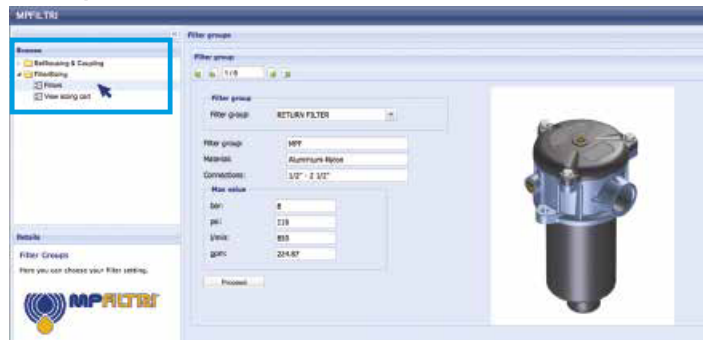


FMP series

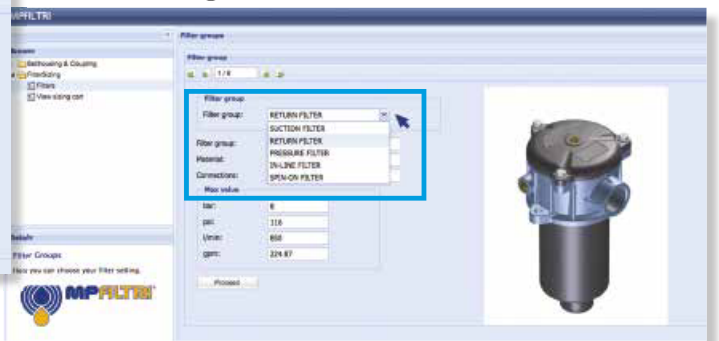
Maximum working pressure up to 32 MPa (320 bar) - Flow rate up to 475 l/min



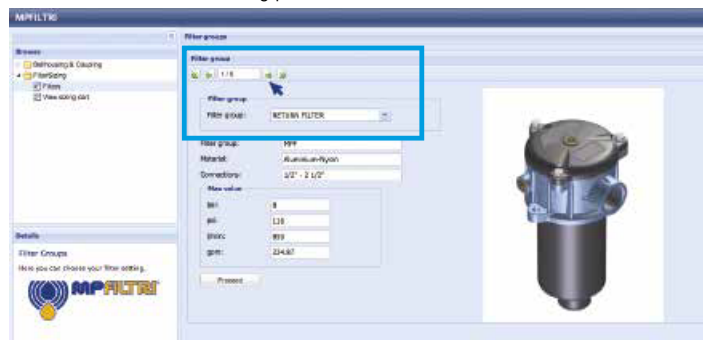
Step 1 Select "FILTERS"



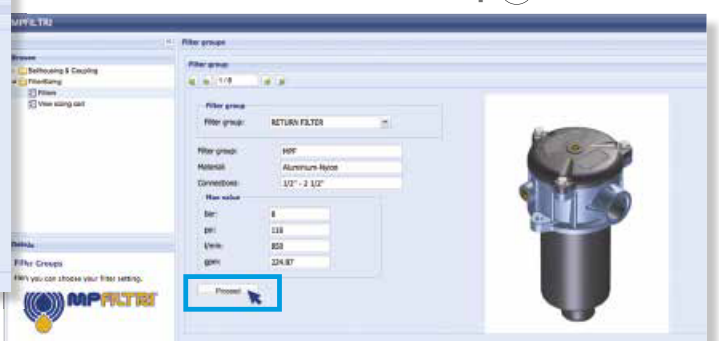
Step 2 Choose filter group (Return Filter, Pressure Filter, etc.)



Step 3 Choose filter type (MPF, MPT, etc.) in function of the max working pressure and the max flow rate



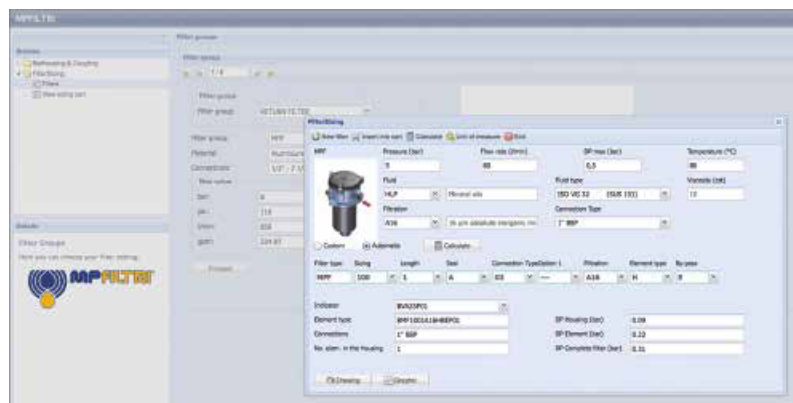
Step 4 Push "PROCEED"



Step 5

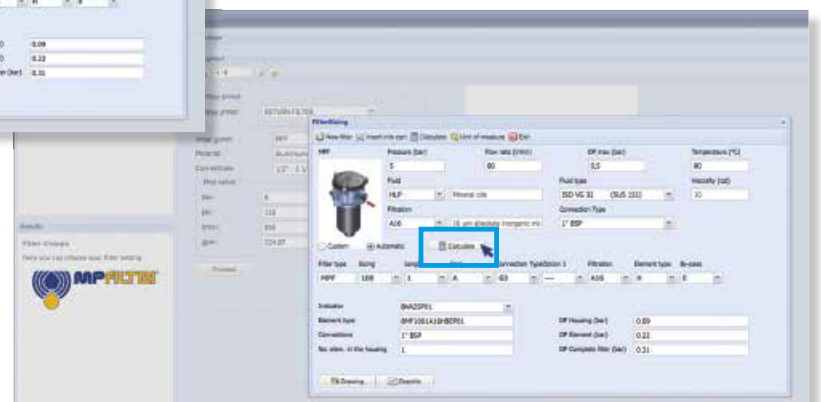
Insert all application data to calculate the filter size following the sequence:

- working pressure
- working flow rate
- working pressure drop
- working temperature
- fluid material and fluid type
- filtration media
- connection type



Step 6

Push "CALCULATE" to have result; in case of any mistake, the system will advice which parameter is out of range to allow to modify/adjust the selection



Step 7

Download PDF Datasheet "Report.aspx" pushing the button "Drawing"

High Pressure filters

In-line

Maximum working pressure up to 32 MPa (320 bar)

Flow rate up to 475 l/min

FMP is a range of versatile high pressure filter for protection of sensitive components in high pressure hydraulic systems in the industrial equipment.

They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Female threaded connections up to 1 1/2" and flanged connections up to 1 1/2", for a maximum flow rate of 475 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Bypass valve, to relieve excessive pressure drop across the filter media
- Check valve, to protect the system against reverse flow
- Low collapse filter element "N", for use with filters provided with bypass valve
- High collapse filter element "H", for use with filters not provided with bypass valve
- Low collapse filter element with external support "R", for filter element protection against the back pressure caused by the check valve in filters provided with the bypass valve
- High collapse filter element with external support "S", for filter element protection against the back pressure caused by the check valve in filters not provided with the bypass valve
- Visual, electrical and electronic differential clogging indicators

Common applications:

Delivery lines, in any high pressure industrial equipment or mobile machines

Filter housing materials

- Head: Phosphatized cast iron
- Housing: Phosphatized steel
- Bypass valve: Brass
- Reverse Flow: Steel (only for series FMP 320)
- Check valve: Steel

Pressure

- Test pressure: 48 MPa (480 bar)
- Burst pressure: 96 MPa (960 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 32 MPa (320 bar)

Bypass valve

- Opening pressure 600 kPa (6 bar) $\pm 10\%$
- Other opening pressures on request.

Δp element type

- Microfibre filter elements - series N-R: 20 bar
- Microfibre filter elements - series H-S: 210 bar
- Wire mesh filter elements - series N: 20 bar
- Fluid flow through the filter element from OUT to IN

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

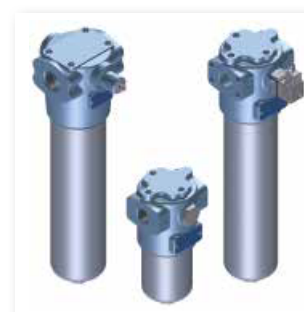
From -25 °C to +110 °C

Connections

In-line Inlet/Outlet

Note

FMP filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm³]				
	Length	1	2	3	4	Length	1	2	3	4
FMP 065		3.26	3.62	4.83	-		0.36	0.47	0.84	-
FMP 135		5.61	7.21	8.27	-		0.45	0.78	1.00	-
FMP 320		10.95	13.08	15.37	17.85		1.03	1.75	2.52	3.35

Filter series	Length	Filter element design - N Series					
		A03	A06	A10	A16	A25	M25
FMP 065	1	23	30	48	54	72	105
	2	31	45	60	65	82	106
	3	52	60	80	84	94	108
FMP 135	1	69	73	120	129	171	201
	2	110	117	149	152	211	232
	3	151	152	192	195	212	233
FMP 320	1	130	144	244	296	361	477
	2	267	291	417	438	492	509
	3	348	390	476	493	503	519
	4	389	415	483	502	525	534

Maximum flow rate for a complete pressure filter with a pressure drop $\Delta p = 1.5$ bar.

The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

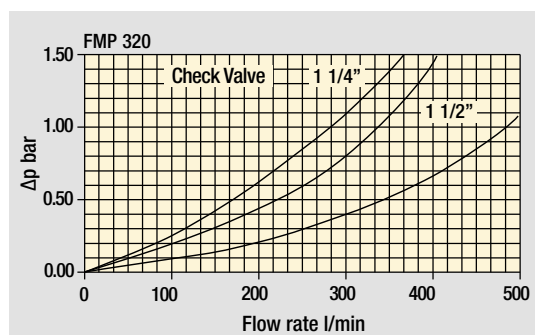
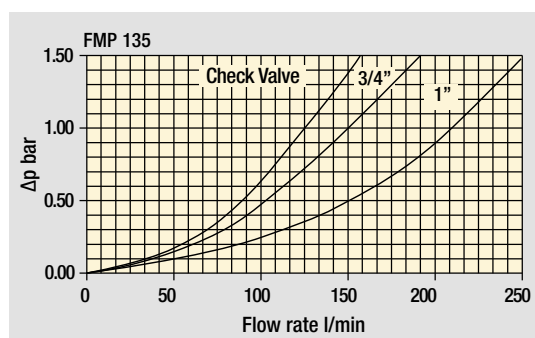
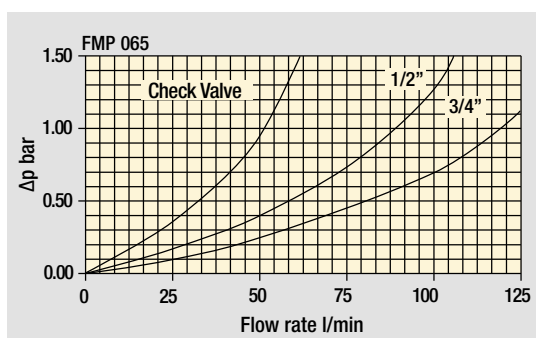
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure.
Please, contact our Sales Department for further additional information.

Hydraulic symbols

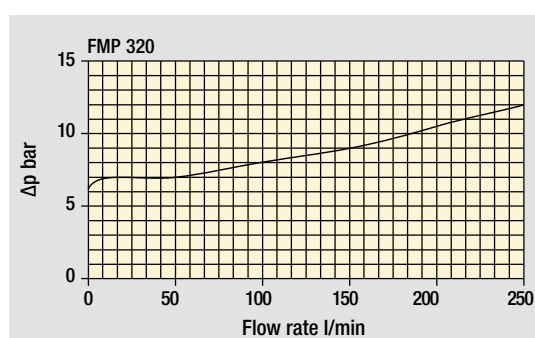
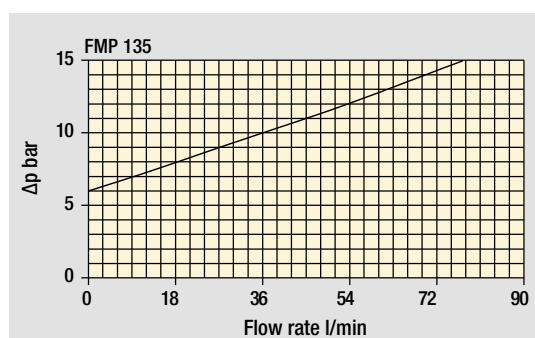
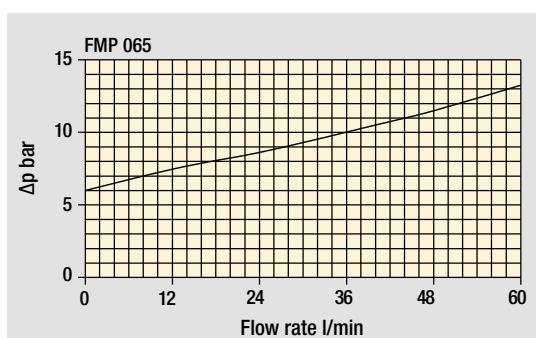
Filter series	Style S - E	Style B - C	Style T	Style D
FMP 065	•	•	•	•
FMP 135	•	•	•	•
FMP 320	•	•	•	•

Pressure drop

Filter housings Δp pressure drop



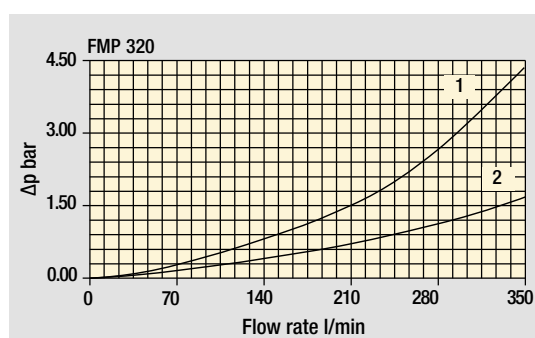
Bypass valve pressure drop



Valves

Filter housing with check valve

- 1 - Reverse flow
- 2 - In filter direction



The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

FMP FMP065 - FMP135 - FMP320

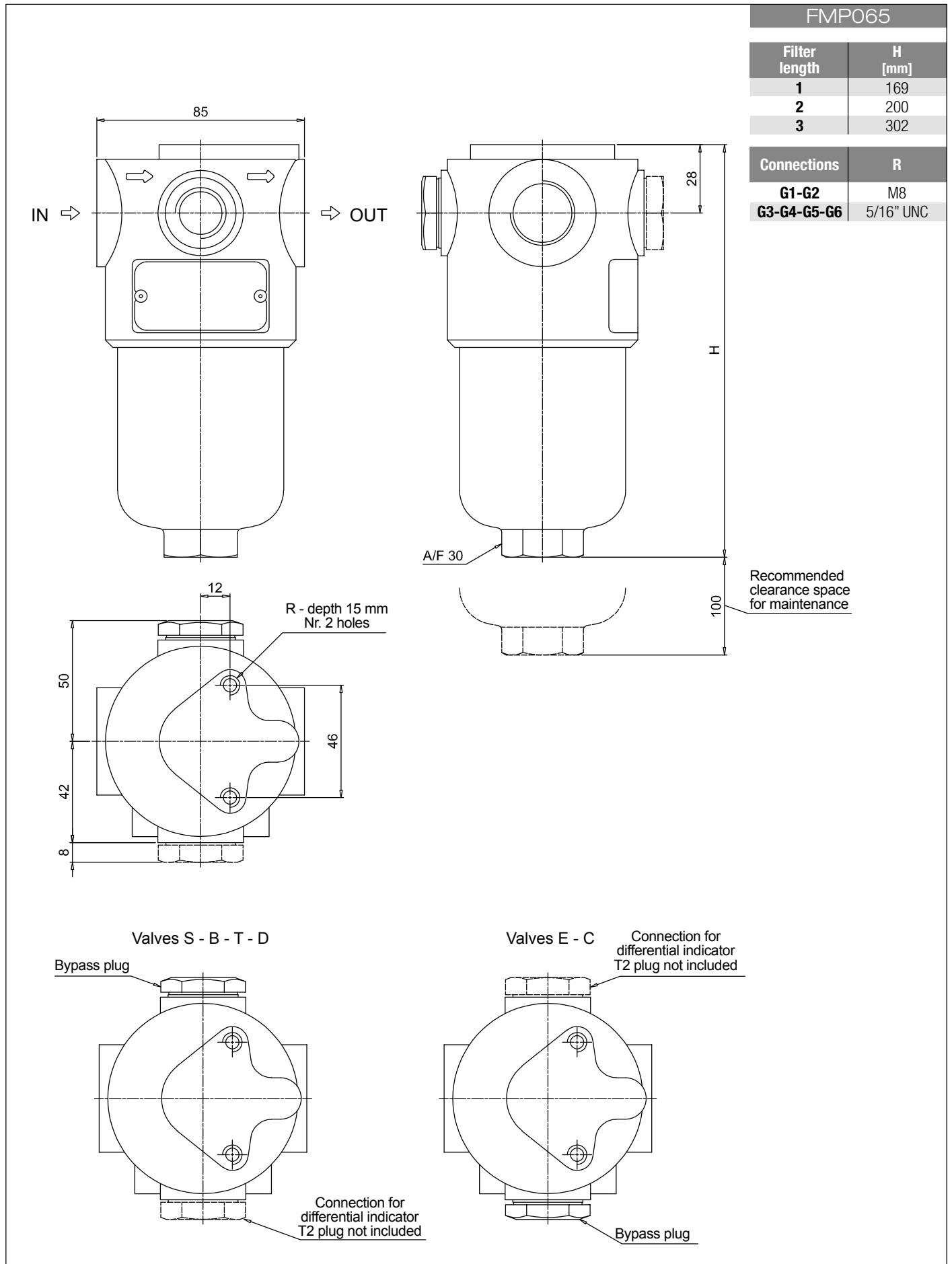
Designation & Ordering code

COMPLETE FILTER

Series and size				Configuration example: FMP065 3 T A G1 M25 S P01									
FMP065 FMP135 FMP320													
Length	FMP065	FMP135	FMP320										
1	•	•	•										
2	•	•	•										
3	•	•	•										
4			•										
Valves													
S Without bypass		C With bypass 6 bar, plug on the opposite side											
E Without bypass, plug on the opposite side		T With check valve, without bypass											
B With bypass 6 bar		D With check valve, with bypass											
Seals													
A NBR		V FPM											
Connections	FMP065	FMP135	FMP320										
G1	G 1/2"	G 3/4"	G 1 1/4"										
G2	G 3/4"	G 1"	G 1 1/2"										
G3	1/2" NPT	3/4" NPT	1 1/4" NPT										
G4	3/4" NPT	1" NPT	1 1/2" NPT										
G5	SAE 8 - 3/4" - 16 UNF	SAE 12 - 1 1/16" - 12 UN	SAE 20 - 1 5/8" - 12 UN										
G6	SAE 12 - 1 1/16" - 12 UN	SAE 16 - 1 5/16" - 12 UN	SAE 24 - 1 7/8" - 12 UN										
F1	-	3/4" SAE 3000 psi/M	1 1/4" SAE 3000 psi/M										
F2	-	1" SAE 3000 psi/M	1 1/2" SAE 3000 psi/M										
F3	-	3/4" SAE 3000 psi/UNC	1 1/4" SAE 3000 psi/UNC										
F4	-	1" SAE 3000 psi/UNC	1 1/2" SAE 3000 psi/UNC										
Filtration rating (filter media)													
A03	Inorganic microfiber	3 µm											
A06	Inorganic microfiber	6 µm											
A10	Inorganic microfiber	10 µm											
A16	Inorganic microfiber	16 µm											
A25	Inorganic microfiber	25 µm											
M25	Wire mesh	25 µm											
Element Δp			Valves							Filter length			
	S	E	B	C	T	D		1	2	3	4		
N 20 bar			•	•				•	•	•	•		
R 20 bar							•				•		
H 210 bar	•	•											
S 210 bar					•								
Execution													
P01	MP Filtri standard												
P02	Maintenance from the bottom of the housing												
Pxx	Customized												

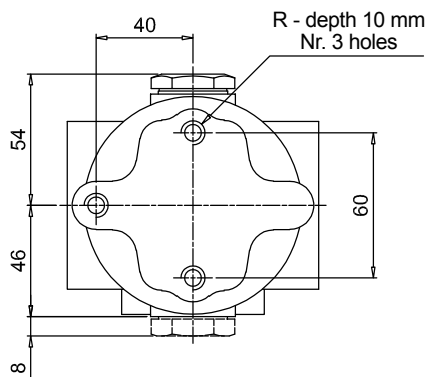
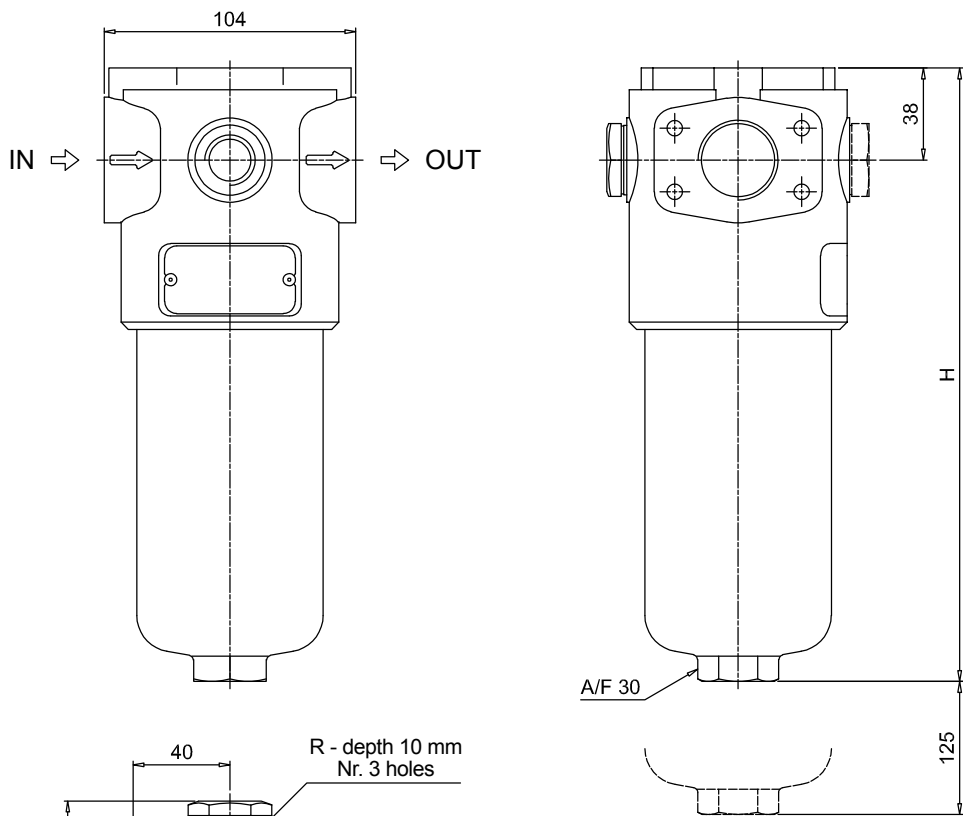
FILTER ELEMENT

Element series and size				Configuration example: HP0653M25ASP01					
HP065 HP135 HP320									
Element length	HP065	HP135	HP320						
1	•	•	•						
2	•	•	•						
3	•	•	•						
4			•						
Filtration rating (filter media)				Seals		Element Δp		Execution	
A03	Inorganic microfiber	3 μm		A	NBR	N	20 bar	P01	MP Filtri standard
A06	Inorganic microfiber	6 μm		V	FPM	R	20 bar	Pxx	Customized
A10	Inorganic microfiber	10 μm				H	210 bar		
A16	Inorganic microfiber	16 μm				S	210 bar		
A25	Inorganic microfiber	25 μm							
M25	Wire mesh	25 μm							

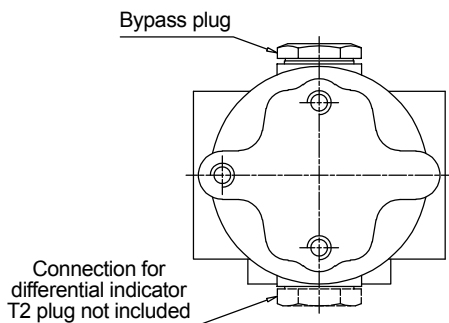


FMP FMP065 - FMP135 - FMP320

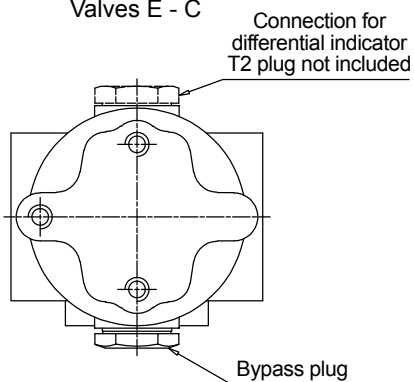
Dimensions



Valves S - B - T - D



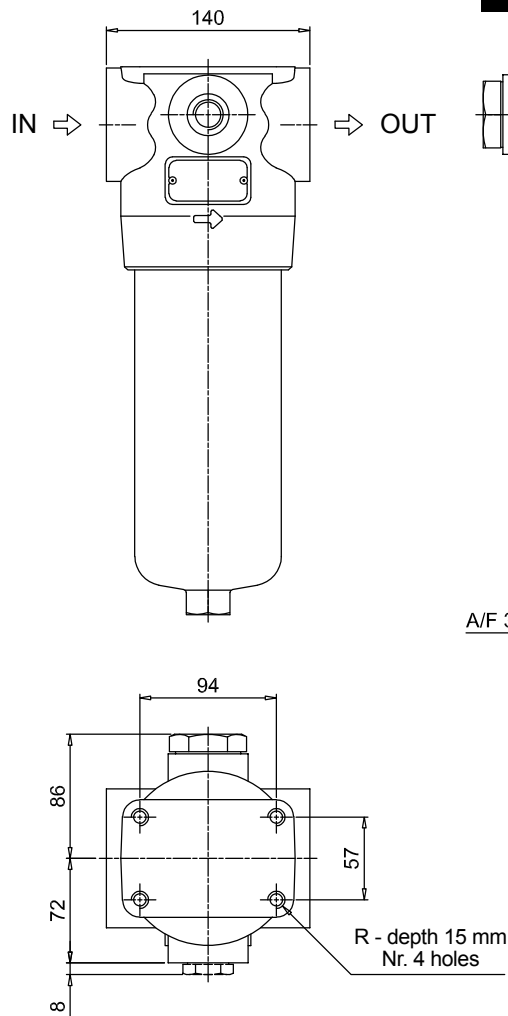
Valves E - C



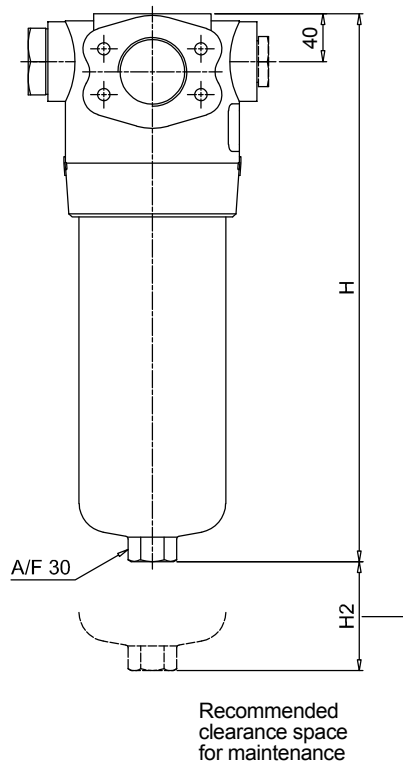
FMP135

Filter length	H [mm]
1	221
2	334
3	409

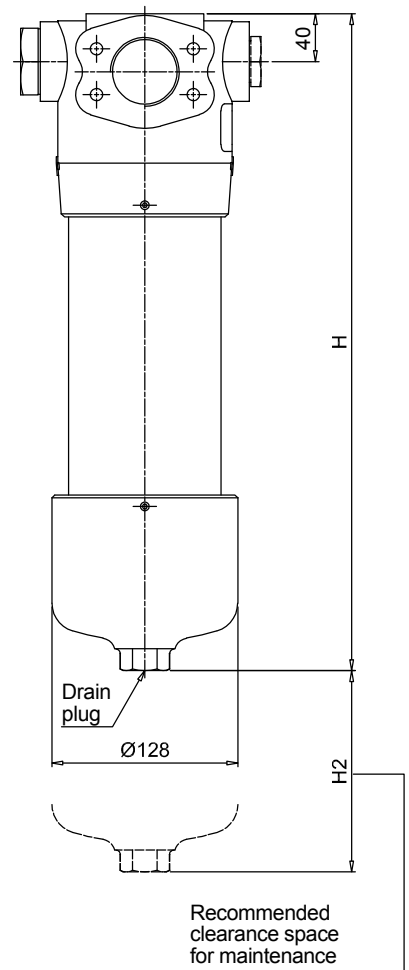
Connections	R
G1-G2	M10
G3-G4-G5-G6	3/8" UNC
F1-F2	M10
F3-F4	3/8" UNC



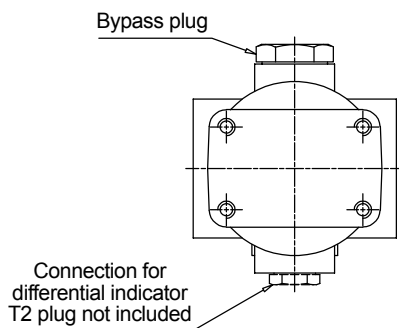
Length 1 - 2 - 3



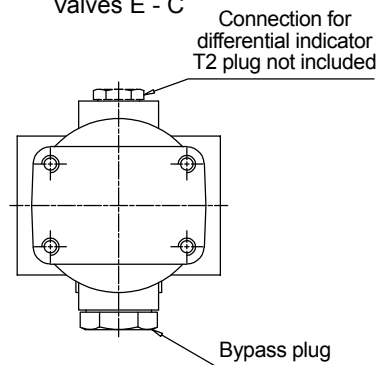
Length 4



Valves S - B - T - D



Valves E - C



FMP320

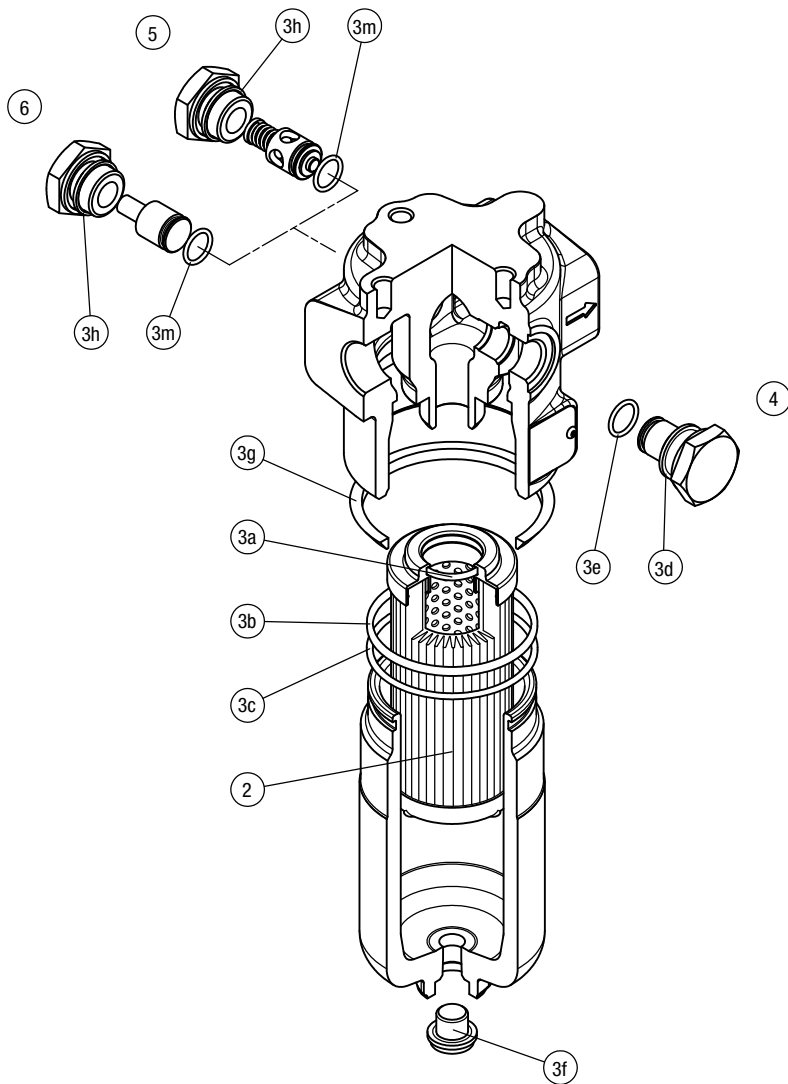
Filter length	H [mm]	H2 [mm]	
		Execution P01	P02
1	263	150	-
2	386	150	-
3	518	150	-
4	671	150	550

Connections	R
G1-G2	M12
G3-G4-G5-G6	1/2" UNC
F1-F2	M12
F3-F4	1/2" UNC

FMP SPARE PARTS

Order number for spare parts

FMP 065 - 135 - 320



Item:		Q.ty: 1 pc.		Q.ty: 1 pc.		Q.ty: 1 pc.		Q.ty: 1 pc.	
		2		3 (3a ÷ 3m)		4		5	
Filter series	Filter element	Seal Kit code number		Indicator connection plug		Bypass assembly		Non-bypass assembly	
		NBR	FPM	NBR	FPM	NBR	FPM	NBR	FPM
FMP 065	See order table	02050267	02050278	T2H	T2V	02001312	02001385	02001314	02001386
FMP 135		02050293	02050294			02001312	02001385	02001314	02001386
FMP 320		02050274	02050285			02001396	02001397	02001398	02001399