

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

MPFX181 - MPFX191

Designation & Ordering code

COMPLETE FILTER

Series	Example 1:	MPFX	181	10	A0025	D	A	30	FG112	0	1T	NN	P01	NN
MPFX	Example 2:	MPFX	191	20	P0010	D	V	17	FS024	0	1T	SN	P01	NN
Size														
181														
191														
Length	Size 181	Size 191												
10	•	-												
20	•	•												
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											
				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									
Additional connections														
0	Without additional connections													
Connections for clogging indicators														
1T	With top indicator connection, with metal plug													
Additional features														
NN	Without additional features													
SN	With flat seal on head													
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

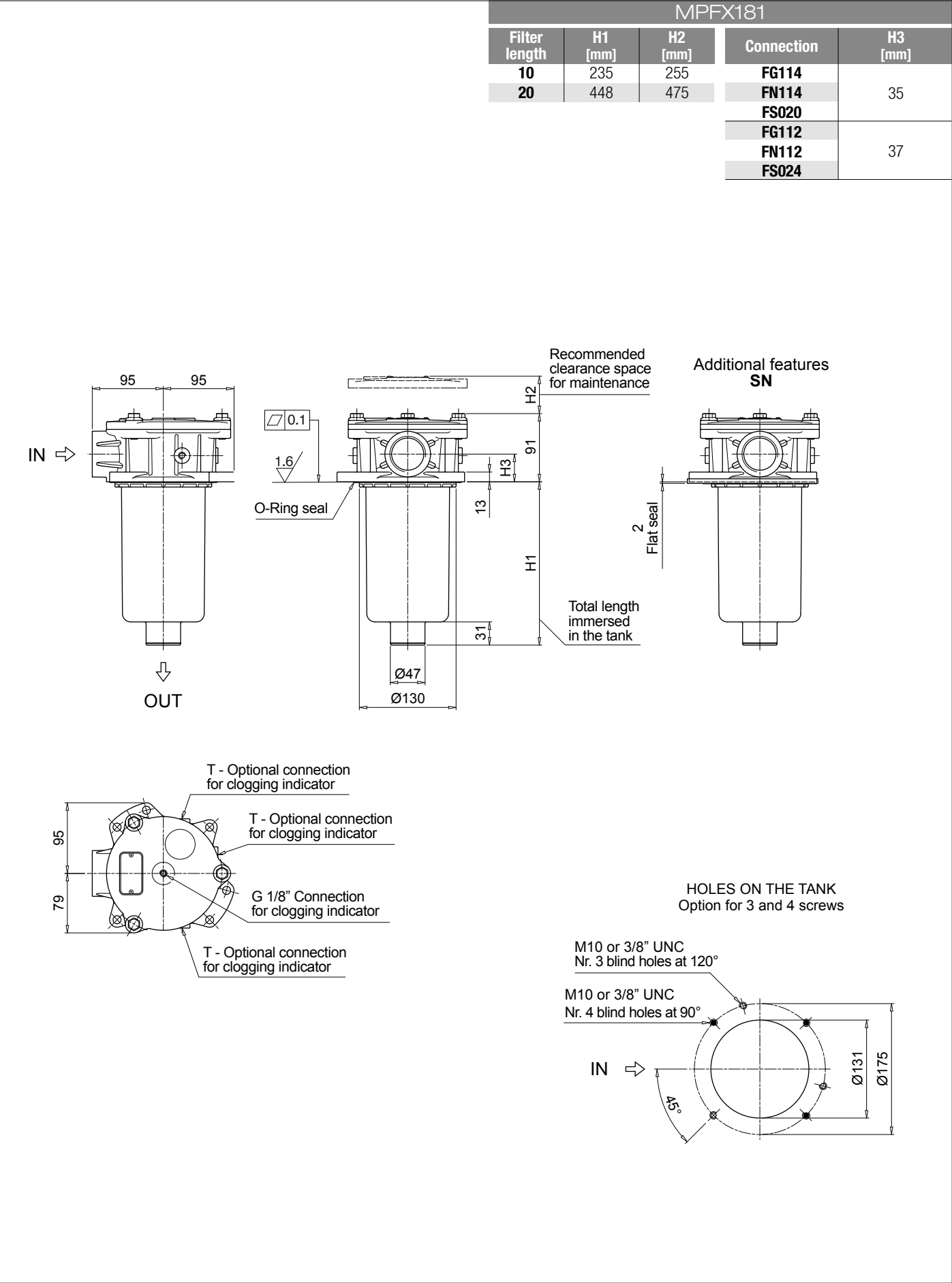
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TE	Polyamide extension tube
T5	Filler plug M30x1.5

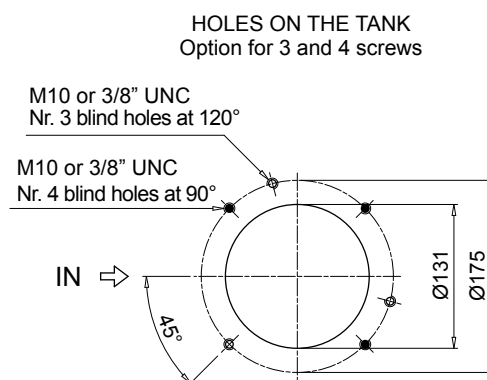
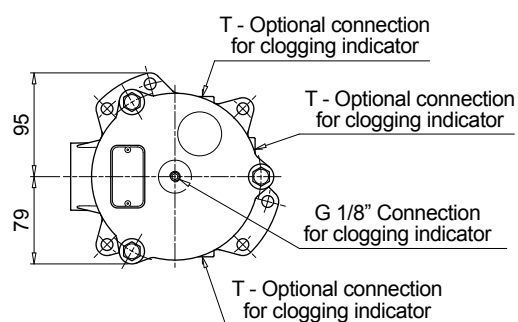
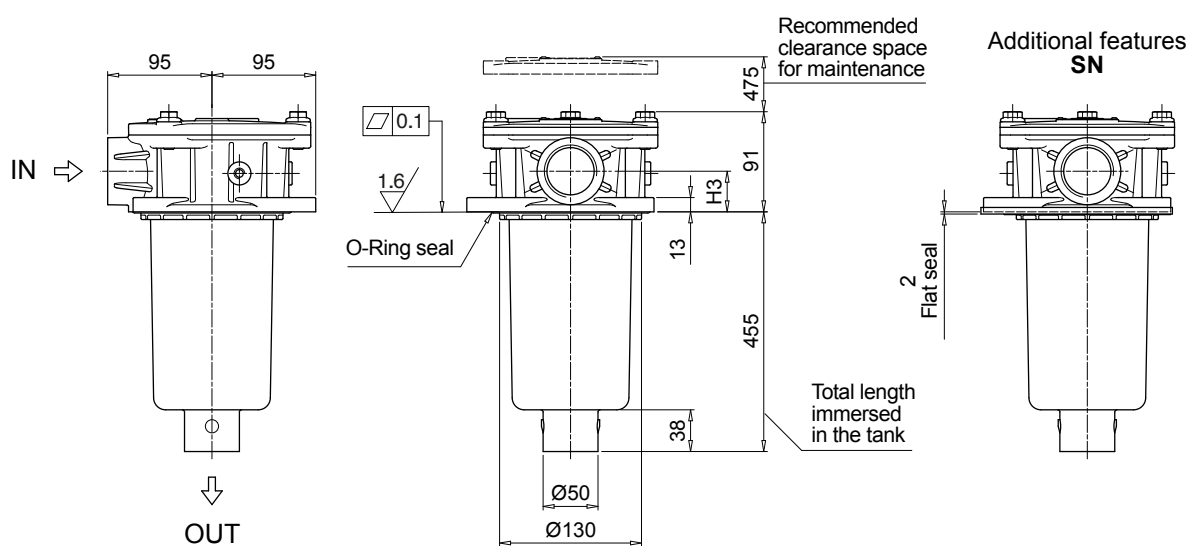
DPT	Dipstick
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FILTER ELEMENT											
Series		Example 1: MFX 180 10 A0025 D A 30 NN P01 NN									
MFX Filter element with MYCLEAN feature		Example 2: MFX 180 20 P0010 D V 17 NN P01 NN									
Size											
180											
Length											
10											
20											
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



MPFX191	
Connection	H3 [mm]
FG114	35
FN114	
FS020	
FG112	37
FN112	
FS024	



MPFX MPFX182 - MPFX192

Designation & Ordering code

COMPLETE FILTER

Series	Example 1:	MPFX	182	10	A0025	D	A	30	FN114	2	1T	NN	P01	NN
MPFX	Example 2:	MPFX	192	20	P0010	D	V	17	FS020	1	1T	SN	P01	NN

Size	
182	192

Length	Size 182	Size 192
10	•	-
20	•	•

Filtration rating (filter media)			
MY CLEAN	A0003	Inorganic microfiber	3 µm
	A0006	Inorganic microfiber	6 µm
	A0010	Inorganic microfiber	10 µm
	A0016	Inorganic microfiber	16 µm
	A0025	Inorganic microfiber	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
zero spark			
	Z0003	Antistatic in. microf.	3 µm
	Z0006	Antistatic in. microf.	6 µm
	Z0010	Antistatic in. microf.	10 µm
	Z0016	Antistatic in. microf.	16 µm
	Z0025	Antistatic in. microf.	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

Additional connections
1 Front thread
FG114 G 1/2"
FN114 1/2" NPT
FS020 SAE 8 - 3/4" - 16 UNF
2 Front thread
FG114 G 3/4"
FN114 3/4" NPT
FS020 SAE 12 - 1 1/16" - 12 UN

Connections for clogging indicators
1T With top indicator connection, with metal plug

Additional features
NN Without additional features
SN With flat seal on head

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

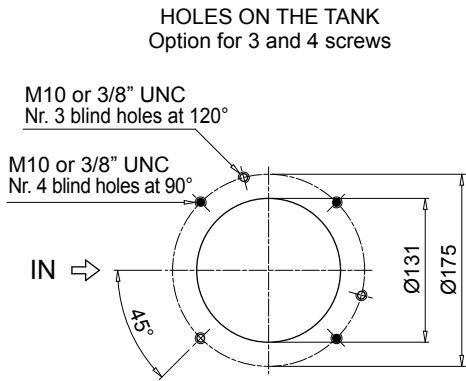
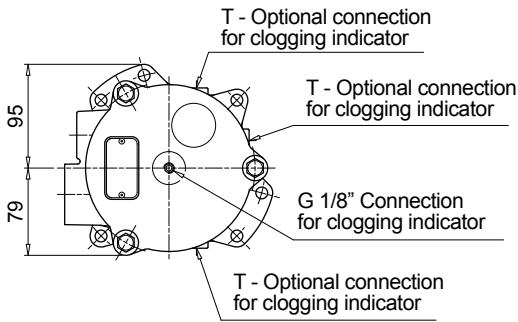
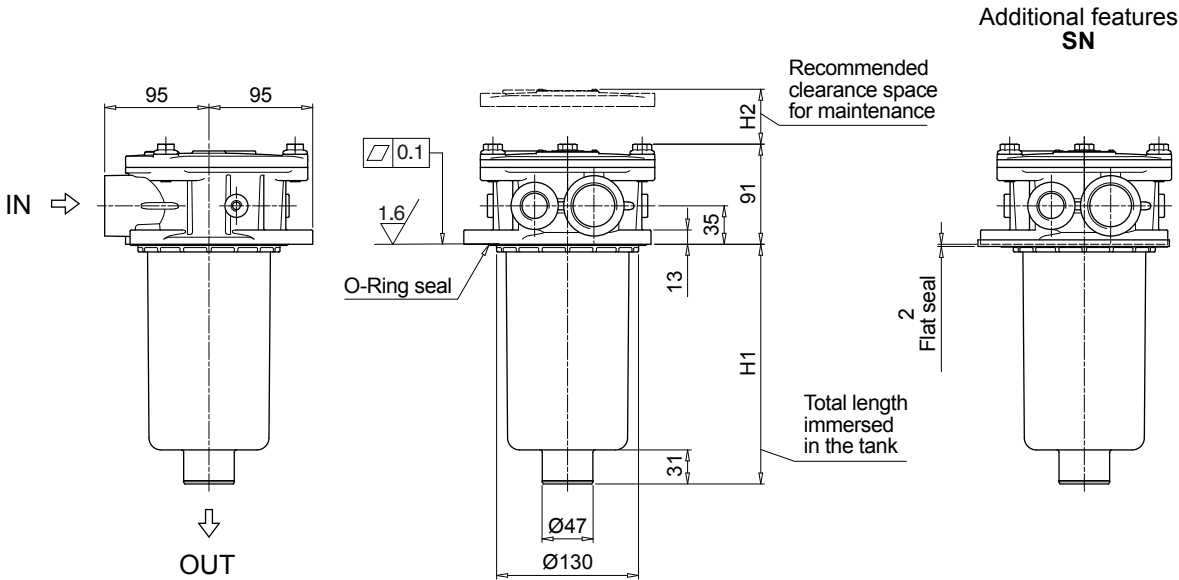
See page 270

TE Polyamide extension tube
T5 Filler plug M30x1.5

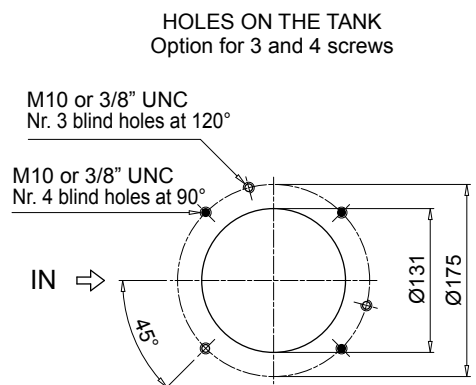
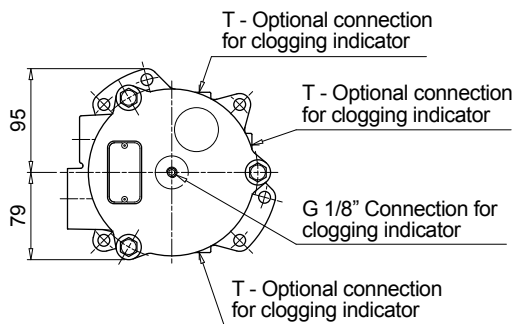
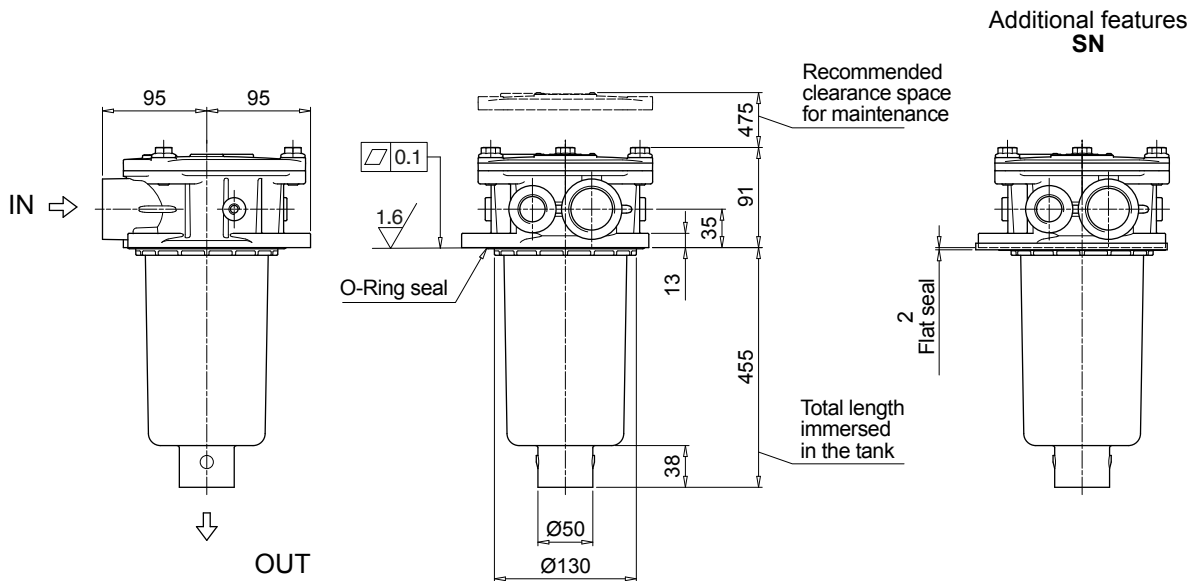
DPT Dipstick

FILTER ELEMENT											
Series		Example 1: MFX 180 10 A0025 D A 30 NN P01 NN									
MFX Filter element with MYCLEAN feature		Example 2: MFX 180 20 P0010 D V 17 NN P01 NN									
Size											
180											
Length											
10											
20											
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											

MPFX182		
Filter length	H1 [mm]	H2 [mm]
10	235	255
20	448	475



MPFX192



MPFX MPFX184 - MPFX194

Designation & Ordering code

COMPLETE FILTER

Series	Example 1:	MPFX	184	10	A0025	D	A	30	FN114	0	9T	NN	P01	NN
MPFX	Example 2:	MPFX	194	20	P0010	D	V	17	FS020	1	9T	NN	P01	NN

Size	
184	194

Length	Size 184	Size 194
10	•	-
20	•	•

Filtration rating (filter media)			
MY CLEAN	A0003	Inorganic microfiber	3 µm
	A0006	Inorganic microfiber	6 µm
	A0010	Inorganic microfiber	10 µm
	A0016	Inorganic microfiber	16 µm
	A0025	Inorganic microfiber	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	FE112	1 1/2" SAE 3000 psi/M
FG112	G 1 1/2"	FN112	1 1/2" NPT	FS024	SAE 24 - 1 7/8" - 12 UN	FF112	1 1/2" SAE 3000 psi/UNC

Additional connections						
0	Without additional connection					
1	Main connection	FG114	G 1 1/4"	Main connection	FS020	SAE 20 - 1 5/8" - 12 UN
		FG112			FS024	
		FN114			FE112	
		FN112			FF112	
		1 1/4" NPT			1 1/2" SAE 3000 psi/M	

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

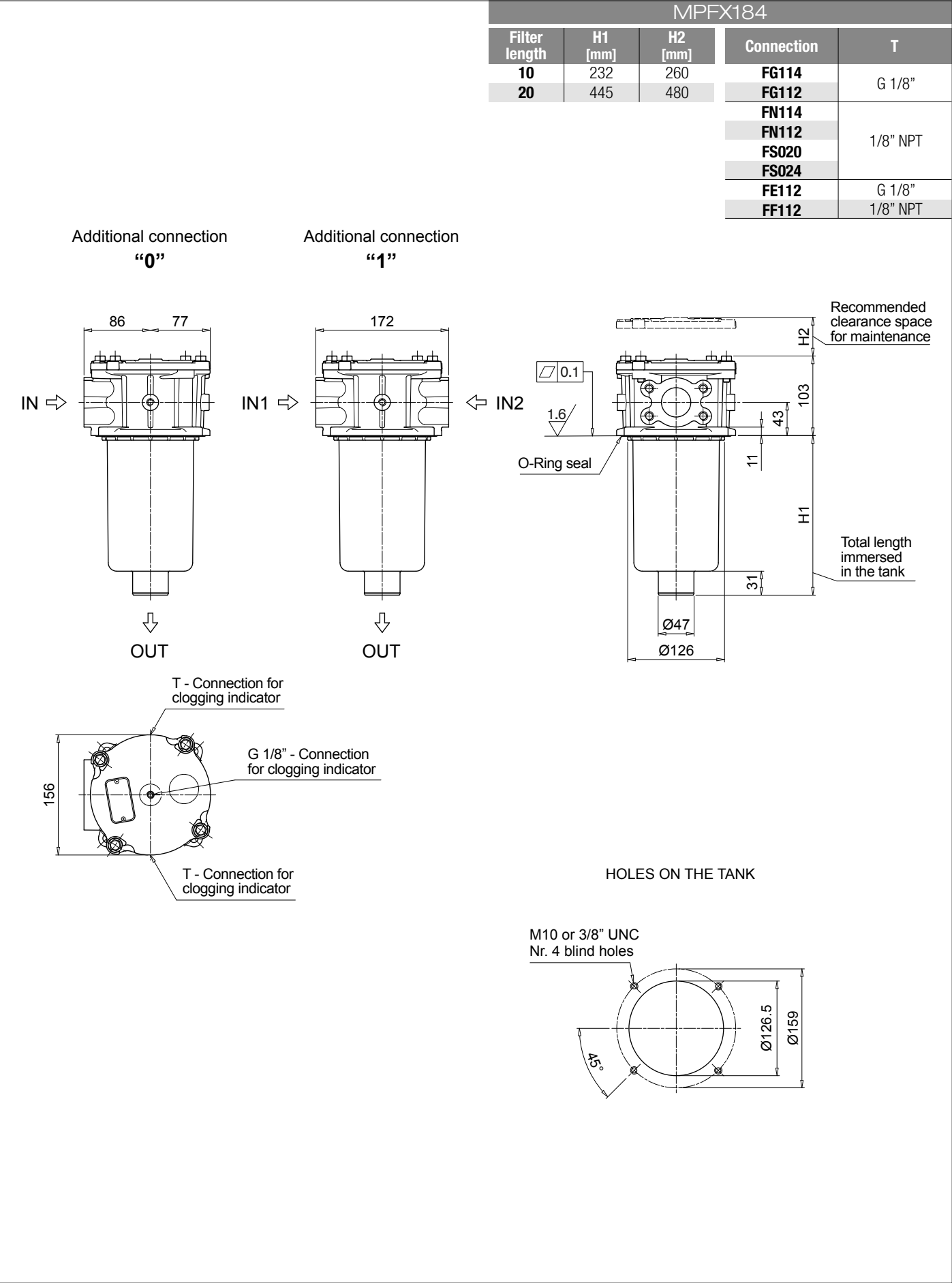
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TE	Polyamide extension tube
T5	Filler plug M30x1.5

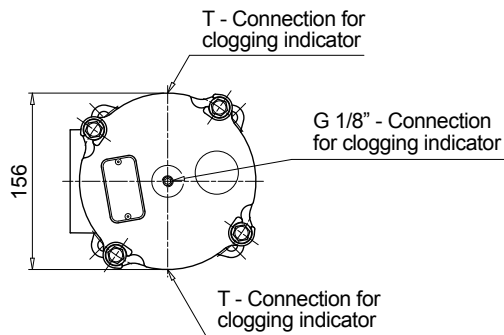
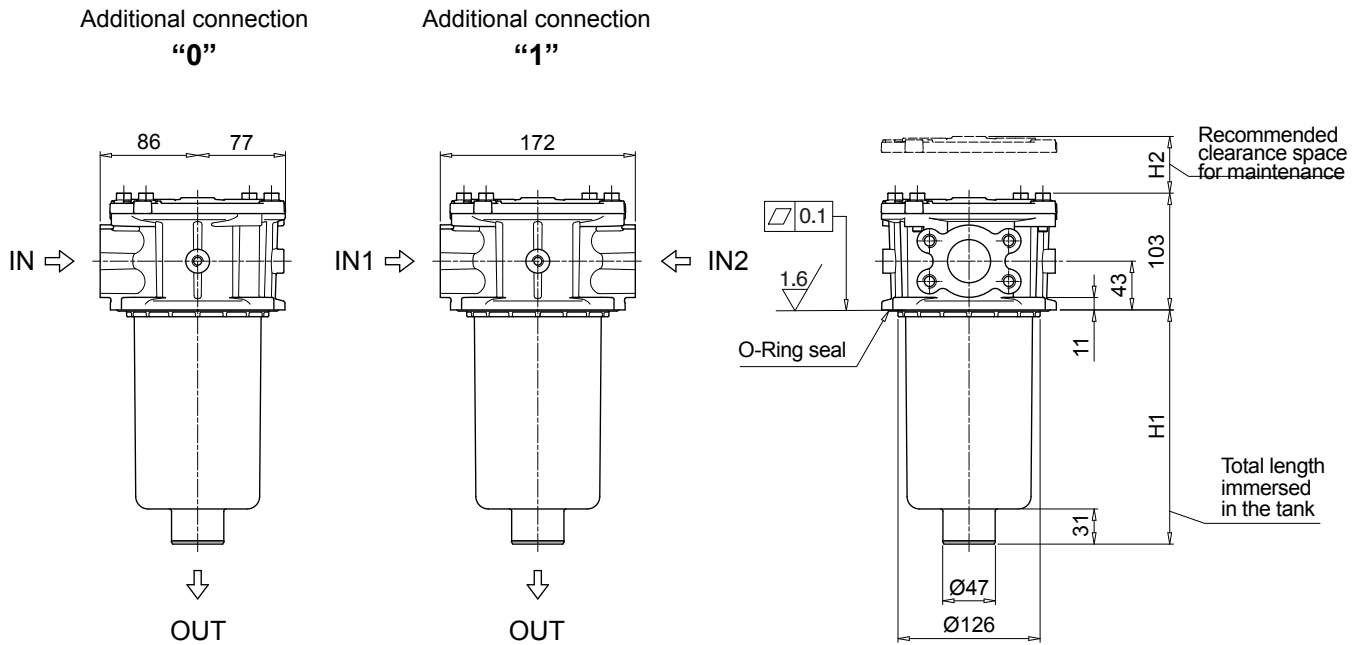
DPT	Dipstick
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FILTER ELEMENT											
Series		Example 1: MFX 180 10 A0025 D A 30 NN P01 NN									
MFX Filter element with MYCLEAN feature		Example 2: MFX 180 20 P0010 D V 17 NN P01 NN									
Size											
180											
Length											
10											
20											
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



MPFX194	
Connection	T
FG114	G 1/8"
FG112	
FN114	1/8" NPT
FN112	
FS020	
FS024	G 1/8"
FE112	
FF112	1/8" NPT



HOLES ON THE TANK

M10 or 3/8" UNC
Nr. 4 blind holes

