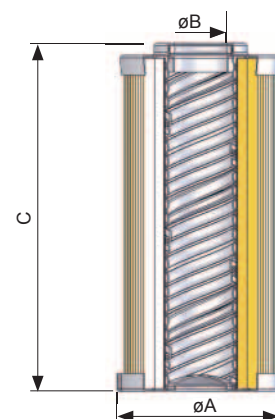
When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 182 - 183).

N.B. Indicator series 72 & 73 only on request

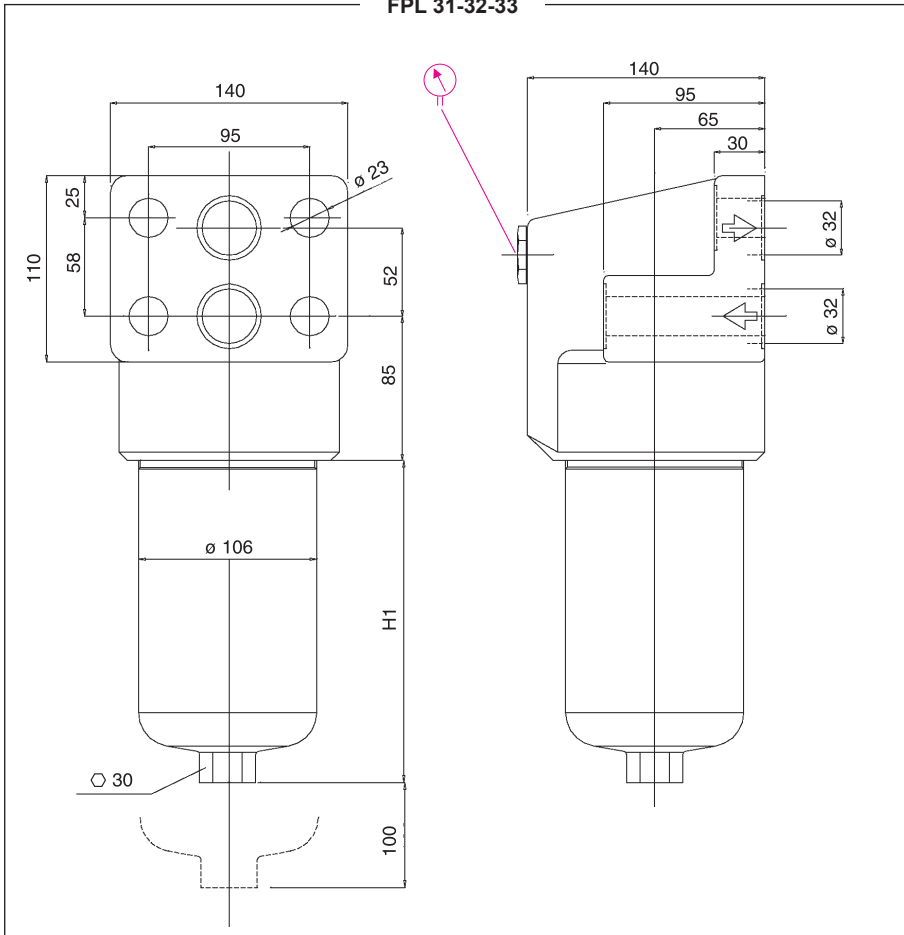
X X ACCESSORIES						
XX = no accessory available		XX	XX	XX	XX	XX

FILTER ELEMENT

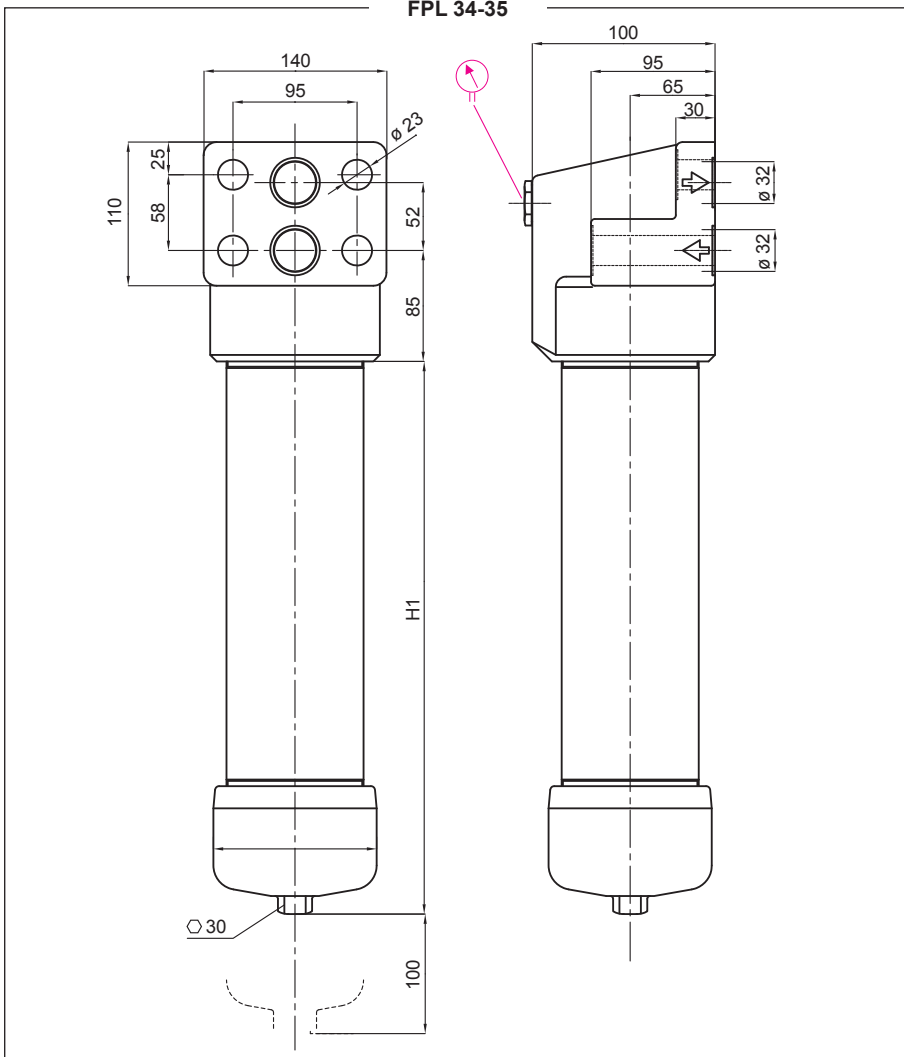
	A	B	C	kg media F+ & C+	kg media H+	Area (cm ²)		
						Media F+	Media H+	Media C+
EPB11	45	25	85	0,15	0,25	355	340	310
EPB12	45	25	116	0,20	0,55	500	475	435
EPB13	45	25	211	0,30	0,45	935	915	815
EPB21	52	23,5	115	0,25	0,40	975	975	780
EPB22	52	23,5	210	0,35	0,55	1.830	1.785	1.465



FPL 31-32-33



FPL 34-35



FILTER HOUSING		
	H1	kg
FPL31	107	11,0
FPL32	199	13,9
FPL33	319	17,2
FPL34	420	22,0
FPL35	520	25,0

		TYPE							
		F	F	F	F	F			
		F = FILTER COMPLETE							
		B	B	B	B	B	ELEMENT	E	
		B = FILTER HOUSING							
P	L	FAMILY SIZE & LENGTH					FAMILY	P	B
		31	32	33	34	35	SIZE & LENGTH		
		C PORT TYPE							
		C	C	C	C	C			
		C = flanged 90° (manifold)							
3	2	PORT SIZE							
		32	32	32	32	32			
		32 = size 32							
		BYPASS VALVE							
		W	W	W	W	W			
		W = without							
		C	C	C	C	C			
		C = 600 kPa (6 bar)							
		SEALS					SEALS		
		N	N	N	N	N	N = NBR		
		N = NBR Nitrile							
		F	F	F	F	F	F = FKM		
		F = FKM Fluoroelastomer							

FILTER MEDIA						FILTER MEDIA	
FA = fiber 5 μm _(e) β > 1.000 Δp 2 MPa (20 bar)	FA	FA	FA	FA	FA	FA = fib. 5 μm _(e) 20 bar	
FB = fiber 7 μm _(e) β > 1.000 Δp 2 MPa (20 bar)	FB	FB	FB	FB	FB	FB = fib. 7 μm _(e) 20 bar	
FC = fiber 12 μm _(e) β > 1.000 Δp 2 MPa (20 bar)	FC	FC	FC	FC	FC	FC = fib. 12 μm _(e) 20 bar	
FD = fiber 21 μm _(e) β > 1.000 Δp 2 MPa (20 bar)	FD	FD	FD	FD	FD	FD = fib. 21 μm _(e) 20 bar	
HA = fiber 5 μm _(e) β > 1.000 Δp 21 MPa (210 bar)	HA	HA	HA	HA	HA	HA = fib. 5 μm _(e) 210 bar	
HB = fiber 7 μm _(e) β > 1.000 Δp 21 MPa (210 bar)	HB	HB	HB	HB	HB	HB = fib. 7 μm _(e) 210 bar	
HC = fiber 12 μm _(e) β > 1.000 Δp 21 MPa (210 bar)	HC	HC	HC	HC	HC	HC = fib. 12 μm _(e) 210 bar	
HD = fiber 21 μm _(e) β > 1.000 Δp 21 MPa (210 bar)	HD	HD	HD	HD	HD	HD = fib. 21 μm _(e) 210 bar	
CC = cellulose 10 μm β > 2 Δp 2 MPa (20 bar)	CC	CC	CC	CC	CC	CC = cel. 10 μm 20 bar	

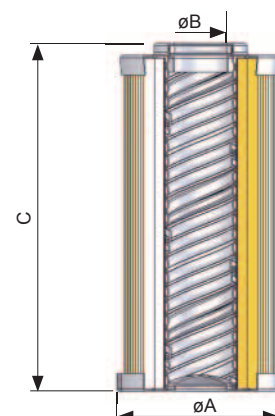
CLOGGING INDICATOR						When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 182 - 183).
03 = port, plugged	03	03	03	03	03	
5E = visual differential 500 kPa (5 bar)	5E	5E	5E	5E	5E	
5F = visual differential 800 kPa (8 bar)	5F	5F	5F	5F	5F	
6E = electrical differential 500 kPa (5 bar)	6E	6E	6E	6E	6E	
6F = electrical differential 800 kPa (8 bar)	6F	6F	6F	6F	6F	
7E = indicator 6E with LED	7E	7E	7E	7E	7E	
7F = indicator 6F with LED	7F	7F	7F	7F	7F	
T2 = elect. diff. 500 kPa (5 bar) with thermostat 30°C	T2	T2	T2	T2	T2	
T3 = elect. diff. 800 kPa (8 bar) with thermostat 30°C	T3	T3	T3	T3	T3	

N.B.
Indicator series 72 & 73 only on request

X	X	ACCESSORIES				
		XX	XX	XX	XX	XX
		XX = no accessory available				

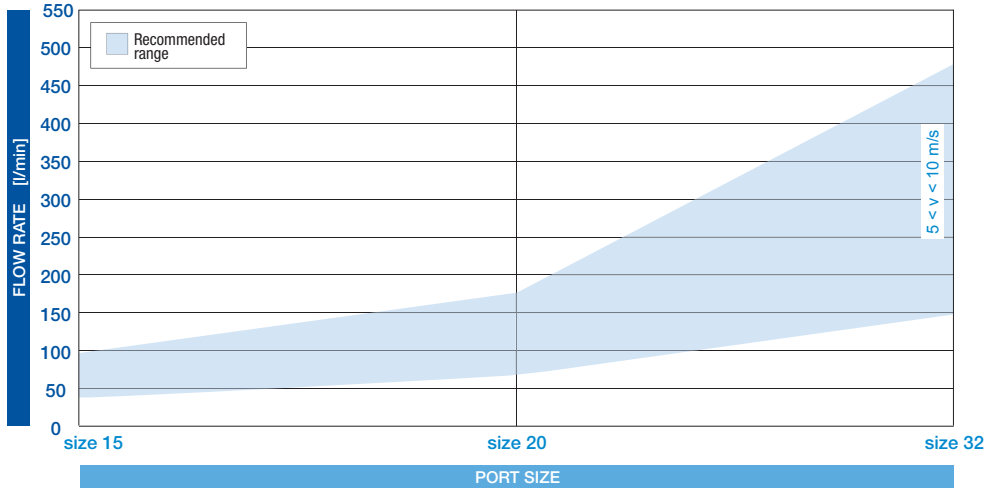
FILTER ELEMENT

	A	B	C	kg media F+ & C+	kg media H+	Area (cm ²)		
						Media F+	Media H+	Media C+
EPB31	78	42,5	118	0,40	0,70	2.000	1.470	1.720
EPB32	78	42,5	210	0,80	1,30	3.695	2.695	3.170
EPB33	78	42,5	210	1,00	1,60	5.025	4.325	4.025
EPB34	78	42,5	430	1,20	1,80	6.585	5.685	6.585
EPB35	78	42,5	530	1,40	2,00	8.145	7.045	8.645



FLUID SPEED

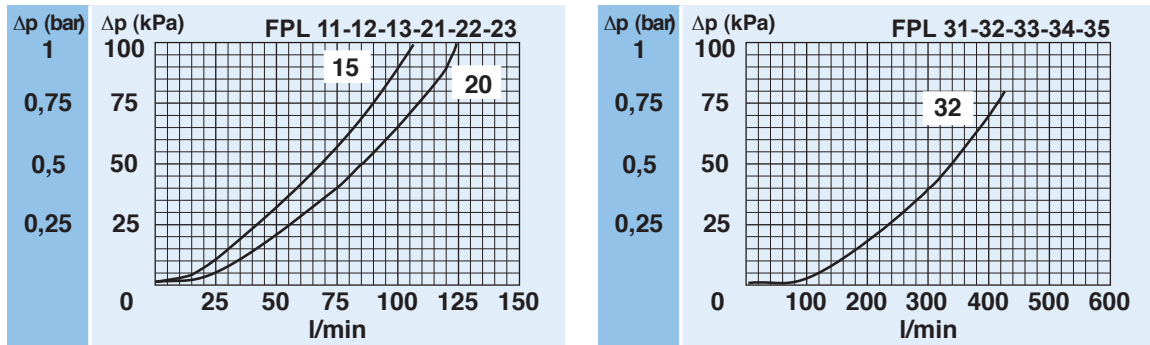
(when selecting the filter size, we suggest to consider also the max recommended fluid speed (in pressure lines normally $5 < v < 10$ m/s)



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).

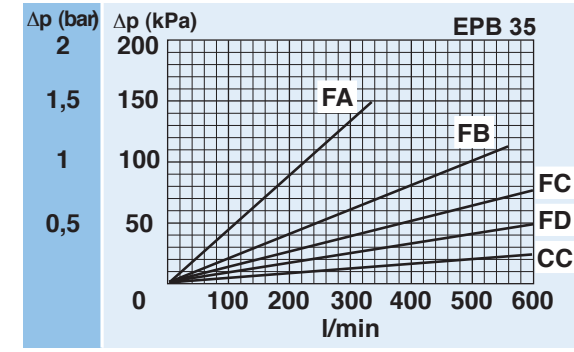
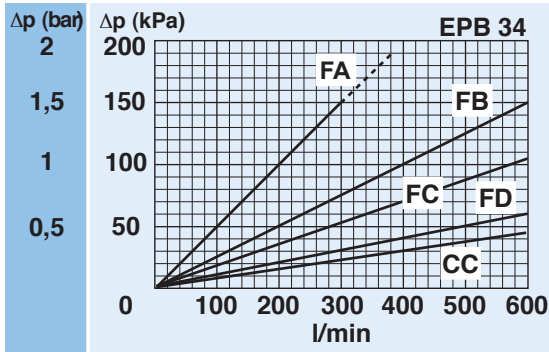
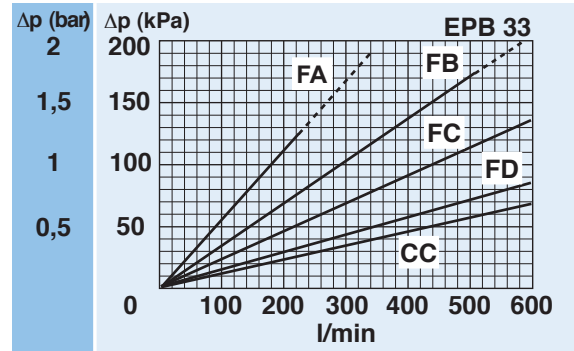
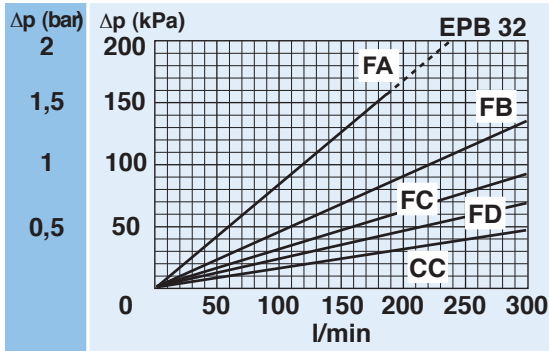
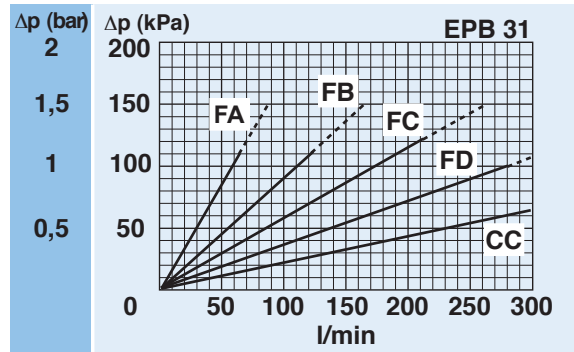
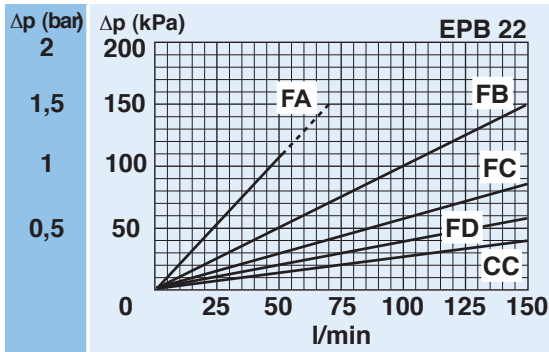
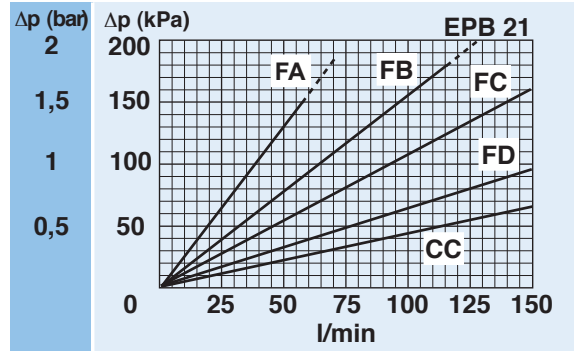
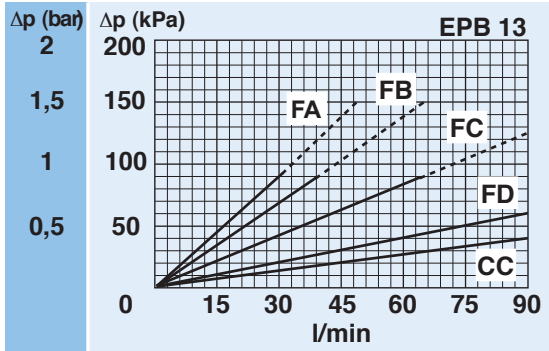
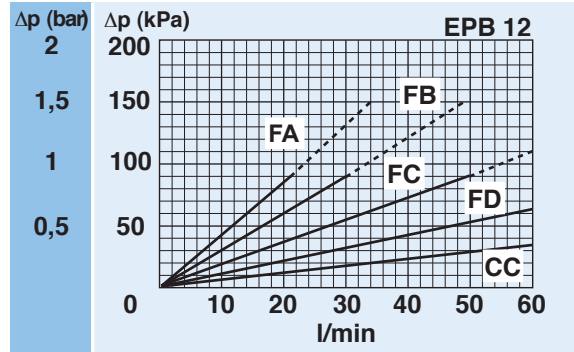
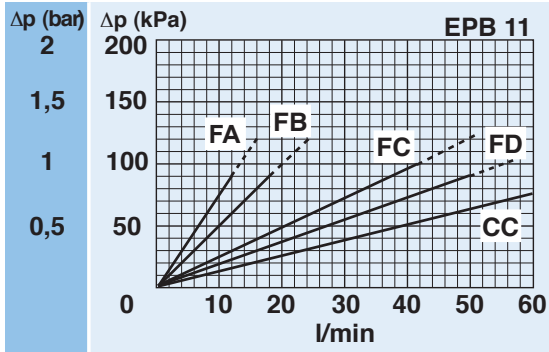
FILTER HOUSING PRESSURE DROP (mainly depending on the port size)



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. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968:2005. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

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

(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 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968:2005. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

PRESSURE DROP CURVES (Δp)

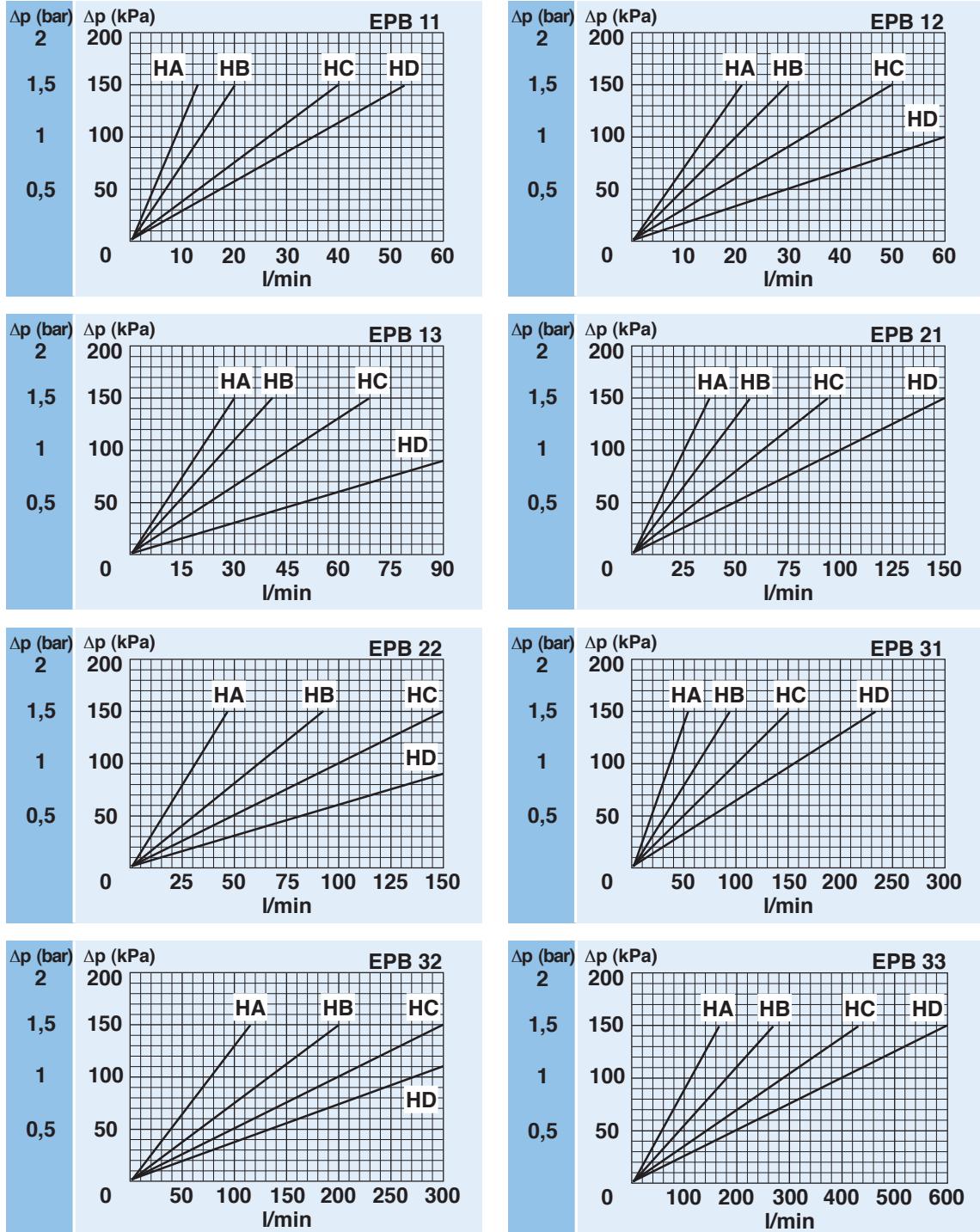
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 120 kPa (1,2 bar).

CLEAN FILTER ELEMENT PRESSURE DROP

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

WITH H+ MEDIA

(recommended with no Bypass option)



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. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968:2005. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

PRESSURE DROP CURVES (Δp)

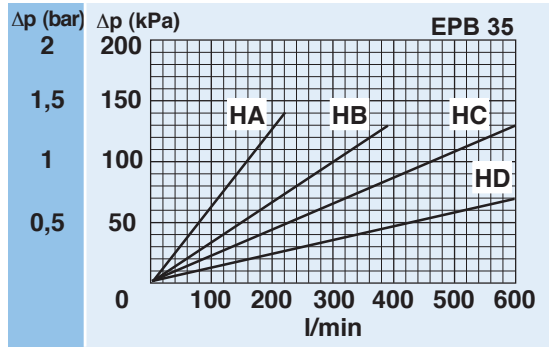
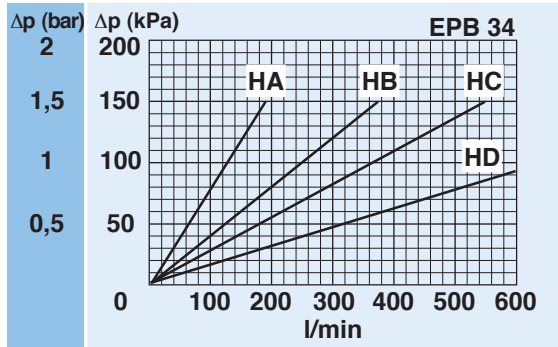
The “Assembly Pressure Drop (Δp)” is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 120 kPa (1,2 bar).

CLEAN FILTER ELEMENT PRESSURE DROP

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

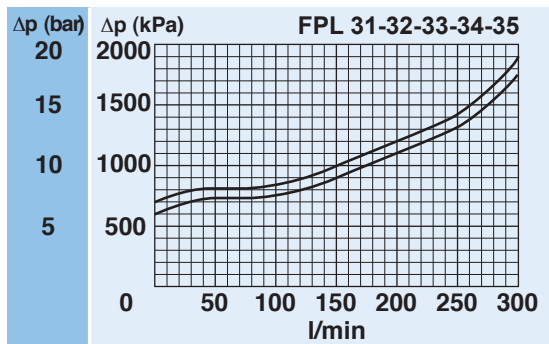
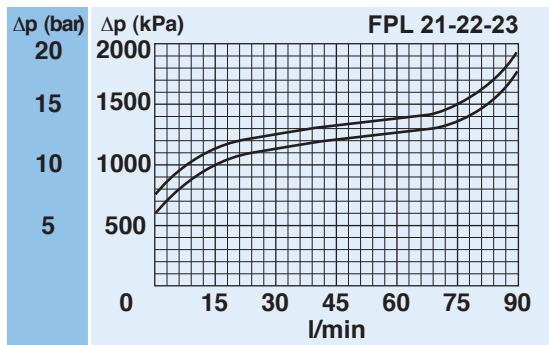
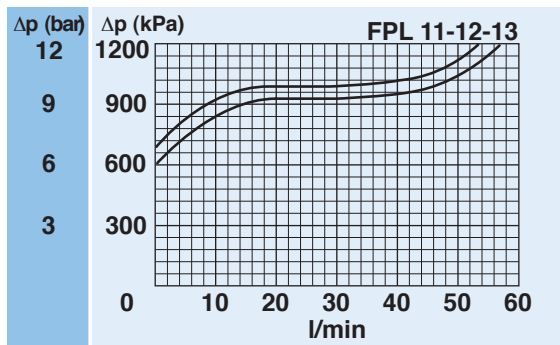
WITH H+ MEDIA

(recommended with no Bypass option)



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. All the curves are obtained from test done at the UFI HYDRAULIC DIVISION Laboratory, according to the specification ISO 3968:2005. In case of discrepancy, please check the contamination level, viscosity and features of the fluid in use.

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.

FILTER HOUSING

The head by high performance cast iron and the bowl by extruded steel ensure the best fatigue resistance to the working pressures.

FILTER ELEMENT

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

SEAL GUARANTEED

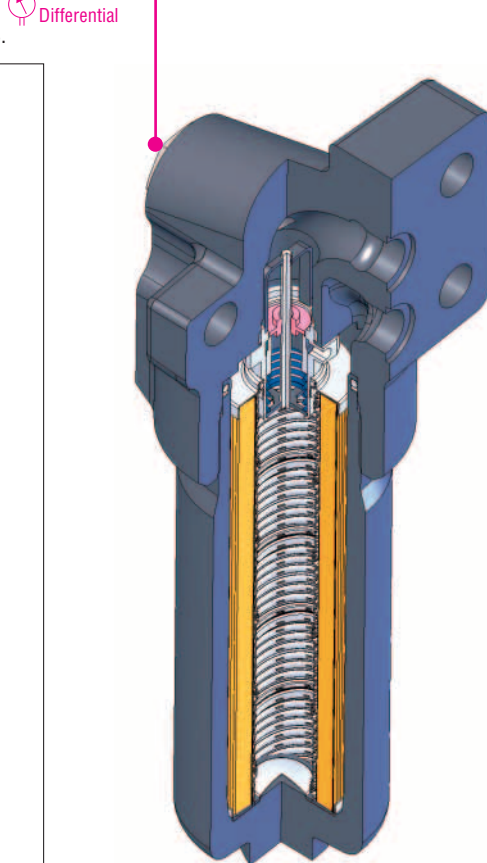
A perfect O-ring seal is always ensured as it is not dependent on the tightening torque applied to the bowl.

EASY ASSEMBLING

The manifold mounting is compact and leak free.

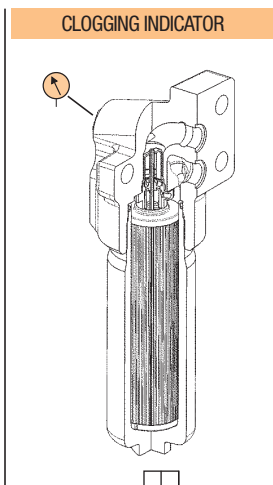
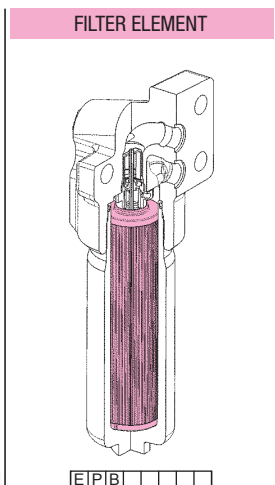
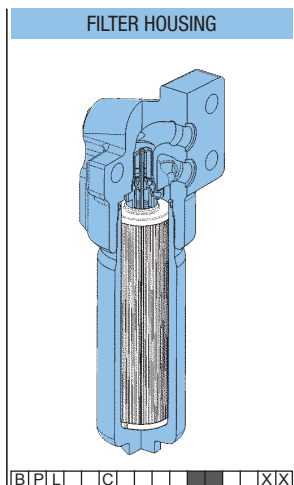
CLOGGING INDICATOR

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



SPARE SEAL KIT

	NBR	FKM
FPL11	521.0080.2	521.0083.2
FPL12	521.0080.2	521.0083.2
FPL13	521.0080.2	521.0083.2
FPL21	521.0081.2	521.0084.2
FPL22	521.0081.2	521.0084.2
FPL31	521.0082.2	521.0085.2
FPL32	521.0082.2	521.0085.2
FPL33	521.0082.2	521.0085.2
FPL34	521.0082.2	521.0085.2
FPL35	521.0082.2	521.0085.2



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

