

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 [dm ³]					
	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.

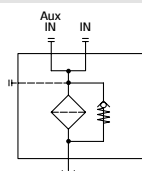
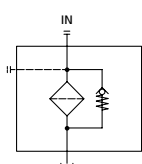
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

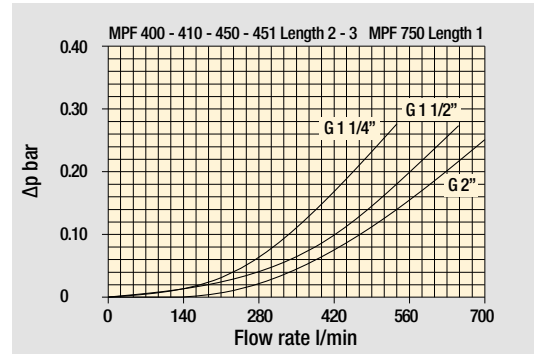
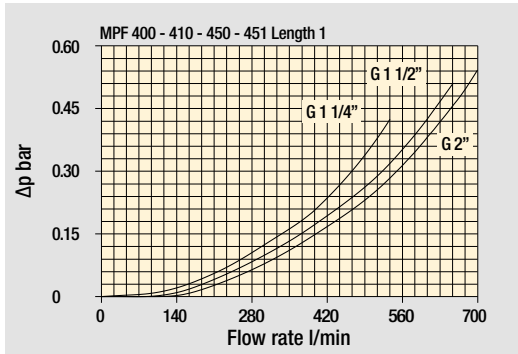
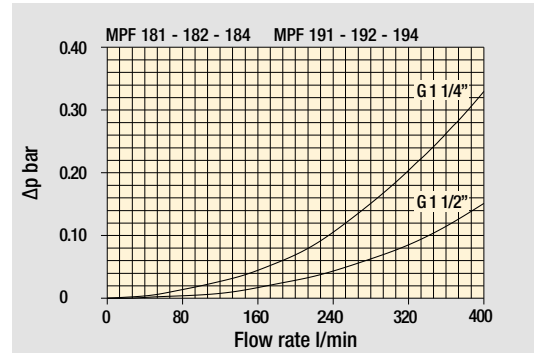
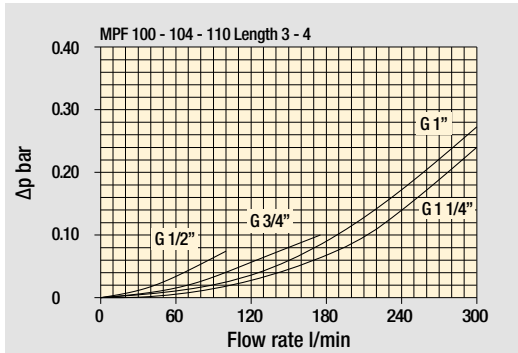
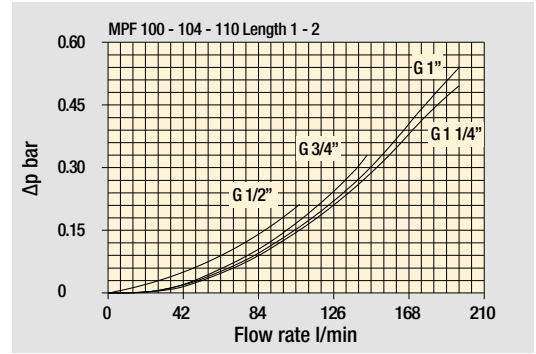
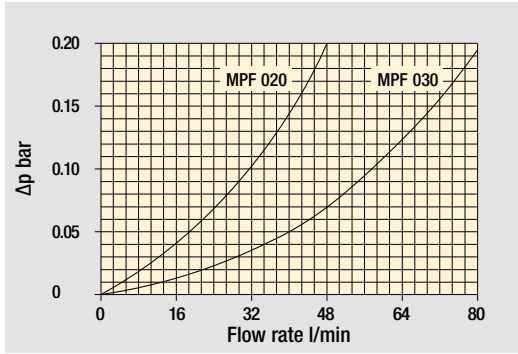
Hydraulic symbols

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	•	-

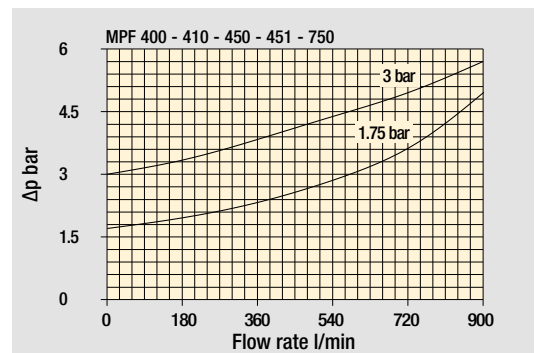
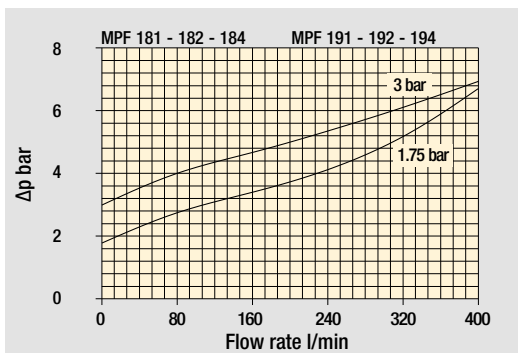
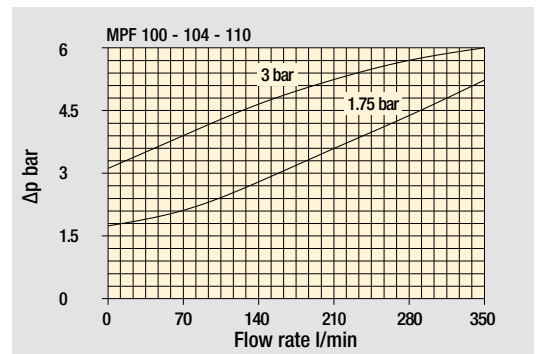
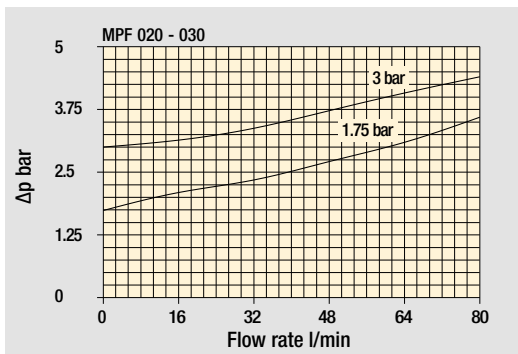


Pressure drop

Filter housings Δp pressure drop



Bypass valve pressure drop

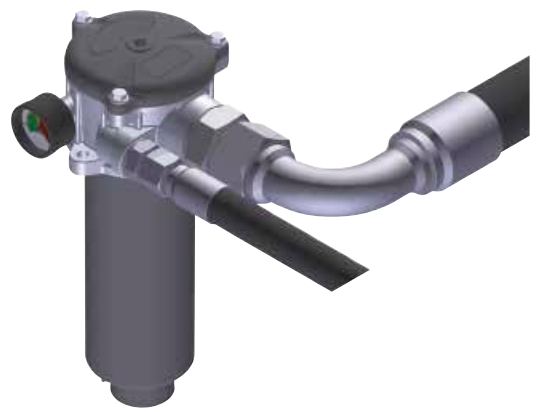


The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

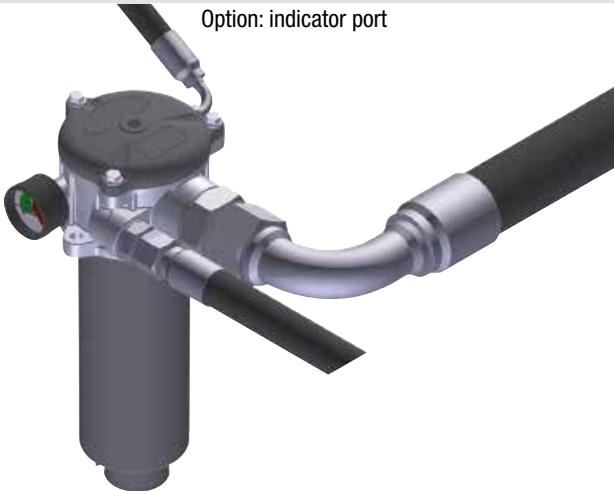
Standard - Single IN port



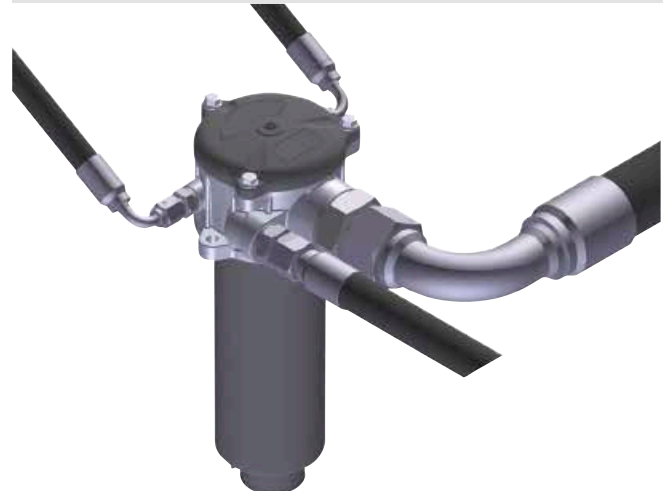
Double IN port
Option: double indicator port



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	1	A	P1	A10	H	E	P01		
MPF020	MPF030	Filter element with standard spigot		Configuration example 2:		MPF030	1	V	G1	M25	N	B	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											
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									

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									
Element Δp		Filter media									
N 10 bar		Axx	Mxx	Pxx							
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 716-717

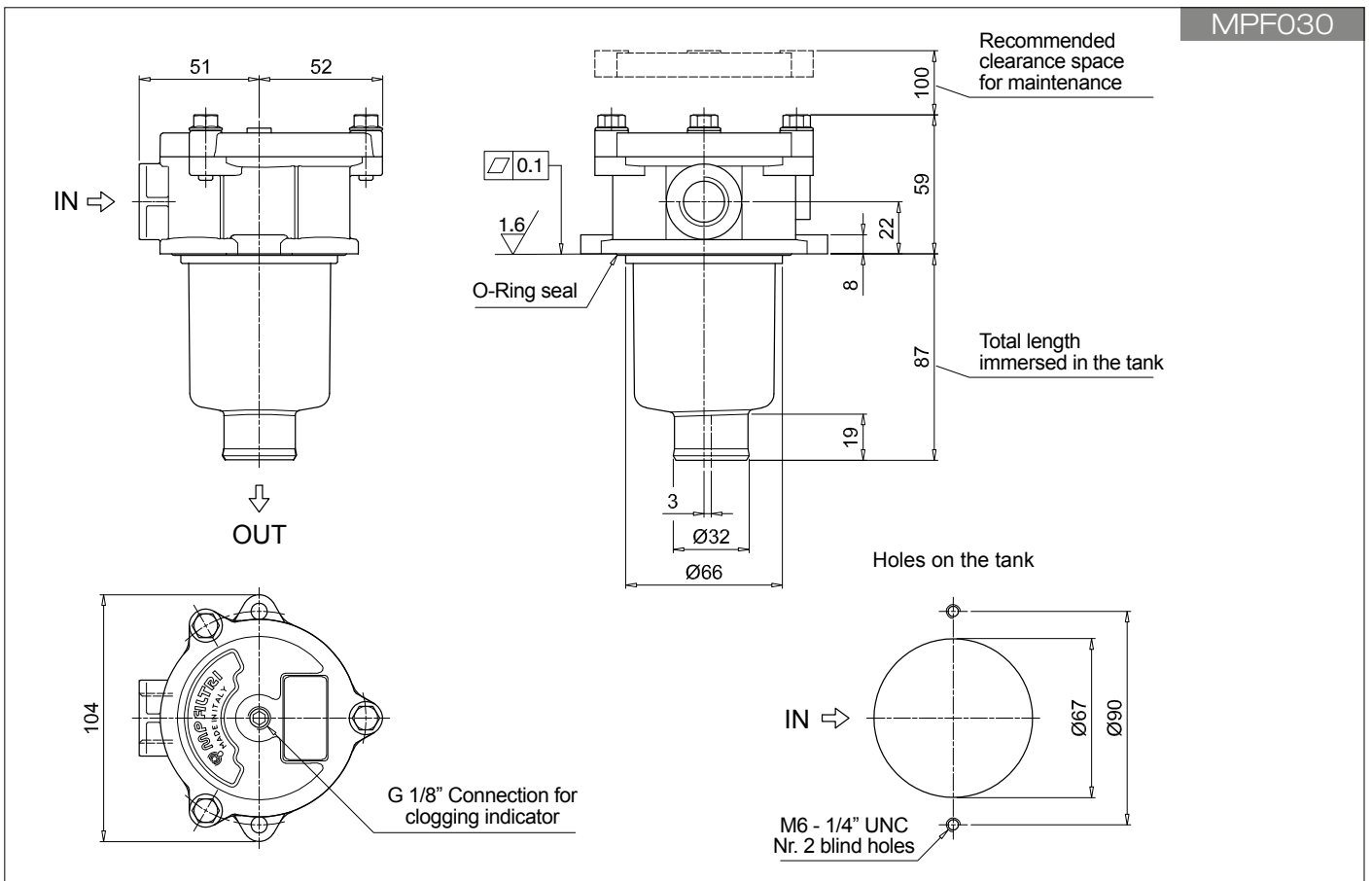
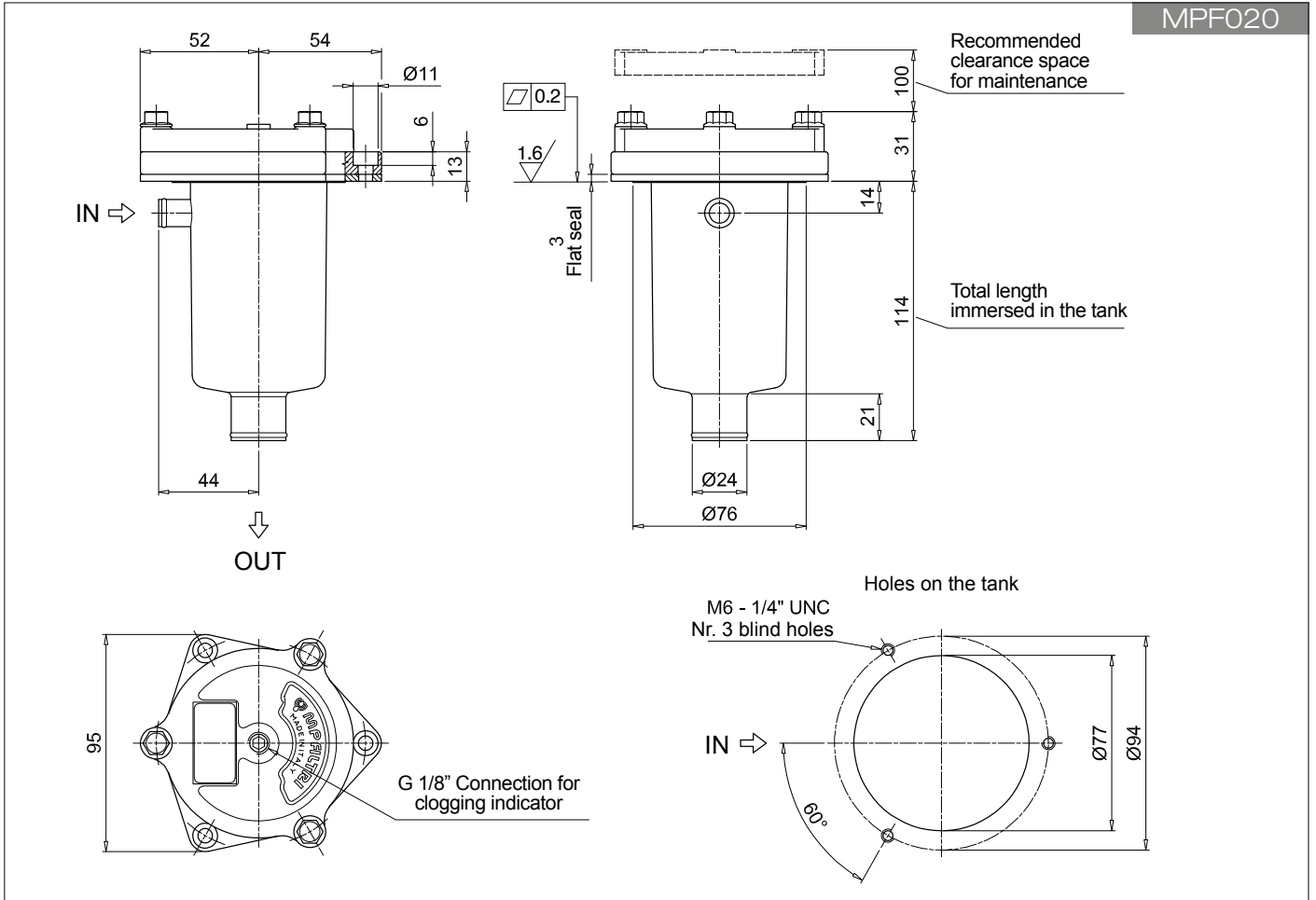
BVA	Axial pressure gauge
BVR	Radial pressure gauge
BVP	Visual pressure indicator with automatic reset
BVQ	Visual pressure indicator with manual reset

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

ADDITIONAL FEATURES

See page 268

TE	Extension tube
T5	Filler plug M30x1.5



MPF MPF100 - MPF104

Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1: MPF100 2 W G3 A06 H B P01									
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											
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											
M60 Wire mesh 60 µm											
M90 Wire mesh 90 µm											
P10 Resin impregnated paper 10 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												
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												
M60 Wire mesh 60 µm												
M90 Wire mesh 90 µm												
P10 Resin impregnated paper 10 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 716-717

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

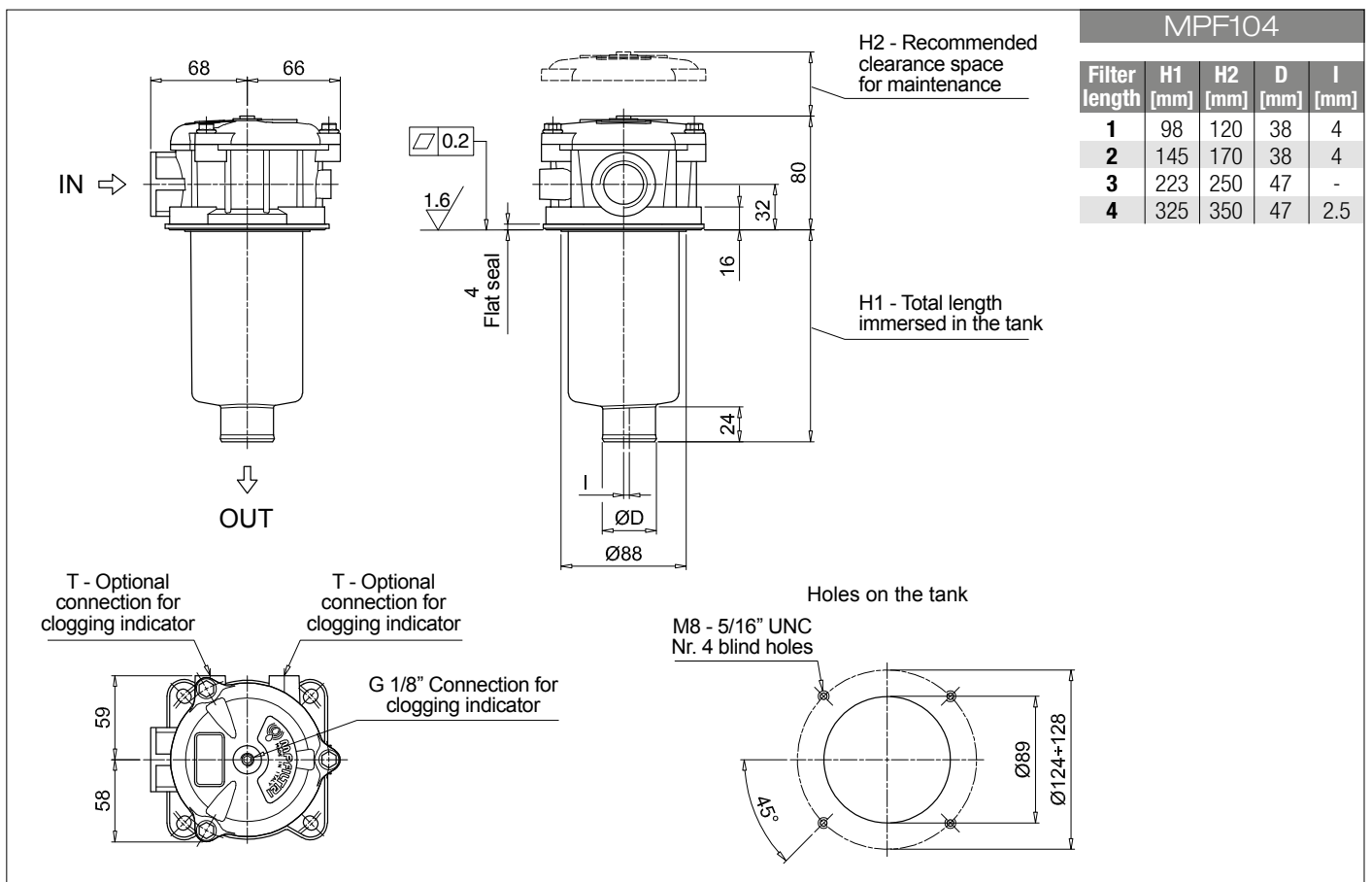
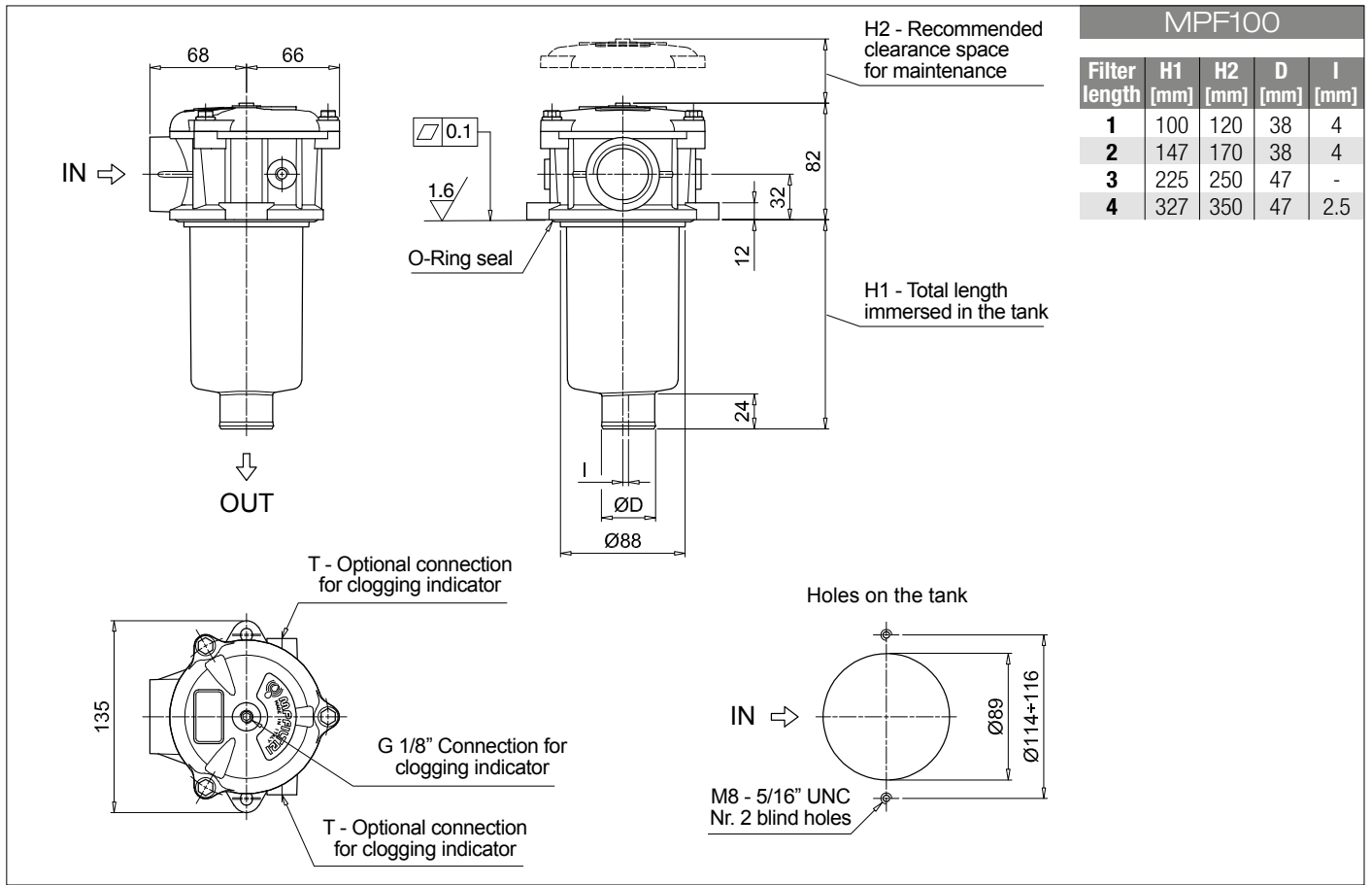
BEA Electrical pressure indicator	
BEM Electrical pressure indicator	
BLA Electrical / visual pressure indicator	

ADDITIONAL FEATURES

See page 268

TE Extension tube	
DFS Diffuser with fast lock connection	

T5 Filler plug M30x1.5	
DPT Dipstick	



Designation & Ordering code

COMPLETE FILTER

Series and size			Configuration example 1: MPF110 2 A G2 1 A16 H E P01								
MPF110 Filter element with standard spigot			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		SAE 6 - 9/16" - 18 UNF	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				G10 G 1 1/4"	G 3/8"	G 1/2"					
G5 3/4" NPT	3/8" NPT	1/2" 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			Bypass valve	Execution
	Axx	Mxx	Pxx		
N 10 bar	-	•	•	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 A16 H B E P01								
MF100 Filter element with standard spigot			Configuration example 2: MF100 4 M60 N V 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
	Axx	Mxx	Pxx			
N 10 bar	-	•	•	B NBR	E 3 bar	P01 MP Filtri standard
H 10 bar	•	-	-	V FPM	- 1.75 bar	Pxx Customized

CLOGGING INDICATORS

See page 716-717

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	

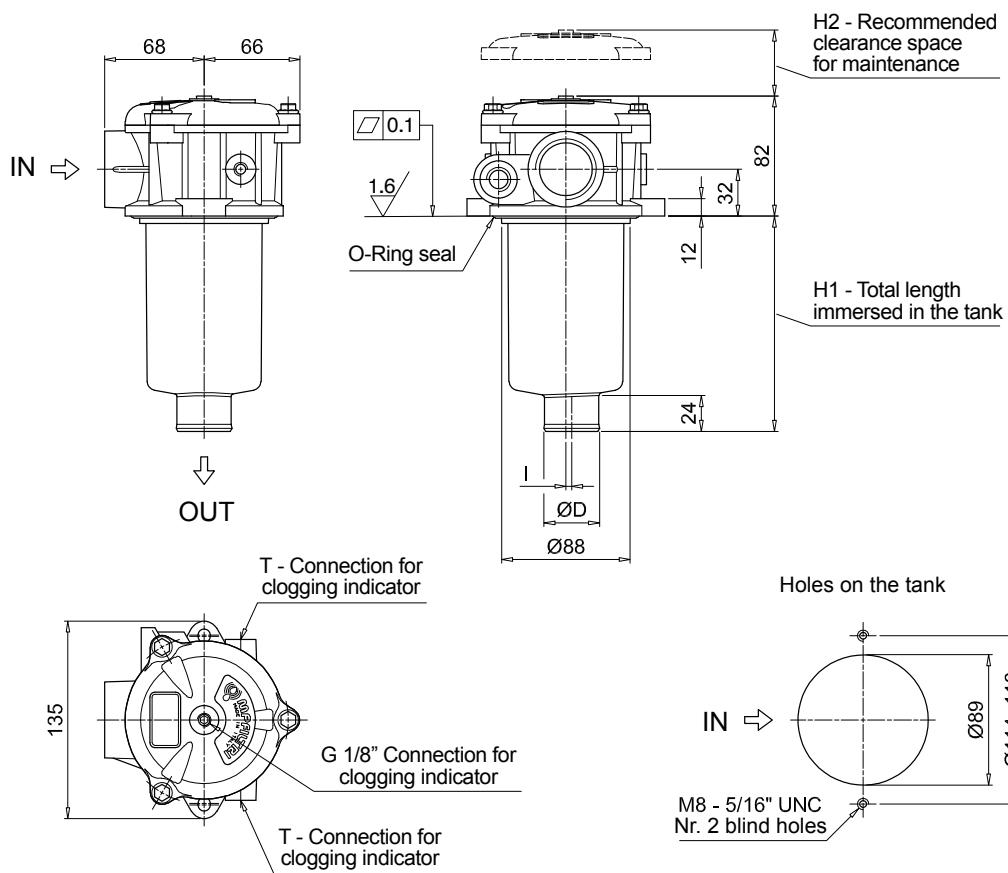
ADDITIONAL FEATURES

See page 268

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

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	1	A	G1	A25	H	E	P01
MPF181 MPF191 Filter element with standard spigot	Configuration example 2:	MPF191	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		
	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:	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		
	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 716-717

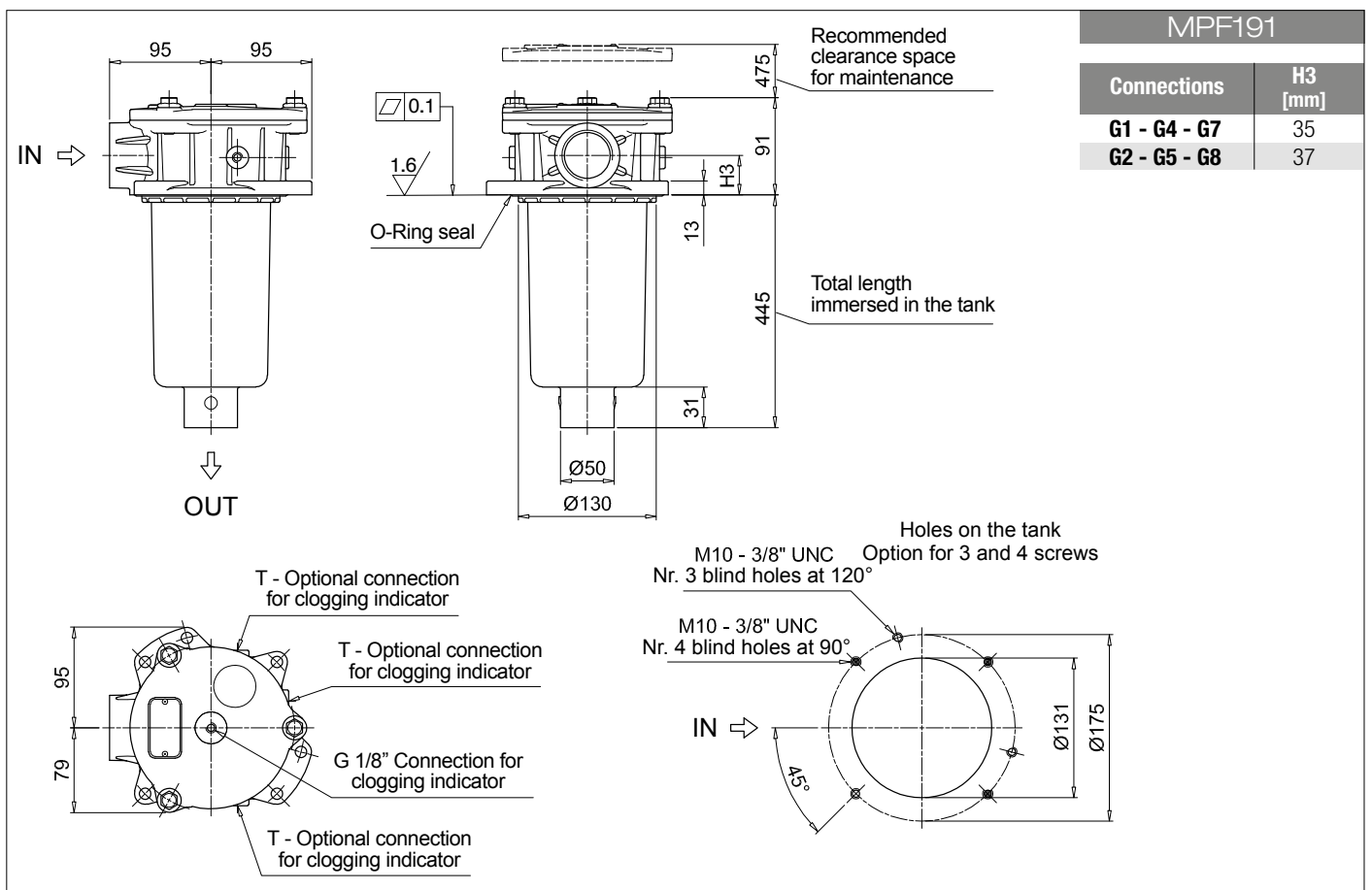
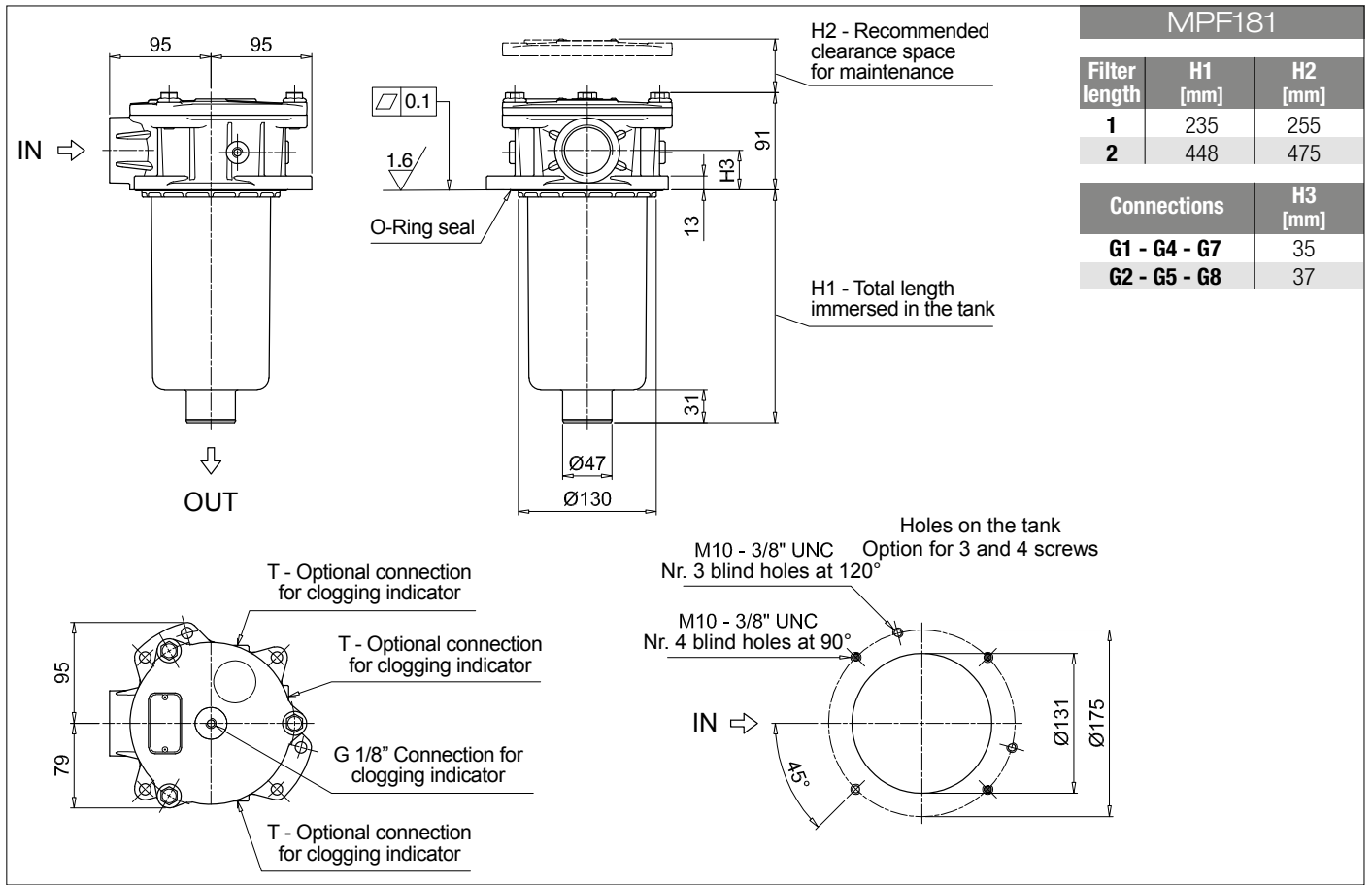
BVA Axial pressure gauge
BVR Radial pressure gauge
BVP Visual pressure indicator with automatic reset
BVQ Visual pressure indicator with manual reset

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 1 A G1 1 A25 H E P01									
MPF182 MPF192 Filter element with standard spigot			Configuration example 2: MPF192 2 V G4 2 P10 N B P01									
Length		Size 182	Size 192									
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											
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

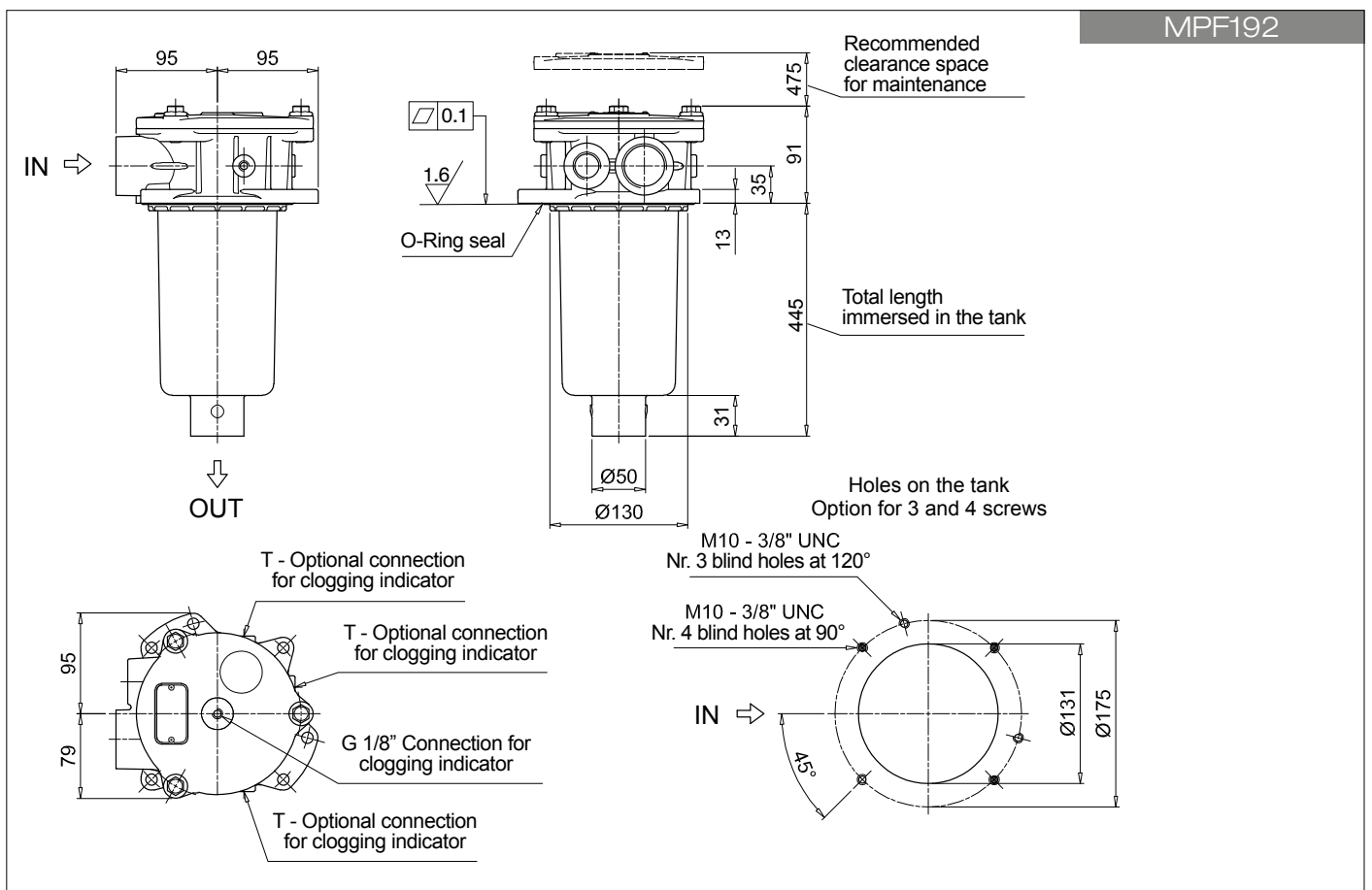
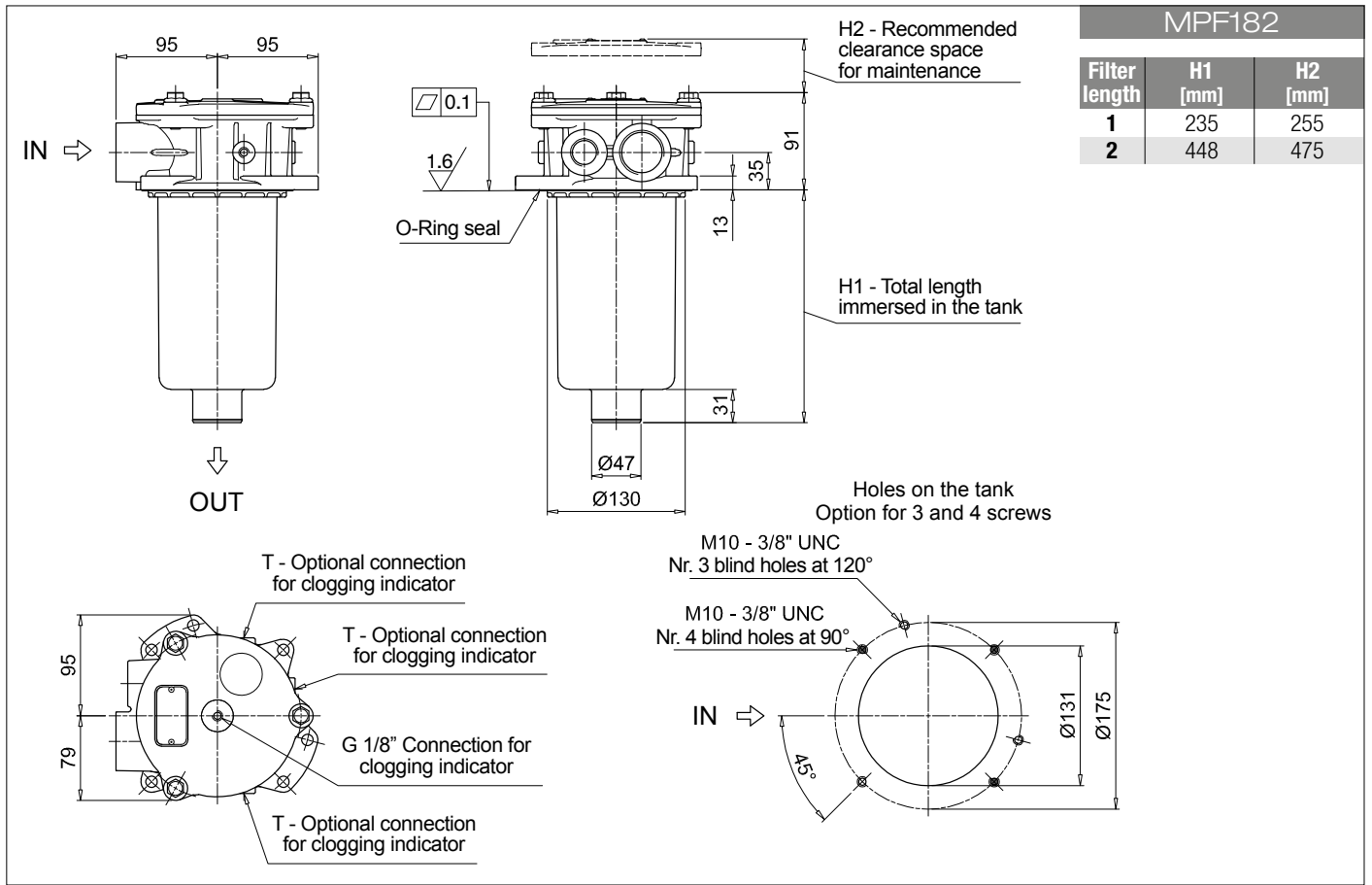
See page 716-717

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

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	1	A	G1	A25	H	E	P01
MPF184 MPF194 Filter element with standard spigot	Configuration example 2:	MPF194	2	V	F3	P10	N	B	P01

Length	Size 184	Size 194
1	•	-
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		
	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:	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		
	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

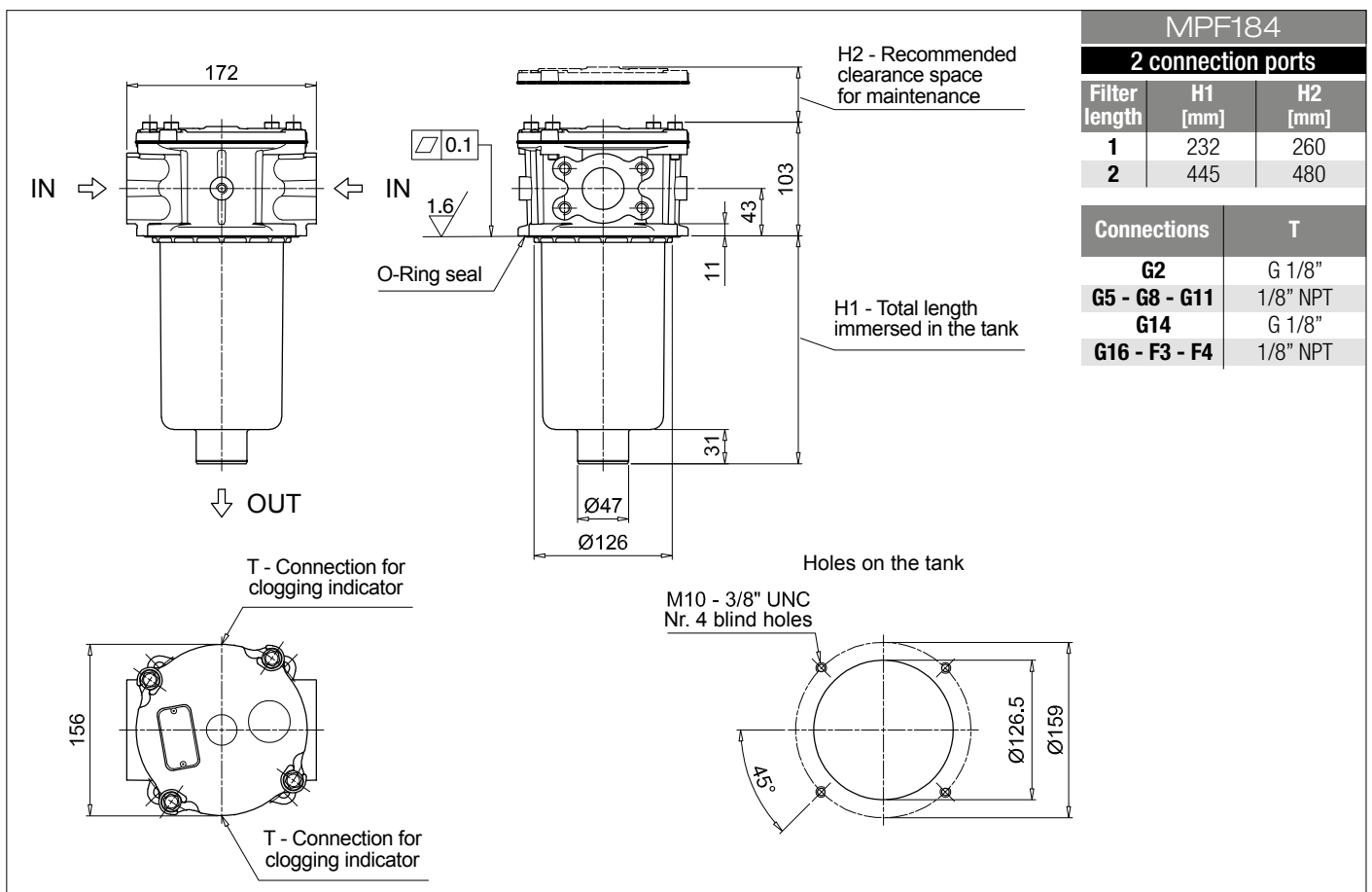
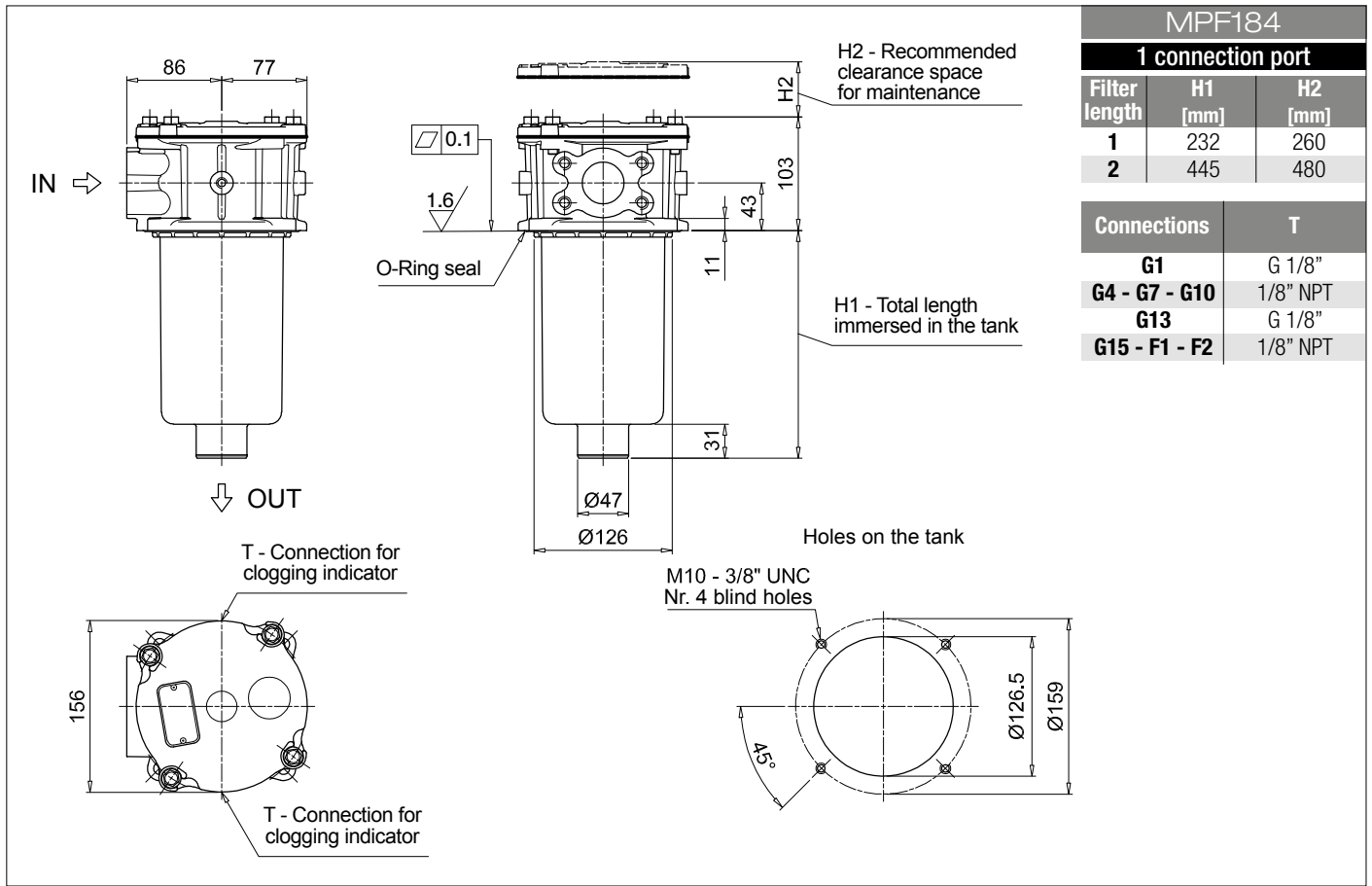
See page 716-717

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

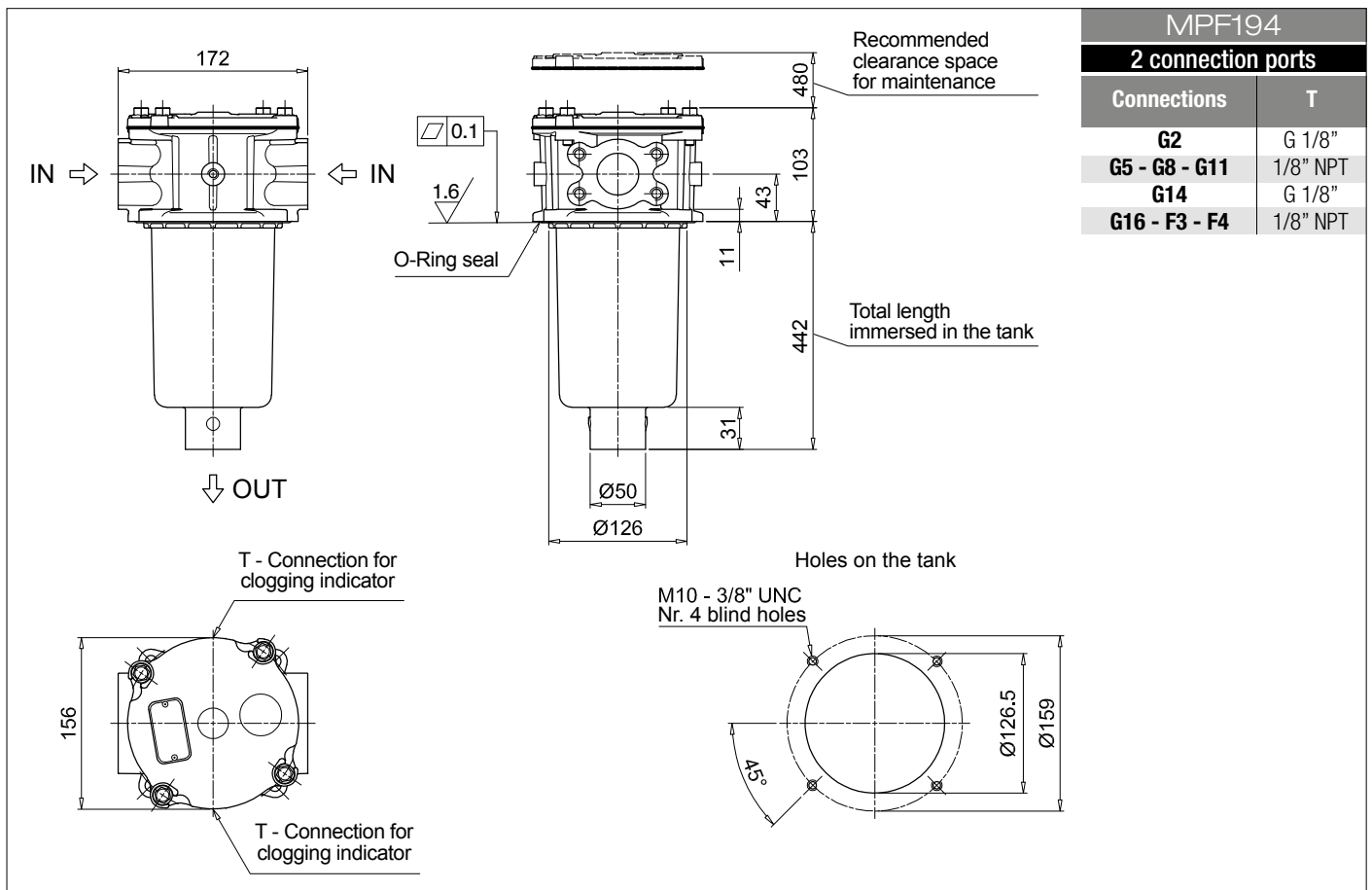
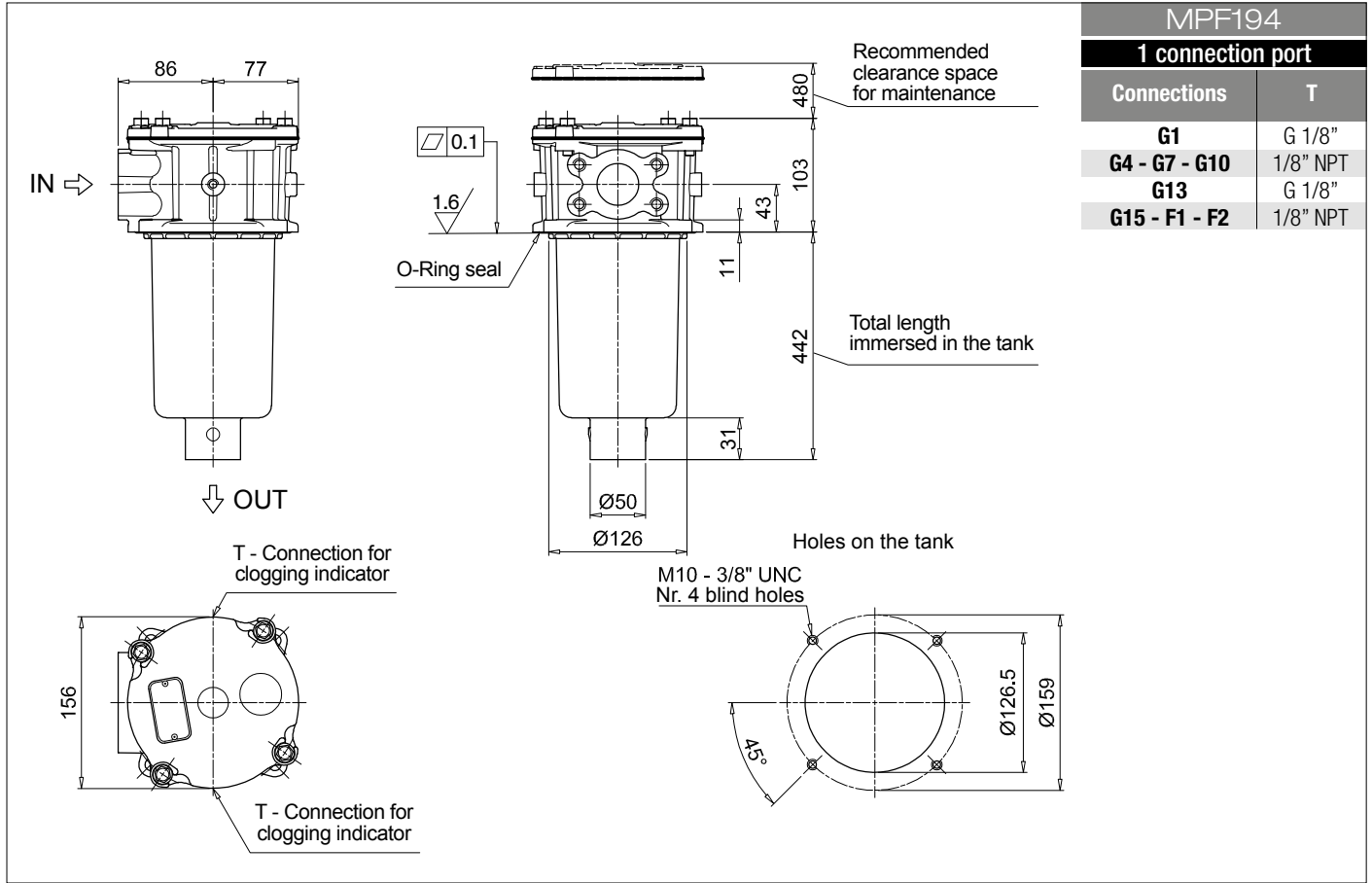
See page 268

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 716-717

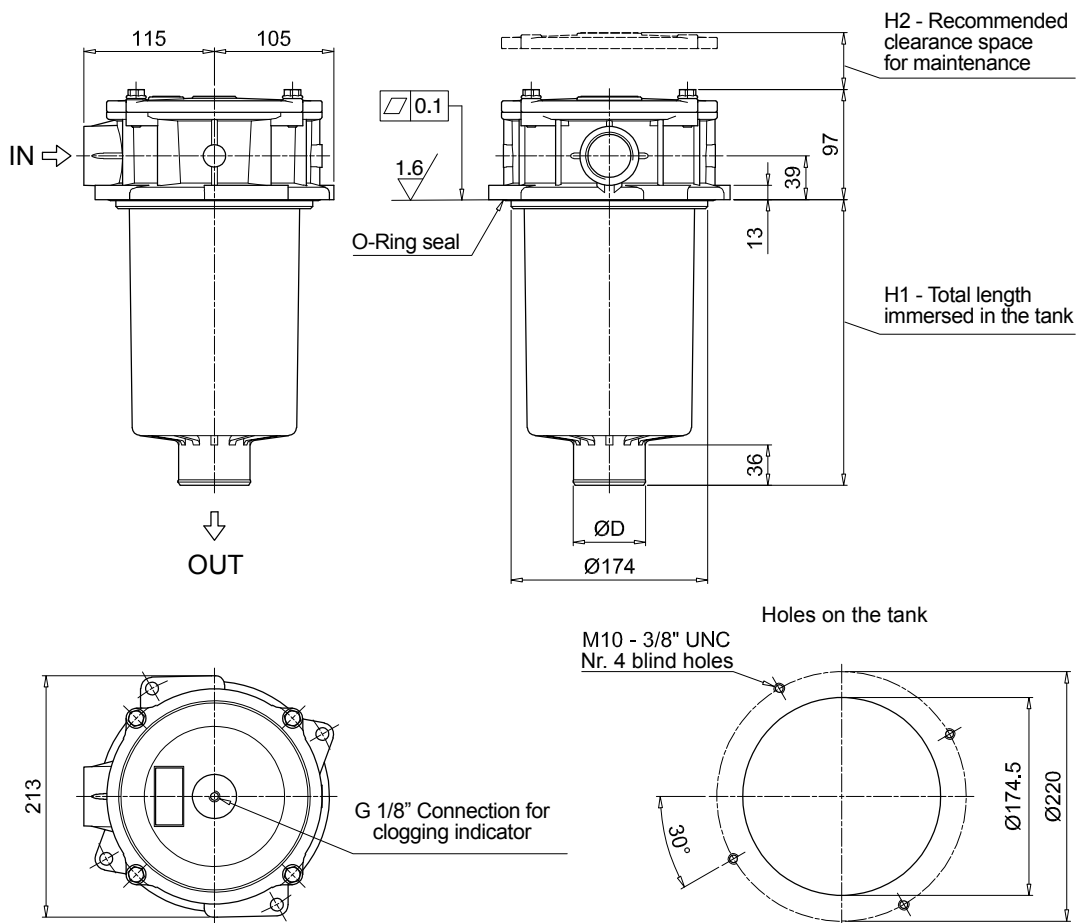
BVA Axial pressure gauge	BEA Electrical pressure indicator
BVR Radial pressure gauge	BEM Electrical pressure indicator
BVP Visual pressure indicator with automatic reset	BLA Electrical / visual pressure indicator
BVQ Visual pressure indicator with manual reset	

ADDITIONAL FEATURES

See page 268

Sxx Extension tube
T5 Filler plug M30x1.5

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	
MF400 Filter element with standard spigot	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	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 716-717

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

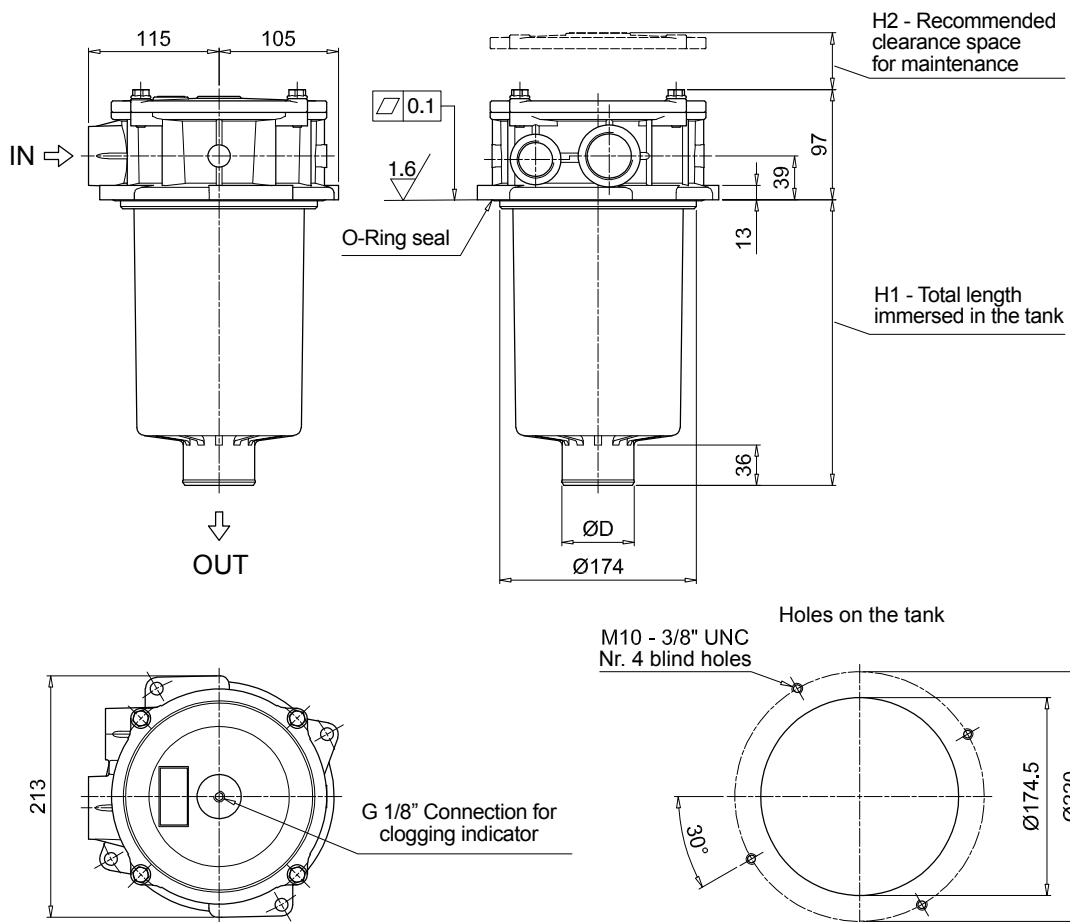
BEA Electrical pressure indicator
BEM Electrical pressure indicator
BLA Electrical / visual pressure indicator

ADDITIONAL FEATURES

See page 268

Sxx Extension tube
T5 Filler plug M30x1.5

MPF410			
Filter length	H1 [mm]	H2 [mm]	D [mm]
1	180	210	51
2	240	270	64
3	290	315	64



MPF MPF450 - MPF451 - MPF750

Designation & Ordering code

COMPLETE FILTER

Series and size				Configuration example 1: MPF450 1 A G1 A25 H B P01								
MPF450 MPF451 MPF750	Filter element with standard spigot			Configuration example 2: 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 1 A25 H B P01								
MF400 IMF750	Filter element with standard spigot			Configuration example 2: MF750 1 P10 N V E P01								
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 716-717

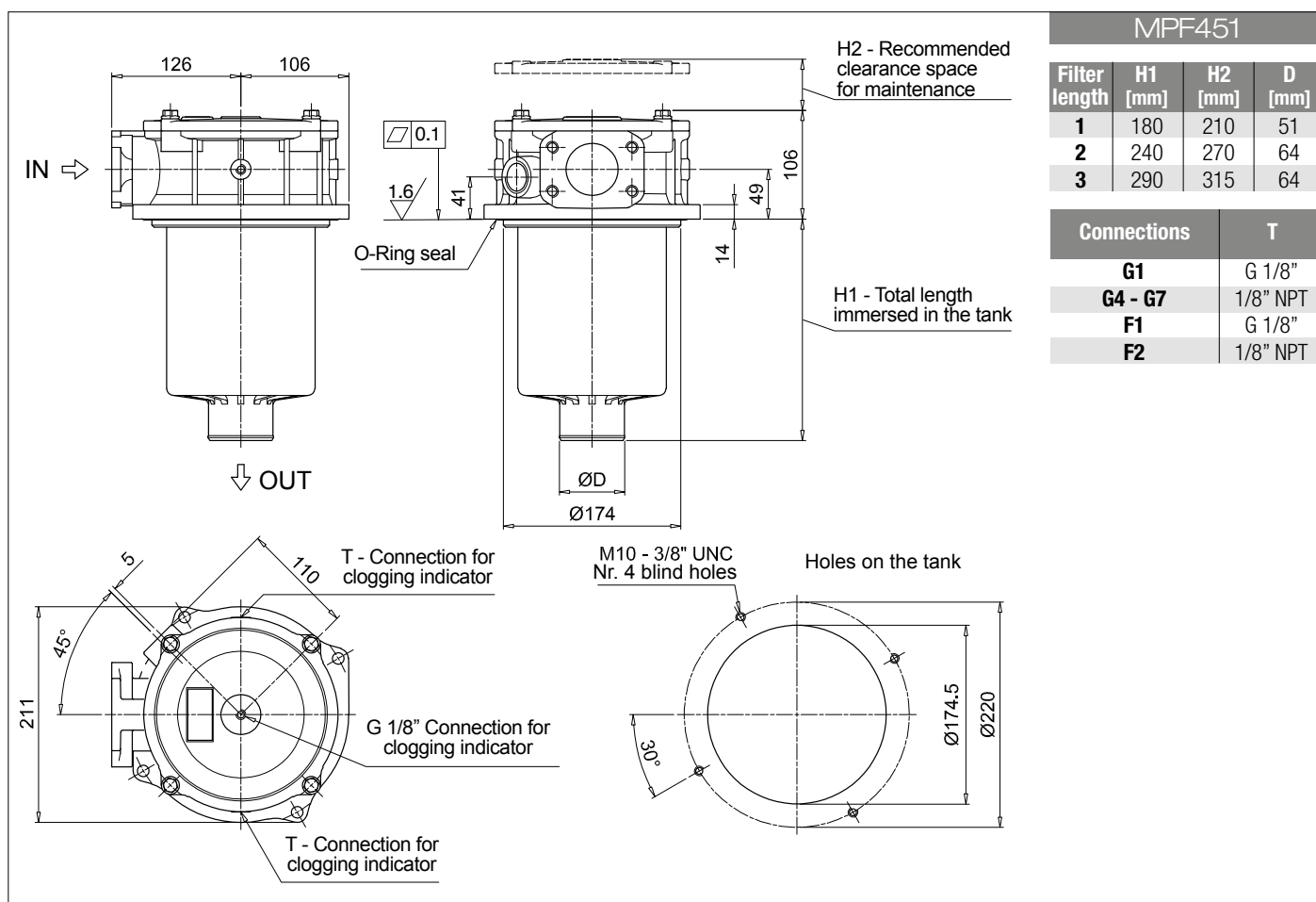
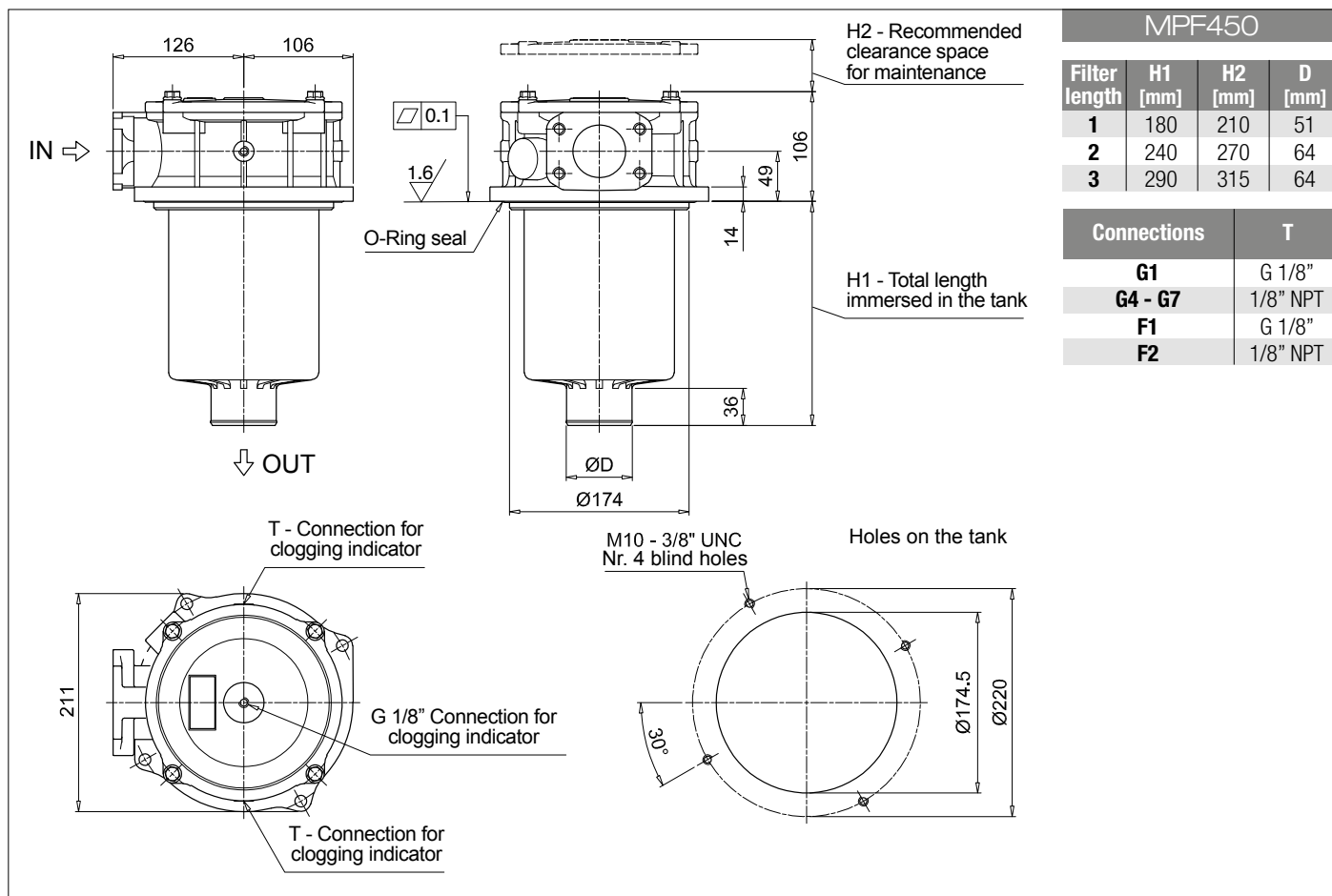
BVA Axial pressure gauge	
BVR Radial pressure gauge	
BVP Visual pressure indicator with automatic reset	
BVQ Visual pressure indicator with manual reset	

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

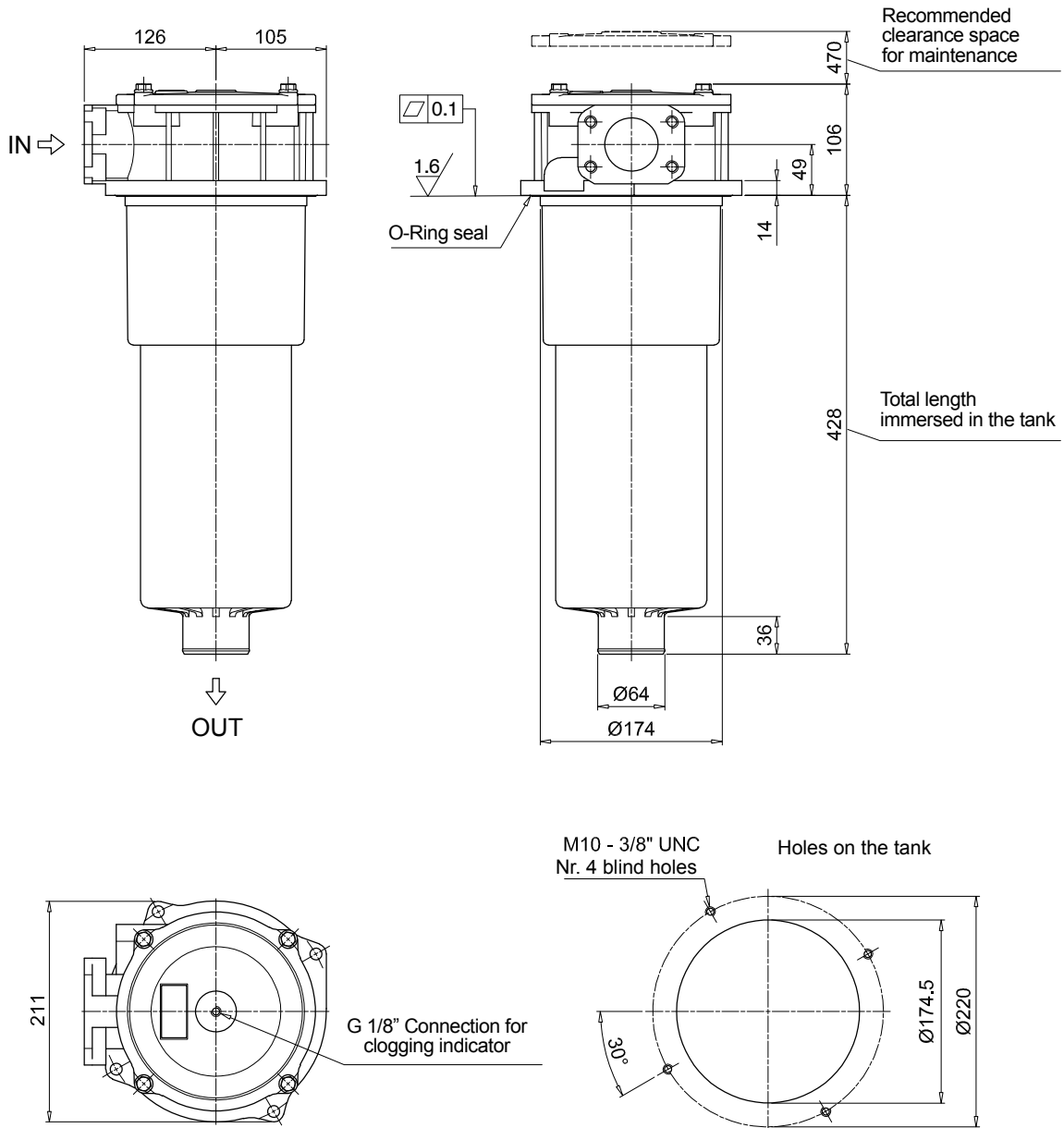
ADDITIONAL FEATURES

See page 268

Sxx Extension tube	
T5 Filler plug M30x1.5	



MPF750



MPF 100

MPF 181

O-RING SEAL

Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 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

Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 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

POLYAMIDE EXTENSION TUBE

H1 - Total length immersed in the tank

Configuration example: **TE** **40** **A** **250**

Series	Size	Material	Length	H [mm]
TE			200	200
			250	250
			300	300
			350	350
			400	400
			450	450
			500	500

COMPATIBILITY TABLE															
		Tube length													
Filter series	Filter size			Filter length	TE25	TE32	TE40	200	250	300	350	400	450	500	
								H1 [mm]							
MPF - MPFX	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 MPFX	181	182	184	1	-	-	•	410	460	510	560	610	660	710	
				2	-	-	•	623	673	723	773	823	873	923	
MPT MPTX	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

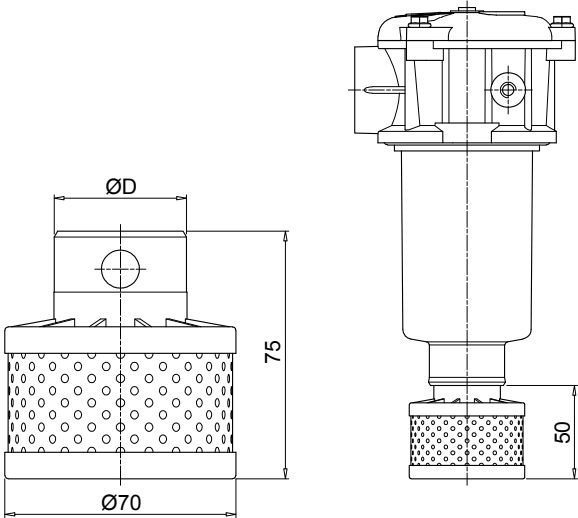
H1 - Total length immersed in the tank

Configuration example: **MPF191** **2** **A** **F1** **A10** **H** **B** **S60**

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

COMPATIBILITY TABLE							
		Filter size		Filter length	Ø D [mm]		
Filter series					52	65	
MPF	191	192	194	2	•	-	
				1	•	-	
	400	410	450	451	2	-	•
					3	-	•
	750				1	-	•

DIFFUSER WITH FAST LOCK CONNECTION

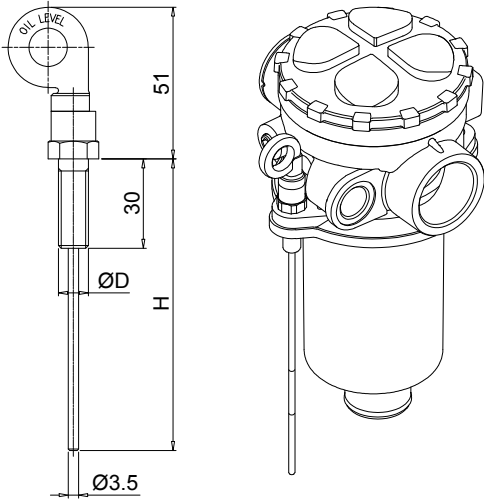


Configuration example: **DFS 32 A 075**

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

COMPATIBILITY TABLE							
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



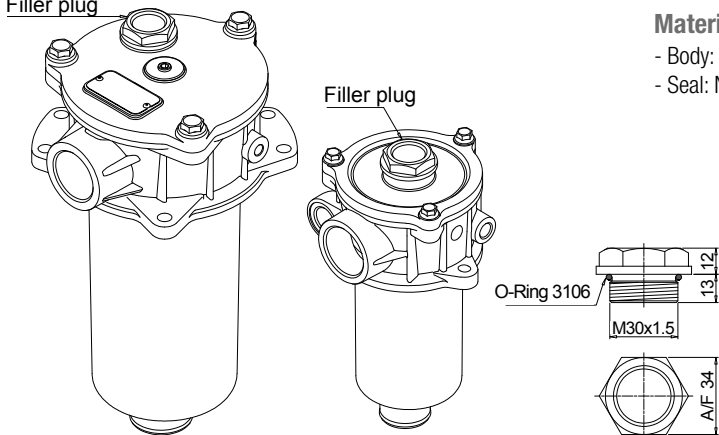
Configuration example: **DPT 20 M10 A P01**

Series		DPT
Length	H [mm]	20
15	134	
20	184	
25	234	
30	284	
35	334	
Fastening		M8 Fastening with screws ø D = M8
		M10 Fastening with screws ø D = M10
Seals		A NBR
		V FPM
Execution		P01 MP Filtri standard
		Pxx Customized

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

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

FILLER PLUG



Configuration example: **DFS 32 A 075**

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

Materials
 - Body: Polyamide
 - Seal: NBR

Technical data
 Tightening torque: 15 N·m

O-Ring 3106 / M30x1.5 / 34

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

Designation & Ordering code

BAROMETRIC (PRESSURE) INDICATORS

Series	Configuration example 1: BE A 15 H A 41 P01 EX									
BE Electrical pressure indicator	Configuration example 2: BL A 20 H A 71 P01									
BL Electrical/Visual pressure indicator	Configuration example 3: BV R 14 P01									
BV Visual pressure indicator	Configuration example 4: BV P 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	H	A	50	P01	UL
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

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