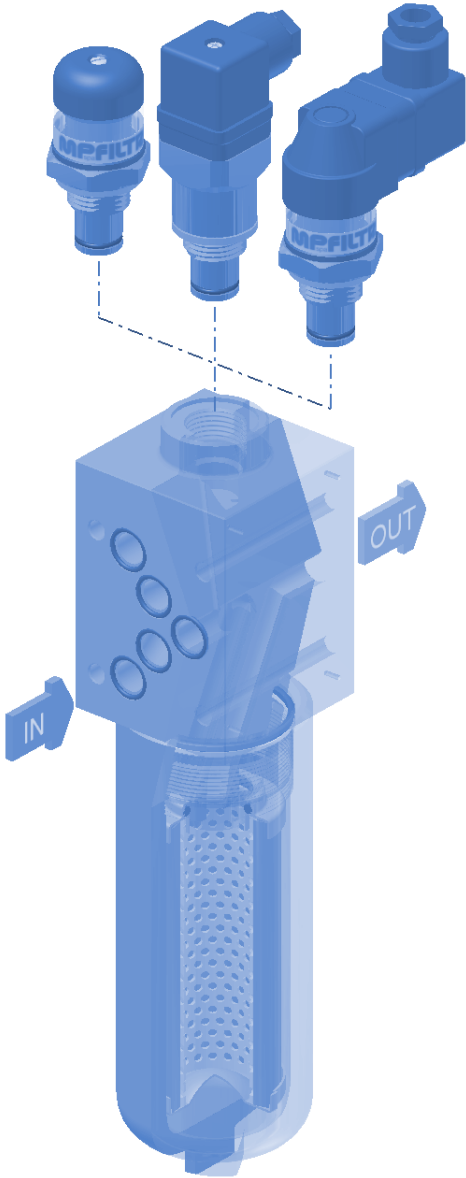
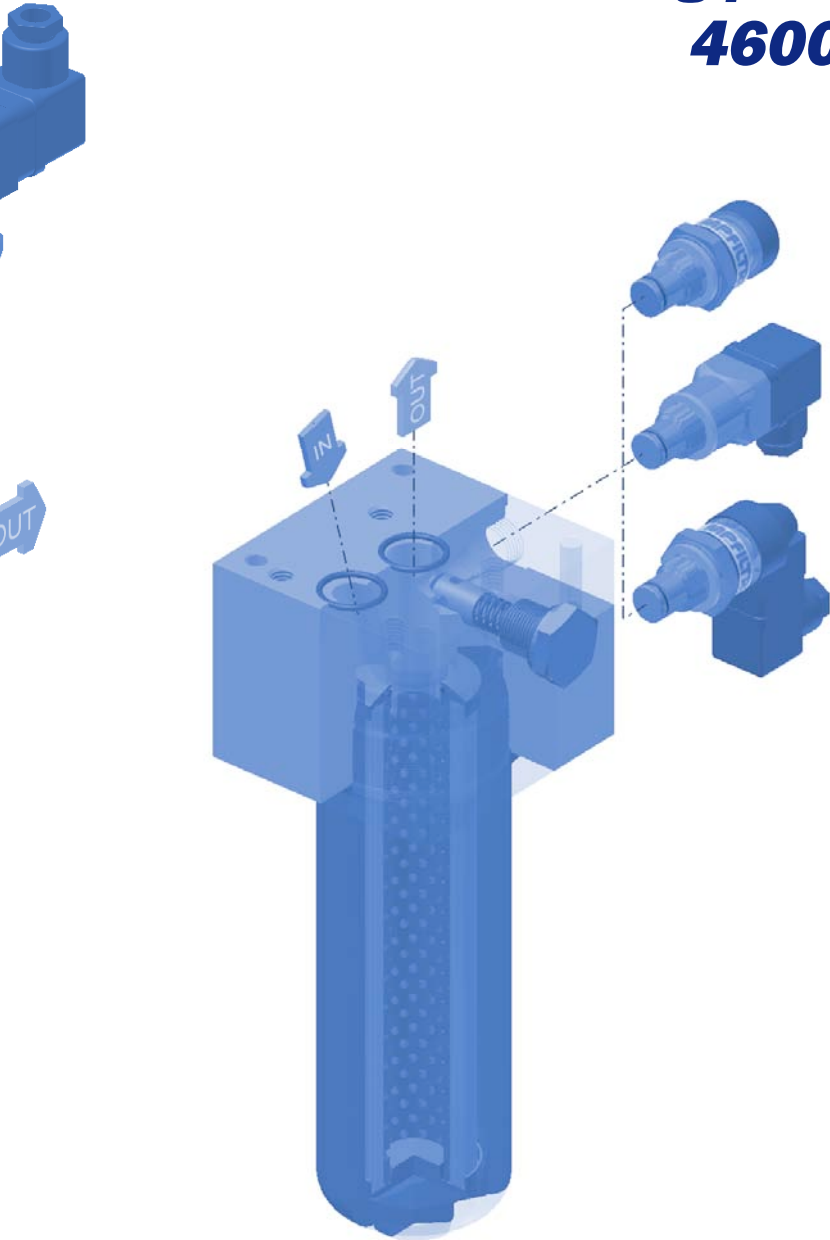
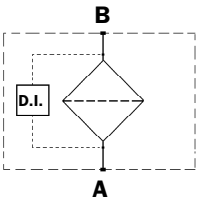


SERIES FHM

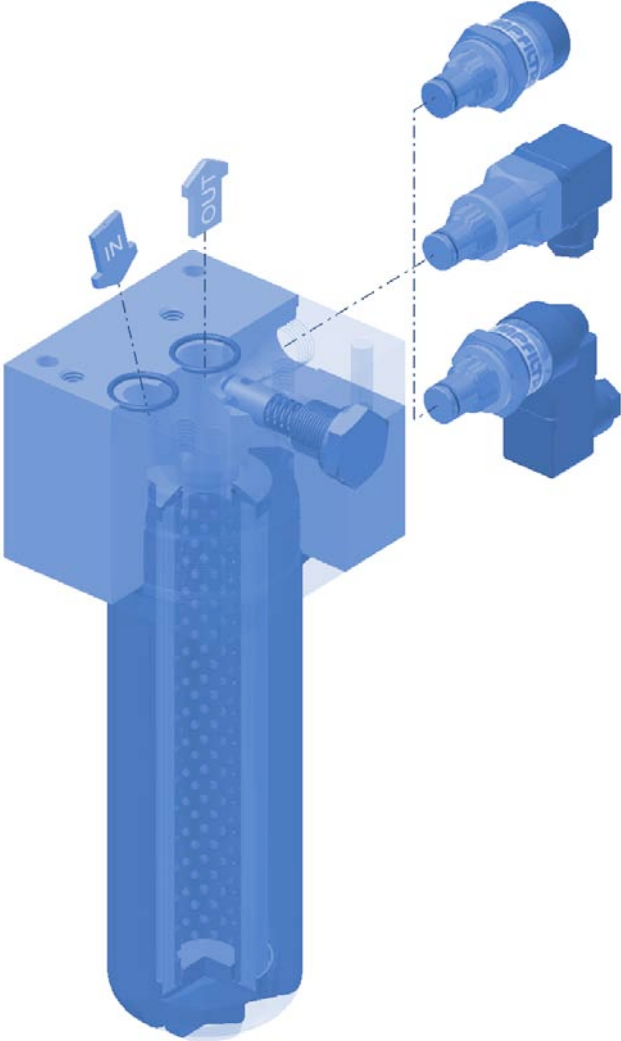
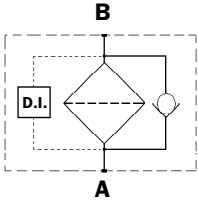
**Working pressure
4600 psi**



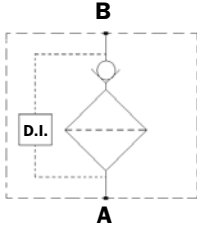
Style S



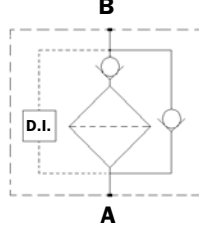
Style B



Style T



Style D



Technical data

Filter body (Materials)

- Head: Steel for size 006-010-065-135-320
- Housing: Steel (chemical heat treatment)
- Bypass valve: Brass
- Reverse Flow : Steel
- Check valve: Steel

Pressure

- Maximum operating pressure: 4600 psi (32 MPa)
- Test pressure: 6000 psi (42 MPa)
- Burst pressure: 12000 psi (84 MPa)
- Pulsed pressure fatigue test 1,000,000 cycles with pressure from 0 to 4600 psi (32 MPa)

Temperature

- From -13°F to + 230°F

Bypass valve

- Opening pressure 90 psi \pm 10%
- Other opening pressures on request.

Elements type Δp

- Elements in micro fibre series N: 300 psi
- Elements in micro fibre series H: 3000 psi
- Elements in stainless steel mesh series N: 300 psi
- Oil flow from exterior to interior.

Seals

- Standard Nitrile (NBR) series A
- Optional FPM series V

Weights without filter elements (lbs)

Length	1	2	3	4	5
• FHM 006	5.5	-	-	-	-
• FHM 010	-	12.2	13.2	-	-
• FHM 050	12.1	12.8	13.9	19.6	25.4
• FHM 065	12.5	13.7	16.3	-	-
• FHM 135	28.7	33.1	36.4	-	-
• FHM 320	46.3	51.8	57.3	63.5	-
• FHM 500	77.2	88.2	101.4	127.9	147.7

Filter internal volumes (in³)

Length	1	2	3	4	5
• FHM 006	1.2	-	-	-	-
• FHM 010	-	15.8	21.4	-	-
• FHM 050	19.5	23.2	35.4	39.7	59.8
• FHM 065	20.7	24.4	37.8	-	-
• FHM 135	37.2	58	71.4	-	-
• FHM 320	101.3	119	166	216.6	-
• FHM 500	161.1	209.3	250.2	308.2	-

Connections

Manifold Inlet/Outlet

Compatibility

- Bodies compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
Synthetic fluids, water/glycol.
- Filter elements compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
Synthetic fluids, water/glycol.
- Nitrile (NBR) seals series A, compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
synthetic fluids, water/glycol.
- V series FPM seals, compatible with:
Synthetic fluids type HS-HFDR-HFDS-HFDU.

Filter Element Area

Filter element in stainless steel mesh

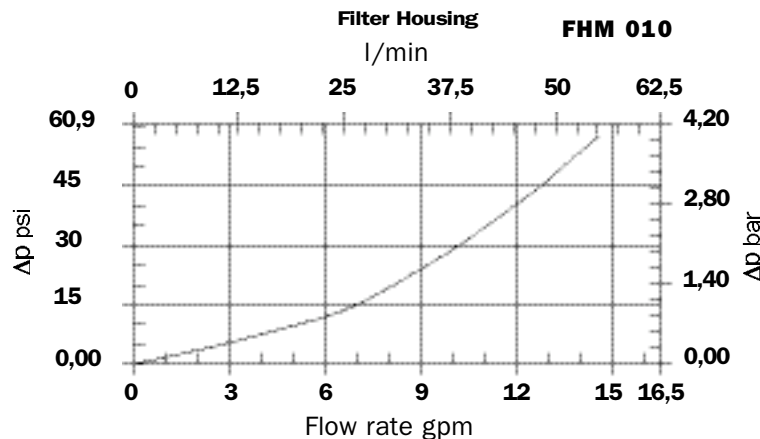
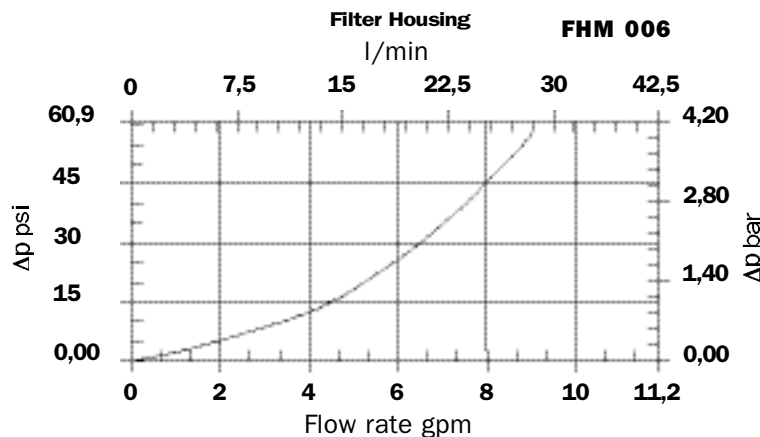
Type	Length				
	1	2	3	4	5
HP020	43				
HP050	69,8	108,5	155	201,5	325,5
HP065	57,8	82,2	164,9	-	
HP135	147,3	313,1	418,5	-	
HP320	255,7	565	925,4	1283,4	
HP500	469,7	759,5	1007,5	1519	2015

Values in in²

Pressure drops Δp Body

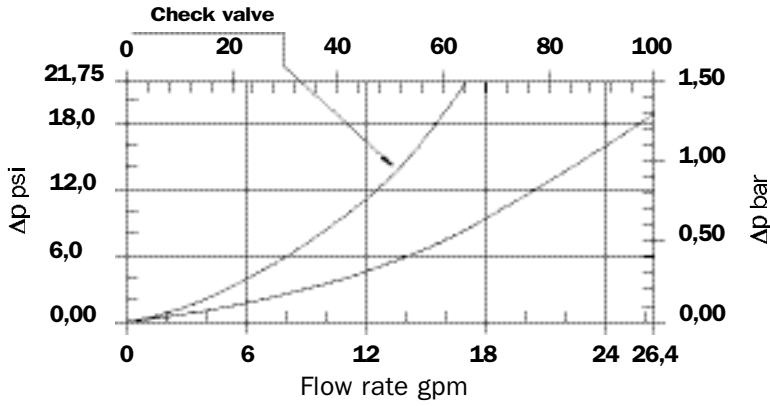
The curves are plotted using mineral oil with specific density 0,86.

Δp varies proportional with density.



Filter Housing FHM 050-065

l/min

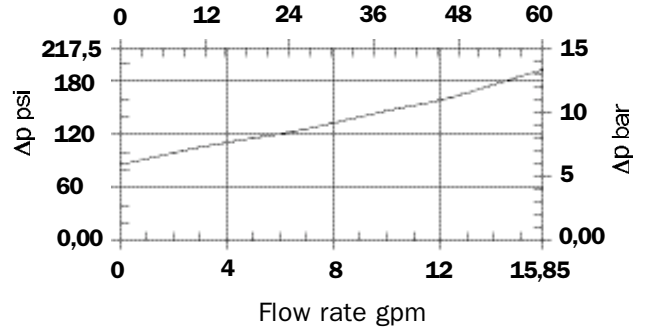


Valves

By-pass valve pressure drop

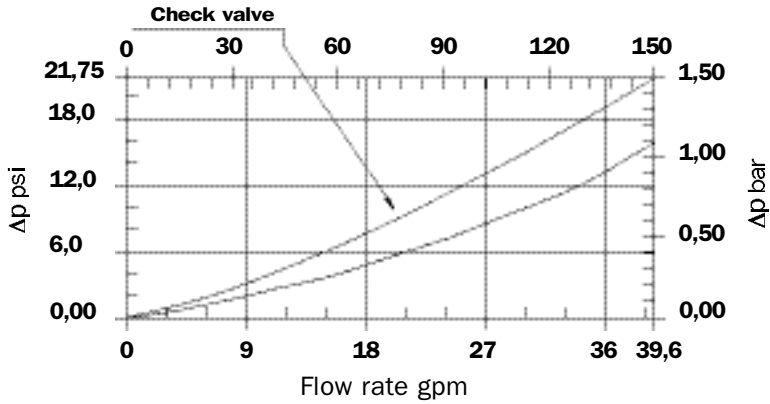
FHM 050-065

l/min



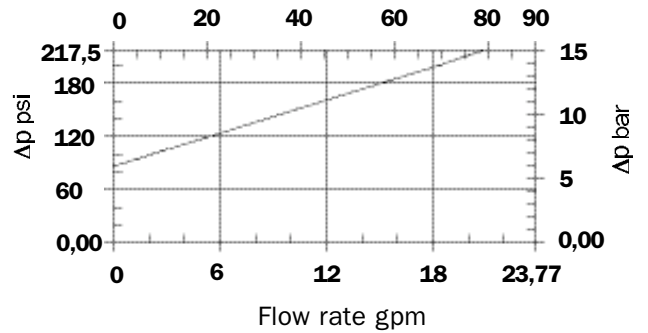
Filter Housing FHM 135

l/min



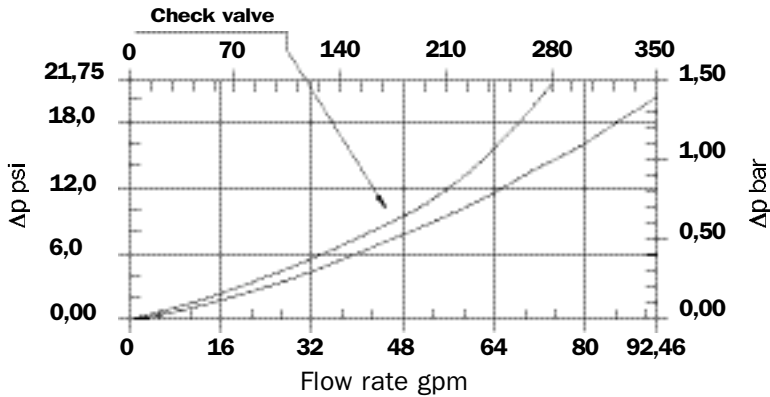
FHM 135

l/min



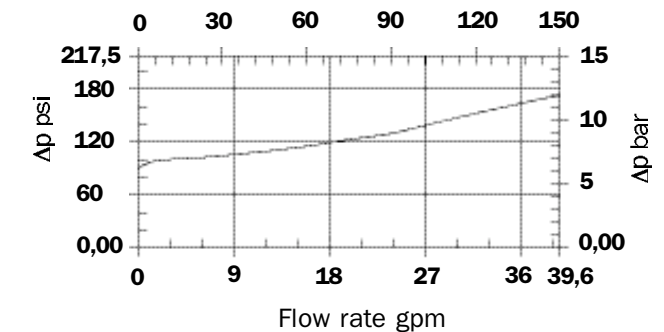
Filter Housing FHM 320

l/min



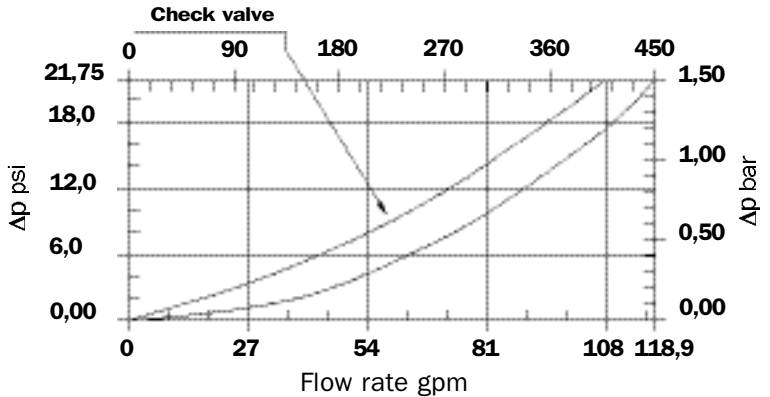
FHM 320

l/min



Filter Housing FHM 500

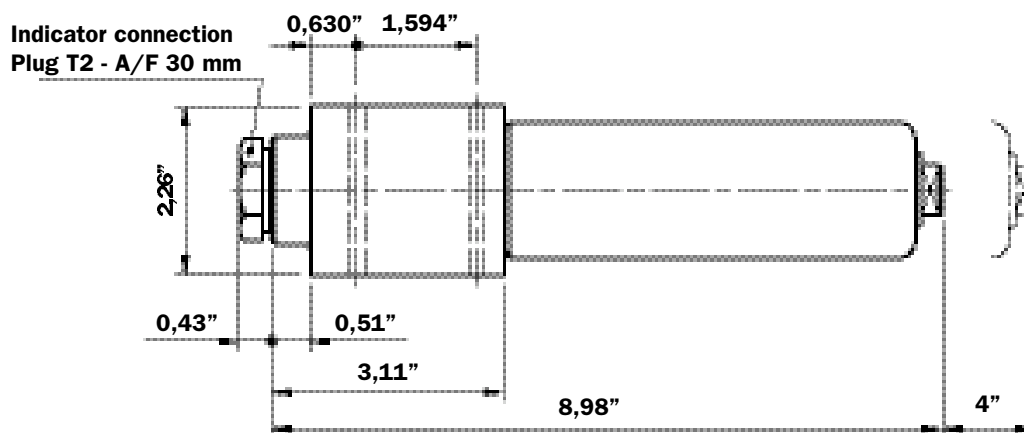
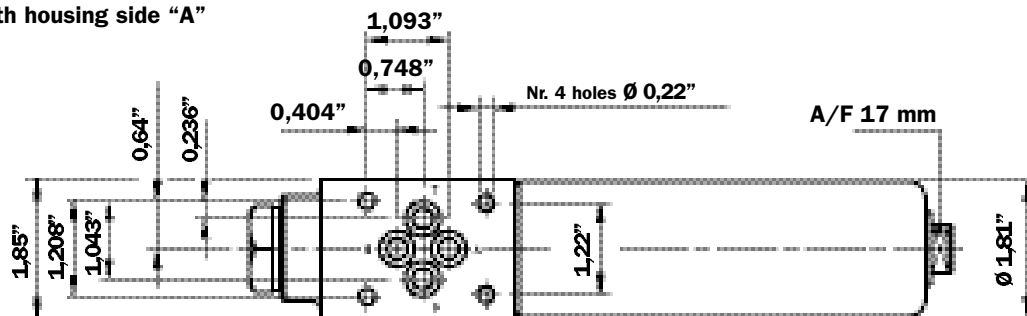
l/min



Dimensions

FHM 006

View with housing side "A"



Housing side "A" = G1

Housing side "B" = G2

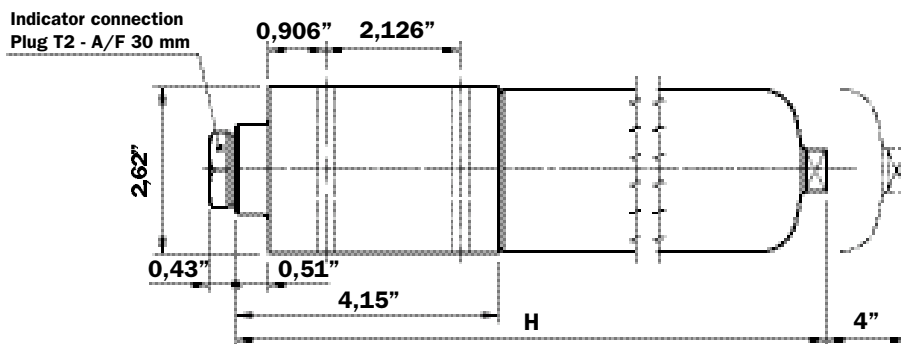
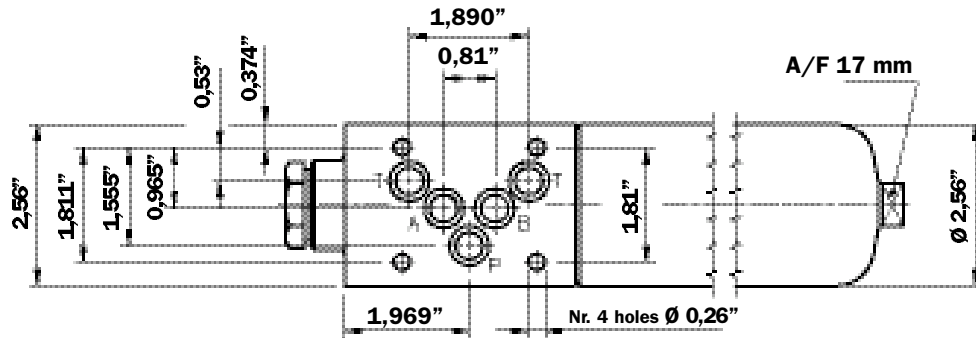
Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.

Filter element type	Flow rate gpm Series H	Housing Length
A03	2,38	1
A06	2,64	
A10	3,43	
A16	3,43	
A25	3,96	
M25	4,49	

FHM 010

View with housing side "B"



Housing side "A" = G1

Housing side "B" = G2

Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.

Filter Length	H inch
2	11,1"
3	15,08"

Filter element type	Flow rate gpm Series H	Housing Length
A03	5	2
A06	5,5	
A10	6,6	
A16	6,9	
A25	7,7	
M25	-	
A03	6,3	3
A06	6,9	
A10	7,7	
A16	7,7	
A25	8,2	
M25	-	

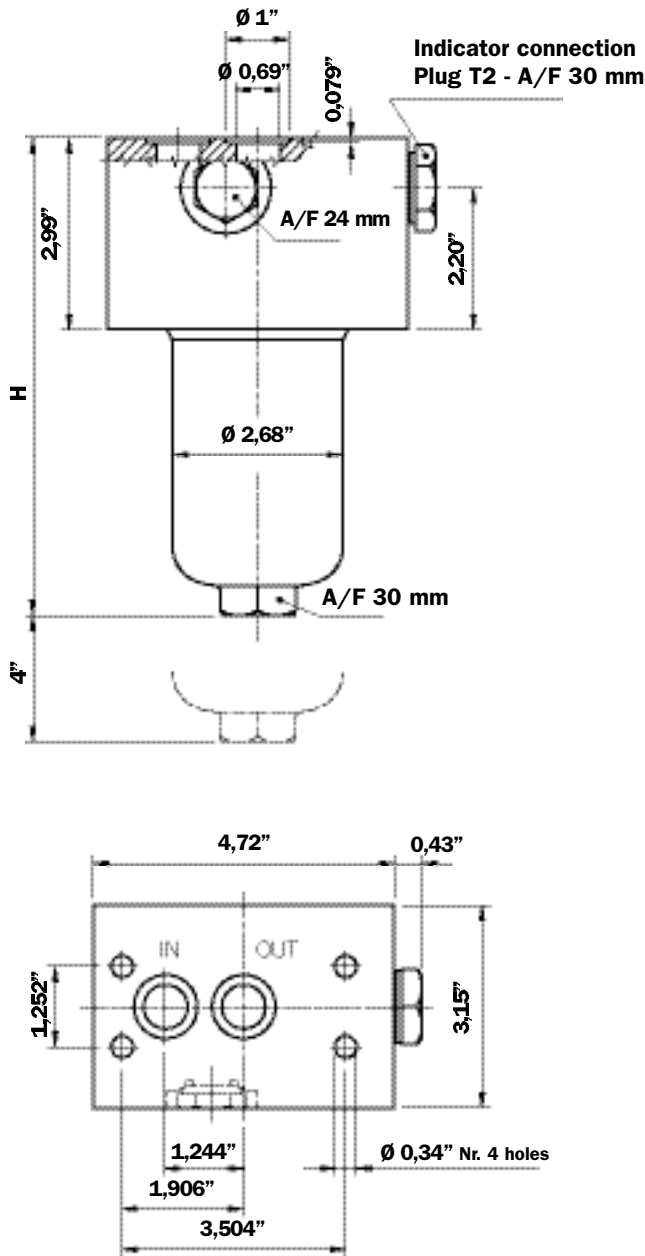
FHM 050

FHM 065

FHM 050

Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.



Filter element type	Flow rate gpm Series N	Flow rate gpm Series H	Filter Length
A03	10,0	7,4	1
A06	10,0	9,5	
A10	17,2	13,2	
A16	17,7	13,7	
A25	21,1	16,4	
M25	26,9	-	
A03	12,2	10,8	2
A06	13,2	11,9	
A10	18,0	16,4	
A16	19,8	18,5	
A25	23,0	22,5	
M25	27,7	-	
A03	14,8	13,2	3
A06	15,9	14,5	
A10	20,1	19,0	
A16	21,1	20,6	
A25	24,3	24,0	
M25	27,7	-	
A03	18,0	16,4	4
A06	18,5	17,2	
A10	22,5	21,1	
A16	22,7	21,7	
A25	25,1	24,3	
M25	27,7	-	
A03	21,7	19,3	5
A06	21,9	19,8	
A10	24,8	22,2	
A16	25,1	23,5	
A25	26,4	24,3	
M25	29,1	-	

Filter Length	H inch
1	6,06"
2	7,52"
3	9,17"
4	11,06"
5	15,87"

FHM 065

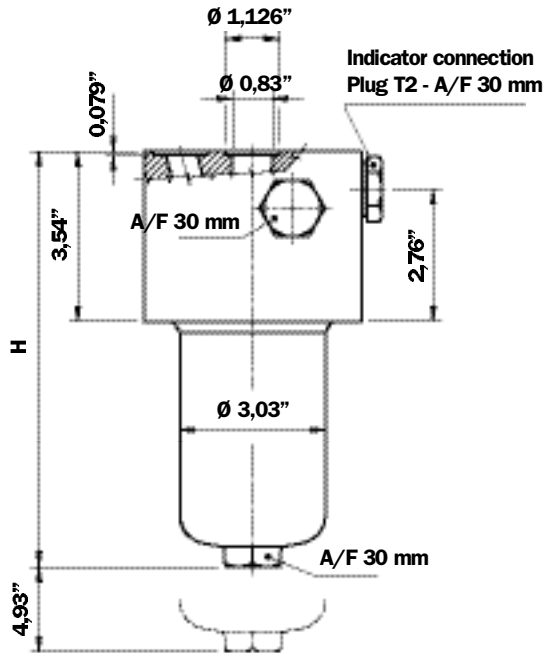
Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.

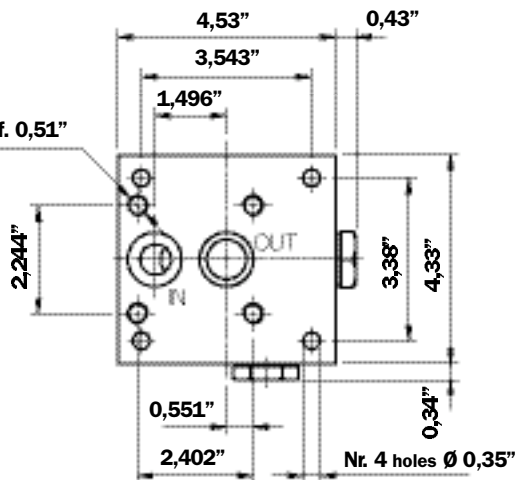
Filter element type	Flow rate gpm Series N	Flow rate gpm Series H	Filter Length
A03	6,1	5,8	1
A06	7,9	6,1	
A10	12,7	11,4	
A16	14,0	13,2	
A25	18,8	17,7	
M25	26,9	-	
A03	7,9	7,9	2
A06	11,9	9,0	
A10	15,6	14,5	
A16	16,9	16,4	
A25	21,1	19,8	
M25	27,7	-	
A03	13,5	13,5	3
A06	15,6	15,1	
A10	20,6	20,1	
A16	21,7	21,1	
A25	24,3	24,0	
M25	28,3	-	

Filter Length	H inch
1	6,38"
2	7,60"
3	11,61"

FHM 135



7/16" UNC
Nr. 4 holes prof. 0,51"



Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.

Filter element type	Flow rate gpm Series N	Flow rate gpm Series H	Filter Length
A03	15,9	12,2	1
A06	17,2	13,5	
A10	26,2	22,2	
A16	27,5	22,7	
A25	34,3	32,2	
M25	39,6	-	
A03	23,8	20,9	2
A06	25,6	24,3	
A10	31,2	29,1	
A16	31,7	29,6	
A25	40,9	35,7	
M25	43,6	-	
A03	31,2	26,9	3
A06	31,7	29,6	
A10	37,8	34,3	
A16	38,3	36,2	
A25	42,3	38,6	
M25	43,6	-	

Filter Length **H inch**

1 7,95"

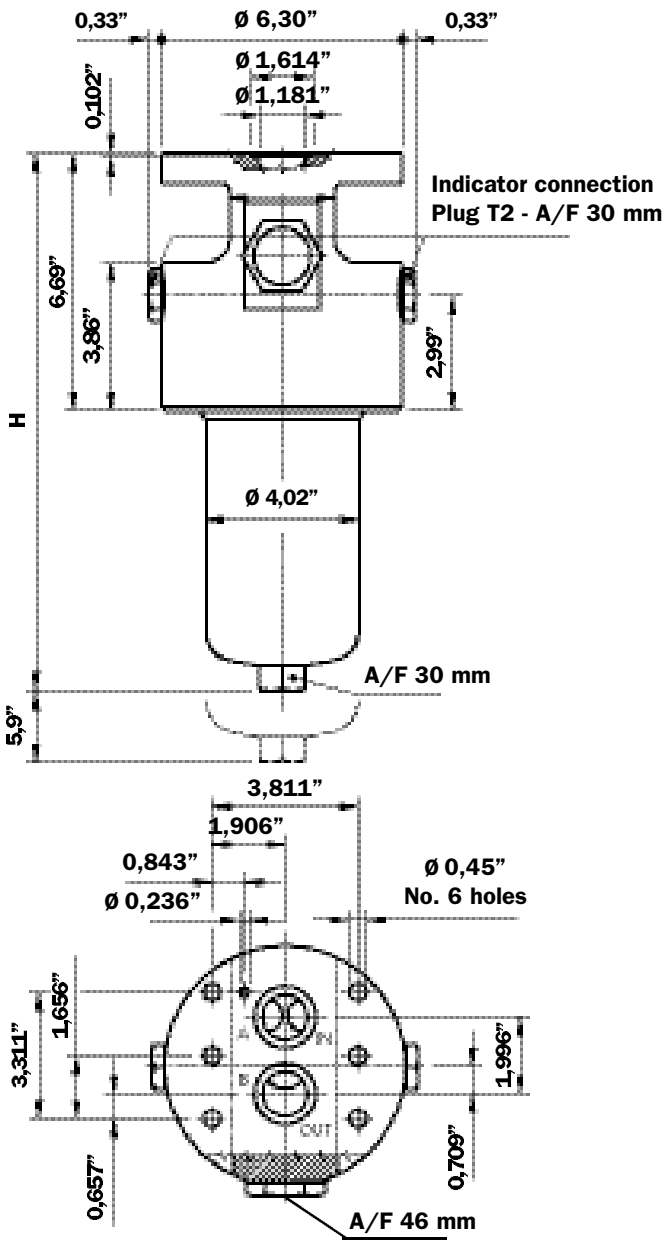
2 12,39"

3 15,35"

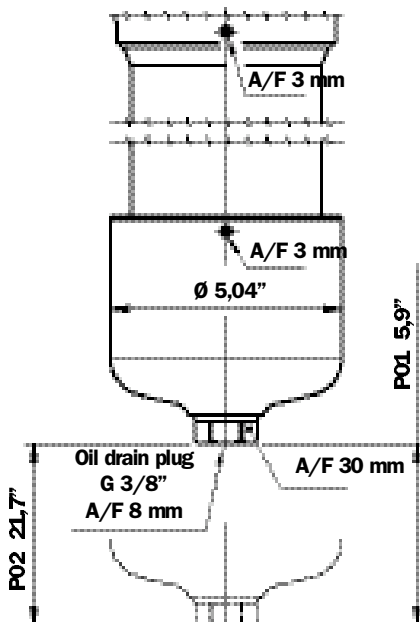
FHM 320

Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.



Only for FHM 320 length 4

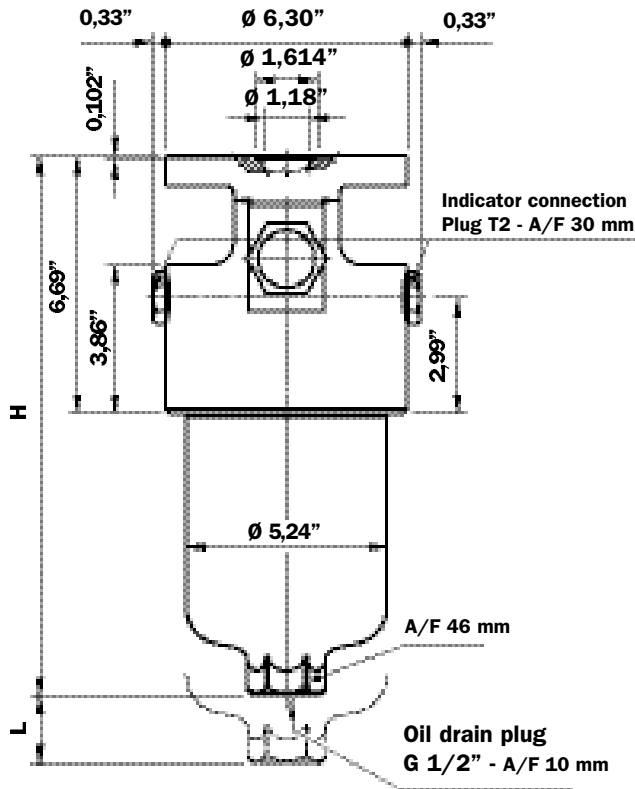


Filter element type	Flow rate gpm Series N	Flow rate gpm Series H	Filter Length
A03	29,6	25,6	1
A06	32,0	27,5	
A10	49,4	41,2	
A16	57,3	42,8	
A25	66,6	60,2	
M25	81,9	-	2
A03	52,8	42,8	
A06	56,8	47,8	
A10	74,5	62,8	
A16	77,1	63,4	
A25	84,5	74,5	3
M25	87,2	-	
A03	65,0	54,4	
A06	70,8	61,6	
A10	82,2	72,6	
A16	84,5	74,0	4
A25	85,9	80,6	
M25	87,7	-	
A03	70,3	61,8	
A06	74,0	65,0	
A10	83,2	74,0	4
A16	85,9	75,3	
A25	88,8	82,7	
M25	91,1	-	

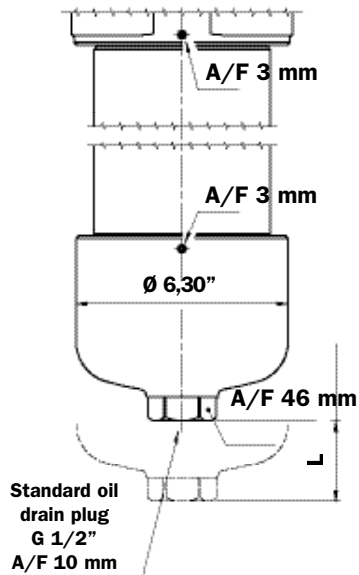
Filter Length	H inch
1	11,54''
2	16,38''
3	21,57''
4	27,68''

Style P01 standard maintenance from head.
Style P02 maintenance option from housing base.

FHM 500



Only for FHM 500 length 4/5



Style P02	
L inch	Filter Length
18,9"	4
25,6"	5

Style P01	
L inch	Filter Length
5,9"	4/5

Style P01 standard maintenance from head.
Style P02 maintenance option from housing base.
See tables alongside.

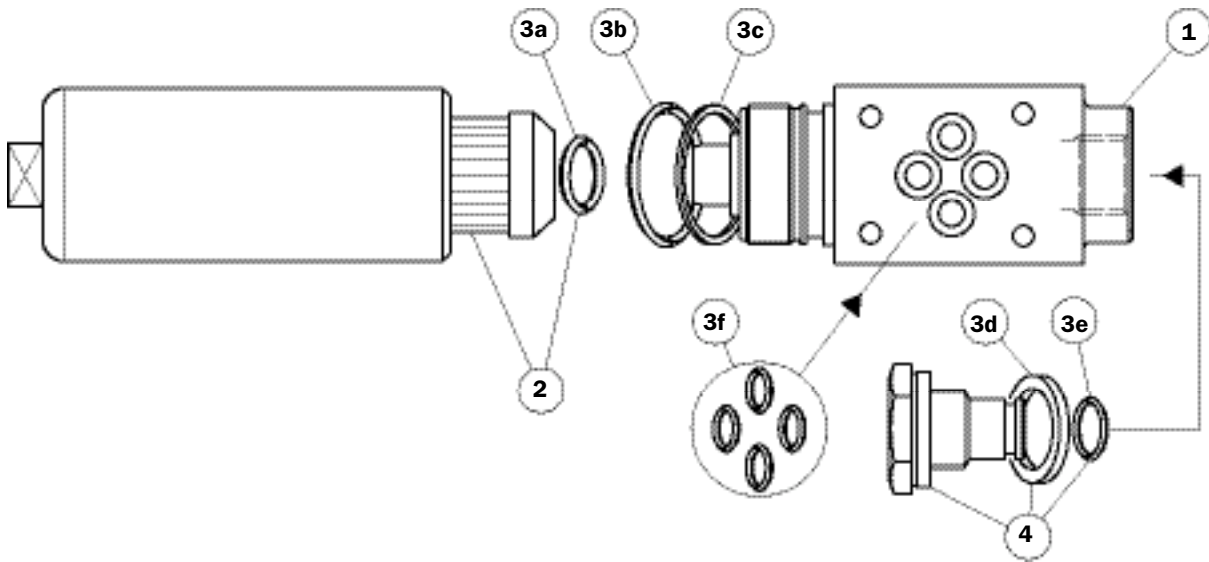
Recommended maximum flow rate

- Pressure drop of complete filter equal to Δp 21,75 psi.
- Oil kinematic viscosity 150 SUS.
- Density 53,69 lbs/ft³.

Filter element type	Flow rate gpm Series N	Flow rate gpm Series H	Filter Length
A03	59,4	37,0	1
A06	66,0	40,9	
A10	71,9	62,1	
A16	71,9	62,1	
A25	79,3	77,9	
M25	92,5	-	
A03	66,0	55,5	2
A06	70,0	60,8	
A10	79,3	75,3	
A16	81,9	75,3	
A25	85,9	87,2	
M25	105,7	-	
A03	75,3	66,0	3
A06	76,6	70,0	
A10	83,2	83,2	
A16	84,5	87,2	
A25	87,2	95,1	
M25	105,7	-	
A03	92,5	75,8	4
A06	97,7	83,2	
A10	105,7	96,4	
A16	105,7	97,7	
A25	108,3	103,0	
M25	113,6	-	
A03	97,7	91,9	5
A06	100,4	92,5	
A10	105,7	101,7	
A16	108,3	104,3	
A25	111,0	108,3	
M25	113,6	-	

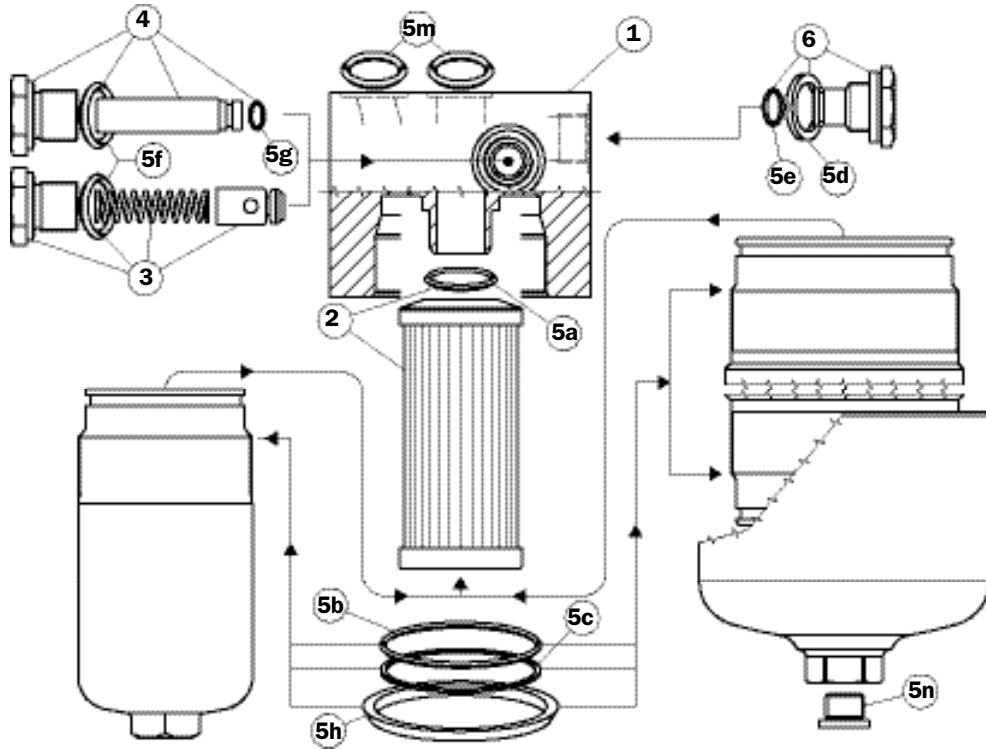
Filter Length	H inch
1	14,09"
2	17,64"
3	20,63"
4	26,77"
5	33,31"

Spare parts FHM 006 - 010



Pos.	Description	Qty.	Series FHM 006 - 010 FILTER			
			006 1		010 2 - 3	
1	Complete filter	1	See order table			
2	Filter element	1	See order table			
3	Seal kits	1	NBR 02050324	FPM 02050325	NBR 02050320	FPM 02050321
3a	O-Ring for filter element	1	OR 121 ID 625" x 103"		OR 4100 ID 984" x 139"	
3b	O-Ring for housing	1	OR 3125 ID 1,237" x 103"		OR 3187 ID 1,862" x 103"	
3c	Anti-extrusion ring	1	Parbak 124 ID 1,268" x 086		Parbak 134 ID 1,893" x 086"	
3d	Gasket	1	01030058 (HNBR)		01030046 (FPM)	
3e	O-Ring	1	OR 2050 - ID 489" x 070"			
3f	O-Ring	4	4 pz.	OR 108 ID 344" x 070"	5 pz.	OR 2050 ID 489" x 070"
4	Indicator plug	1	T2H		T2V	
-	Indicator	1	See order table			

Spare parts FHM



Pos.	Description	Qty.	Series FHM FILTER										
			050 1 - 2 - 3 - 4 - 5		065 1 - 2 - 3		135 1 - 2 - 3		320 1 - 2 - 3 - 4		500 1 - 2 - 3 - 4 - 5		
1	Complete filter	1	See order table										
2	Filter element	1	See order table										
3	Bypass assembly	1	02001400 (NBR) 02001401 (FPM)				02001404 (NBR) 02001405 (FPM)		02001408 (NBR) 02001411 (FPM)				
4	Non bypass assembly	1	02001402 (NBR) 02001403 (FPM)				02001406 (NBR) 02001407 (FPM)		02001410 (NBR) 02001411 (FPM)				
5	Seal kits	1	NBR 02050410	FPM 02050411	NBR 02050268	FPM 02050279	NBR 02050271	FPM 02050282	NBR 02050275	FPM 02050286	NBR 02050332	FPM 02050333	
5a	Filter element O-Ring	1	OR 3093 ID 924" x 103"		OR 4100 ID 984" x 139"		OR 3106 ID 1,049" x 103"		OR 144 ID 1,583" x 139"		OR 153 ID 1,937" x 139"		
5b	O-Ring for housing	1	OR 3225 ID 2,237" x 103"		OR 159 ID 2,187" x 139"		OR 3256 ID 2,550" x 103"		2 pcs. OR 3350 ID 3,487" x 103"	2 pcs. OR 4462 ID 4,609" x 139"			
5c	Anti-extrusion ring	1	Parbak 139 ID 2,206" x 086"		Parbak 227 ID 2,147" x 118"		Parbak 144 ID 2,518" x 086"		2 pcs. Parbak 153 ID 3,518" x 086"	2 pcs. Parbak 247 ID 4,631" x 118"			
5d	Gasket	1	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)	
5e	O-Ring	1	OR 2050 ID 489" x 070"										
5f	Bp or No Bp O-Ring	1	OR 121 (NBR 90 Sh A) ID 625" x 103"				OR 3087(NBR 90 Sh A) ID 862" x 103"		OR 3143 (NBR 90 Sh A) ID 1,424" x 103"				
5g	No Bp O-Ring	1	OR 2031 ID 301" x 070"				OR 2037 ID 364" x 070"		OR 3108 ID 1,049" x 103"				
5h	Protective seal	1	01026521				01026509		01026510		-		
5m	O-Ring for head	2	OR 3081 ID 799" x 103"				OR 3093 ID 924" x 103"		OR 4137 ID 1,359" x 139"				
5n	Oil drain plug	1	-				-		G 3/8" with seal		G 1/2" with seal		
-	Indicator	1	See order table										
6	Indicator plug	1	T2H					T2V					

Ordering information FHM

Filter assembly FHM

Example: FHM

1	2	3	4	5	6	7	8 a
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
006	1	S	A	G1	A03	H	P01

Filter element HP

Example: HP

1	2	6	4	7	8 b
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
020	1	A03	A	H	P01

1 - Size

Filter	Filter element
006	020
010	065
050	050
065	065
135	135
320	320
500	500

2 - Filter length

	006	010	050	065	135	320	500
1	X		X	X	X	X	X
2		X	X	X	X	X	X
3		X	X	X	X	X	X
4			X			X	X
5			X				X

3 - Valves

S	Without bypass
B	With bypass
T	without bypass + check valve*
D	with bypass + check valve*

N.B Sizes 006-010 are available only in **S** version without bypass.

*Reduced cross-section oilways

4 - Seals

A	NBR
V	FPM

5 - Connections

G1	Housing side A (only for 006 and 010)
G2	Housing side B (only for 006 and 010)
F1	Only for 050-065-135-320-500

6 - Filter elements

A03	Inorganic microfibre 3 µ	} βx (c) ≥ 1000 See page 10
A06	Inorganic microfibre 6 µ	
A10	Inorganic microfibre 10 µ	
A16	Inorganic microfibre 16 µ	
A25	Inorganic microfibre 25 µ	
M25	Stainless steel mesh 25 µ (style N only)	

7 - Filter elements collapse pressure

N	300 psi
S	3000 psi (only for size 500)
H	3000 psi

8 - Options

a) Filter

P01	MP Filtri standard
P02	Maintenance from base of housing (only FHM 320 4 - FHM 500 4 - 5)
Pxx	Customer request

b) Filter element

P01	MP Filtri standard
Pxx	Customer request

DIFFERENTIAL INDICATORS (see page 15)

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