

FMM series

Maximum working pressure up to 42 MPa (420 bar) - Flow rate up to 300 l/min



High Pressure filters

In-line

Maximum working pressure up to 42 MPa (420 bar)

Flow rate up to 300 l/min

FMM is a range of versatile high pressure filter for protection of sensitive components in high pressure hydraulic systems in the mobile machines.
They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Female threaded connections up to 1 1/4", for a maximum flow rate of 250 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

- Low collapse filter element "N", for use with filters 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:

- Agricultural machines

- Mobile machines

Technical data

Filter housing materials

- Head: Painted cast iron, black RAL 9005

- Housing: Phosphatized steel

- Bypass valve: Steel

Pressure

- Test pressure: 63 MPa (630 bar)

- Burst pressure: 126 MPa (1260 bar)

- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 42 MPa (420 bar)

Bypass valve

- Opening pressure 600 kPa (6 bar) ±10%

- Other opening pressures on request.

Δp element type

- Microfiber filter elements - series N-R: 20 bar

- Microfiber filter elements - series 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

FMM filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm³]						
	Length	1	2	3	4	5	Length	1	2	3	4	5
FMM 050		3.11	3.48	3.90	4.36	5.54		0.34	0.48	0.63	0.81	1.23
FMM 150		7.50	9.50	10.90	-	-		0.60	1.00	1.25	-	-

High Pressure filters

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ТОВ "Промислова Гідравліка": <https://promhydraulic.com.ua/ua/>
Телефонуйте: +380 (95) 670-15-32, +380 (98) 533-91-67, +380 (96) 244-48-42

Filter series	Length	Filter element design - N Series						Filter element design - S Series				
		A03	A06	A10	A16	A25	M25	A03	A06	A10	A16	A25
FMM 050	1	42	43	79	82	106	147	29	39	57	59	74
	2	52	57	85	96	121	149	45	49	76	88	114
	3	66	69	97	106	130	150	58	61	89	99	125
	4	83	89	113	115	134	152	74	80	106	108	129
	5	107	110	130	134	141	154	93	95	111	121	139
FMM 150	1	81	88	156	163	179	295					
	2	142	145	227	230	236	312					
	3	170	180	242	245	263	315					

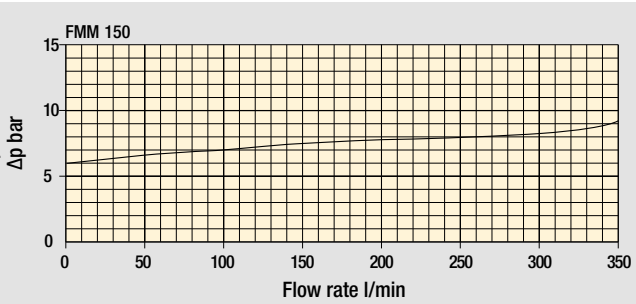
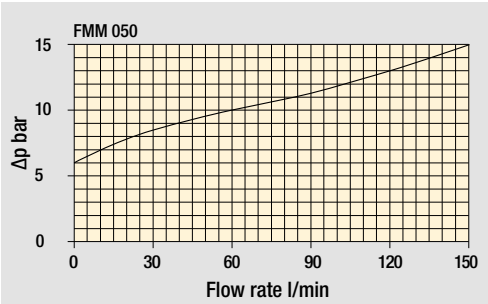
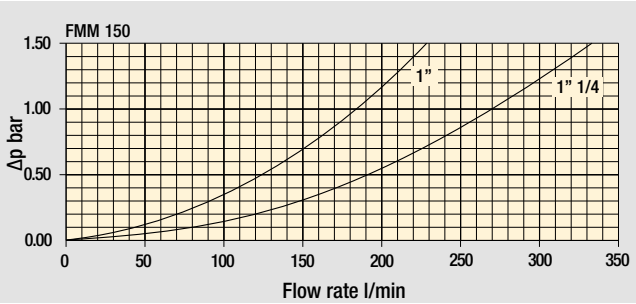
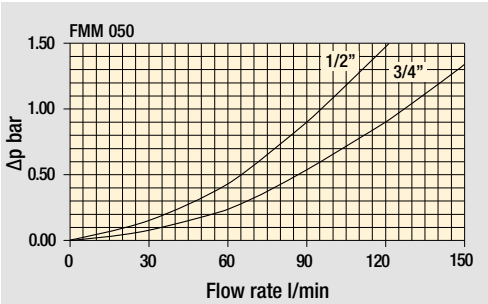
Maximum flow rate for a complete pressure filter with a pressure drop Δp = 1.5 bar.

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.

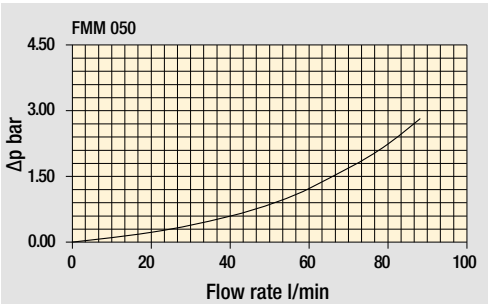
Hydraulic symbols

Filter series	Style S	Style B	Style T	Style D
FMM 050	•	•	•	•
FMM 150	•	•	•	•

Pressure drop
Filter housings
Δp pressure drop



Bypass valve
pressure drop



Filter housing
with check valve

Valves

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

COMPLETE FILTER

Series and size

FMM050

Configuration example:

FMM050

3

B

A

G

A10

N

P01

Length

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

A

M18x1.5 - ISO 6149

B

M22x1.5 - ISO 6149

C

G 1/2"

D

G 3/4"

E

1/2" NPT

F

3/4" NPT

G

SAE 8 - 3/4" - 16 UNF

H

SAE 12 - 1 1/16" - 12 UN

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

Valves

Element Δp

S

B

T

D

N

20 bar

•

R

20 bar

•

S

210 bar

•

•

Execution

P01

Upper connection for clogging indicator

P02

Without connection for clogging indicator

P03

Frontal connection for clogging indicator

Pxx

Customized

FILTER ELEMENT

Element series and size

HP050

Configuration example:

HP050

3

A10

A

N

P01

Element length

1

2

3

4

5

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

Seals

A

NBR

V

FPM

Element Δp

N

20 bar

R

20 bar

S

210 bar

Execution

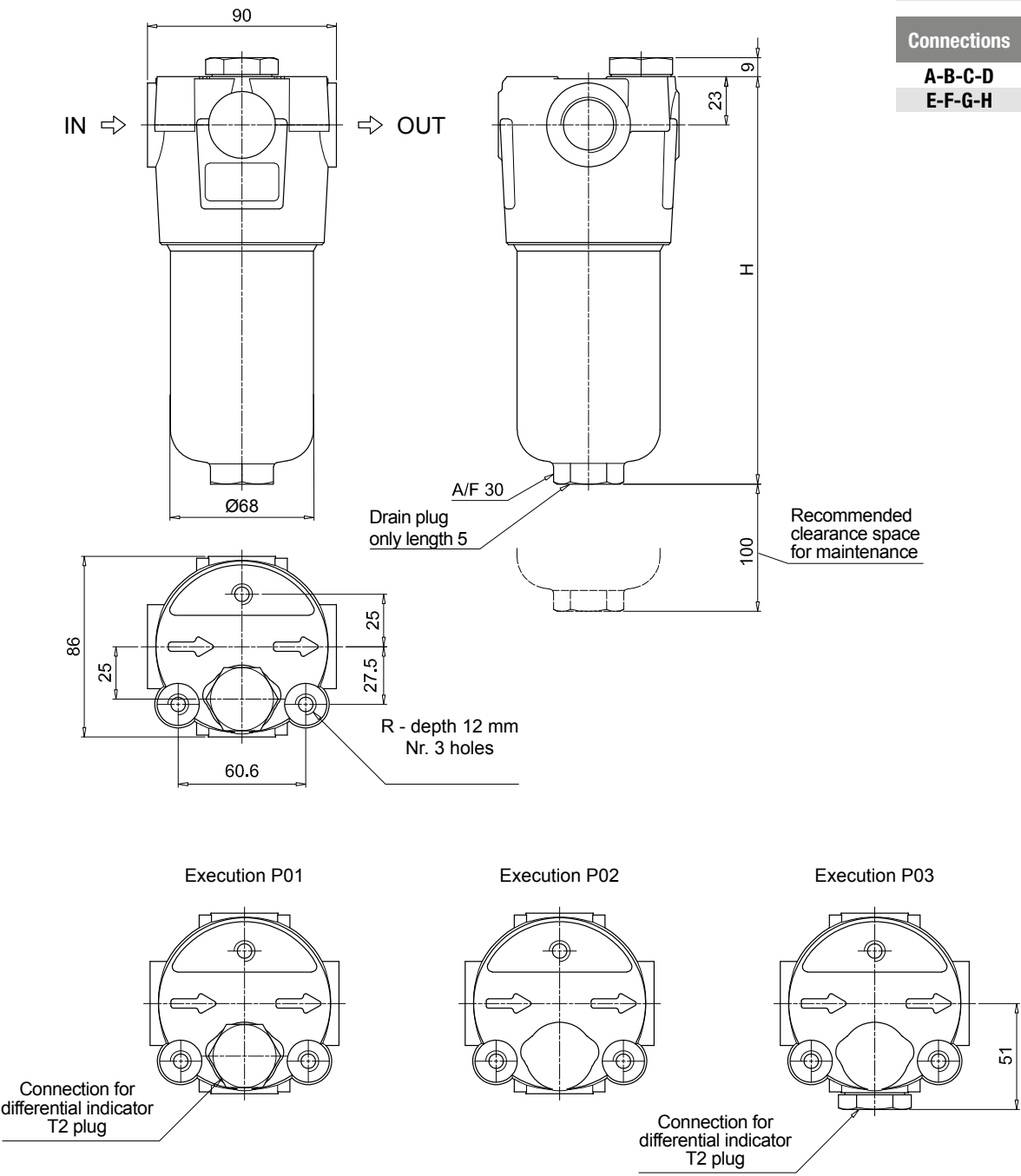
P01

MP Filtri standard

Pxx

Customized

ACCESSORIES					
Differential indicators			page	page	
DEA	Electrical differential indicator	577	DLE	Electrical / visual differential indicator	580
DEH	Hazardous area electronic differential indicator	577-578	DTA	Electronic differential indicator	581
DEM	Electrical differential indicator	578-579	DVA	Visual differential indicator	581
DLA	Electrical / visual differential indicator	579-580	DVM	Visual differential indicator	581
Additional features			page		
T2	Plug	582			



FMMO50	
Filter length	H [mm]
1	158
2	195
3	237
4	285
5	407
Connections	R
A-B-C-D	M10
E-F-G-H	3/8" UNC

FMM FMM150

Designation & Ordering code

COMPLETE FILTER

Series and size

FMM150

Configuration example:

FMM150

2

B

A

D

2

M25

N

P01

Length

1

2

3

Valves

S

Without bypass

B

With bypass 6 bar

Seals

A

NBR

V

FPM

Connections

C

G 1"

D

G 1 1/4"

E

1" NPT

F

1 1/4" NPT

G

SAE 16 - 1 5/16" - 12 UN

H

SAE 20 - 1 5/8" - 12 UN

Connection for differential indicator

1

Without connection

2

Upper connection

3

Frontal connection

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

Element Δp

N

20 bar

Execution

P01

MP Filtri standard

Pxx

Customized

FILTER ELEMENT

Element series and size

HP150

Configuration example:

HP150

2

M25

A

N

P01

Element length

1

2

3

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

A

NBR

V

FPM

Element Δp

N

20 bar

Execution

P01

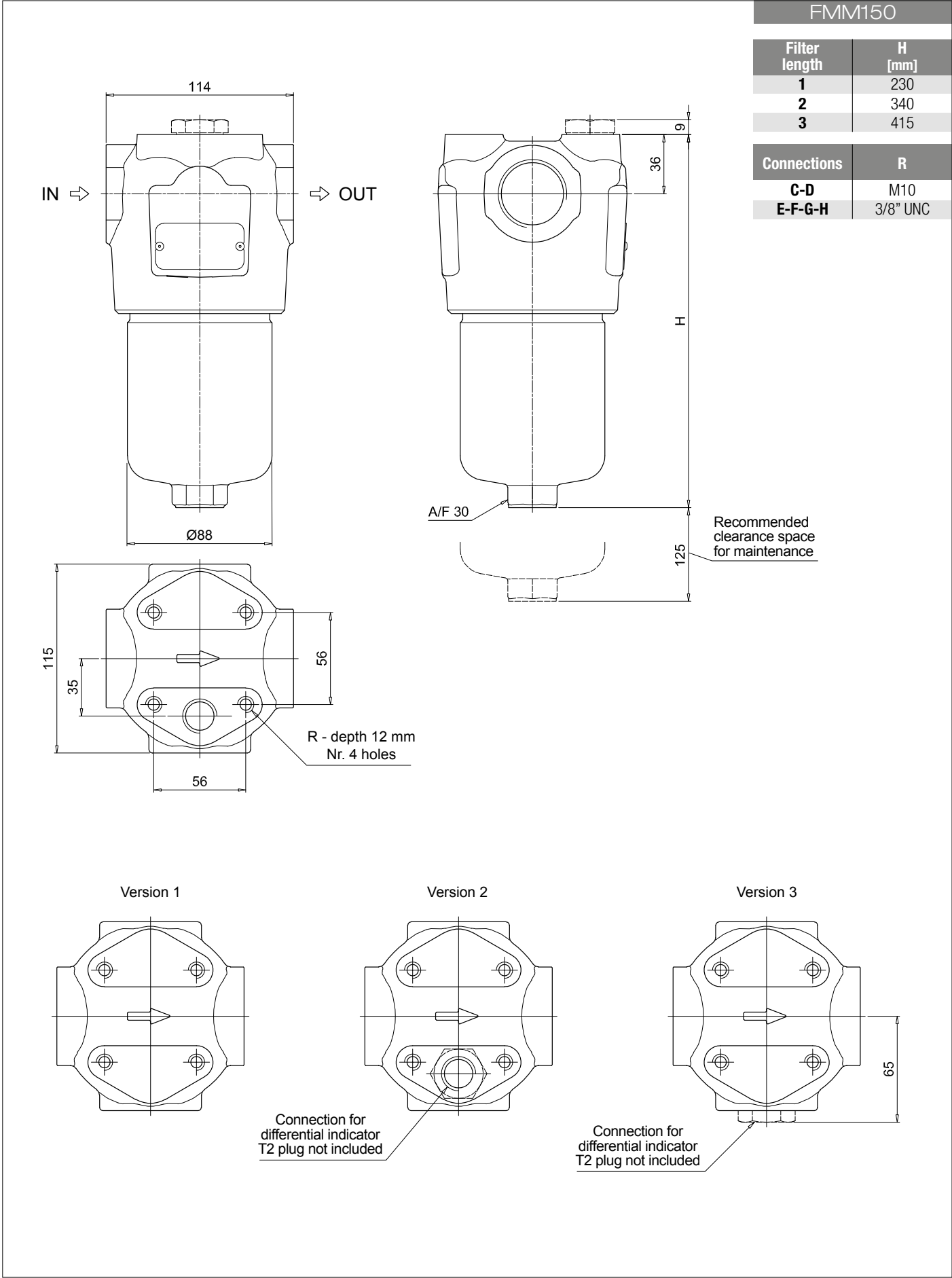
MP Filtri standard

Pxx

Customized

ACCESSORIES					
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Additional features			page		
T2	Plug	582			

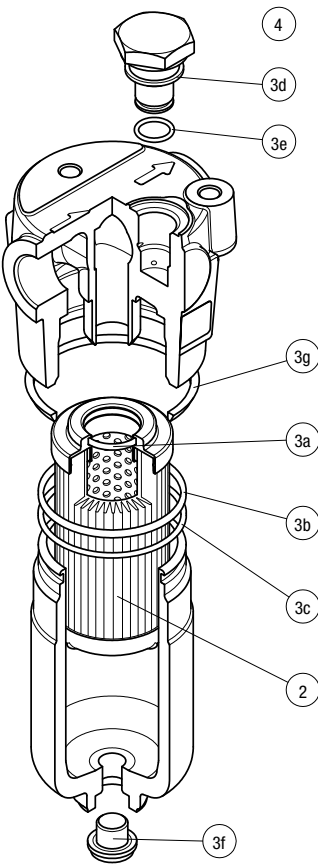




FMM SPARE PARTS

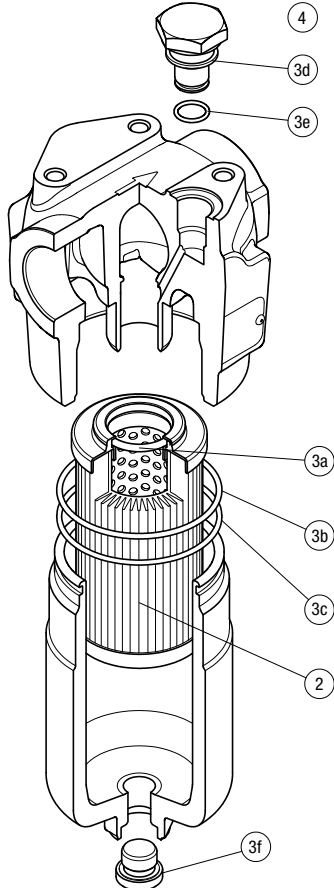
Order number for spare parts

FMM 050



Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3g)	Q.ty: 1 pc. 4
Filter series	Filter element See order table	Seal Kit code number NBR FPM	Indicator connection plug NBR FPM
FMM 050		02050314 02050315	T2H T2V

FMM 150



Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3f)	Q.ty: 1 pc. 4
Filter series	Filter element See order table	Seal Kit code number NBR FPM	Indicator connection plug NBR FPM
FMM 150		02050731 02050732	T2H T2V