

Description

Return filter

Maximum working pressure up to 0.8 MPa (8 bar)
Flow rate up to 900 l/min

MPFX is a range of return filters for protection of the reservoir against the system contamination.

They are directly fixed to the reservoir, in immersed or semi-immersed position.

The filter output must be always immersed into the fluid to avoid aeration or foam generation into the reservoir.

Available features:

- Female threaded connections up to 2" and flanged connections up to 2", for a maximum flow rate of 900 l/min
- Multiple connections, to connect several return lines or drains
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve integrated into the filter element, to relieve excessive pressure drop across the filter media
- 2, 3 or 4 fixing holes for installation, to suit a variety of reservoir surfaces
- O-ring or Flat Seal to suit a variety of reservoir surfaces
- Oil dipstick, to easily check the level of the fluid into the reservoir (sold as separate item)
- Extension tube, to be used in deep reservoirs (sold as separate item)
- Diffuser, to reduce the risk of aeration, foaming and noise (sold as separate item)
- Filler plug, to fill cleaned fluid into the tank without an additional connection
- Visual, electrical and electronic clogging indicators
- MYclean interface connection, to protect the product against non-original spare parts
- External protective wrap, to optimize the flow through the element and to save the element efficiency against non-proper handling

Common applications:

- Light Industrial equipment
- Mobile application

Technical data

Filter housing materials

- Head: Aluminium
- Cover: Polyamide: MPFX 030-100-104-110
Aluminium: MPFX 181-182-184-191-192-194
400-410-450-750
- Bowl: Polyamide

Pressure

- Test pressure: 1.2 MPa (12 bar)
- Min. Burst pressure: 2.4 MPa (24 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 0.8 MPa (8 bar)

Bypass valve

- Opening pressure 0.175 MPa (1.75 bar) $\pm 10\%$
- Opening pressure 0.3 MPa (3 bar) $\pm 10\%$

Filter element features

Filter MPFX		Filter element MFX	
Δp Element type			
Element media	Construction	Δp Series	Δp
A - Microfiber	Standard	D	10 bar
M - Wire mesh	Standard	D	10 bar
P - Paper	Standard	D	10 bar
Please see ordering code tables to check element Δp series availability based on filter features.			
Flow direction through the filter element:			
From OUT to IN			

Seals

- Standard NBR series A or W
- Optional FPM series V or Z

Temperature

From -25 °C to +110 °C

Note

MPFX filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm³]				
	Length	10	20	30	40	Length	10	20	30	40
MPFX 030		0.40	-	-	-		0.29	-	-	-
MPFX 100		0.61	0.64	0.67	0.74		0.64	0.85	1.20	1.65
MPFX 104		0.82	0.96	1.02	1.25		0.64	0.85	1.20	1.65
MPFX 110		0.64	0.68	0.71	0.78		-	-	-	-
MPFX 181		2.20	3.00	-	-		2.50	4.00	-	-
MPFX 182		2.30	3.10	-	-		2.50	4.00	-	-
MPFX 184		2.55	3.45	-	-		2.65	4.45	-	-
MPFX 191		-	3.00	-	-		-	4.25	-	-
MPFX 192		-	3.10	-	-		-	4.25	-	-
MPFX 194		-	3.45	-	-		-	4.45	-	-
MPFX 400		3.35	3.65	3.90	-		3.70	4.60	5.40	-
MPFX 410		3.55	3.85	4.10	-		3.70	4.60	5.40	-
MPFX 450		3.95	4.25	4.50	-		3.70	4.60	5.40	-
MPFX 750		6.30	-	-	-		8.45	-	-	-

MPFX

MPFX100 - MPFX104

Designation & Ordering code

COMPLETE FILTER

Series		Example 1:	MPFX	100	20	A0006	D	W	17	FG100	0	1T	NN	P01	NN
MPFX	Filter featuring  Filter Element	Example 2:	MPFX	104	40	P0010	D	A	30	FS012	0	1T	NN	P01	NN

Size	
100	104

Length	
10	30
20	40

Filtration rating (filter media)			
A0003	Inorganic microfiber	3 µm	Z0003 Antistatic in. microf. 3 µm
A0006	Inorganic microfiber	6 µm	Z0006 Antistatic in. microf. 6 µm
A0010	Inorganic microfiber	10 µm	Z0010 Antistatic in. microf. 10 µm
A0016	Inorganic microfiber	16 µm	Z0016 Antistatic in. microf. 16 µm
A0025	Inorganic microfiber	25 µm	Z0025 Antistatic in. microf. 25 µm
M0025	Wire mesh	25 µm	
M0060	Wire mesh	60 µm	
M0090	Wire mesh	90 µm	
P0010	Resin impregnated paper	10 µm	
P0025	Resin impregnated paper	25 µm	

Element Δp

D 10 bar

Seals and treatments	A0xxx	M0xxx	P0xxx	Z0xxx
A NBR	•	•	•	•
V FPM	•	•	•	•
W NBR with filter and components surface treatment	•	•	-	•
Z FPM with filter and components surface treatment	•	•	-	•

Bypass

17	With bypass 1.75 bar
30	With bypass 3.0 bar

Connections

FG012 G 1/2"	FN012 1/2" NPT	FS008 SAE 8 - 3/4" - 16 UNF
FG034 G 3/4"	FN034 3/4" NPT	FS012 SAE 12 - 1 1/16" - 12 UN
FG100 G 1"	FN100 1" NPT	FS016 SAE 16 - 1 5/16" - 12 UN

Additional connections

0	Without additional connections
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Connections for clogging indicators

1T	With top indicator connection, with metal plug
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Additional features

NN	Without additional features
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Execution

P01	Standard catalogue item
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Certificates

NN	None
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CLOGGING INDICATORS

See pages 776-777

BVA Axial pressure gauge	BEA Electrical pressure indicator
BVR Radial pressure gauge	BEM Electrical pressure indicator
BVP Visual pressure indicator with automatic reset	BLA Electrical / visual pressure indicator
BVQ Visual pressure indicator with manual reset	

ACCESSORIES

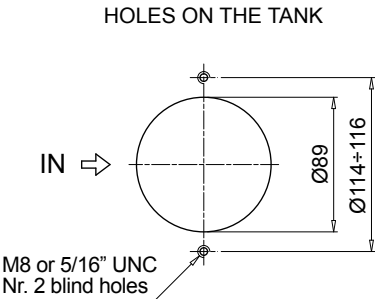
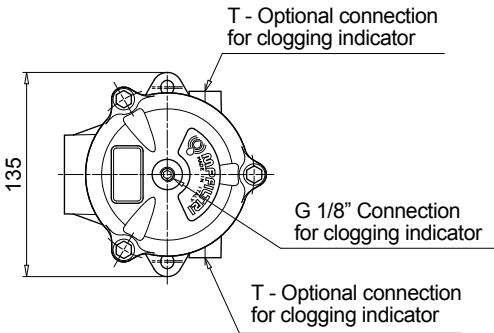
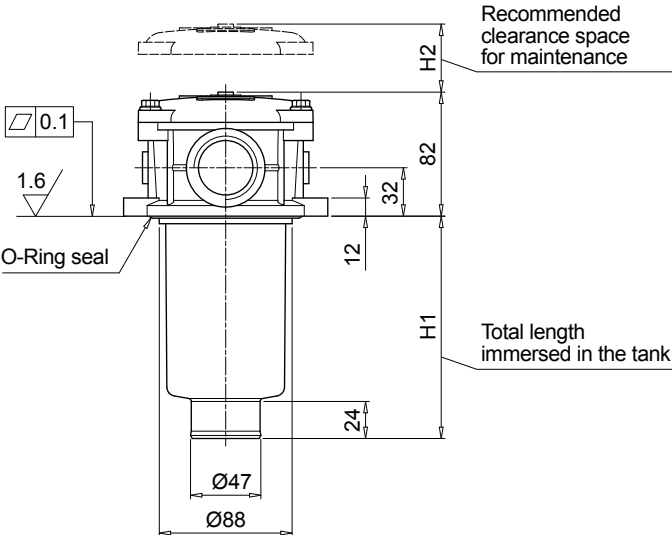
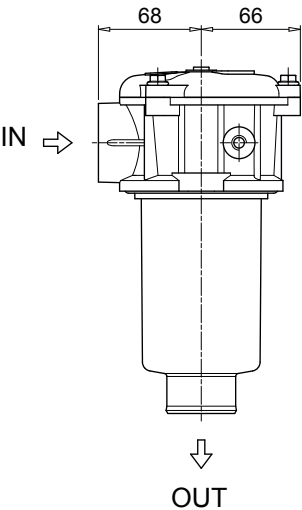
See page 270

TE Polyamide extension tube	DFS Diffuser with fast lock connection
T5 Filler plug M30x1.5	DPT Dipstick

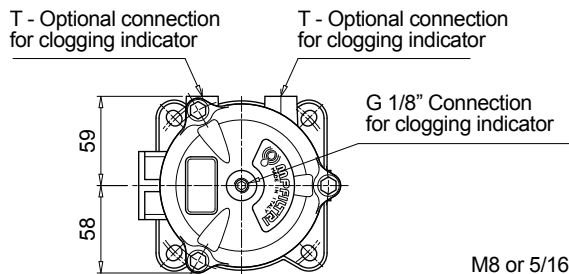
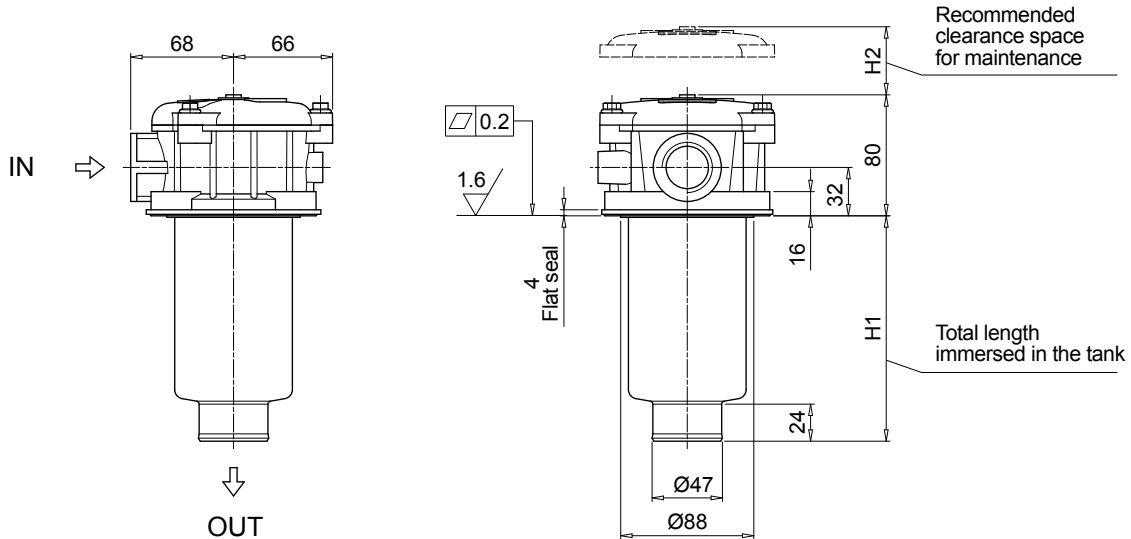
FILTER ELEMENT											
Series		Example 1: MFX 100 20 A0006 D A 17 NN P01 NN									
MFX Filter element with MYCLEAN feature		Example 2: MFX 100 40 P0010 D A 30 NN P01 NN									
Size											
100											
Length											
10 30											
20 40											
Filtration rating (filter media)											
MYCLEAN	A0003 Inorganic microfiber 3 µm	zerospark	Z0003 Antistatic in. microf. 3 µm								
	A0006 Inorganic microfiber 6 µm		Z0006 Antistatic in. microf. 6 µm								
	A0010 Inorganic microfiber 10 µm		Z0010 Antistatic in. microf. 10 µm								
	A0016 Inorganic microfiber 16 µm		Z0016 Antistatic in. microf. 16 µm								
	A0025 Inorganic microfiber 25 µm		Z0025 Antistatic in. microf. 25 µm								
	M0025 Wire mesh 25 µm										
	M0060 Wire mesh 60 µm										
	M0090 Wire mesh 90 µm										
	P0010 Resin impregnated paper 10 µm										
	P0025 Resin impregnated paper 25 µm										
Element Δp											
D 10 bar											
Seals and treatments											
A NBR											
V FPM											
Bypass											
17 With bypass 1.75 bar											
30 With bypass 3.0 bar											
Additional features											
NN Without additional features											
Execution											
P01 Standard catalogue item											
Certificates											
NN None											

Dimensions

MPFX100		
Filter length	H1 [mm]	H2 [mm]
10	102	120
20	147	170
30	225	250
40	327	350

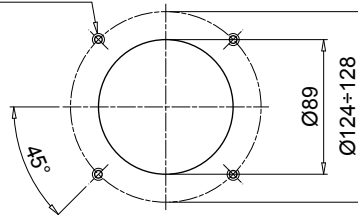


MPFX104		
Filter length	H1 [mm]	H2 [mm]
10	100	120
20	145	170
30	223	250
40	325	350



HOLES ON THE TANK

M8 or 5/16" UNC
Nr. 4 blind holes



Designation & Ordering code

COMPLETE FILTER

Series **MPFX** Example: **MPFX 110 20 Z0025 D Z 30 FN114 2 9T NN P01 NN**

Filter featuring
MY CLEAN Filter Element

Size
110

Length
10 30
20 40

Filtration rating (filter media)

A0003	Inorganic microfiber	3 µm	Z0003	Antistatic in. microf.	3 µm
A0006	Inorganic microfiber	6 µm	Z0006	Antistatic in. microf.	6 µm
A0010	Inorganic microfiber	10 µm	Z0010	Antistatic in. microf.	10 µm
A0016	Inorganic microfiber	16 µm	Z0016	Antistatic in. microf.	16 µm
A0025	Inorganic microfiber	25 µm	Z0025	Antistatic in. microf.	25 µm
M0025	Wire mesh	25 µm			
M0060	Wire mesh	60 µm			
M0090	Wire mesh	90 µm			
P0010	Resin impregnated paper	10 µm			
P0025	Resin impregnated paper	25 µm			

Element Δp
D 10 bar

Seals and treatments

	A0xxx	M0xxx	P0xxx	Z0xxx
A NBR	•	•	•	•
V FPM	•	•	•	•
W NBR with filter and components surface treatment	•	•	-	•
Z FPM with filter and components surface treatment	•	•	-	•

Bypass

17 With bypass 1.75 bar
30 With bypass 3.0 bar

Connections

FG012 G 1/2"	FN012 1/2" NPT	FS008 SAE 8 - 3/4" - 16 UNF
FG034 G 3/4"	FN034 3/4" NPT	FS012 SAE 12 - 1 1/16" - 12 UN
FG100 G 1"	FN100 1" NPT	FS016 SAE 16 - 1 5/16" - 12 UN
FG114 G 1 1/4"	FN114 1 1/4" NPT	FS020 SAE 20 - 1 5/8" - 12 UN

Additional connections

1	Main connection	FG012 FG034 FG100 FG114	G 3/8"	Main connection	FN012 FN034 FN100 FN114	3/8" NPT	Main connection	FS008 FS012 FS016 FS020	SAE 6 - 9/16" 18 UNF
2	Main connection	FG012 FG034 FG100 FG114	G 1/2"	Main connection	FN012 FN034 FN100 FN114	1/2" NPT	Main connection	FS008 FS012 FS016 FS020	SAE 8 - 3/4" 16 UNF

Connections for clogging indicators

9T With multiple indicator connections, with metal plugs

Additional features

NN Without additional features

Execution

P01 Standard catalogue item

Certificates

NN None

CLOGGING INDICATORS

See pages 776-777

BVA Axial pressure gauge
BVR Radial pressure gauge
BVP Visual pressure indicator with automatic reset
BVQ Visual pressure indicator with manual reset

BEA Electrical pressure indicator
BEM Electrical pressure indicator
BLA Electrical / visual pressure indicator

ACCESSORIES

See page 270

TE Polyamide extension tube
T5 Filler plug M30x1.5

DFS Diffuser with fast lock connection
DPT Dipstick

FILTER ELEMENT											
Series		Example: MFX 100 20 Z0025 D V 30 NN P01 NN									
MFX Filter element with MYCLEAN feature											
Size											
100											
Length											
10 30											
20 40											
Filtration rating (filter media)											
MYCLEAN	A0003 Inorganic microfiber 3 µm										
	A0006 Inorganic microfiber 6 µm										
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	A0025 Inorganic microfiber 25 µm										
	M0025 Wire mesh 25 µm										
	M0060 Wire mesh 60 µm										
	M0090 Wire mesh 90 µm										
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	Z0016 Antistatic in. microf. 16 µm										
	Z0025 Antistatic in. microf. 25 µm										
Element Δp											
D 10 bar											
Seals and treatments											
A NBR											
V FPM											
Bypass											
17 With bypass 1.75 bar											
30 With bypass 3.0 bar											
Additional features											
NN Without additional features											
Execution											
P01 Standard catalogue item											
Certificates											
NN None											

Dimensions

