

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
<i>Please see ordering code tables to check element Δp series availability based on filter features.</i>			
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	-	-	-

Designation & Ordering code

COMPLETE FILTER

Series **MPFX** Example: **MPFX 400 10 A0025 D A 30 FG112 0 1T NN P01 NN**

Filter featuring
MY CLEAN Filter Element

Size

400

Length

10

20

30

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

FG114 G 1 1/4"	FN114 1 1/4" NPT	FS020 SAE 20 - 1 5/8" - 12 UN
FG112 G 1 1/2"	FN112 1 1/2" NPT	FS024 SAE 24 - 1 7/8" - 12 UN
FG200 G 2"	FN200 2" NPT	FS032 SAE 32 - 2 1/2" - 12 UN

Additional connections

0 Without additional connections

Connections for clogging indicators

1T With top indicator connection, with metal plug

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

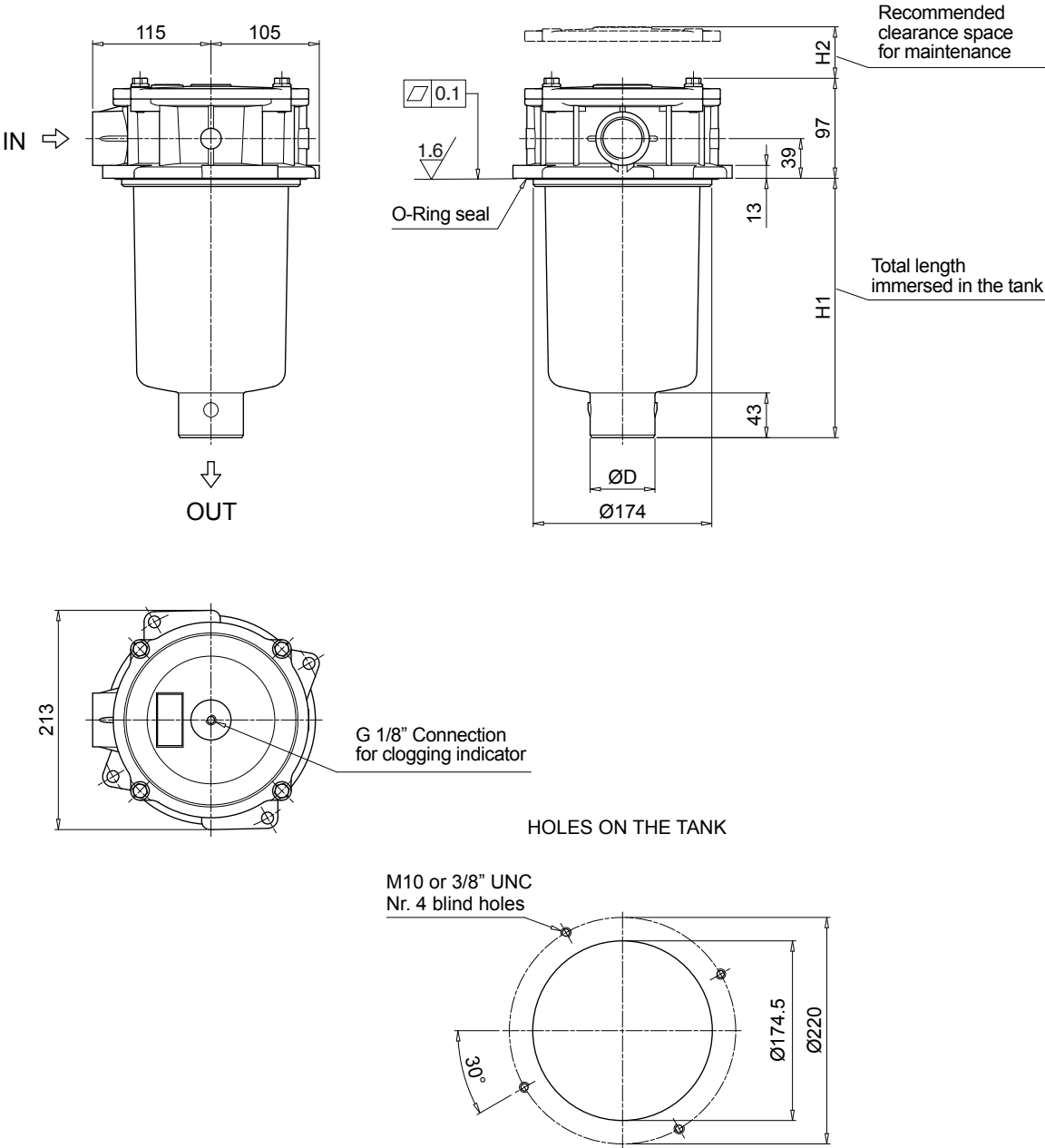
T5 Filler plug M30x1.5

DPT Dipstick

FILTER ELEMENT									
Series		Example: MFX 400 10 A0025 D A 30 NN P01 NN							
MFX Filter element with MYCLEAN feature									
Size									
400									
Length									
10									
20									
30									
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

MPFX400			
Filter length	H1 [mm]	H2 [mm]	D [mm]
10	187	210	50
20	252	270	63
30	300	315	63



Designation & Ordering code

COMPLETE FILTER

Series	Example: MPFX	410	10	A0025	D	A	30	FN114	1	1T	NN	P01	NN																																																												
MPFX	Filter featuring MYCLEAN Filter Element																																																																								
Size	410																																																																								
Length	10																																																																								
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Filtration rating (filter media) <table border="1"> <tr> <td>A0003</td> <td>Inorganic microfiber</td> <td>3 µm</td> <td>Z0003</td> <td>Antistatic in. microf.</td> <td>3 µm</td> </tr> <tr> <td>A0006</td> <td>Inorganic microfiber</td> <td>6 µm</td> <td>Z0006</td> <td>Antistatic in. microf.</td> <td>6 µm</td> </tr> <tr> <td>A0010</td> <td>Inorganic microfiber</td> <td>10 µm</td> <td>Z0010</td> <td>Antistatic in. microf.</td> <td>10 µm</td> </tr> <tr> <td>A0016</td> <td>Inorganic microfiber</td> <td>16 µm</td> <td>Z0016</td> <td>Antistatic in. microf.</td> <td>16 µm</td> </tr> <tr> <td>A0025</td> <td>Inorganic microfiber</td> <td>25 µm</td> <td>Z0025</td> <td>Antistatic in. microf.</td> <td>25 µm</td> </tr> <tr> <td>M0025</td> <td>Wire mesh</td> <td>25 µm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M0060</td> <td>Wire mesh</td> <td>60 µm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M0090</td> <td>Wire mesh</td> <td>90 µm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>P0010</td> <td>Resin impregnated paper</td> <td>10 µm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>P0025</td> <td>Resin impregnated paper</td> <td>25 µm</td> <td></td> <td></td> <td></td> </tr> </table>														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			
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Element Δp D 10 bar																																																																									
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Connections <table border="1"> <tr> <td>FG114</td> <td>G 1 1/4"</td> <td>FN114</td> <td>1 1/4" NPT</td> <td>FS020</td> <td>SAE 20 - 1 5/8" - 12 UN</td> </tr> </table>														FG114	G 1 1/4"	FN114	1 1/4" NPT	FS020	SAE 20 - 1 5/8" - 12 UN																																																						
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Additional connections <table border="1"> <tr> <td>1</td> <td>Front thread</td> <td>FG114</td> <td>G 1"</td> </tr> <tr> <td></td> <td></td> <td>FN114</td> <td>1" NPT</td> </tr> <tr> <td></td> <td></td> <td>FS020</td> <td>SAE 16 - 1 5/16" - 12 UN</td> </tr> </table>														1	Front thread	FG114	G 1"			FN114	1" NPT			FS020	SAE 16 - 1 5/16" - 12 UN																																																
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Additional features <table border="1"> <tr> <td>NN</td> <td>Without additional features</td> </tr> </table>														NN	Without additional features																																																										
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Execution <table border="1"> <tr> <td>P01</td> <td>Standard catalogue item</td> </tr> </table>														P01	Standard catalogue item																																																										
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Certificates <table border="1"> <tr> <td>NN</td> <td>None</td> </tr> </table>														NN	None																																																										
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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

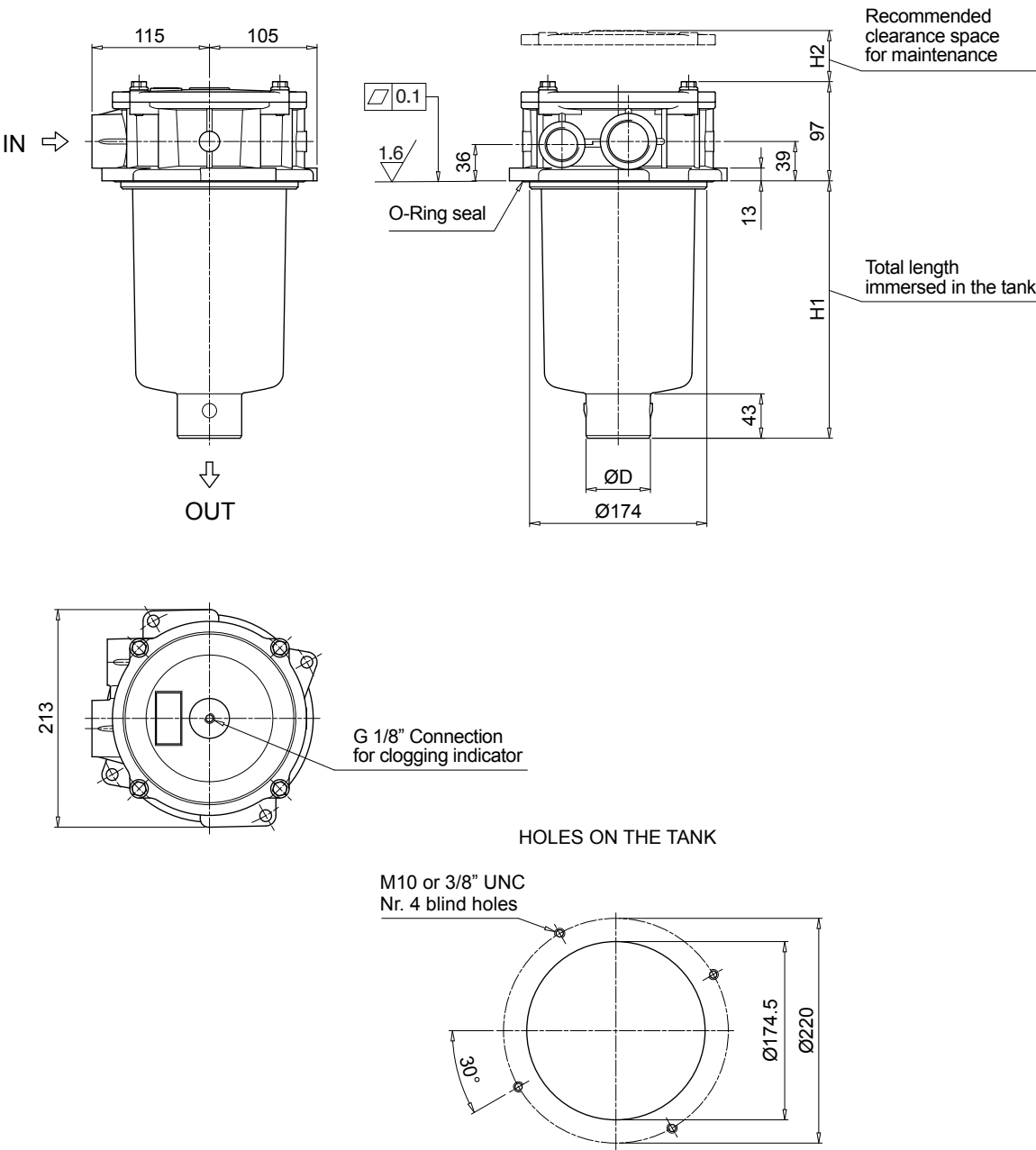
DPT	Dipstick
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FILTER ELEMENT

Series	Example: MFX 400 10 A0025 D A 30 NN P01 NN										
MFX Filter element with MYCLEAN feature											
Size											
400											
Length											
10											
20											
30											
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

MPFX410			
Filter length	H1 [mm]	H2 [mm]	D [mm]
10	187	210	50
20	252	270	63
30	300	315	63



Designation & Ordering code

COMPLETE FILTER

Series	Example: MPFX	450	10	A0025	D	A	30	FN114	1	9T	NN	P01	NN
MPFX	Filter featuring MY CLEAN Filter Element												
Size	450												
Length	10												
20													
30													
Filtration rating (filter media)													
MY CLEAN	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											
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													
FG200	G 2"	FN200	2" NPT	FS032	SAE 32 - 2 1/2" - 12 UN								
				FE200	2" SAE 3000 psi/M								
				FF200	2" SAE 3000 psi/UNC								
Additional connections													
0	Without additional connection												
1	Main connection	FG200	G 3/4"										
		FE200											
		FN200	3/4" NPT										
		FF200											
		FS032	SAE 12 - 1 1/16" - 12 UN										
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

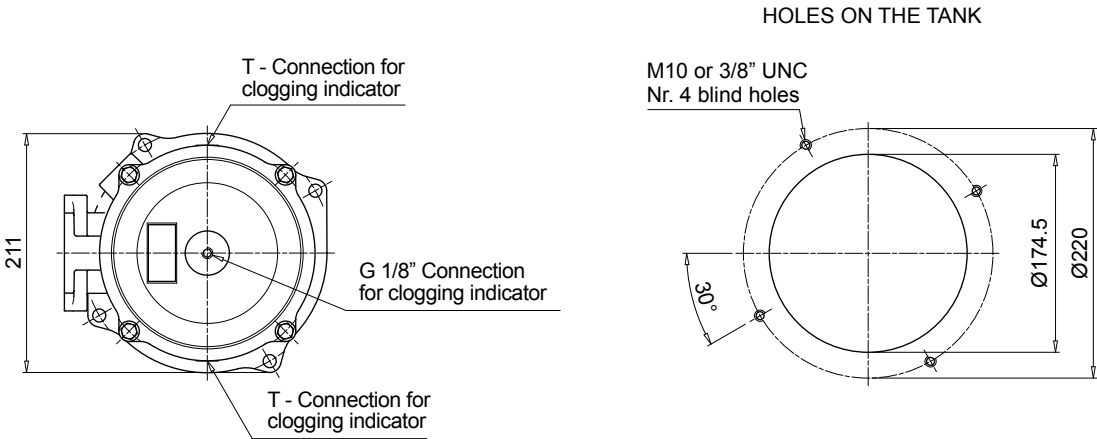
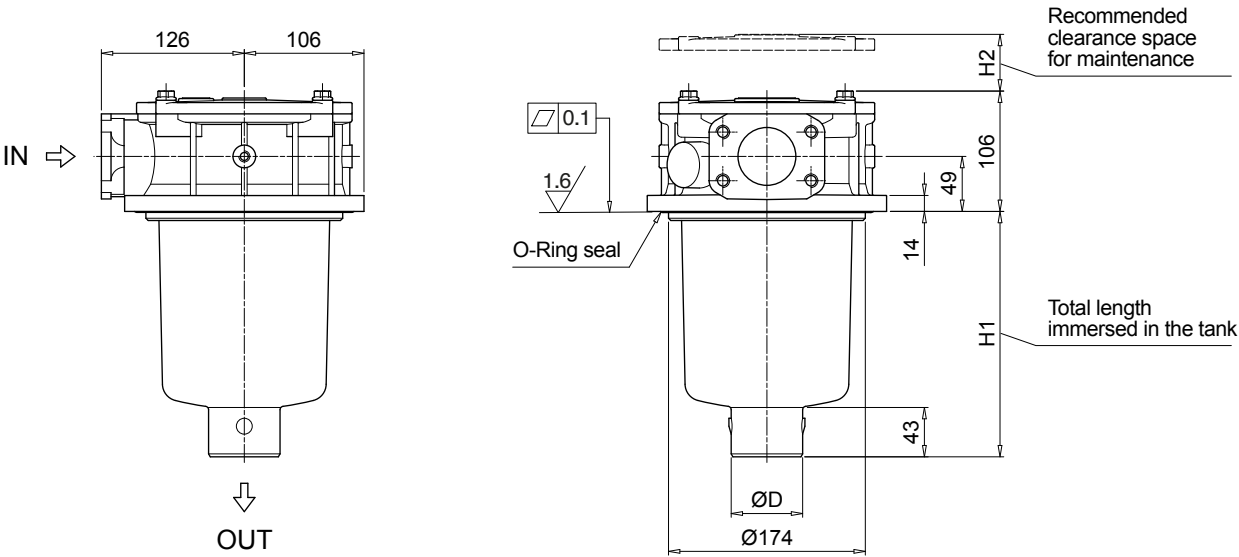
See page 270

TE	Polyamide extension tube
T5	Filler plug M30x1.5

DPT	Dipstick
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FILTER ELEMENT									
Series		Example: MFX 400 10 A0025 D A 30 NN P01 NN							
MFX Filter element with MYCLEAN feature									
Size									
400									
Length									
10									
20									
30									
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									

MPFX450					
Additional connection "O"					
Filter length	H1 [mm]	H2 [mm]	D [mm]	Connections	T
10	187	210	50	FG200	G 1/8"
20	252	270	63	FN200	1/8" NPT
30	300	315	63	FS032	1/8" NPT
				FE200	G 1/8"
				FF200	1/8" NPT



MPFX450					
Additional connection "1"					
Filter length	H1 [mm]	H2 [mm]	D [mm]	Connections	T
10	187	210	50	FG200	G 1/8"
20	252	270	63	FN200	1/8" NPT
30	300	315	63	FS032	1/8" NPT
				FE200	G 1/8"
				FF200	1/8" NPT

