

FHM series

Maximum working pressure up to 32 MPa (320 bar) - Flow rate up to 450 l/min



Description

Technical data

High Pressure filters

Manifold

Maximum working pressure up to 32 MPa (320 bar)

Flow rate up to 450 l/min

FHM is a range of high pressure filter for protection of sensitive components in high pressure hydraulic systems in the mobile machines.

They are directly connected to the top of the manifold, through the proper flanged interface.

Available features:

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- Manifold connections up to Ø30 mm, for a maximum flow rate of 450 l/min
- ISO 4401 CETOP 3 and CETOP 5 interface, for direct mounting on the CETOP valves
- 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
- 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

Filter housing materials

- Head
Phosphatized cast iron: FHM 006-007-010
Phosphatized steel: FHM 050-065-135-320-500

- Housing: Phosphatized steel

- Bypass valve: Steel

- 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) ±10%
- Other opening pressures on request.

Δp element type

- Microfibre filter elements - series N: 20 bar
(not available for FHM 006, FHM 007 and FHM 010)
- Microfibre filter elements - series H: 210 bar
(not available for FHM 050 and FHM 500)
- Microfibre filter elements - series S: 210 bar
(only for FHM 050 and FHM 500)
- Wire mesh filter elements - series H: 210 bar
(only for FHM 006, FHM 007 and FHM 010)
- 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

Manifold mounting

Note

FHM filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm ³]						
	Length	1	2	3	4	5	Length	1	2	3	4	5
FHM 006		2.17	-	-	-	-		0.12	-	-	-	-
FHM 007		-	4.74	5.95	-	-		-	0.30	0.50	-	-
FHM 010		-	4.74	5.95	-	-		-	0.30	0.50	-	-
FHM 050		5.31	5.68	6.09	6.56	7.74		0.29	0.38	0.48	0.60	0.89
FHM 065		5.47	5.83	7.04	-	-		0.27	0.34	0.56	-	-
FHM 135		8.78	10.38	11.43	-	-		0.49	0.82	1.03	-	-
FHM 320		19.80	21.93	24.22	26.70	-		1.04	1.76	2.53	3.36	-
FHM 500		35.00	39.17	42.69	54.70	60.50		1.63	2.35	2.96	5.11	6.44

FHM FHM050 - FHM065 - FHM135

Designation & Ordering code

COMPLETE FILTER

Series and size				Configuration example: FHM135 3 S A F1 A10 H P01						
FHM050 FHM065 FHM135										
Length	FHM050	FHM065	FHM135							
1	•	•	•							
2	•	•	•							
3	•	•	•							
4	•									
5	•									
Valves										
S	Without bypass									
B	With bypass 6 bar									
T	With check valve, without bypass									
D	With check valve, with bypass 6 bar									
Seals										
A	NBR									
V	FPM									
Connections										
F1	Manifold									
Filtration rating (filter media)										
A03	Inorganic microfiber	3	µm	A16	Inorganic microfiber	16	µm			
A06	Inorganic microfiber	6	µm	A25	Inorganic microfiber	25	µm			
A10	Inorganic microfiber	10	µm	M25	Wire mesh	25	µm			

		Valves: FHM050				FHM065-135				Execution	
Element	Δp	S	B	T	D	S	B	T	D		
N	20 bar		•		•		•		•	P01	MP Filtri standard
H	210 bar						•		•	Pxx	Customized
S	210 bar	•			•						

FILTER ELEMENT

Element series and size				Configuration example: HP135 3 A10 A H P01						
HP050 HP065 HP135										
Element length	HP050	HP065	HP135							
1	•	•	•							
2	•	•	•							
3	•	•	•							
4	•									
5	•									
Filtration rating (filter media)										
A03	Inorganic microfiber	3	µm	A16	Inorganic microfiber	16	µm			
A06	Inorganic microfiber	6	µm	A25	Inorganic microfiber	25	µm			
A10	Inorganic microfiber	10	µm	M25	Wire mesh	25	µm			

Seals		Element	Δp	HP050	HP065	HP135	Execution	
A	NBR	N	20 bar	•	•	•	P01	MP Filtri standard
V	FPM	H	210 bar		•	•	Pxx	Customized
		S	210 bar	•				

ACCESSORIES

Differential indicators		page			page
DEA	Electrical differential indicator	567	DLE	Electrical / visual differential indicator	570
DEH	Hazardous area electronic differential indicator	567-568	DTA	Electronic differential indicator	571
DEM	Electrical differential indicator	568-569	DVA	Visual differential indicator	571
DLA	Electrical / visual differential indicator	569-570	DVM	Visual differential indicator	571

Additional features		page
T2	Plug	572

FHM050		FHM065	
Filter length	H [mm]	Filter length	H [mm]
1	154	1	162
2	191	2	193
3	233	3	295
4	281		
5	403		

