

FHB

Maximum pressure 320 bar
Flow rates to 485 l/min



Technical data

Filter housing (Materials)

- Head: Cast iron (chemical heat treatment)
- Housing: Steel (chemical heat treatment)
- Bypass valve: Steel
- Check valve: Steel

Pressure

- Working pressure: 320 bar (32 MPa)
- Test pressure: 480 bar (48 MPa)
- Burst pressure: 960 bar (96 MPa)
- Pulse pressure fatigue test: 1.000.000 cycles with pressure from 0 to 320 bar (32 MPa)

Temperature

- From -25 °C to +110 °C

Bypass valve

- Opening pressure 6 bar \pm 10%
- Other opening pressures on request.

Δp Elements type

- Microfibre filter elements series N: 20 bar
- Microfibre filter elements series H: 210 bar (excluded FHB 065 - 135 - 320)
- Microfibre filter elements series S: 210 bar (only for FHB 050)
- 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

FHB FILTERS ARE PROVIDED FOR VERTICAL MOUNTING

Weights (kg)

Length	1	2	3	4	5
• FHB050	2.61	2.98	3.39	3.86	5.04
• FHB065	3.33	3.69	4.90	-	-
• FHB135	6.61	8.21	9.21	-	-
• FHB320	12.95	15.08	17.37	26.77	-

Volumes (dm³)

Length	1	2	3	4	5
• FHB050	0.21	0.30	0.40	0.52	0.81
• FHB065	0.20	0.27	0.49	-	-
• FHB135	0.40	0.73	0.94	-	-
• FHB320	0.91	1.63	2.40	3.59	-

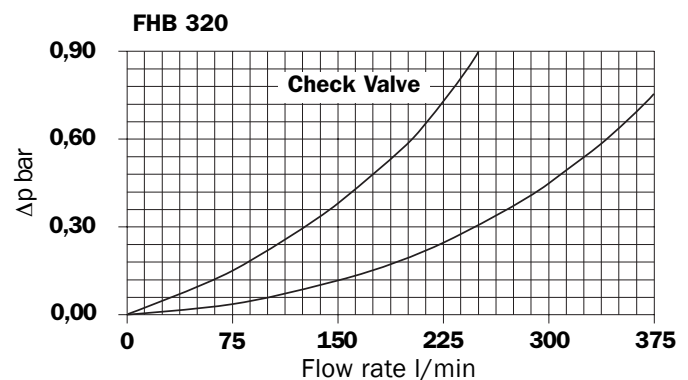
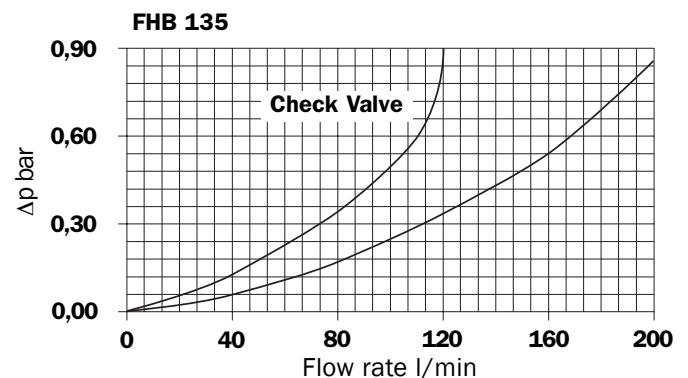
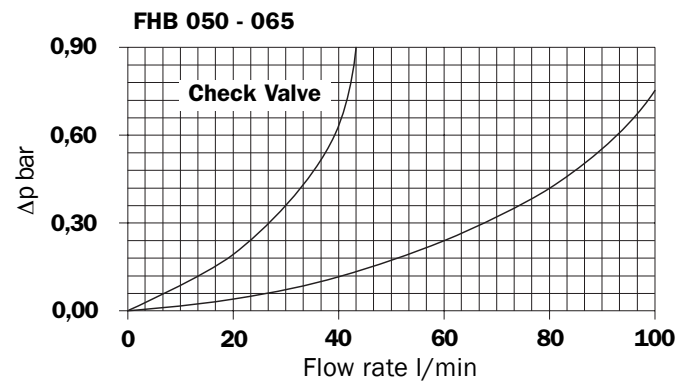
Connections

- FHB: Side manifold Inlet/Outlet

Filter housings Δp pressure drop

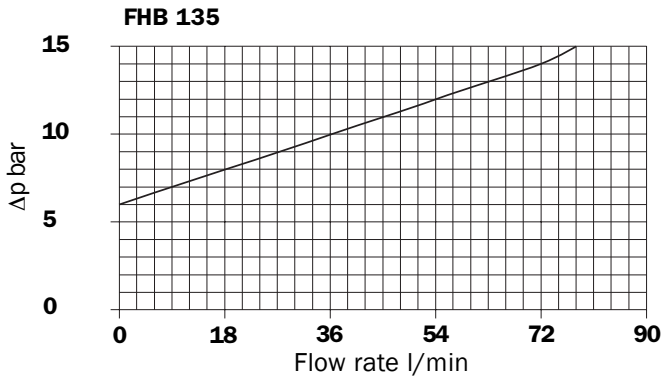
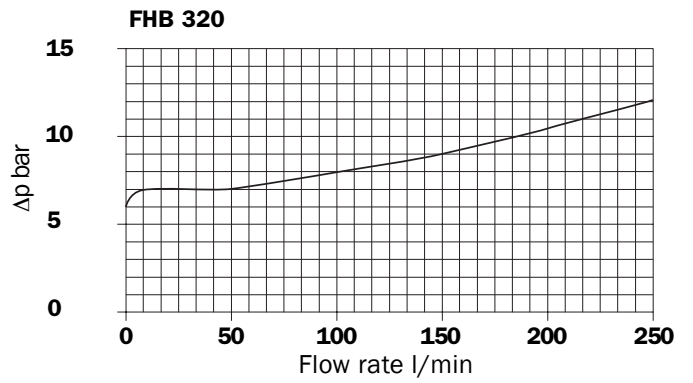
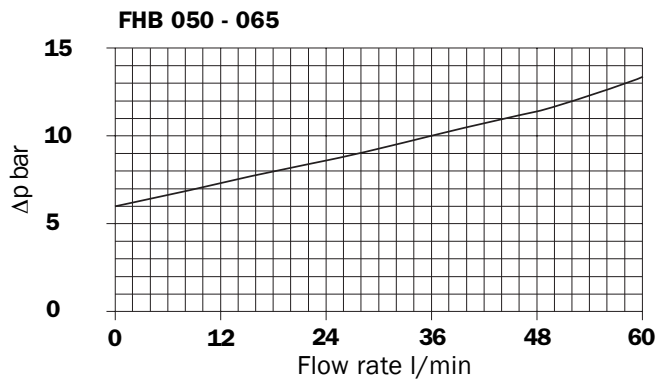
The curves are plotted utilising mineral oil with density of 0.86 kg/dm³ to ISO 3968.

Δp varies proportionally with density.



Valves

Bypass valve pressure drop



Recommended maximum flow rate

- Pressure drop of filter assembly equal to Δp 1,5 bar.
- Oil kinematic viscosity 30 mm²/s (cSt).
- Density 0,86 kg/dm³.

Filtration							
	Length	A03	A06	A10	A16	A25	M25
FHB 050	1	42	44	78	80	100	130
	2	53	58	83	93	112	132
	3	65	69	93	100	118	133
	4	82	86	105	108	122	134
	5	102	104	119	122	127	136

Serie N - Flow rate l/min

Filtration						
	Length	A03	A06	A10	A16	A25
FHB 050	1	30	40	58	60	74
	2	46	50	75	85	107
	3	59	62	87	95	115
	4	74	79	100	102	118
	5	90	92	105	112	125

Serie H - Flow rate l/min

Filtration							
	Length	A03	A06	A10	A16	A25	M25
FHB 065	1	25	32	55	62	87	90
	2	33	50	70	76	100	105
	3	60	70	96	103	117	120

Serie N - Flow rate l/min

Filtration						
	Length	A03	A06	A10	A16	A25
FHB 065	1	23	25	49	57	80
	2	32	38	66	75	94
	3	59	68	95	100	115

Serie H - Flow rate l/min

Filtration							
	Length	A03	A06	A10	A16	A25	M25
FHB 135	1	67	72	119	129	176	200
	2	109	116	152	154	224	230
	3	153	155	200	205	226	235

Serie N - Flow rate l/min

Filtration						
	Length	A03	A06	A10	A16	A25
FHB 135	1	48	55	97	100	159
	2	90	110	137	140	182
	3	126	141	175	187	206

Serie H - Flow rate l/min

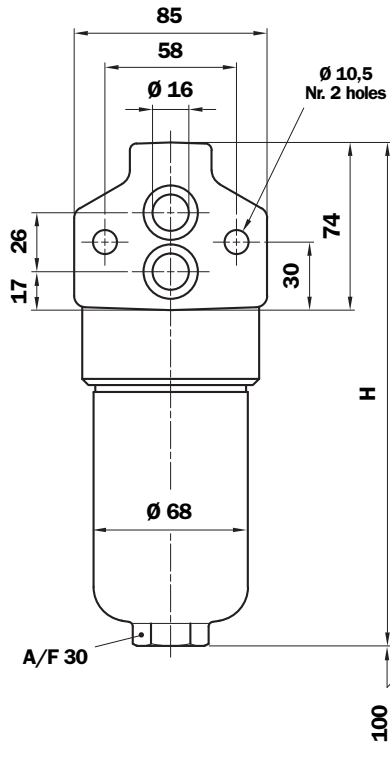
Filtration							
	Length	A03	A06	A10	A16	A25	M25
FHB 320	1	130	143	238	285	340	440
	2	259	282	390	408	450	465
	3	330	368	440	450	460	475
	4	367	390	445	463	480	485

Serie N - Flow rate l/min

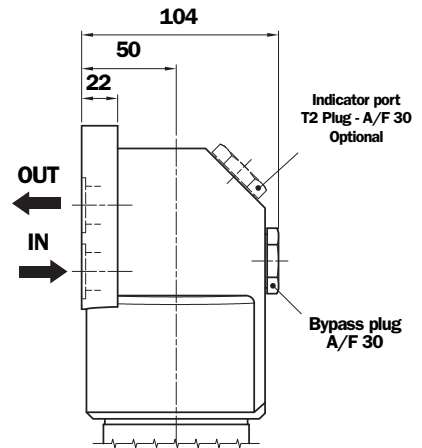
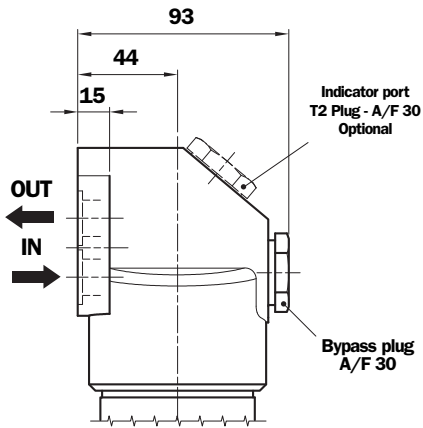
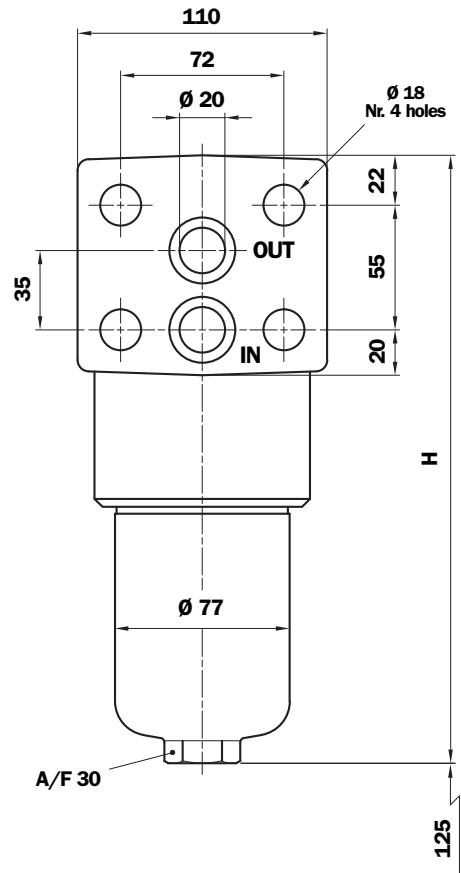
Filtration						
	Length	A03	A06	A10	A16	A25
FHB 320	1	110	117	191	200	300
	2	200	230	318	325	390
	3	268	312	379	387	430
	4	310	332	387	392	435

Serie H - Flow rate l/min

FHB 050 - 065



FHB 135



FHB 050

Length Filter	H mm
1	185
2	222
3	264
4	312
5	434

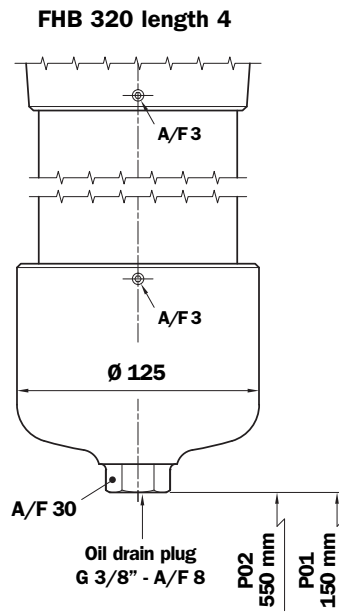
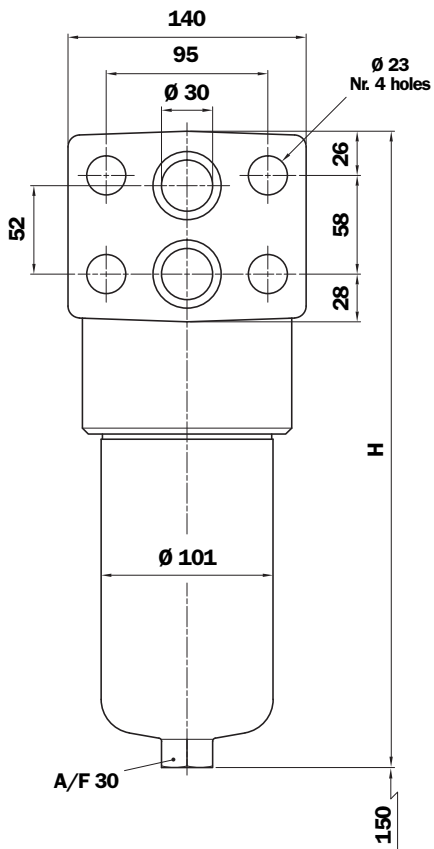
FHB 065

Length Filter	H mm
1	194
2	225
3	327

FHB 135

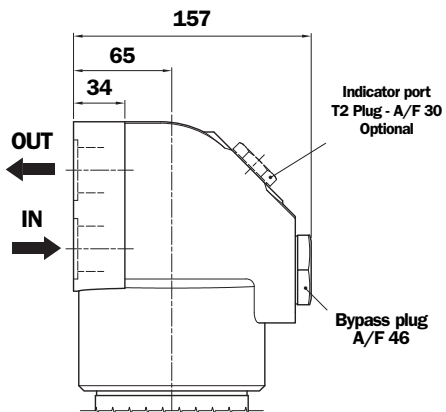
Length Filter	H mm
1	268
2	381
3	456

FHB 320



Style P01
Standard maintenance from head.

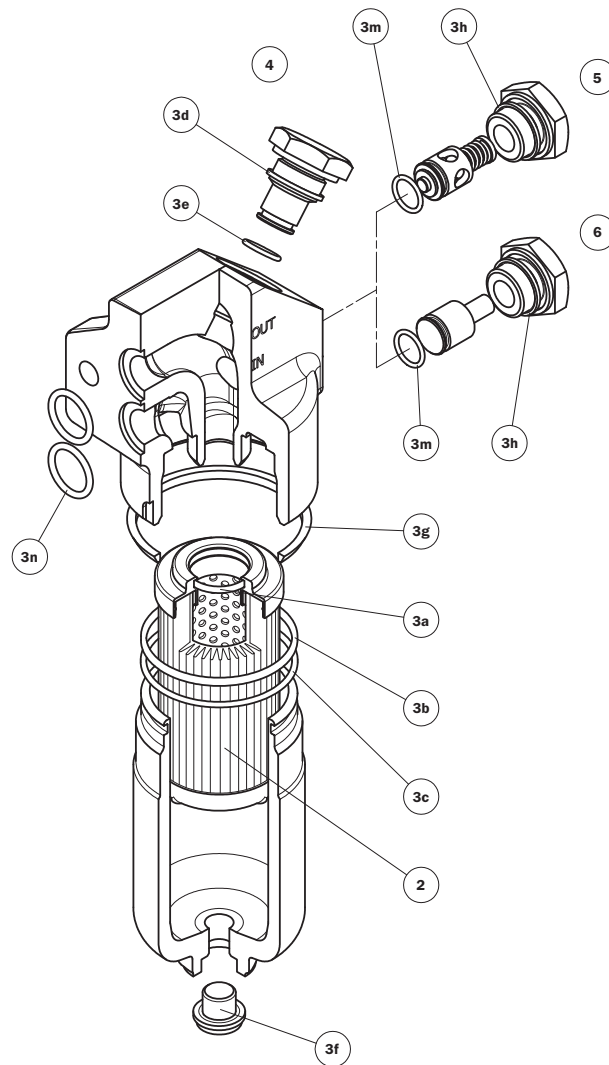
Style P02
Maintenance option from housing base.



FHB 320

Length Filter	H mm
1	301
2	424
3	556
4	709

Spare parts



Item	Description	Q.ty	FILTER Series							
			FHB 050		FHB 065		FHB 135		FHB 320	
1	Filter assembly	1	See order table							
2	Filter element	1	See order table							
3	Seal Kit	1	NBR 02050412	FPM 02050413	NBR 02050266	FPM 02050277	NBR 02050270	FPM 02050281	NBR 02050273	FPM 02050284
3a	Filter element seal	1	O-R 3093 Ø 23,67 x 2,62		O-R 4100 Ø 24,99 x 3,53		O-R 3106 Ø 26,65 x 2,62		O-R 144 Ø 39,69 x 3,53	
3b	Bowl seal	1	O-R 3225 Ø 56,82 x 2,62		O-R 159 Ø 55,56 x 3,53		O-R 3256 Ø 64,77 x 2,62		2 pcs	O-R 3350 Ø 88,57 x 2,62
3c	Bowl anti-extrusion ring	1	Parbak 139 Ø 56,03 x 2,18		Parbak 277 Ø 54,53 x 3		Parbak 144 Ø 63,96 x 2,18		2 pcs	Parbak 153 Ø 89,36 x 2,18
3d	Gasket	1	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)	01030058 (HNBR)	01030046 (FPM)
3e	O-Ring indicator	1	O-R 2050 Ø 12,42 x 1,78		O-R 2050 Ø 12,42 x 1,78		O-R 2050 Ø 12,42 x 1,78		O-R 2050 Ø 12,42 x 1,78	
3f	Drain plug	1	G 1/4" with bonded seal		G 1/4" with bonded seal		G 1/4" with bonded seal		G 1/8" with bonded seal	
3g	Protective seal	1	01026521		01026521		01026509		01026510	
3h	Bp or Non-Bp seal	1	Bonded seal G 1/2"		Bonded seal G 1/2"		Bonded seal G 1/2"		O-R 3143 (90 Sh A) Ø 36,14 x 2,62	
3m	Bp or Non-Bp seal	1	O-R 2050 Ø 12,42 x 1,78		O-R 2050 Ø 12,42 x 1,78		O-R 2050 Ø 12,42 x 1,78		O-R 3106 Ø 26,65 x 2,62	
3n	Head seal	2	O-R 3075 Ø 18,72 x 2,62		O-R 3075 Ø 18,72 x 2,62		O-R 3093 Ø 23,67 x 2,62		O-R 4131 Ø 32,92 x 3,53	
4	Indicator connection plug	1	T2H	T2V	T2H	T2V	T2H	T2V	T2H	T2V
5	Bypass assembly	1	NBR 02001312	FPM 02001385	NBR 02001312	FPM 02001385	NBR 02001312	FPM 02001385	NBR 02001381	FPM 02001382
6	Non-bypass assembly	1	NBR 02001314	FPM 02001386	NBR 02001314	FPM 02001386	NBR 02001314	FPM 02001386	NBR 02001383	FPM 02001384

Ordering information FHB

Filter assembly

FHB

Example: FHB

1	2	3	4	5	6	7a
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
065	2	B	A	F1	A10	N
				F1		P01

Filter element

HP

Example: HP

1	2	5	4	6	7b
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
065	2	A10	A	N	P01

1 - Style

Filter

050
 065
 135
 320

Filter element

050
 065
 135
 320

2 - Filter length

050
 065
 135
 320

1 **2** **3** **4** **5**
 1 **2** **3**
 1 **2** **3**
 1 **2** **3** **4**

3 - Valves

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

*Reduced cross-section oilways

4 - Filter seals

A NBR
 V FPM
 On request

5 - Filter element

<input type="text"/> A03	Inorganic microfibre 3 μ	} Absolute filtration Inorganic Microfibre } $\beta_x(c) \geq 1000$
<input type="text"/> A06	Inorganic microfibre 6 μ	
<input type="text"/> A10	Inorganic microfibre 10 μ	
<input type="text"/> A16	Inorganic microfibre 16 μ	
<input type="text"/> A25	Inorganic microfibre 25 μ	
<input type="text"/> M25	Wire mesh 25 μ	} Nominal Filtration Metal mesh

6 - Max filter element differential pressure

N Δp 20 bar
 H Δp 210 bar (only for FHB 065 - 135 - 320)
 S Δp 210 bar (only for FHB 050)

7 - Option

a - Filter

P01 MP Filtri standard
 P02 Maintenance from base of housing (only FHB 320 length 4)
 Pxx Customer request

b - Filter element

P01 MP Filtri standard
 Pxx Customer request

* Indicator plug:

Phosphated Steel plug T2 has to be ordered separately.

Code

T2H Seal NBR
 T2V Seal FPM