

MPF series

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 900 l/min



Description

Technical data

Return filter

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 900 l/min

MPF 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

Common applications:

- Light industrial equipment
- Mobile application

Filter housing materials

- Head: Aluminium

- Cover

Polyamide: MPF 020-030-100-104-110

Aluminium: MPF 181-182-184-191-192-194-400-410-450-451-750

- Bowl: Polyamide

Bypass valve

- Opening pressure 175 kPa (1.75 bar) $\pm 10\%$

- Opening pressure 300 kPa (3 bar) $\pm 10\%$

Δp element type

- Microfibre filter elements - series H: 10 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

Note

MPF filters are provided for vertical mounting

Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm³]				
	Length	1	2	3	4	Length	1	2	3	4
MPF 020		0.30	-	-	-		0.26	-	-	-
MPF 030		0.40	-	-	-		0.29	-	-	-
MPF 100		0.61	0.64	0.67	0.74		0.64	0.85	1.20	1.65
MPF 104		0.82	0.96	1.02	1.25		0.64	0.85	1.20	1.65
MPF 110		0.64	0.68	0.71	0.78		-	-	-	-
MPF 181		2.20	3.00	-	-		2.50	4.00	-	-
MPF 182		2.30	3.10	-	-		2.50	4.00	-	-
MPF 184		2.55	3.45	-	-		2.65	4.45	-	-
MPF 191		-	3.00	-	-		-	4.25	-	-
MPF 192		-	3.10	-	-		-	4.25	-	-
MPF 194		-	3.45	-	-		-	4.45	-	-
MPF 400		3.35	3.65	3.90	-		3.70	4.60	5.40	-
MPF 410		3.55	3.85	4.10	-		3.70	4.60	5.40	-
MPF 450-451		3.95	4.25	4.50	-		3.70	4.60	5.40	-
MPF 750		6.30	-	-	-		8.45	-	-	-

Flow rates [l/min]

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MPF 020	1	7	10	23	28	42	59	51	54
MPF 030	1	7	10	24	29	47	84	60	66
MPF 100-104-110	1	18	20	53	56	65	153	87	96
	2	28	38	65	75	95	158	111	123
	3	48	55	125	135	169	289	224	251
	4	79	89	180	185	198	306	264	289
MPF 181-182-184	1	127	148	235	243	278	441	285	299
	2	231	262	358	382	388	472	404	412
MPF 191-192-194	2	261	305	489	528	546	696	583	598
MPF 400	1	150	171	294	304	350	585	370	390
	2	237	252	454	462	589	868	619	645
	3	248	288	553	609	621	885	680	703
MPF 410	1	146	167	277	285	325	512	341	357
	2	226	239	396	402	485	644	503	519
	3	236	269	462	497	505	653	539	553
MPF 450-451	1	150	171	294	304	350	585	370	390
	2	237	252	454	462	589	868	619	645
	3	248	288	553	609	621	885	680	703
MPF 750	1	392	465	623	700	769	929	804	819

Maximum flow rate for a complete return filter with a pressure drop $\Delta p = 0.5$ bar.

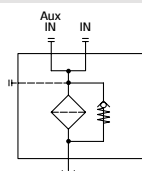
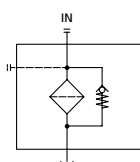
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

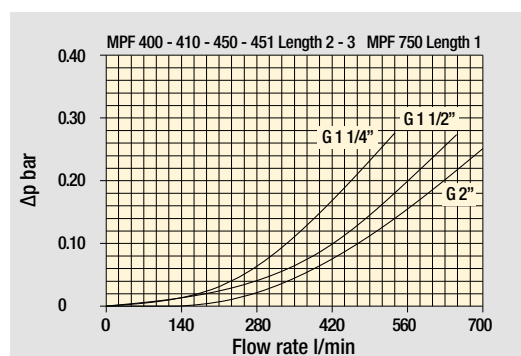
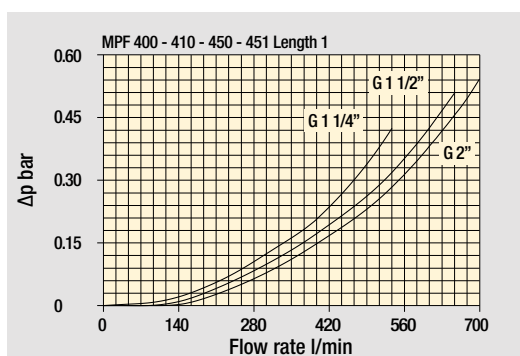
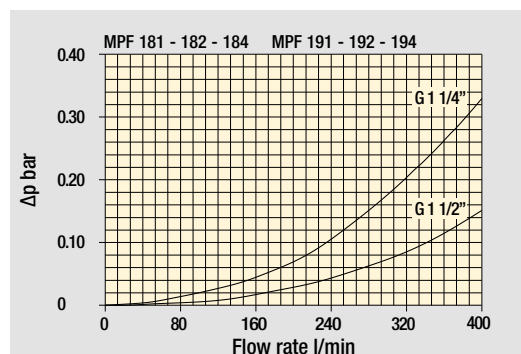
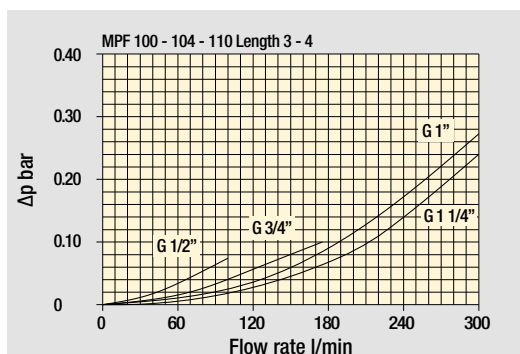
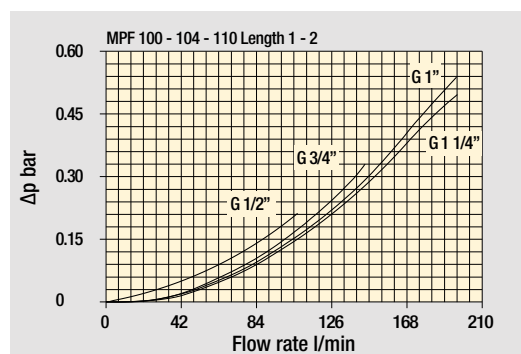
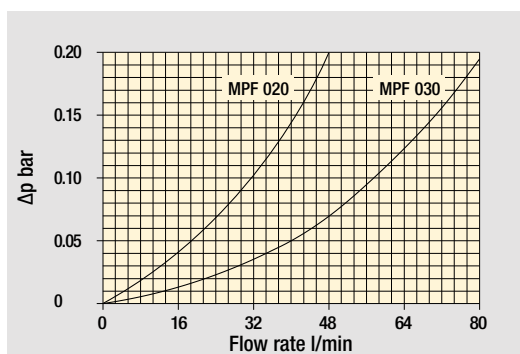
Hydraulic symbols

Filter series	Style 1 connection	Style 2 connections
MPF 020	•	-
MPF 030	•	-
MPF 100	•	-
MPF 104	•	-
MPF 110		•
MPF 181	•	-
MPF 182		•
MPF 184	•	•
MPF 191	•	-
MPF 192	•	-
MPF 194	•	•
MPF 400	•	-
MPF 410		•
MPF 450	•	-
MPF 451		•
MPF 750	•	-

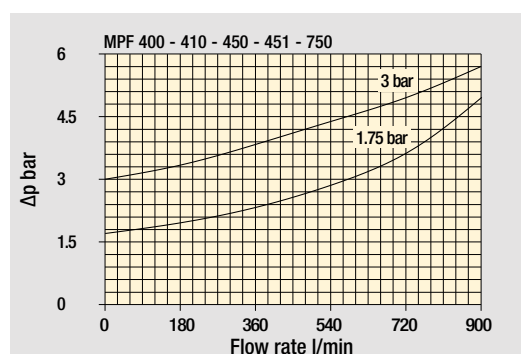
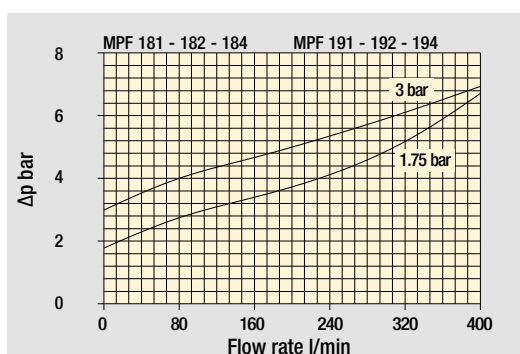
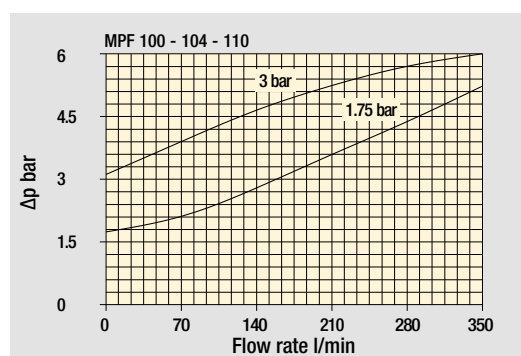
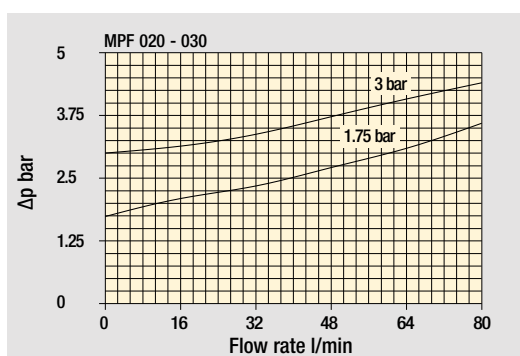


Pressure drop

Filter housings Δp pressure drop



Bypass valve pressure drop

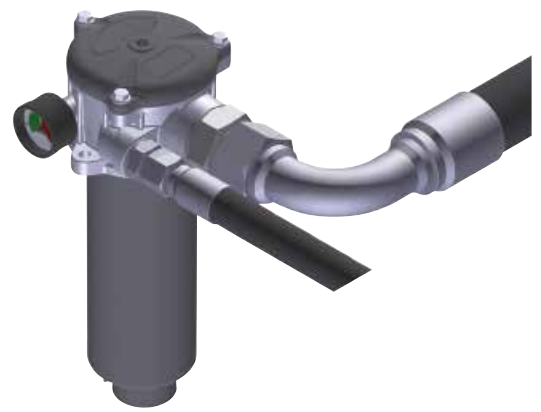


The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

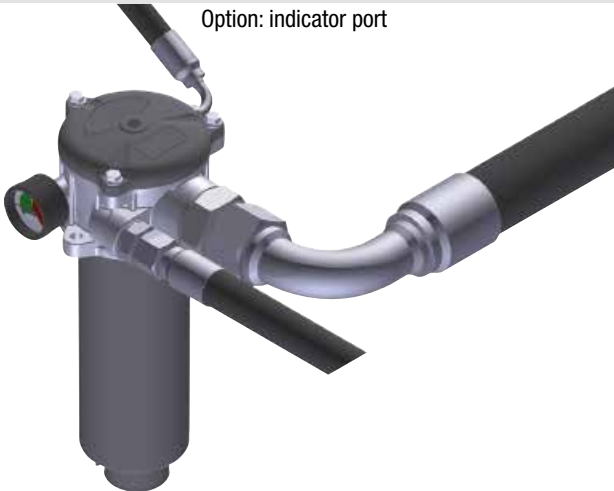
Standard - Single IN port



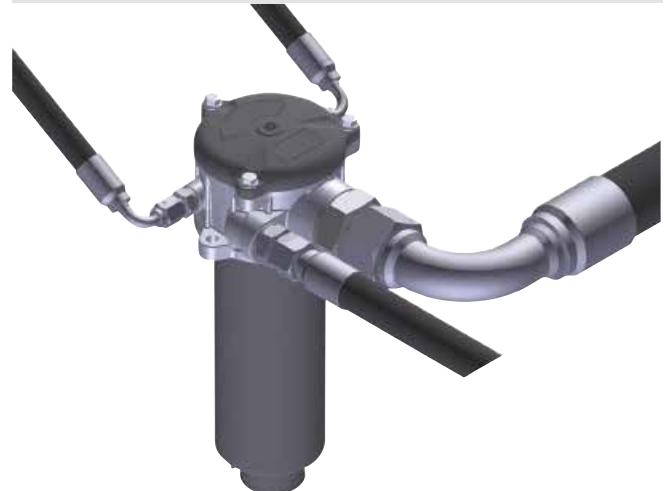
Double IN port
Option: double indicator port



Double IN port - Drain port
Option: indicator port



Double IN port - Double drain port



MPF MPF020 - MPF030

Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1:												
MPF020	MPF030	Filter element with standard spigot		Configuration example 2:		MPF020	1	A	P1	A10	H	E	P01	
Length														
1														
Seals and treatments														
A NBR														
V FPM														
W NBR head anodized														
Z FPM head anodized														
Connections			Size 20	Size 30										
P1	Hose barb ø12		•	-										
G1	G 1/2"		-	•										
G4	1/2" NPT		-	•										
G7	SAE 8 - 3/4" - 16 UNF		-	•										
Filtration rating (filter media)														
A03 Inorganic microfiber 3 µm		M25 Wire mesh 25 µm												
A06 Inorganic microfiber 6 µm		M60 Wire mesh 60 µm												
A10 Inorganic microfiber 10 µm		M90 Wire mesh 90 µm												
A16 Inorganic microfiber 16 µm		P10 Resin impregnated paper 10 µm												
A25 Inorganic microfiber 25 µm		P25 Resin impregnated paper 25 µm												
Element Δp			Filter media											
		Axx	Mxx	Pxx										
N	10 bar	-	•	•										
H	10 bar	•	-	-										
					Bypass valve		Execution							
					E	3 bar	P01	MP Filtri standard						
					B	1.75 bar	Pxx	Customized						

FILTER ELEMENT

Element series and size			Configuration example 1:		MF030	1	A10	H	B	E	P01
MF030 Filter element with standard spigot			Configuration example 2:		MF030	1	M25	N	V		P01
Element length											
1											
Filtration rating (filter media)											
A03 Inorganic microfiber 3 µm		M25 Wire mesh 25 µm									
A06 Inorganic microfiber 6 µm		M60 Wire mesh 60 µm									
A10 Inorganic microfiber 10 µm		M90 Wire mesh 90 µm									
A16 Inorganic microfiber 16 µm		P10 Resin impregnated paper 10 µm									
A25 Inorganic microfiber 25 µm		P25 Resin impregnated paper 25 µm									
Filter media											
Element Δp	Axx	Mxx	Pxx								
N 10 bar	-	•	•								
H 10 bar	•	-	-								
Seals				Bypass valve				Execution			
B NBR				E 3 bar				P01 MP Filtri standard			
V FPM				- 1.75 bar				Pxx Customized			

CLOGGING INDICATORS

See page 720-721

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

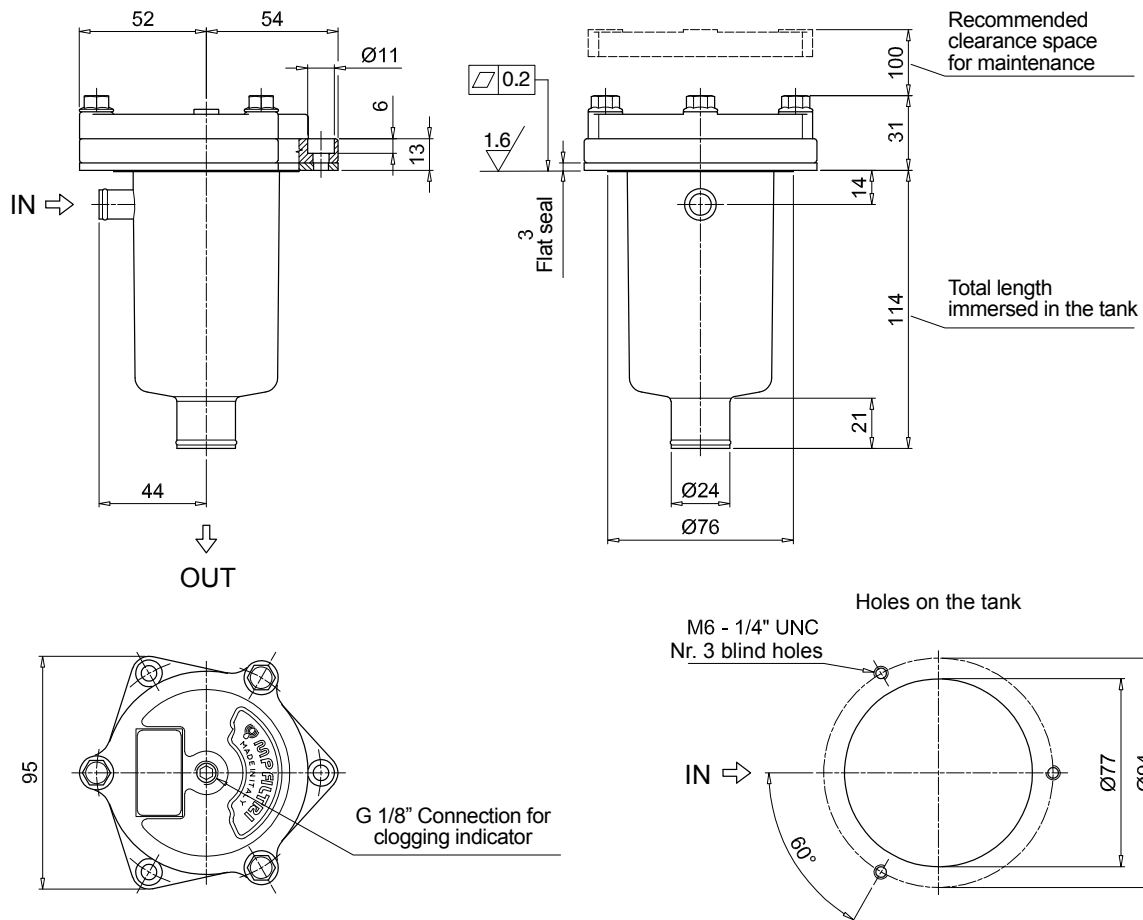
BEA	Electrical pressure indicator
BEM	Electrical pressure indicator
BLA	Electrical / visual pressure indicator

ADDITIONAL FEATURES

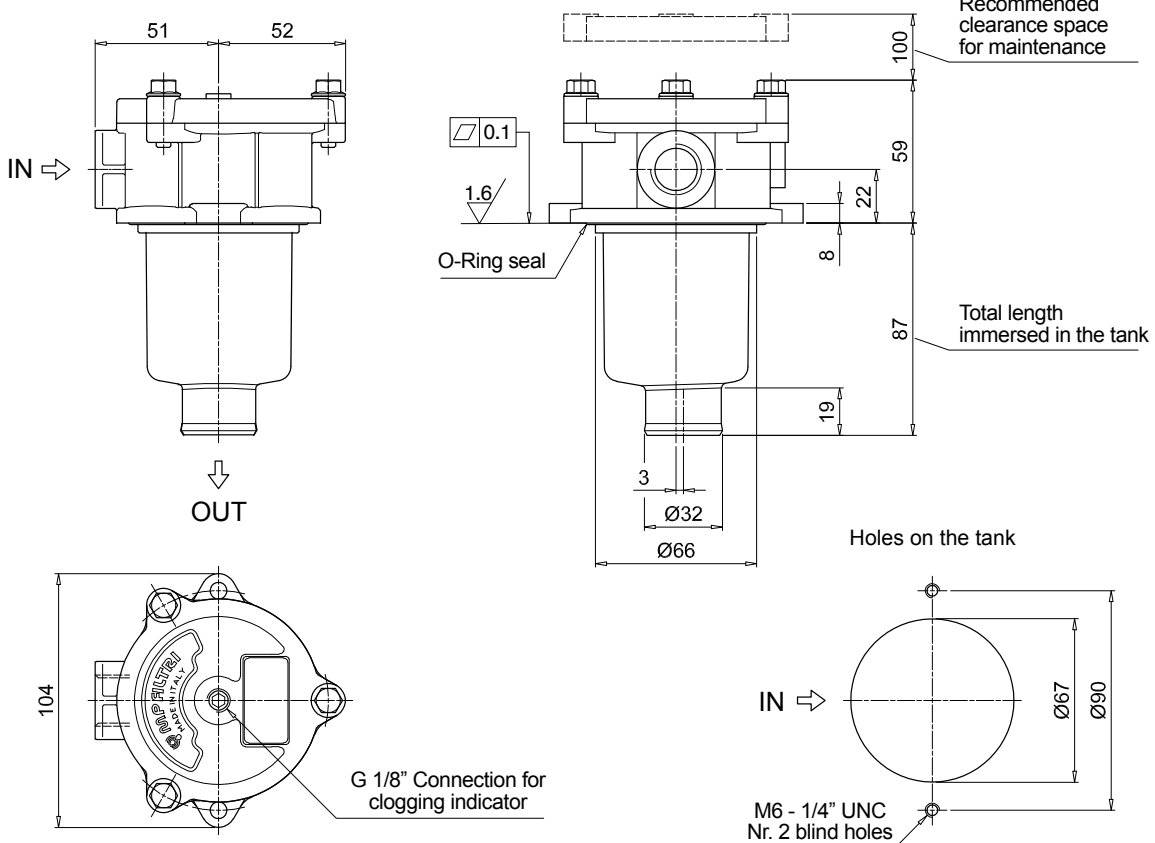
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TE	Extension tube
T5	Filler plug M30x1.5

MPF020



MPF030



MPF MPF100 - MPF104

Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1:																	
MPF100	MPF104	Filter element with standard spigot		Configuration example 2:		MPF104	4	A	G8	P10	N	E	P01						
Length																			
1				2				3				4							
Seals and treatments																			
A NBR																			
V FPM																			
W NBR head anodized																			
Z FPM head anodized																			
Connections		Size 100	Size 104	Connections		Size 100	Size 104												
G1	G 1/2"	•	•	G7	SAE 8 - 3/4" - 16 UNF	•	•												
G2	G 3/4"	•	•	G8	SAE 12 - 1 1/16" - 12 UN	•	•												
G3	G 1"	•	•	G9	SAE 16 - 1 5/16" - 12 UN	•	•												
G4	1/2" NPT	•	•																
G5	3/4" NPT	•	•																
G6	1" NPT	•	•																
Filtration rating (filter media)																			
A03	Inorganic microfiber 3 µm			M25	Wire mesh 25 µm														
A06	Inorganic microfiber 6 µm			M60	Wire mesh 60 µm														
A10	Inorganic microfiber 10 µm			M90	Wire mesh 90 µm														
A16	Inorganic microfiber 16 µm			P10	Resin impregnated paper 10 µm														
A25	Inorganic microfiber 25 µm			P25	Resin impregnated paper 25 µm														
Element Δp		Filter media		Bypass valve		Execution													
N	10 bar	Axx	Mxx	Pxx	E	3 bar	P01							MP Filtri standard					
H	10 bar	•	-	-	B	1.75 bar	Pxx							Customized					

FILTER ELEMENT

Element series and size		Configuration example 1:		MF100	2	A06	H	B	P01	
MF100	Filter element with standard spigot	Configuration example 2:		MF100	4	P10	N	B	E	P01
Element length										
1	2	3	4							
Filtration rating (filter media)										
A03	Inorganic microfiber 3 µm	M25	Wire mesh 25 µm							
A06	Inorganic microfiber 6 µm	M60	Wire mesh 60 µm							
A10	Inorganic microfiber 10 µm	M90	Wire mesh 90 µm							
A16	Inorganic microfiber 16 µm	P10	Resin impregnated paper 10 µm							
A25	Inorganic microfiber 25 µm	P25	Resin impregnated paper 25 µm							
Element Δp		Filter media			Seals		Bypass valve		Execution	
N	10 bar	Axx	Mxx	Pxx	B	NBR	E	3 bar	P01	MP Filtri standard
H	10 bar	•	-	-	V	FPM	-	1.75 bar	Pxx	Customized

CLOGGING INDICATORS

See page 720-721

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

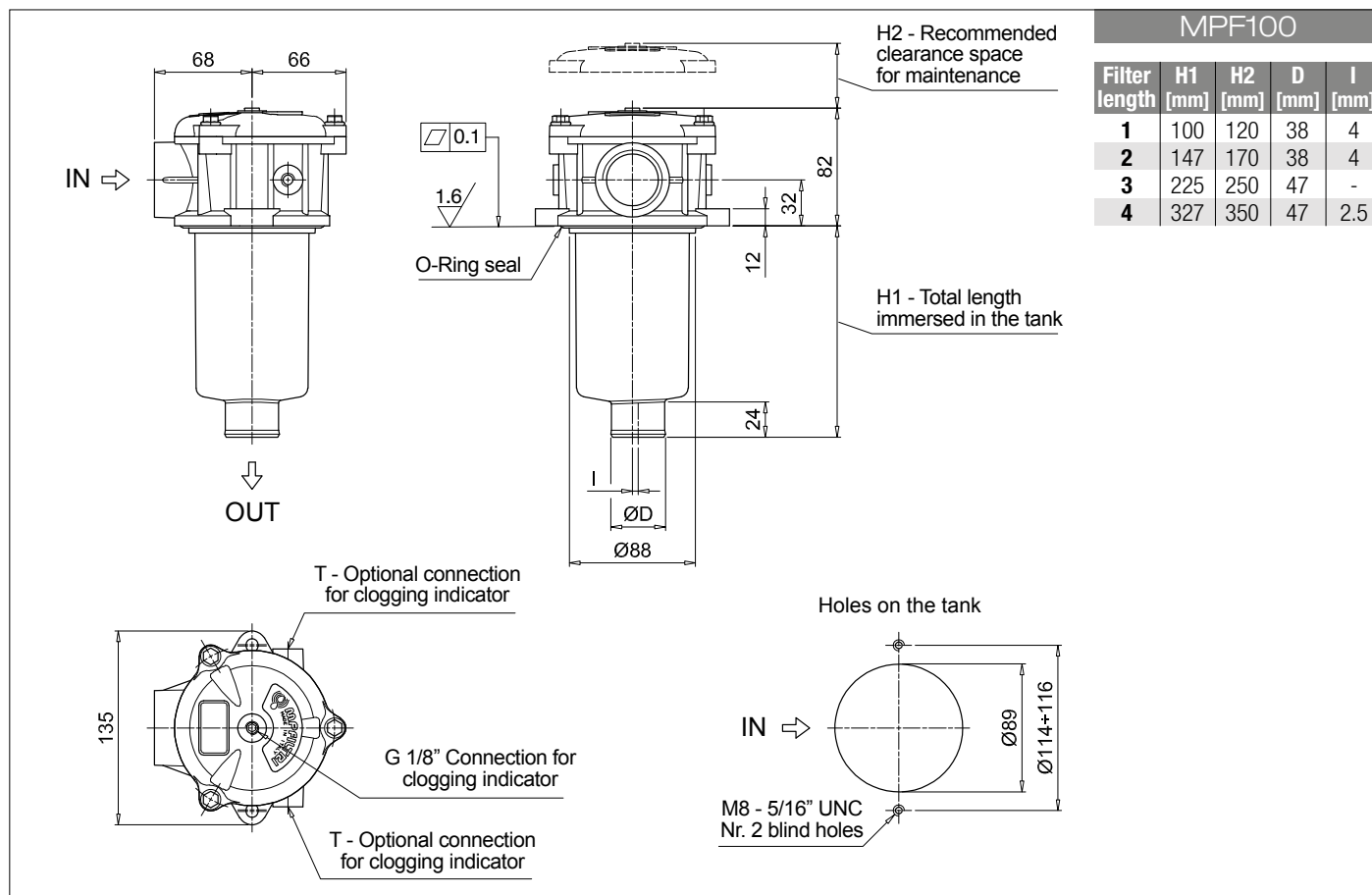
BEA	Electrical pressure indicator
BEM	Electrical pressure indicator
BLA	Electrical / visual pressure indicator

ADDITIONAL FEATURES

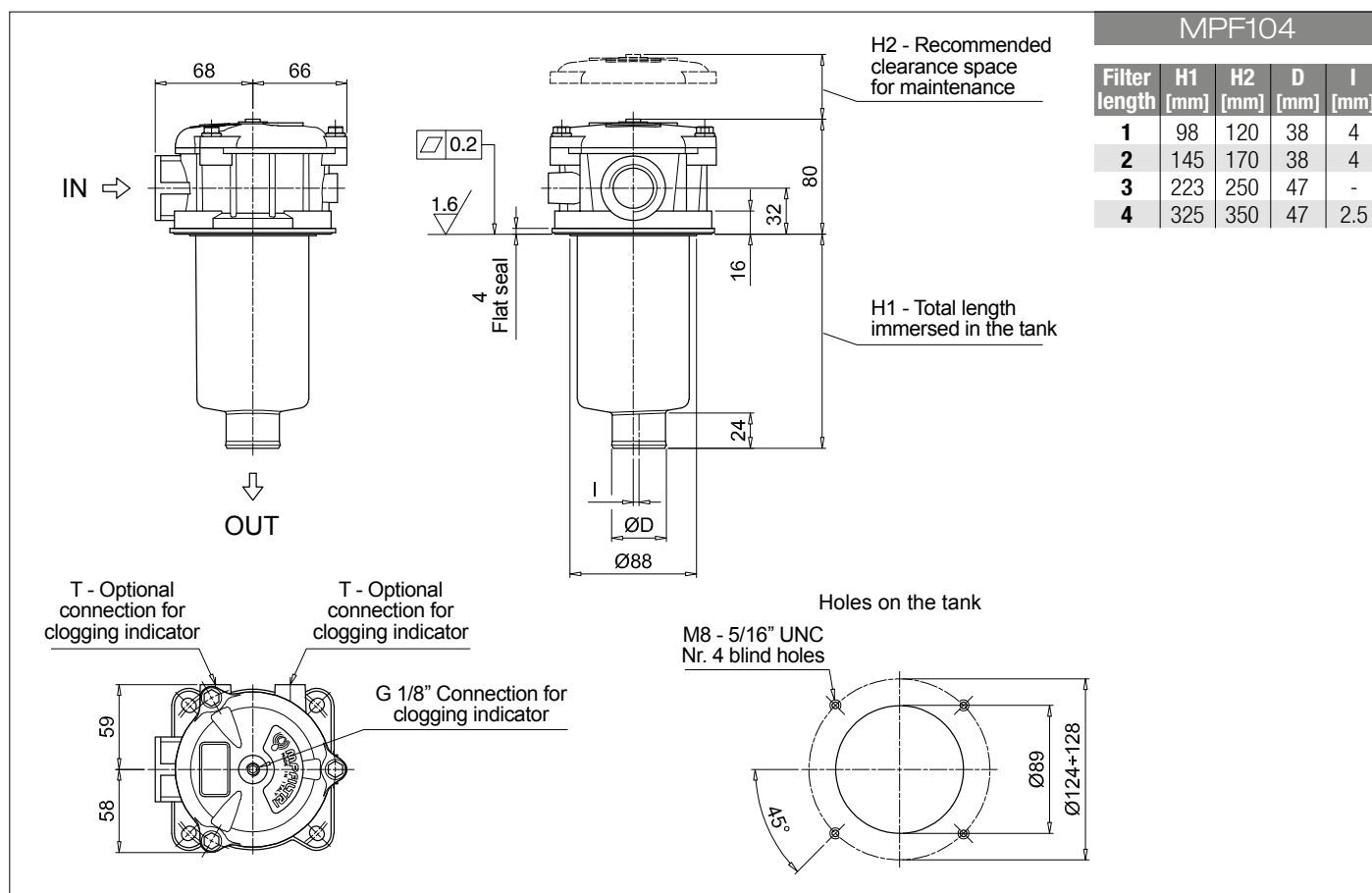
See page 268

TE	Extension tube
DFS	Diffuser with fast lock connection

T5	Filler plug M30x1.5
DPT	Dipstick



Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	100	120	38	4
2	147	170	38	4
3	225	250	47	-
4	327	350	47	2.5

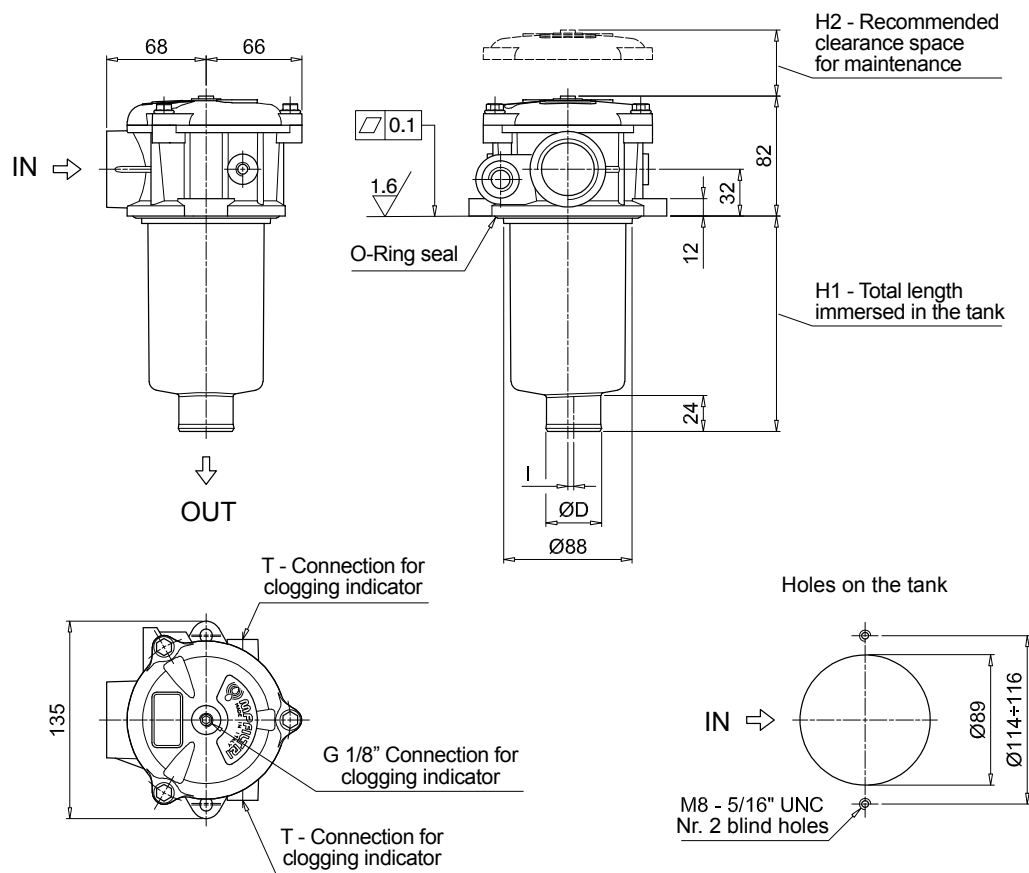


Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	98	120	38	4
2	145	170	38	4
3	223	250	47	-
4	325	350	47	2.5

Designation & Ordering code

COMPLETE FILTER

Series and size			Configuration example 1:										MPF110	2	A	G2	1	A16	H	E	P01	
MPF110			Configuration example 2:										MPF110	4	V	G12	1	M60	N	B	P01	
Length																						
1			2			3			4													
Seals and treatments																						
A NBR			W NBR			head anodized																
V FPM			Z FPM			head anodized																
Main Connections		Aux size 1	Aux size 2	Main Connections		Aux size 1		Aux size 2														
G1 G 1/2"		G 3/8"	G 1/2"	G7 SAE 8 - 3/4" - 16 UNF																		
G2 G 3/4"				G8 SAE 12 - 1 1/16" - 12 UN		SAE 6 - 9/16" - 18 UNF		SAE 8 - 3/4" - 16 UNF														
G3 G 1"				G9 SAE 16 - 1 5/16" - 12 UN																		
G4 1/2" NPT		3/8" NPT	1/2" NPT	G10 G 1 1/4"		G 3/8"		G 1/2"														
G5 3/4" NPT				G11 1 1/4" NPT		3/8" NPT		1/2" NPT														
G6 1" NPT				G12 SAE 20 - 1 5/8" - 12 UN		SAE 6 - 9/16" - 18 UNF		SAE 8 - 3/4" - 16 UNF														
Aux connection - see previous table																						
1 Aux size 1			2 Aux size 2																			
Filtration rating (filter media)																						
A03 Inorganic microfiber 3 µm			M25 Wire mesh 25 µm																			
A06 Inorganic microfiber 6 µm			M60 Wire mesh 60 µm																			
A10 Inorganic microfiber 10 µm			M90 Wire mesh 90 µm																			
A16 Inorganic microfiber 16 µm			P10 Resin impregnated paper 10 µm																			
A25 Inorganic microfiber 25 µm			P25 Resin impregnated paper 25 µm																			
Element Δp			Filter media																			
N 10 bar			Axx	Mxx	Pxx																	
H 10 bar			•	-	-																	
Bypass valve			Execution																			
E 3 bar			P01 MP Filtri standard																			
B 1.75 bar			Pxx Customized																			



MPF110

Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	100	120	38	4
2	147	170	38	4
3	225	250	47	-
4	327	350	47	2.5

Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT
G10	G 1/8"
G11-G12	1/8" NPT

MPF MPF181 - MPF191

Designation & Ordering code

COMPLETE FILTER

Series and size			Configuration example 1:									
MPF181 MPF191 Filter element with standard spigot			Configuration example 2:									
			MPF181	1	A	G1	A25	H	E	P01		
				2	V	G2	P10	N	B	P01		
Length	Size 181	Size 191										
1	•	-										
2	•	•										
Seals and treatments												
A	NBR		B	NBR	flat seal on head							
V	FPM		D	FPM	flat seal on head							
W	NBR	head anodized	L	NBR	head anodized, flat seal on head							
Z	FPM	head anodized	M	FPM	head anodized, flat seal on head							
Connections												
G1	G 1 1/4"		G5	1 1/2" NPT								
G2	G 1 1/2"		G7	SAE 20 - 1 5/8" - 12 UN								
G4	1 1/4" NPT		G8	SAE 24 - 1 7/8" - 12 UN								
Filtration rating (filter media)												
A03	Inorganic microfiber 3 µm		M25	Wire mesh 25 µm								
A06	Inorganic microfiber 6 µm		M60	Wire mesh 60 µm								
A10	Inorganic microfiber 10 µm		M90	Wire mesh 90 µm								
A16	Inorganic microfiber 16 µm		P10	Resin impregnated paper 10 µm								
A25	Inorganic microfiber 25 µm		P25	Resin impregnated paper 25 µm								
Element Δp			Filter media			Bypass valve		Execution				
N	10 bar		Axx	Mxx	Pxx	E	3 bar	P01	MP Filtri standard			
H	10 bar		•	-	-	B	1.75 bar	Pxx	Customized			

FILTER ELEMENT

Element series and size			Configuration example 1: MF180 1 A25 H B E P01							
MF180 MF190 Filter element with standard spigot			Configuration example 2: MF190 2 P10 N V P01							
Element length		Size 180	Size 190							
1		•	-							
2		•	•							
Filtration rating (filter media)										
A03 Inorganic microfiber 3 µm		M25 Wire mesh 25 µm								
A06 Inorganic microfiber 6 µm		M60 Wire mesh 60 µm								
A10 Inorganic microfiber 10 µm		M90 Wire mesh 90 µm								
A16 Inorganic microfiber 16 µm		P10 Resin impregnated paper 10 µm								
A25 Inorganic microfiber 25 µm		P25 Resin impregnated paper 25 µm								
Element Δp		Filter media			Seals		Bypass valve		Execution	
N 10 bar		Axx	Mxx	Pxx	B NBR	E 3 bar	P01 MP Filtri standard			
H 10 bar		•	-	-	V FPM	- 1.75 bar	Pxx Customized			

CLOGGING INDICATORS

See page 720-721

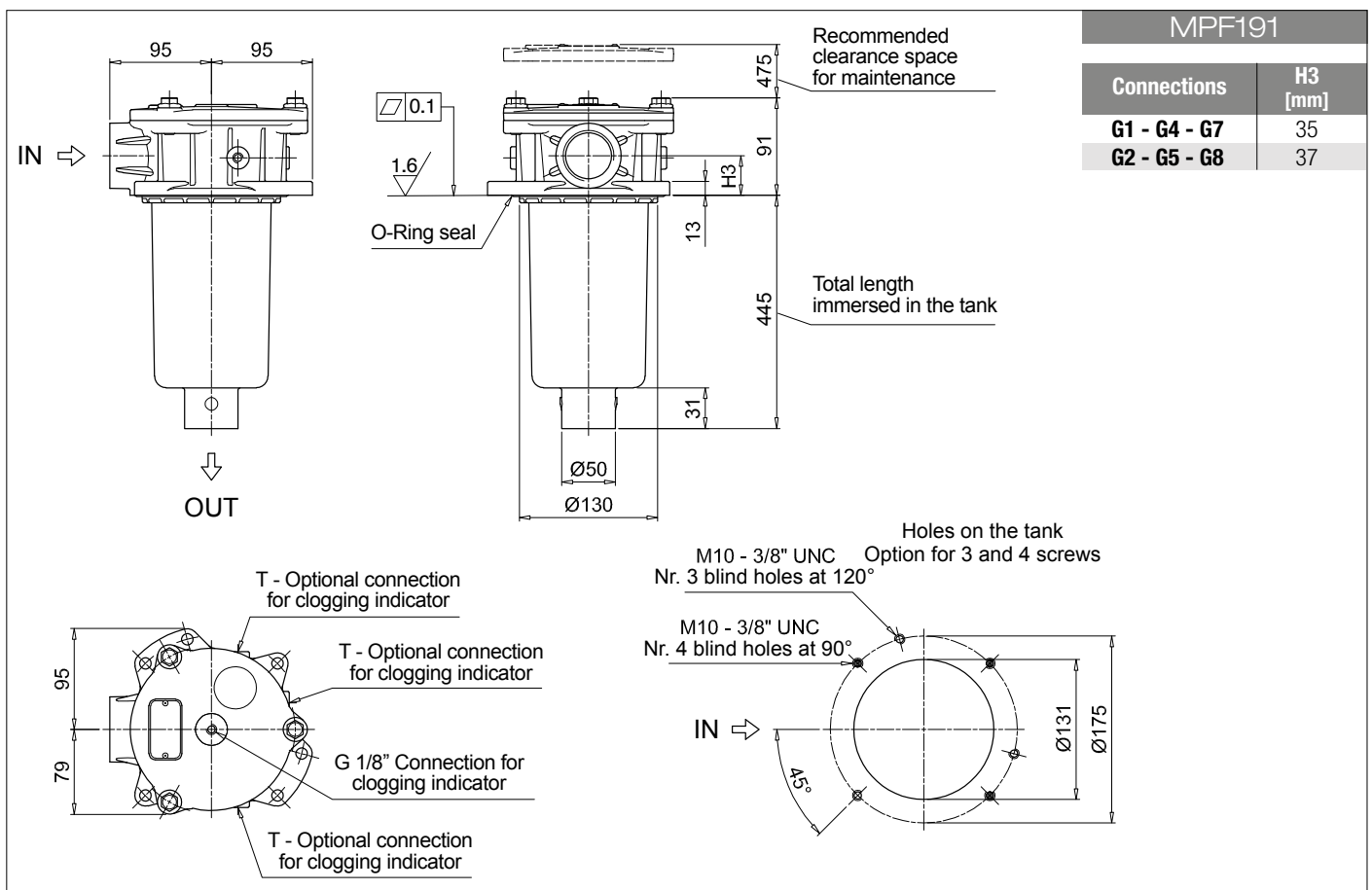
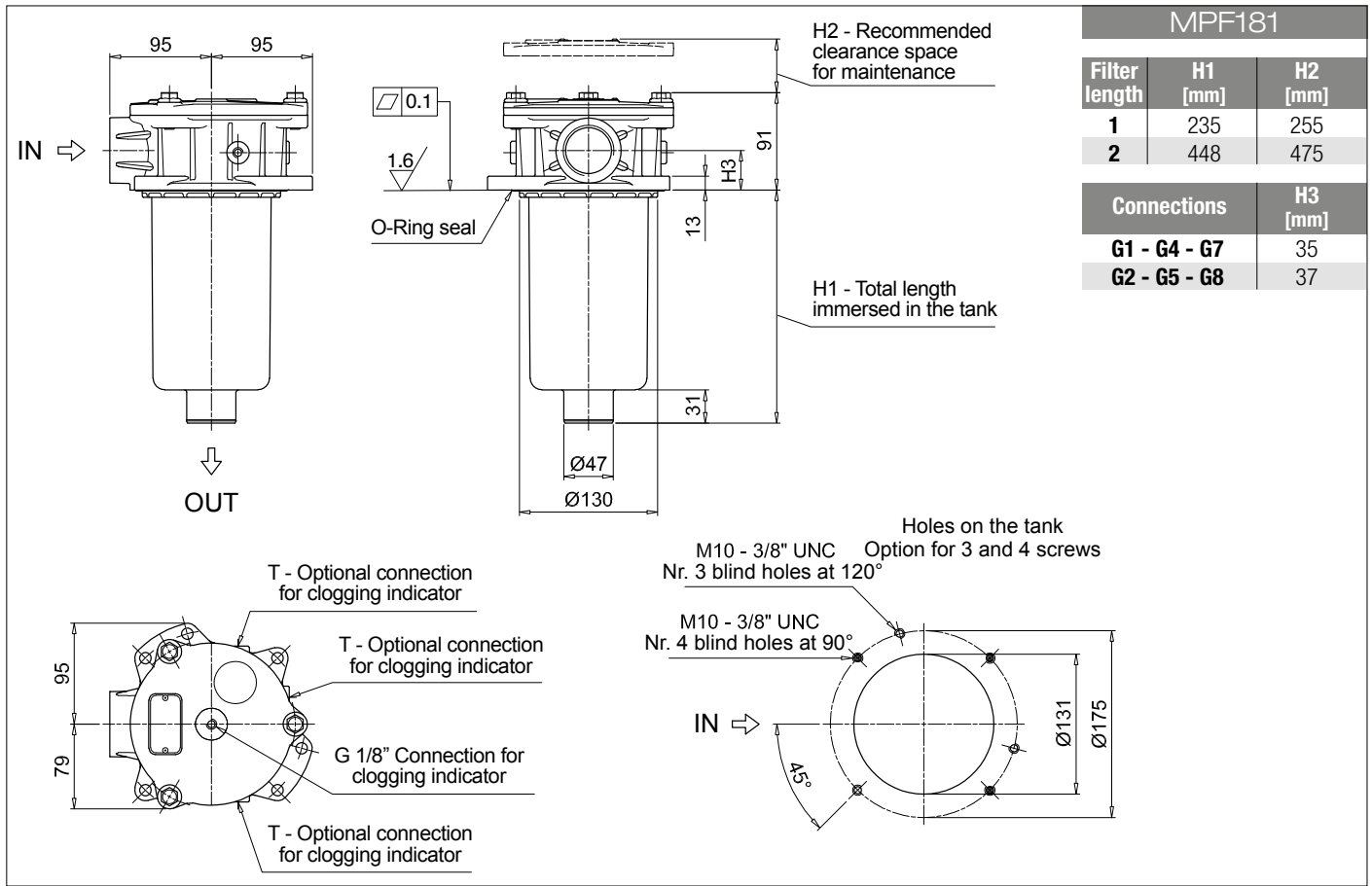
BVA Axial pressure gauge	
BVR Radial pressure gauge	
BVP Visual pressure indicator with automatic reset	
BVQ Visual pressure indicator with manual reset	

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

ADDITIONAL FEATURES

See page 268

TE Extension tube	
Sxx Extension tube	
T5 Filler plug M30x1.5	



MPF MPF182 - MPF192

Designation & Ordering code

COMPLETE FILTER

Series and size			Configuration example 1:											
MPF182 MPF192			Filter element with standard spigot											
Length			Size 182	Size 192	Configuration example 2:									
1			•	-	MPF192	2	V	G4	2	P10	N	B	P01	
2			•	•										
Seals and treatments														
A		NBR		B		NBR		flat seal on head						
V		FPM		D		FPM		flat seal on head						
W		NBR head anodized		L		NBR		head anodized, flat seal on head						
Z		FPM head anodized		M		FPM		head anodized, flat seal on head						
Main Connections			Aux size 1		Aux size 2									
G1			G 1 1/4"		G 1/2"		G 3/4"							
G4			1 1/4" NPT		1/2" NPT		3/4" NPT							
G7			SAE 20 - 1 5/8" - 12 UN		SAE 8 - 3/16" - 16 UNF		SAE 12 - 1 1/16" - 12 UN							
Aux connection - see previous table														
1			Aux size 1		2		Aux size 2							
Filtration rating (filter media)														
A03			Inorganic microfiber 3 µm		M25		Wire mesh 25 µm							
A06			Inorganic microfiber 6 µm		M60		Wire mesh 60 µm							
A10			Inorganic microfiber 10 µm		M90		Wire mesh 90 µm							
A16			Inorganic microfiber 16 µm		P10		Resin impregnated paper 10 µm							
A25			Inorganic microfiber 25 µm		P25		Resin impregnated paper 25 µm							
Element Δp			Filter media			Bypass valve			Execution					
N 10 bar			Axx	Mxx	Pxx	E 3 bar			P01 MP Filtri standard					
H 10 bar			•	-	-	B 1.75 bar			Pxx Customized					

FILTER ELEMENT

Element series and size			Configuration example 1: MF180 1 A25 H B E P01									
MF180 MF190 Filter element with standard spigot			Configuration example 2: MF190 2 P10 N V P01									
Element length		Size 180	Size 190									
1		•	-									
2		•	•									
Filtration rating (filter media)												
A03 Inorganic microfiber 3 µm		M25 Wire mesh 25 µm										
A06 Inorganic microfiber 6 µm		M60 Wire mesh 60 µm										
A10 Inorganic microfiber 10 µm		M90 Wire mesh 90 µm										
A16 Inorganic microfiber 16 µm		P10 Resin impregnated paper 10 µm										
A25 Inorganic microfiber 25 µm		P25 Resin impregnated paper 25 µm										
Element Δp			Filter media			Seals		Bypass valve		Execution		
N	10 bar		Axx	Mxx	Pxx	B	NBR	E	3 bar	P01	MP Filtri standard	
H	10 bar		•	-	-	V	FPM	-	1.75 bar	Pxx	Customized	

CLOGGING INDICATORS

See page 720-721

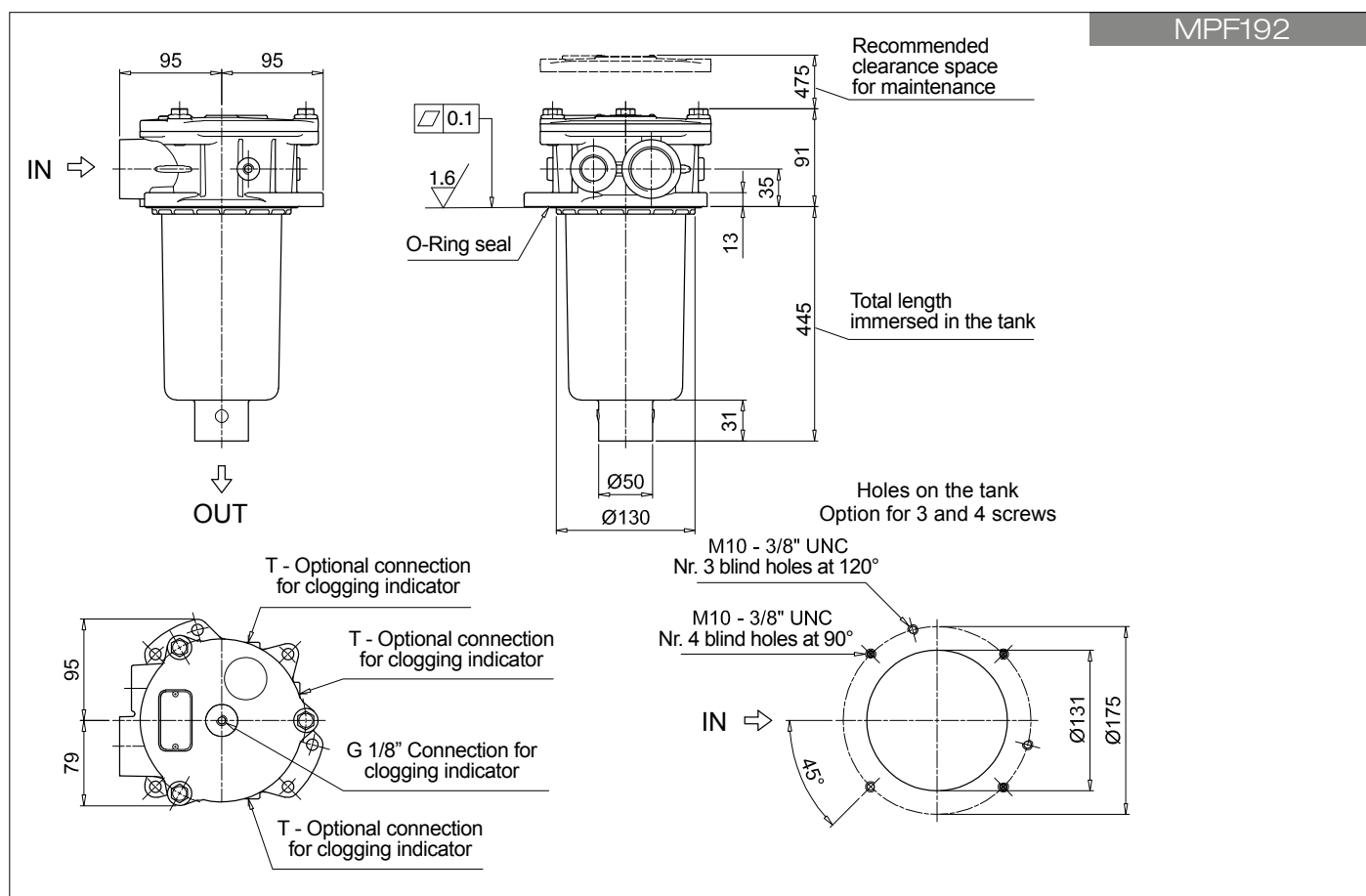
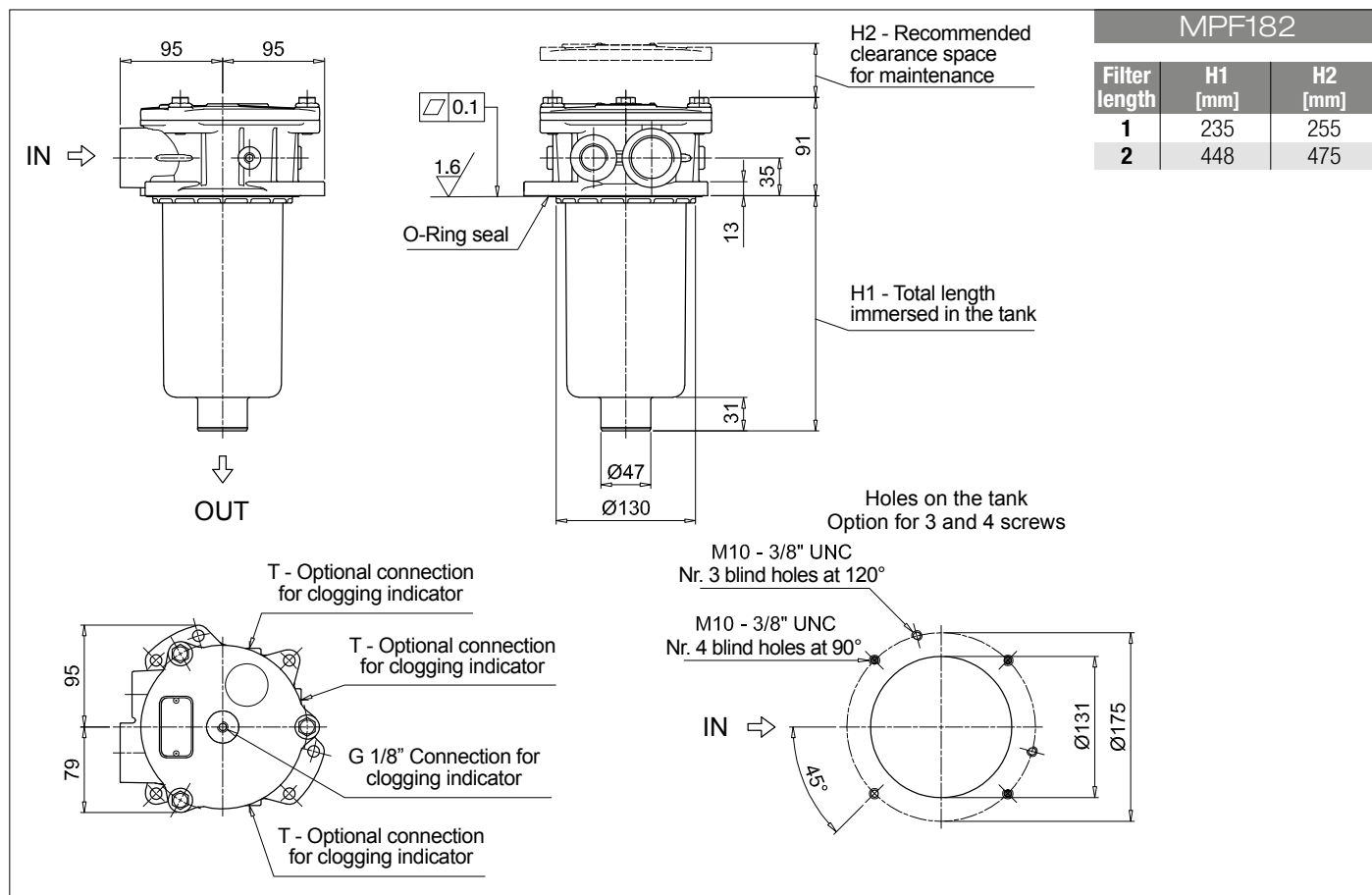
BVA	Axial pressure gauge
BVR	Radial pressure gauge
BVP	Visual pressure indicator with automatic reset
BVQ	Visual pressure indicator with manual reset

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

ADDITIONAL FEATURES

See page 268

TE	Extension tube
Sxx	Extension tube
T5	Filler plug M30x1.5



MPF MPF184 - MPF194

Designation & Ordering code

COMPLETE FILTER

Series and size				Configuration example 1:									
MPF184 MPF194 Filter element with standard spigot				Configuration example 2:									
Length		Size 184	Size 194	MPF184	1	A	G1	A25	H	E	P01		
1		•	-	2	2	V	F3	P10	N	B	P01		
2		•	•										
Seals and treatments													
A	NBR	W	NBR	head anodized									
V	FPM	Z	FPM	head anodized									
Main Connections		Rear connections		Main Connections		Rear connections							
G1	G 1 1/4"	-		G13	G 1 1/2"	-							
G2	G 1 1/4"	G 1 1/4"		G14	G 1 1/2"	G 1 1/4"							
G4	1 1/4" NPT	-		G15	1 1/2" NPT	-							
G5	1 1/4" NPT	1 1/4" NPT		G16	1 1/2" NPT	1 1/4" NPT							
G7	SAE 20 - 1 5/8" - 12 UN	-		F1	1 1/2" SAE 3000 psi/M	-							
G8	SAE 20 - 1 5/8" - 12 UN	SAE 20 - 1 5/8" - 12 UN		F2	1 1/2" SAE 3000 psi/UNC	-							
G10	SAE 24 - 1 7/8" - 12 UN	-		F3	1 1/2" SAE 3000 psi/M	1 1/2" SAE 3000 psi/M							
G11	SAE 24 - 1 7/8" - 12 UN	SAE 20 - 1 5/8" - 12 UN		F4	1 1/2" SAE 3000 psi/UNC	1 1/2" SAE 3000 psi/UNC							
Filtration rating (filter media)													
A03	Inorganic microfiber	3 µm		M25	Wire mesh	25 µm							
A06	Inorganic microfiber	6 µm		M60	Wire mesh	60 µm							
A10	Inorganic microfiber	10 µm		M90	Wire mesh	90 µm							
A16	Inorganic microfiber	16 µm		P10	Resin impregnated paper	10 µm							
A25	Inorganic microfiber	25 µm		P25	Resin impregnated paper	25 µm							
Element Δp		Filter media			Bypass valve		Execution						
N	10 bar	Axx	Mxx	Pxx	E	3 bar	P01	MP Filtri standard					
H	10 bar	•	-	-	B	1.75 bar	Pxx	Customized					

FILTER ELEMENT

Element series and size			Configuration example 1: MF180 1 A25 H B E P01							
MF180 MF190 Filter element with standard spigot			Configuration example 2: MF190 2 P10 N V P01							
Element length		Size 180	Size 190							
1		•								
2		•	•							
Filtration rating (filter media)										
A03 Inorganic microfiber 3 µm		M25 Wire mesh 25 µm								
A06 Inorganic microfiber 6 µm		M60 Wire mesh 60 µm								
A10 Inorganic microfiber 10 µm		M90 Wire mesh 90 µm								
A16 Inorganic microfiber 16 µm		P10 Resin impregnated paper 10 µm								
A25 Inorganic microfiber 25 µm		P25 Resin impregnated paper 25 µm								
Element Δp		Filter media			Seals		Bypass valve		Execution	
N 10 bar		Axx	Mxx	Pxx	B NBR		E 3 bar		P01 MP Filtri standard	
H 10 bar		•	-	-	V FPM		- 1.75 bar		Pxx Customized	

CLOGGING INDICATORS

See page 720-721

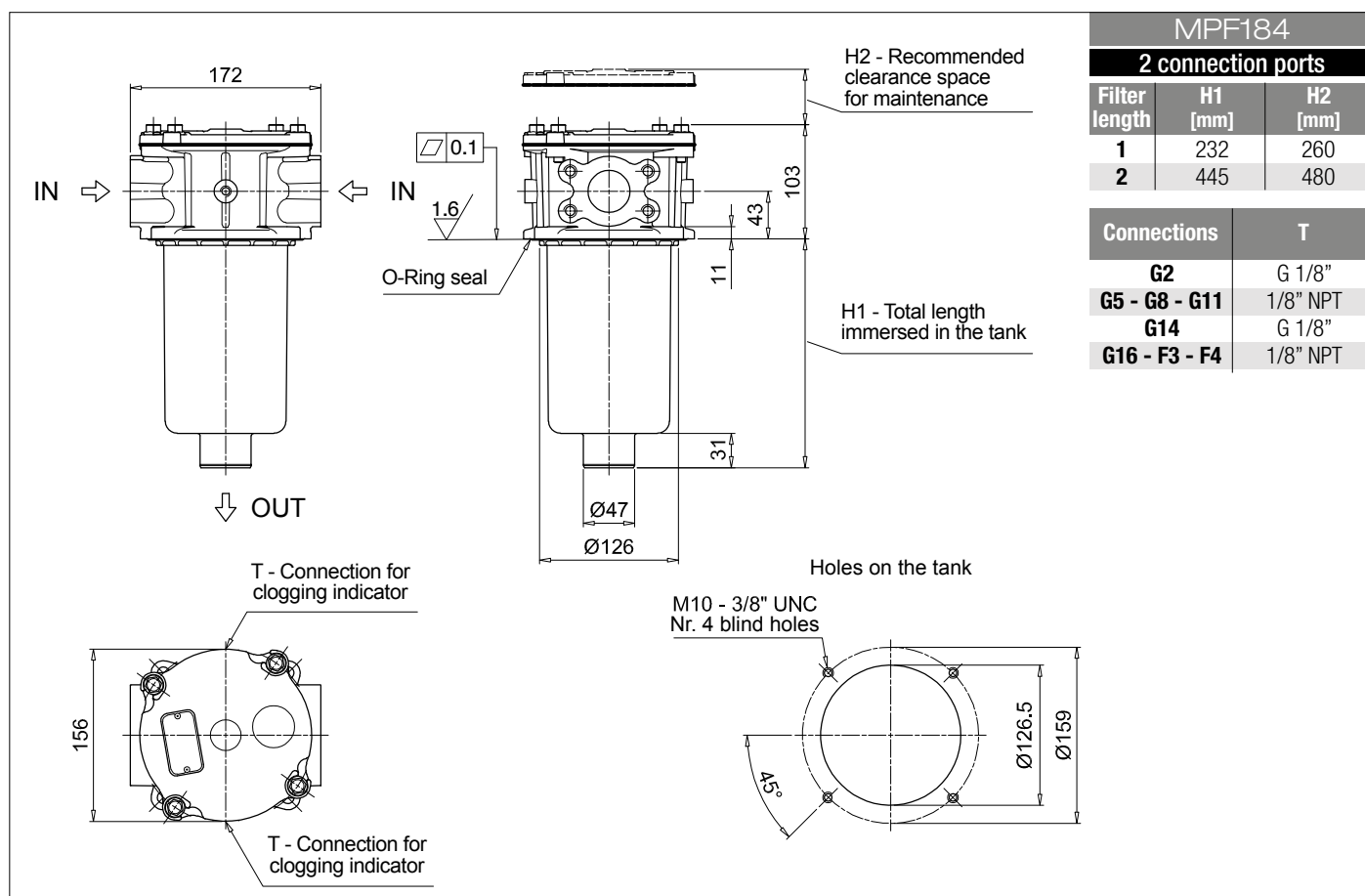
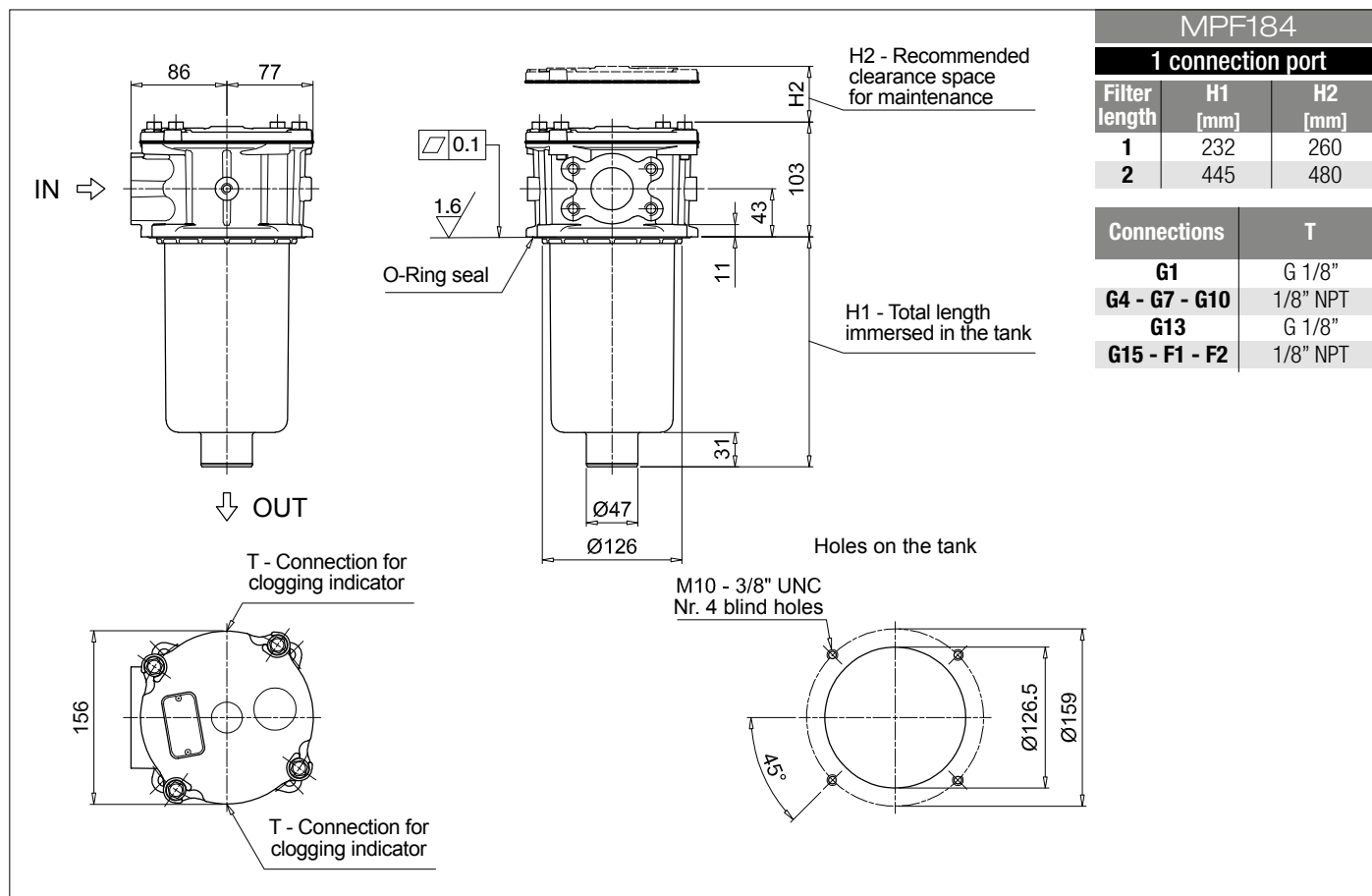
BVA	Axial pressure gauge
BVR	Radial pressure gauge
BVP	Visual pressure indicator with automatic reset
BVQ	Visual pressure indicator with manual reset

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

ADDITIONAL FEATURES

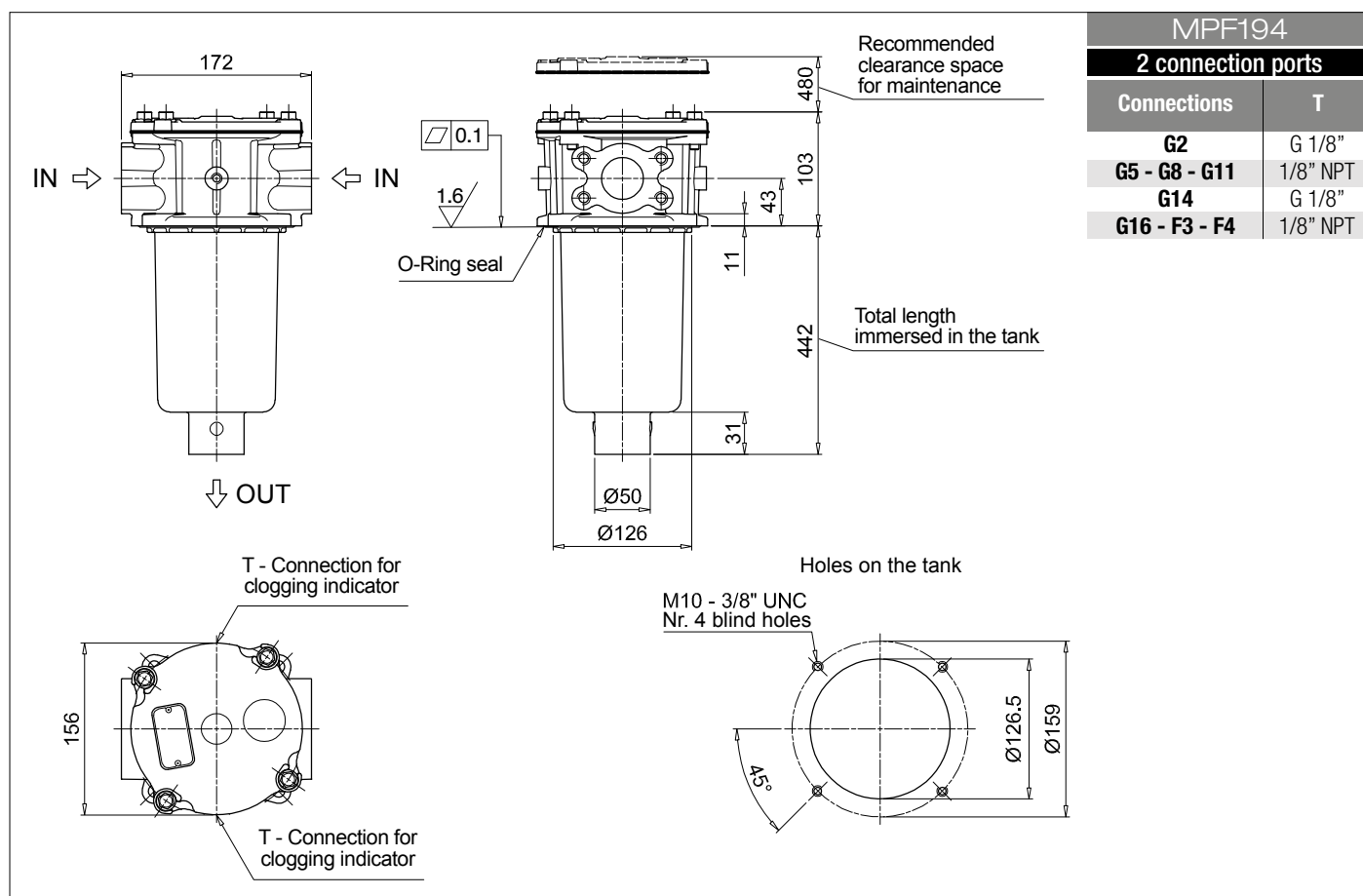
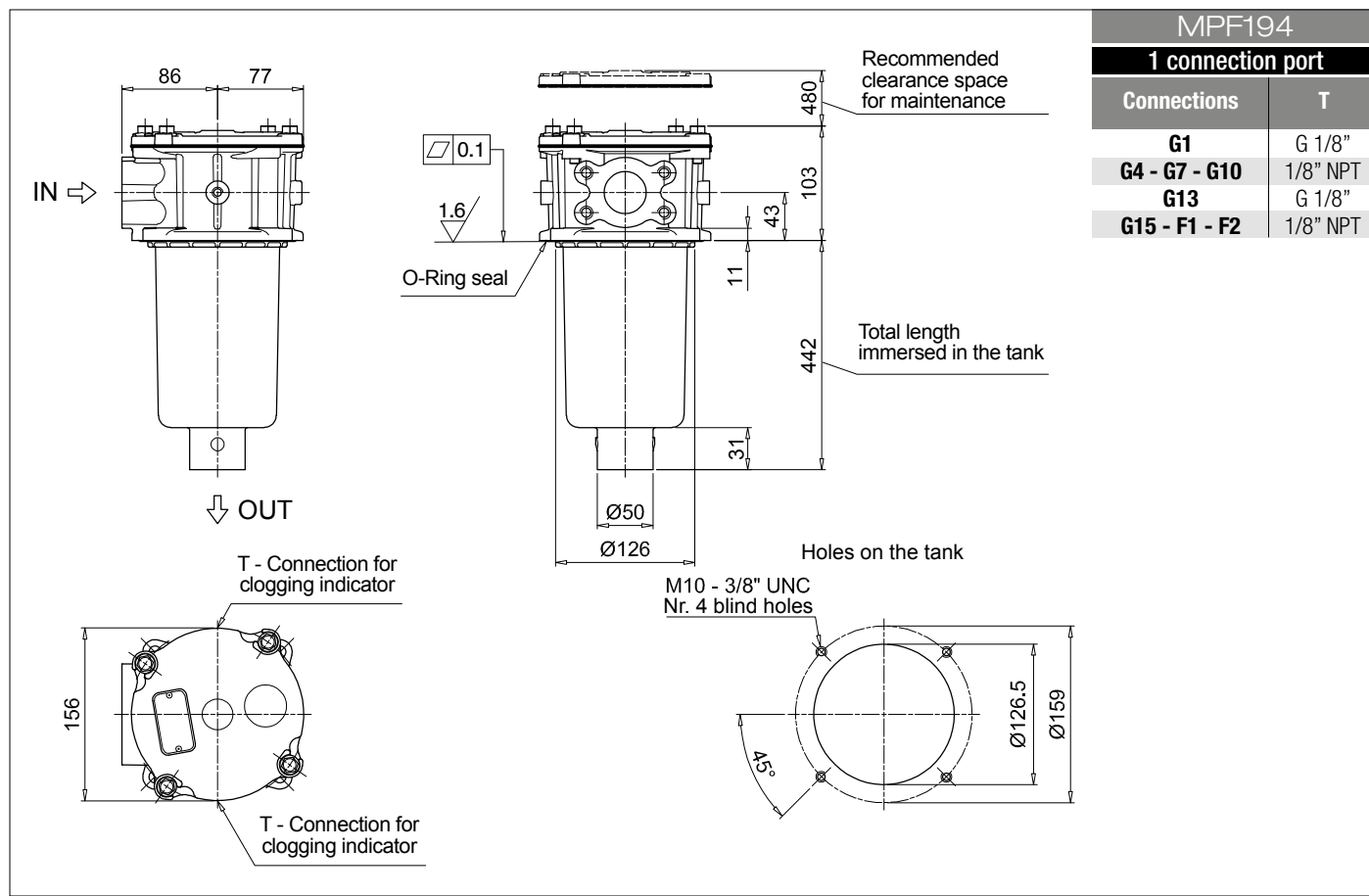
See page 268

TE	Extension tube
Sxx	Extension tube
T5	Filler plug M30x1.5



MPF MPF184 - MPF194

Dimensions



Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1:	MPF400	1	A	G9	A25	H	B	P01
MPF400 Filter element with standard spigot		Configuration example 2:	MPF400	2	V	G4	P10	N	E	P01
Length										
1 2 3										
Seals and treatments										
A NBR										
V FPM										
W NBR head anodized										
Z FPM head anodized										
Connections										
G1 G 1 1/4"	G6 2" NPT									
G2 G 1 1/2"	G7 SAE 20 - 1 5/8" - 12 UN									
G3 G 2"	G8 SAE 24 - 1 7/8" - 12 UN									
G4 1 1/4" NPT	G9 SAE 32 - 2 1/2" - 12 UN									
G5 1 1/2" NPT										
Filtration rating (filter media)										
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm									
A06 Inorganic microfiber 6 µm	M60 Wire mesh 60 µm									
A10 Inorganic microfiber 10 µm	M90 Wire mesh 90 µm									
A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm									
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm									
Element Δp		Filter media			Bypass valve		Execution			
N 10 bar		Axx	Mxx	Pxx	E 3 bar		P01	MP Filtri standard		
H 10 bar					B 1.75 bar		Pxx	Customized		

FILTER ELEMENT

Element series and size				Configuration example 1:		MF400	1	A25	H	B		P01	
MF400 Filter element with standard spigot				Configuration example 2:		MF400	2	P10	N	V	E	P01	
Element length													
1 2 3													
Filtration rating (filter media)													
A03 Inorganic microfiber 3 µm		M25 Wire mesh 25 µm											
A06 Inorganic microfiber 6 µm		M60 Wire mesh 60 µm											
A10 Inorganic microfiber 10 µm		M90 Wire mesh 90 µm											
A16 Inorganic microfiber 16 µm		P10 Resin impregnated paper 10 µm											
A25 Inorganic microfiber 25 µm		P25 Resin impregnated paper 25 µm											
Element Δp				Filter media				Seals		Bypass valve		Execution	
N 10 bar		Axx Mxx Pxx		-		• •		B NBR		E 3 bar		P01 MP Filtri standard	
H 10 bar		• - -						V FPM		- 1.75 bar		Pxx Customized	

CLOGGING INDICATORS

See page 720-721

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

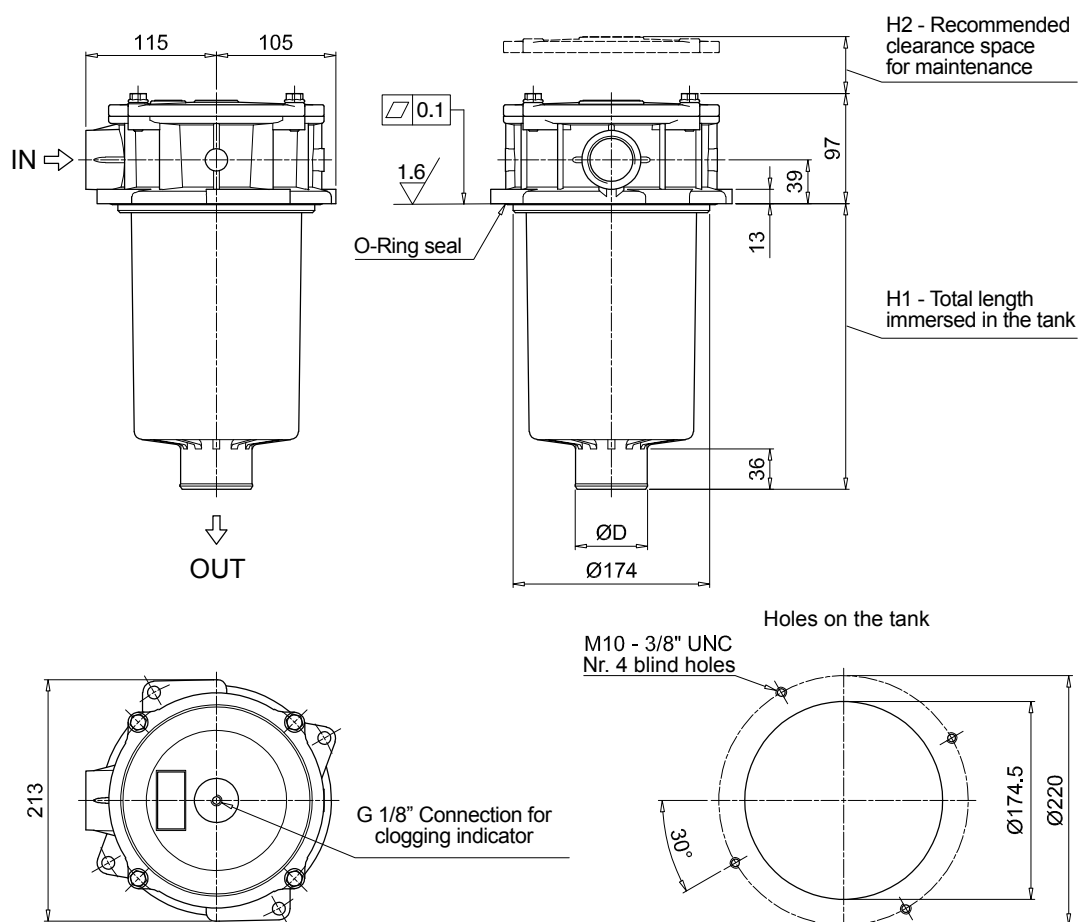
ADDITIONAL FEATURES

See page 268

Sxx Extension tube
T5 Filler plug M30x1.5

MPF400

Filter length	H1 [mm]	H2 [mm]	D [mm]
1	180	210	51
2	240	270	64
3	290	315	64



Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1:		MPF410	1	A	G1	1	A25	H	B	P01
MPF410 Filter element with standard spigot		Configuration example 2:		MPF410	1	V	G4	1	P10	N	E	P01
Length												
1 2 3												
Seals and treatments												
A NBR												
V FPM												
W NBR head anodized												
Z FPM head anodized												
Main Connections		Aux size 1										
G1 G 1 1/4"		G 1"										
G4 1 1/4" NPT		1" NPT										
G7 SAE 20 - 1 5/8" - 12 UN		SAE 16 - 1 5/16" - 12 UN										
Aux connection - see previous table												
1 Aux size 1												
Filtration rating (filter media)												
A03 Inorganic microfiber 3 µm				M25 Wire mesh 25 µm								
A06 Inorganic microfiber 6 µm				M60 Wire mesh 60 µm								
A10 Inorganic microfiber 10 µm				M90 Wire mesh 90 µm								
A16 Inorganic microfiber 16 µm				P10 Resin impregnated paper 10 µm								
A25 Inorganic microfiber 25 µm				P25 Resin impregnated paper 25 µm								
Element Δp				Filter media				Bypass valve		Execution		
N 10 bar				Axx Mxx Pxx				E 3 bar		P01 MP Filtri standard		
H 10 bar				• - -				B 1.75 bar		Pxx Customized		

FILTER ELEMENT

Element series and size

Configuration example 1: MF400 1 A25 H B P01

Configuration example 2: MF400 1 P10 N V E P01

Element length

1 | 2 | 3

Filtration rating (filter media)

A03	Inorganic microfiber	3 μm	M25	Wire mesh	25 μm
A06	Inorganic microfiber	6 μm	M60	Wire mesh	60 μm
A10	Inorganic microfiber	10 μm	M90	Wire mesh	90 μm
A16	Inorganic microfiber	16 μm	P10	Resin impregnated paper	10 μm
A25	Inorganic microfiber	25 μm	P25	Resin impregnated paper	25 μm

Element Δp

Element Δp	Axx	Mxx	Pxx
N 10 bar	-	•	•
H 10 bar	•	-	-

Filter media

Seals

Seals
B NBR
V FPM

Bypass valve

Bypass valve
E 3 bar
- 1.75 bar

Execution

Execution
P01 MP Filtri standard
Pxx Customized

CLOGGING INDICATORS

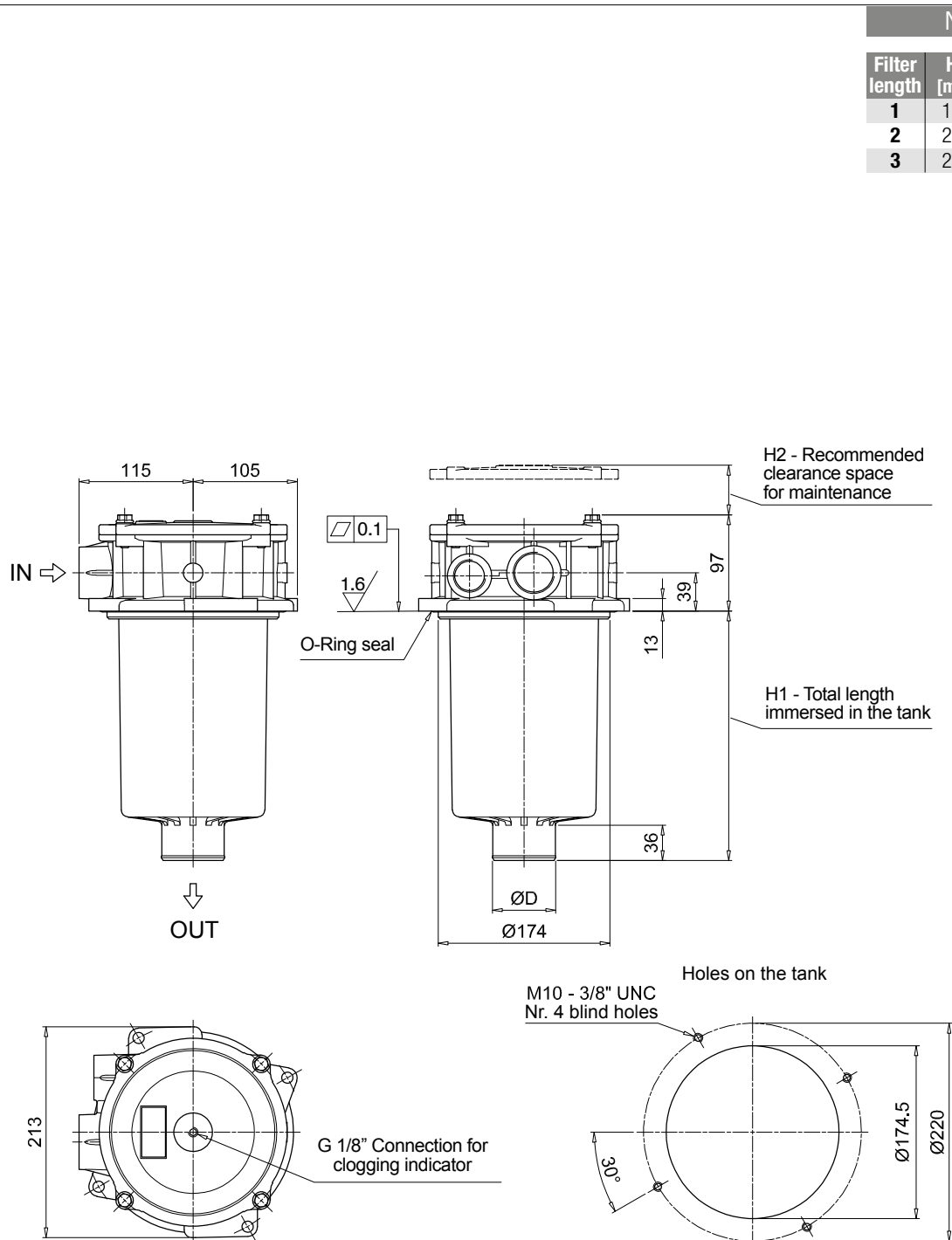
See page 720-721

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		

ADDITIONAL FEATURES

See page 268

Sxx	Extension tube
T5	Filler plug M30x1.5



MPF MPF450 - MPF451 - MPF750

Designation & Ordering code

COMPLETE FILTER

Series and size				Configuration example 1:							
MPF450	MPF451	MPF750	Filter element with standard spigot	Configuration example 2:							
				MPF450	1	A	G1	A25	H	B	P01
				MPF750	1	V	F2	P10	N	E	P01
Length		MPF 450	MPF 451	MPF 750							
1		•	•	•							
2		•	•	-							
3		•	•	-							
Seals and treatments											
A	NBR	W	NBR head anodized								
V	FPM	Z	FPM head anodized								
Connections		Aux (only size 451)									
G1	G 2"	G 3/4"									
G4	2" NPT	3/4" NPT									
G7	SAE 32 - 2 1/2" - 12 UN	SAE 12 - 1 1/16" - 12 UN									
F1	2" SAE 3000 psi/M	G 3/4"									
F2	2" SAE 3000 psi/UNC	3/4" NPT									
Filtration rating (filter media)											
A03	Inorganic microfiber 3 µm	M25	Wire mesh 25 µm								
A06	Inorganic microfiber 6 µm	M60	Wire mesh 60 µm								
A10	Inorganic microfiber 10 µm	M90	Wire mesh 90 µm								
A16	Inorganic microfiber 16 µm	P10	Resin impregnated paper 10 µm								
A25	Inorganic microfiber 25 µm	P25	Resin impregnated paper 25 µm								
Element Δp				Filter media				Bypass valve		Execution	
N	10 bar	Axx	Mxx	Pxx	E	3 bar	P01	MP Filtri standard			
H	10 bar	•	-	-	B	1.75 bar	Pxx	Customized			

FILTER ELEMENT

Element series and size				Configuration example 1:									
MF400	MF750	Filter element with standard spigot		Configuration example 2:									
Element length		MPF 450	MPF 451	MPF 750									
1		•	•	•									
2		•	•	-									
3		•	•	-									
Filtration rating (filter media)													
A03	Inorganic microfiber	3 µm	M25	Wire mesh	25 µm								
A06	Inorganic microfiber	6 µm	M60	Wire mesh	60 µm								
A10	Inorganic microfiber	10 µm	M90	Wire mesh	90 µm								
A16	Inorganic microfiber	16 µm	P10	Resin impregnated paper	10 µm								
A25	Inorganic microfiber	25 µm	P25	Resin impregnated paper	25 µm								
Element Δp				Filter media			Seals		Bypass valve		Execution		
N	10 bar	Axx	Mxx	Pxx	-	•	•	B	NBR	E	3 bar	P01	MP Filtri standard
H	10 bar	•	-	-				V	FPM	-	1.75 bar	Pxx	Customized

CLOGGING INDICATORS

See page 720-721

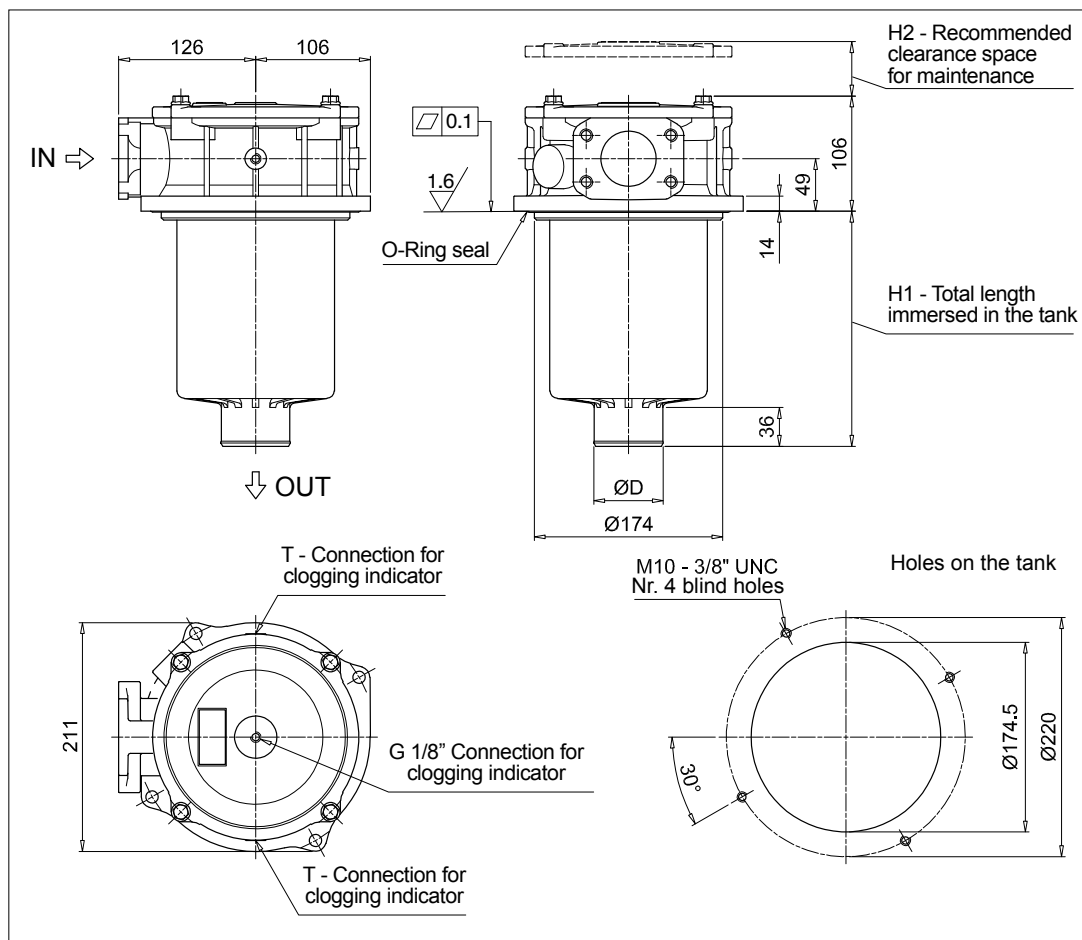
BVA	Axial pressure gauge
BVR	Radial pressure gauge
BVP	Visual pressure indicator with automatic reset
BVQ	Visual pressure indicator with manual reset

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

ADDITIONAL FEATURES

See page 268

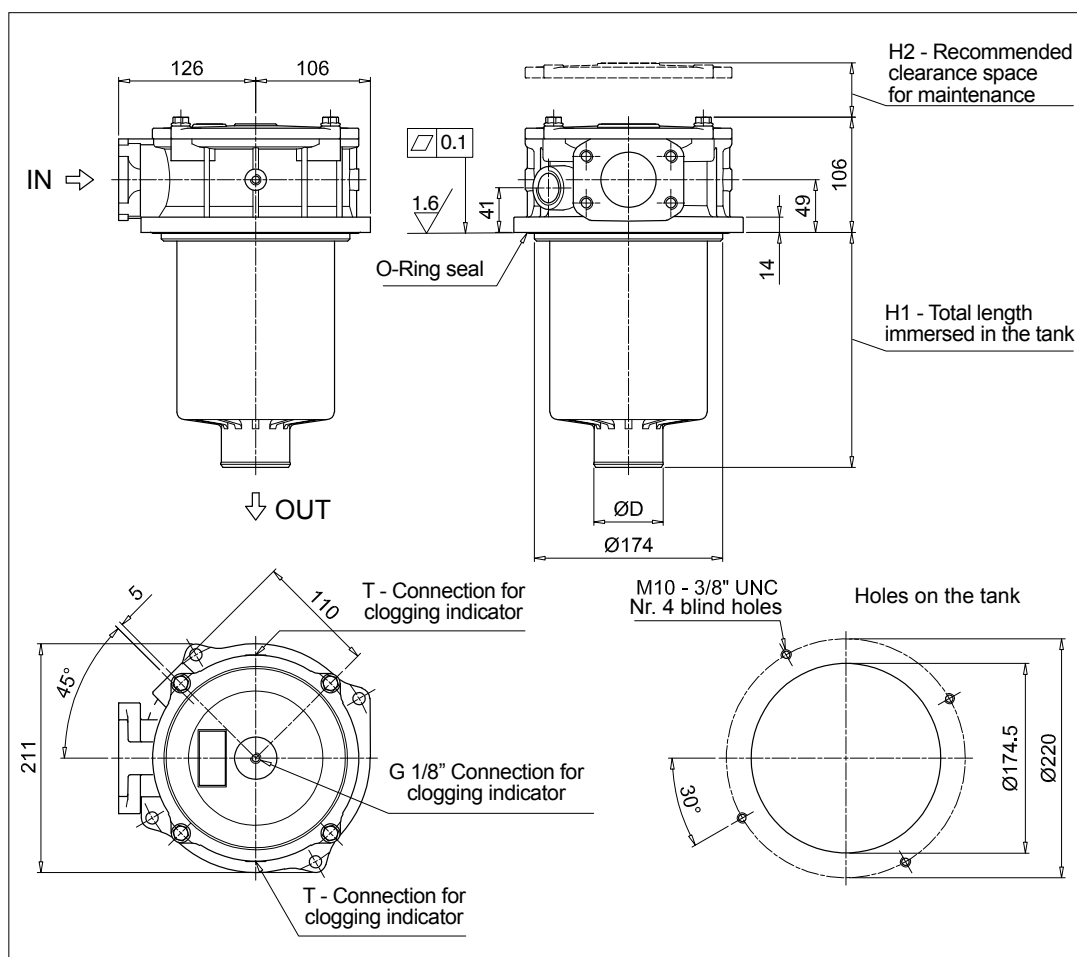
Sxx	Extension tube
T5	Filler plug M30x1.5



MPF450

Filter length	H1 [mm]	H2 [mm]	D [mm]
1	180	210	51
2	240	270	64
3	290	315	64

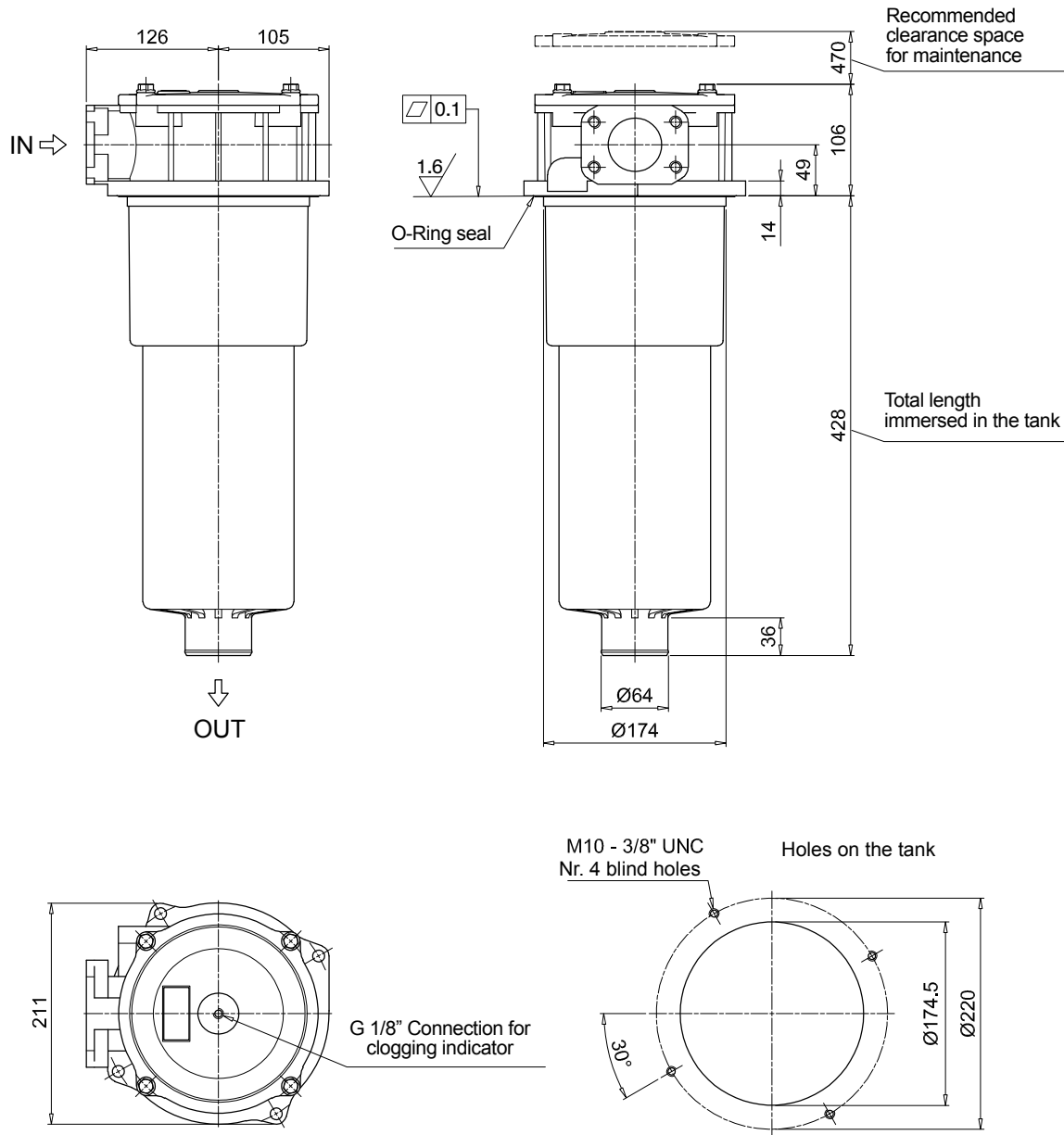
Connections	T
G1	G 1/8"
G4 - G7	1/8" NPT
F1	G 1/8"
F2	1/8" NPT



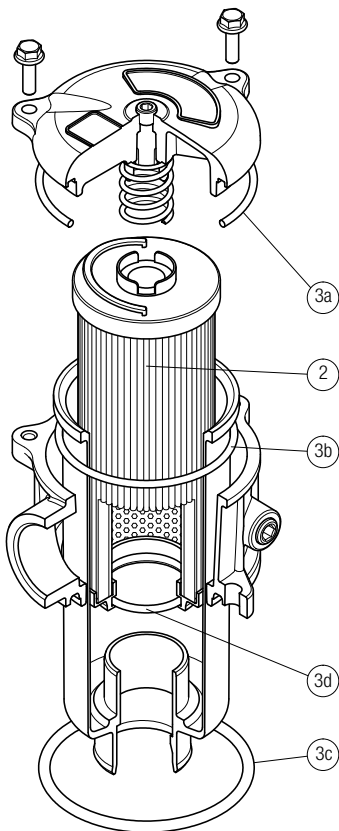
MPF451

Filter length	H1 [mm]	H2 [mm]	D [mm]
1	180	210	51
2	240	270	64
3	290	315	64

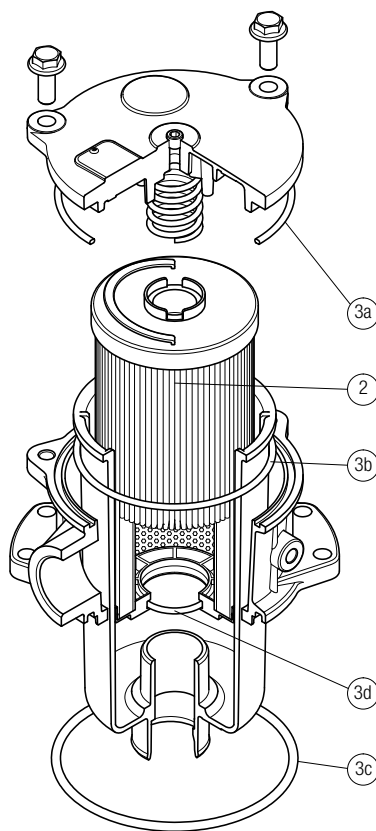
Connections	T
G1	G 1/8"
G4 - G7	1/8" NPT
F1	G 1/8"
F2	1/8" NPT



MPF 100



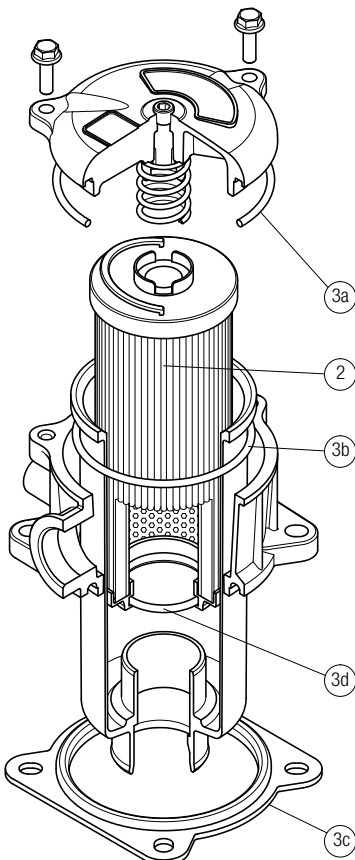
MPF 181



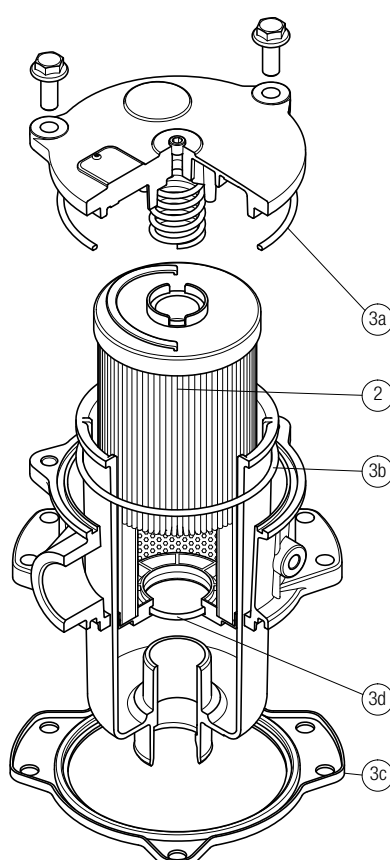
O-RING SEAL

Q.ty: 1 pc.		Q.ty: 1 pc.	
Item: 2		3 (3a ÷ 3d)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPF 030	See order table	02050055	02050056
MPF 100-110		02050057	02050058
MPF 181-182		02050059	02050060
MPF 184		02050455	02050456
MPF 191-192		02050457	02050458
MPF 194		02050459	02050460
MPF 400-410		02050061	02050062
MPF 450-451		02050461	02050462
MPF 750		02050106	02050107

MPF 104



MPF 181

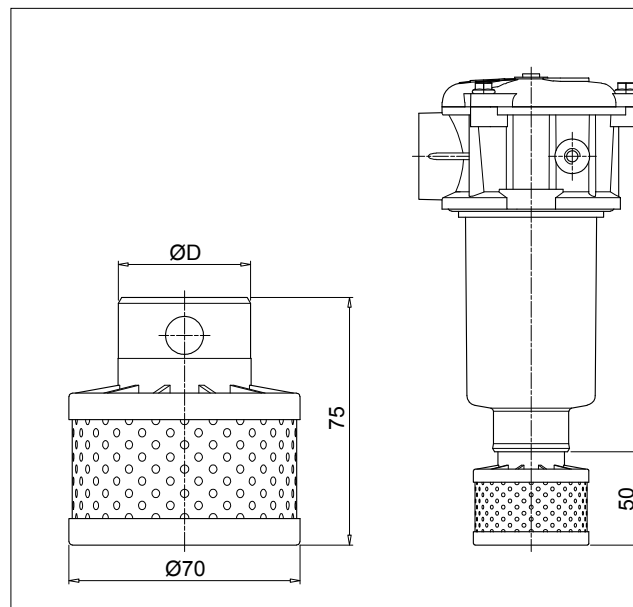


FLAT SEAL

Q.ty: 1 pc.		Q.ty: 1 pc.	
Item: 2		3 (3a ÷ 3d)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPF 020	See order table	02050438	02050439
MPF 104		02050350	02050408
MPF 181-182		02050659	02050660
MPF 191-192		02050661	02050662

Accessories

DIFFUSER WITH FAST LOCK CONNECTION

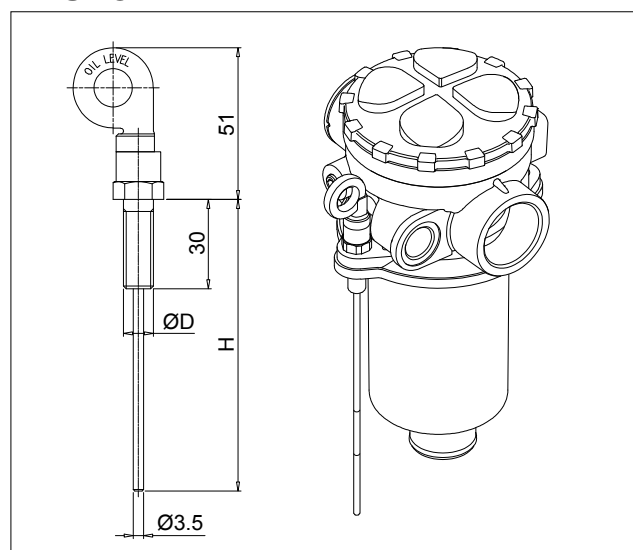


Configuration example: **DFS** **32** **A** **075**

Series	Size	Ø D [mm]	Version	Length
DFS	32	32	A Standard	075 Standard
	40	40		

Filter series	Filter size	Filter Length	DFS32	DFS40		
MPF	100	104	110	1	•	
		2	•	-		
		3	-	•		
		4	-	•		
MPFX	100	104	110	1	-	
		2	-	•		
		3	-	•		
		4	-	•		
MPT	110	114	116	120	1	•
		2	•	-		
		3	-	•		
		4	-	•		
MPTX	110	114	116	120	1	-
		2	-	•		
		3	-	•		
		4	-	•		

DIPSTICK



Materials

- Screw: phosphatized steel
- Stick: phosphatized steel
- Handle: Polyamide

Technical data

Working temperature: from -25 °C to +110 °C

Configuration example: **DPT** **20** **M10** **A** **P01**

Series	Length	H [mm]
DPT	15	134
	20	184
	25	234
	30	284
	35	334

Seals

A	NBR
V	FPM

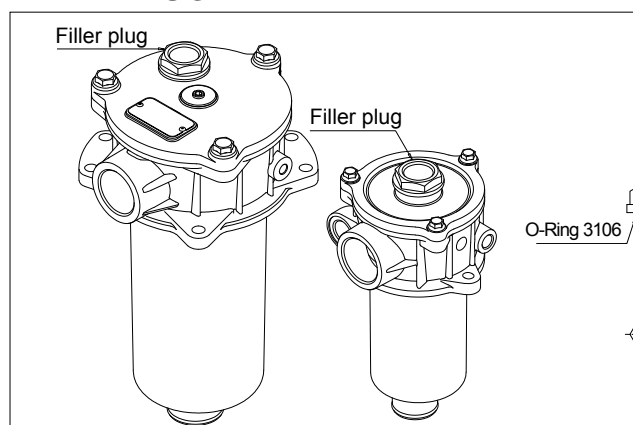
Fastening

M8	Fastening with screws Ø D = M8
M10	Fastening with screws Ø D = M10

Execution

P01	MP Filtri standard
Pxx	Customized

FILLER PLUG



Materials

- Body: Polyamide
- Seal: NBR

Technical data

Tightening torque: 15 N·m

O-Ring 3106

M30x1.5

For any further information, please, contact our commercial dept.

POLYAMIDE EXTENSION TUBE

H1 - Total
length
immersed
in the tank

Conf. example:

TE

40

A

250

Series

TE

Size Ø D [mm]

25 25

32 32

40 40

51 51

62 62

Material

A Polyamide

Length	H [mm]	25-32-40	51-62
200	200	•	•
250	250	•	-
300	300	•	•
350	350	•	-
400	400	•	•
450	450	•	-
500	500	•	•
600	600	-	•

COMPATIBILITY TABLE

Filter series			Filter size			Filter length						Tube length							
							TE25	TE32	TE40	TE51	TE62	200 250 300 350 400 450 500 600							
												H1 [mm]							
MPF			30			1	•	-	-	-	-	266	316	366	416	466	516	566	-
MPF	100	104	110	1	-	•	-	-	-	-	-	275	325	375	425	475	525	575	-
				2	-	-	-	-	-	-	-	322	372	422	472	522	572	622	-
				3	-	-	•	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	-	-	-	-	-	277	327	377	427	477	527	577	-
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-
				3	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	•	-	-	-	-	410	460	510	560	610	660	710	-
				2	-	-	-	-	-	-	-	623	673	723	773	823	873	923	-
MPFX	191	192	194	2	-	-	-	-	•	-	-	620	-	720	-	820	-	920	1020
				1	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752
				2	-	-	-	-	-	•	-	411	-	511	-	611	-	711	811
				3	-	-	-	-	-	-	•	459	-	559	-	659	-	759	859
750				1	-	-	-	-	-	-	•	597	-	697	-	797	-	897	997
MPT	025	027	1	•	-	-	-	-	-	-	-	278	328	378	428	478	528	578	-
			2	-	-	-	-	-	-	-	-	342	392	442	492	542	592	642	-
			3	-	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPT	110	114	116	120	1	-	•	-	-	-	-	273	323	373	423	473	523	573	-
					2	-	-	-	-	-	-	320	370	420	470	520	570	620	-
					3	-	-	•	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	•	-	-	-	273	323	373	423	473	523	573	-
					2	-	-	-	-	-	-	318	368	418	468	518	568	618	-
					3	-	-	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	498	548	598	648	698	748	798	-

STEEL EXTENSION TUBE

Configuration example:

MPF191

2

A

F1

A10

H

B

S60

Length	H1 [mm]
S30	300
S35	350
S40	400
S45	450
S50	500
S60	600
S70	700
S80	800
S90	900

COMPATIBILITY TABLE						
					Ø D [mm]	
Filter series	Filter size				Filter length	
MPF	191	192	194		2	• -
	400	410	450	451	1	• -
					2	- •
					3	- •
					1	- •

Designation & Ordering code

BAROMETRIC (PRESSURE) INDICATORS

Series				Configuration example 1: BEA 15 H A 41 P01 EX									
BE Electrical pressure indicator				Configuration example 2: BLA 20 H A 71 P01									
BL Electrical/Visual pressure indicator				Configuration example 3: BVR 14 P01									
BV Visual pressure indicator				Configuration example 4: BVP 20 H P01									
Type	BE	BL	BV										
A Standard type	•	•	A Axial connection pressure gauge										
M With wired electrical connection	•	-	R Radial connection pressure gauge										
T With thermal switch	•	-	P Visual indicator with automatic reset										
			Q Visual indicator with manual reset										
Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ								
14 1.4 bar	-	-	-	•	-								
15 1.5 bar	•	-	•	-	•								
20 2.0 bar	•	•	•	-	•								
25 2.5 bar	-	•	-	•	-								
Seals	BE	BLA	BVA-BVR	BVP-BVQ									
H HNBR	•	•	-	•									
Thermostat	BEA-BEM	BET	BLA										
A Without thermostat	•	-	•										
F With thermostat	-	•	-										
Electrical connections					BEA	BEM	BET	BL					
10 Connection AMP Superseal series 1,5	-	-	•	-									
30 Connection Deutsch DT-04-2-P	-	-	•	-									
41 Connection via four-core cable	-	•	-	-									
50 Connection EN 175301-803	•	-	-	-									
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•									
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•									
53 Connection EN 175301-803, transparent base with lamps 230 Vac	-	-	-	•									
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•									
					Option								
					P01 MP Filtri standard								
					Pxx Customized								
Certifications					BEA	BEM-BET	BL	BV					
Without					•	•	•	•					
EX ATEX certification					•	-	-	-					
UL UL certification					•	-	-	-					

DIFFERENTIAL PRESSURE INDICATORS

Series
DE Electrical differential pressure indicator
DL Electrical/Visual differential pressure indicator
DT Electrical differential pressure indicator
DV Visual differential pressure indicator

Configuration example 1:	DE	M	20	H	F	50	P01
Configuration example 2:	DE	U	50	V	A	50	P01
Configuration example 3:	DL	E	20	V	A	71	P01
Configuration example 4:	DT	A	20	H	F	70	P01
Configuration example 5:	DV	M	20	V			P01

Type	DE	DL	DT
A Standard type	•	•	•
M With wired electrical connection	•	-	-
U Standard type 210 bar, UL certified	•	-	-
E For high power supply	-	•	-
S Compact version	•	-	-

DV
A With automatic reset
M With manual reset
S With automatic reset

Pressure setting	DEA	DEM	DEU	DES	DL	DT	DVA	DVM	DVS
12 1.2 bar	-	-	-	•	-	-	-	-	•
20 2.0 bar	•	•	•	-	•	•	•	•	-
25 2.5 bar	-	-	-	•	-	-	-	-	•

Seals	DEA	DEM	DEU	DES	DL	DT	DVA	DVM	DVS
H HNBR	•	•	-	•	•	•	•	•	•
V FPM	•	•	•	-	•	•	•	•	-

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
A Without thermostat	•	•	•	•	•	•	-
F With thermostat	-	•	-	-	-	•	•

Electrical connections	DEA	DEM	DEU	DES	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	-	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	-	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-	-	-
50 Connection EN 175301-803	•	-	•	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	-	•	-	-
80 Connection Stud #10-32 UNF	-	-	-	•	-	-	-

Option
P01 MP Filtri standard
Pxx Customized

Certifications	DEU	OTHERS
Without	-	•
UL UL certification	•	-

PLUGS

Series
T2 Plug
T4 Plug

Seals	T2	T4
A NBR	-	•
H HNBR	•	-
V FPM	•	-

Configuration example	T2	H
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