



MP FILTRI
Filtri per oleodinamica
Filtri Sul Ritorno



 HYDRAULIC
COMPONENTS
& FLUID CONTAMINATION
CONTROL



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MPFX series

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



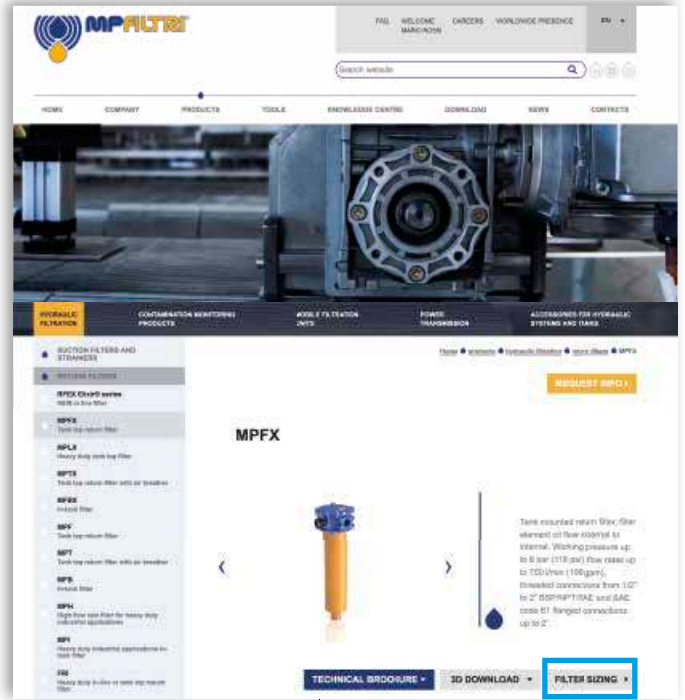
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

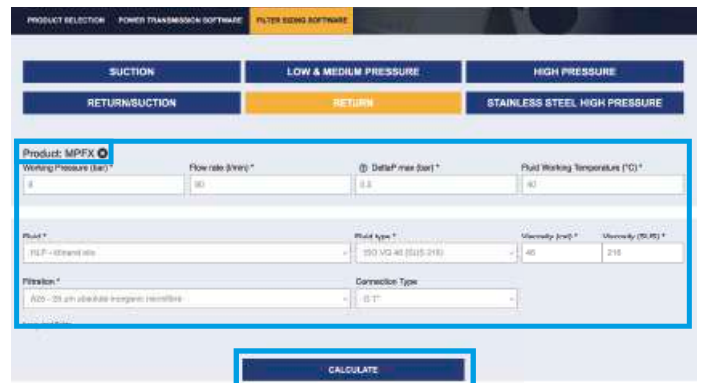
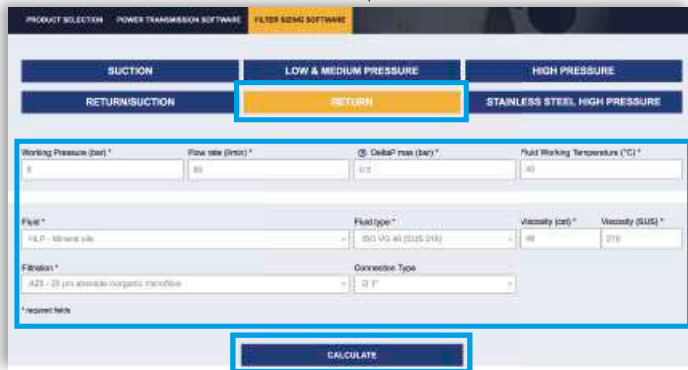
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

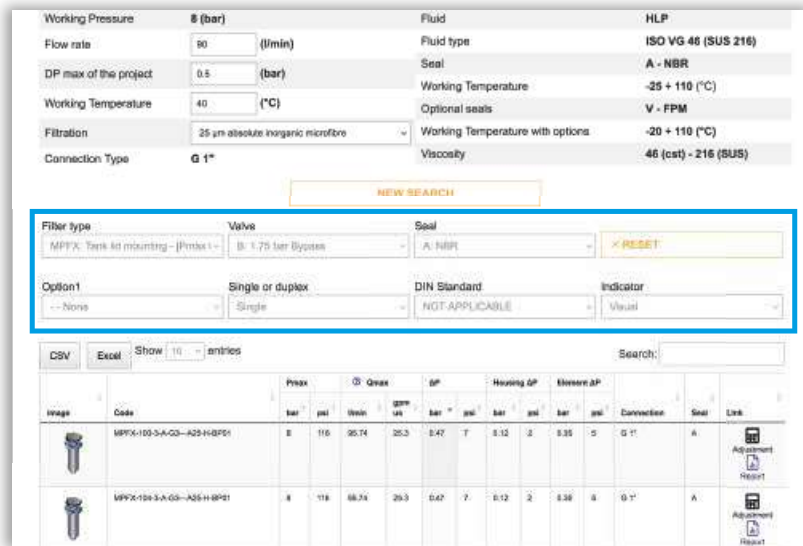
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	gpm	us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	6.47	7	9.12	2	0.35	5	5	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	6.47	7	9.12	2	0.35	5	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT



SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF



A new browser window displays the pdf

see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.



THE NEW FILTER CONCEPT

MPFX
MPLX
MPTX
MFBX
MFX
series

NEW FILTER ELEMENT WITH EXCLUSIVE INTERFACE CONNECTION

- ◆ **Protects the machine from improper use of non-original products.**
- ◆ **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.



The products identified as MPFX, MPLX, MPTX, MFBX and MFX are protected by:

- ◆ Italian Patent n° 102014902261205
- ◆ Canadian Patent n° 2,937,258
- ◆ European Patent n° 16181725.9
- ◆ US Patent n° 15/224,337

Description

Technical data

Return filter

Maximum working pressure up to 800 kPa (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 750 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

Filter housing materials

- Head: Aluminium

- Cover

Nylon: MPFX 030-100-104-110

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

- Bowl: Nylon

Bypass valve

- Opening pressure 175 kPa (1.75 bar) ±10%

- Opening pressure 300 kPa (3 bar) ±10%

Δp element type

- Microfiber 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

MPFX 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
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 450-451		3.95	4.25	4.50	-		3.70	4.60	5.40	-
MPFX 750		6.30	-	-	-		8.45	-	-	-

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MPFX 030	1	7	10	24	29	47	84	60	66
MPFX 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
MPFX 181-182-184	1	127	148	235	243	278	441	285	299
	2	231	262	358	382	388	472	404	412
MPFX 191-192-194	2	261	305	489	528	546	696	583	598
MPFX 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
MPFX 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
MPFX 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
MPFX 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.

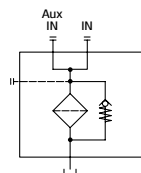
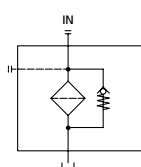
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

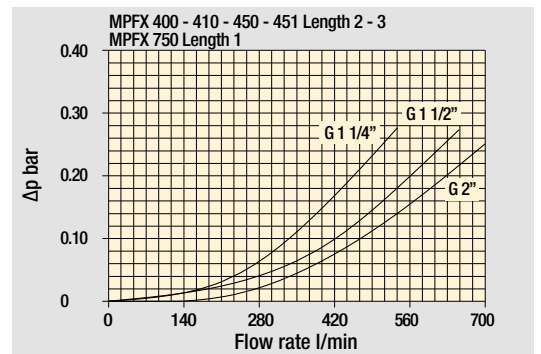
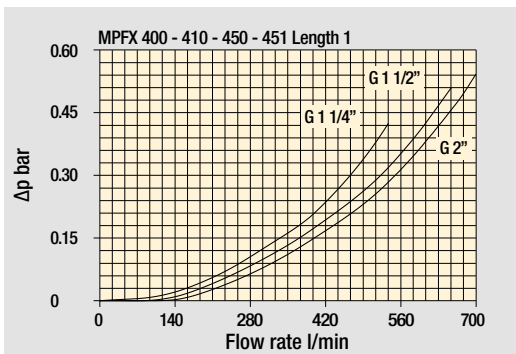
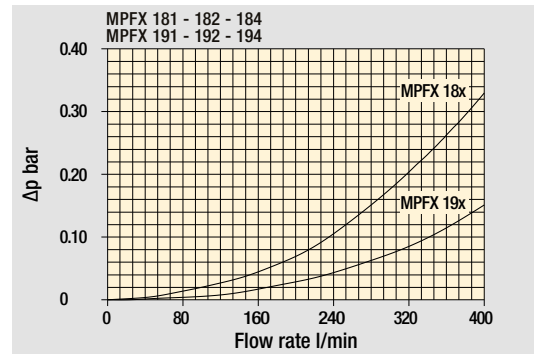
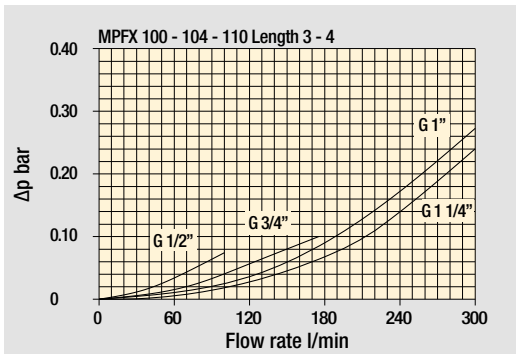
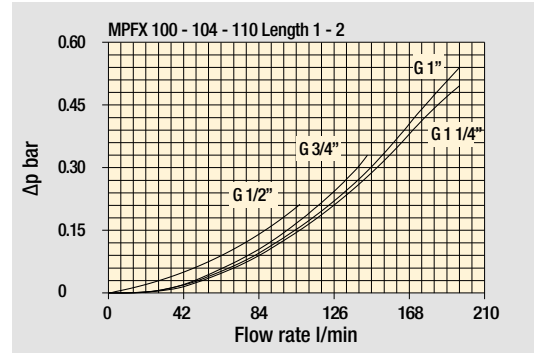
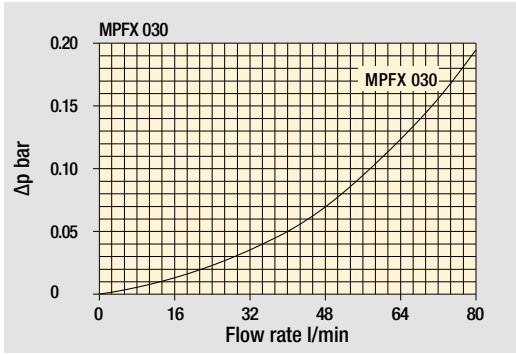
Filter series	Style 1 connection	Style 2 connections
MPFX 030	•	
MPFX 100	•	
MPFX 104	•	
MPFX 110		•
MPFX 181	•	
MPFX 182		•
MPFX 184	•	•
MPFX 191	•	
MPFX 192	•	
MPFX 194	•	•
MPFX 400	•	
MPFX 410		•
MPFX 450	•	
MPFX 451		•
MPFX 750	•	



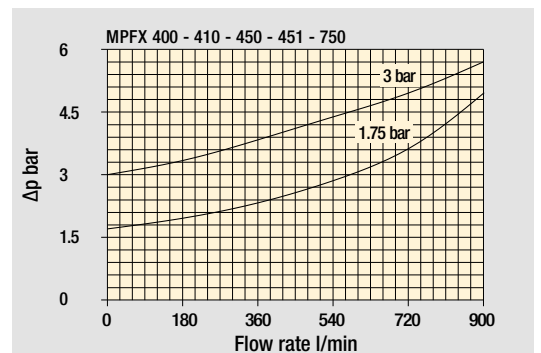
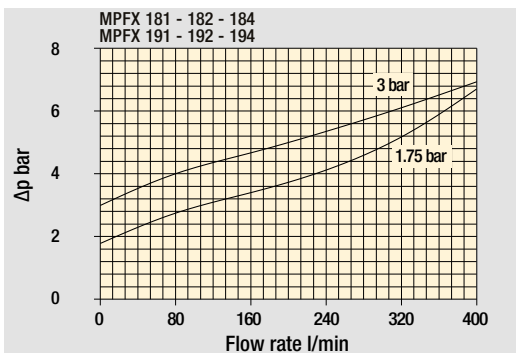
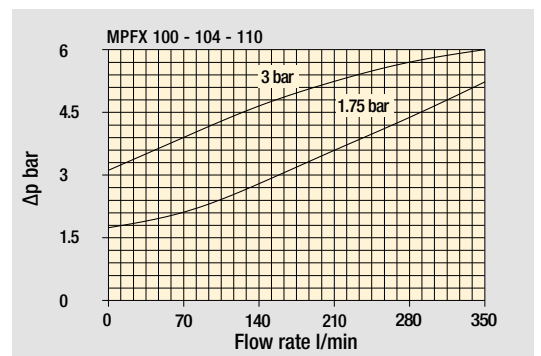
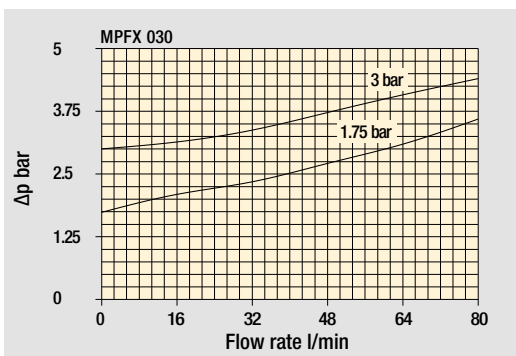
MPFX GENERAL INFORMATION

Pressure drop

Filter housings Δp pressure drop



Bypass valve pressure drop

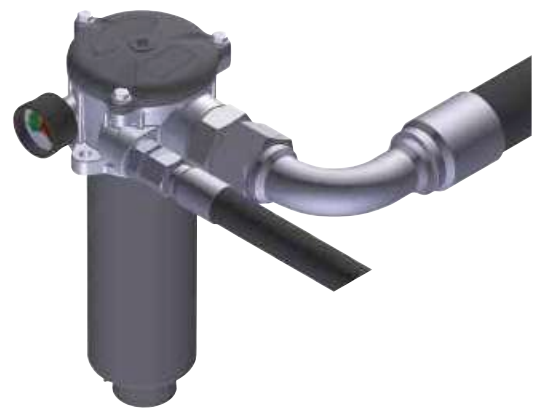


The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

Standard - Single IN port



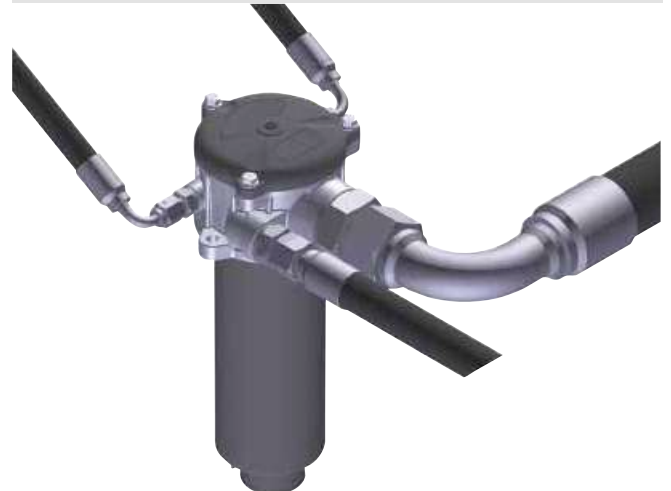
Double IN port
Option: double indicator port



Double IN port - Drain port
Option: indicator port



Double IN port - Double drain port



Designation & Ordering code

COMPLETE FILTER

Series and size				Configuration example 1: MPFX030 1 V G1 M25 N B P01							
MPFX030 Filter element with private spigot				Configuration example 2: MPFX030 1 A G4 A10 H E P01							
Length											
1											
Seals and treatments											
A NBR											
V FPM											
W NBR head anodized											
Z FPM head anodized											
Connections											
G1 G 1/2"											
G4 1/2" NPT											
G7 SAE 8 - 3/4" - 16 UNF											
Filtration rating (filter media)											
A03 Inorganic microfiber		M25 Wire mesh									
A06 Inorganic microfiber		M60 Wire mesh									
A10 Inorganic microfiber		M90 Wire mesh									
A16 Inorganic microfiber		P10 Resin impregnated paper 10 µm									
A25 Inorganic microfiber		P25 Resin impregnated paper									
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			
W 10 bar, compatible with fluids HFA, HFB and HFC				•	•						

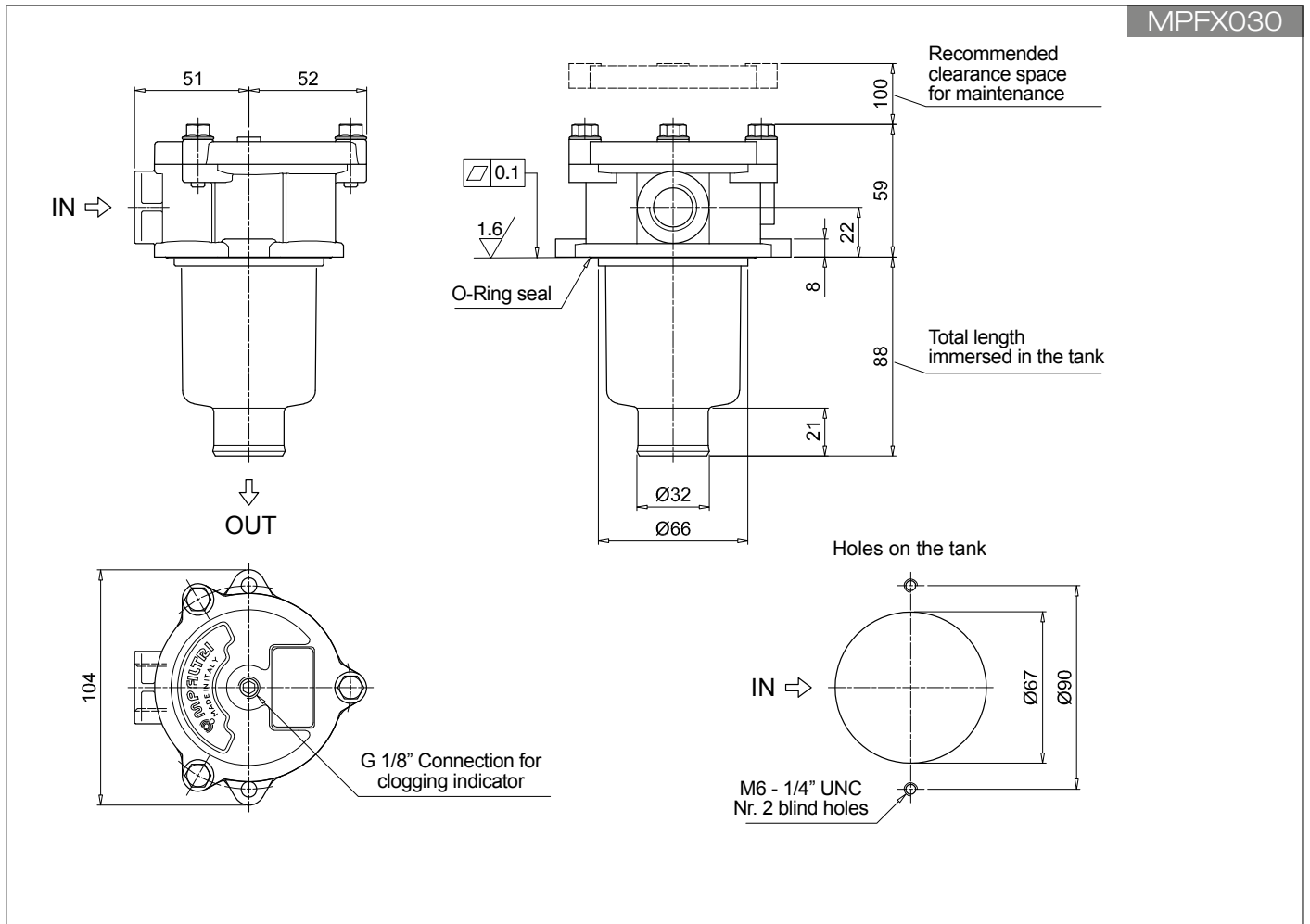
FILTER ELEMENT

Element series and size				Configuration example 1: MPFX030 1 M25 N V P01								
MPFX030 Filter element with private spigot				Configuration example 2: MPFX030 1 A10 H B E 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			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			
W 10 bar, compatible with fluids HFA, HFB and HFC				•	•							

ACCESSORIES

Indicators		page			page
BVA	Axial pressure gauge	240	BEA	Electrical pressure indicator	239
BVR	Radial pressure gauge	240	BEM	Electrical pressure indicator	239
BVP	Visual pressure indicator with automatic reset	241	BLA	Electrical / visual pressure indicator	239-240
BVQ	Visual pressure indicator with manual reset	241			
Additional features		page			
TE	Extension tube	248			
T5	Filler plug M30x1.5	249			

MPFX030



MPFX MPFX100 - MPFX104

Designation & Ordering code

COMPLETE FILTER

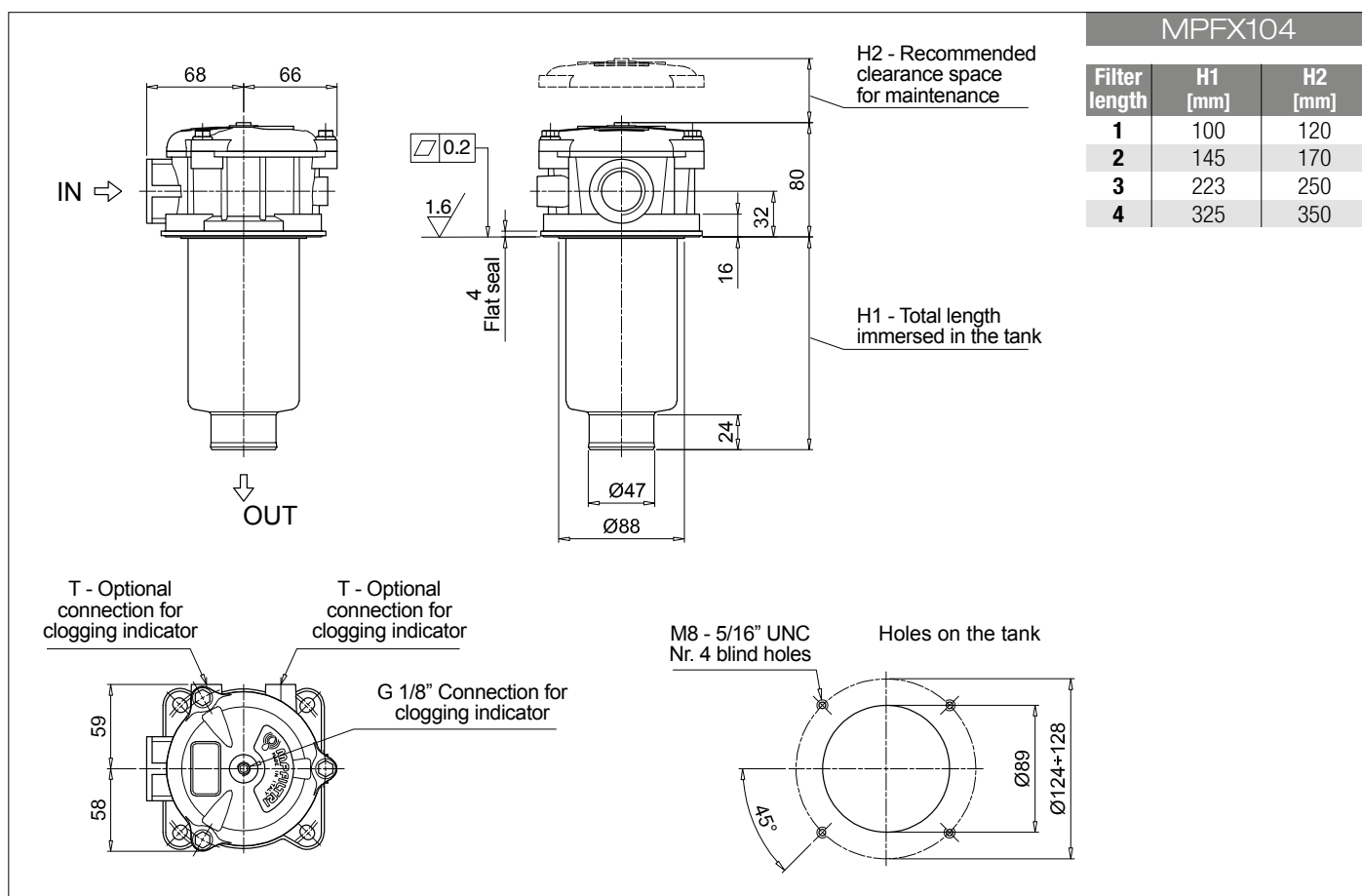
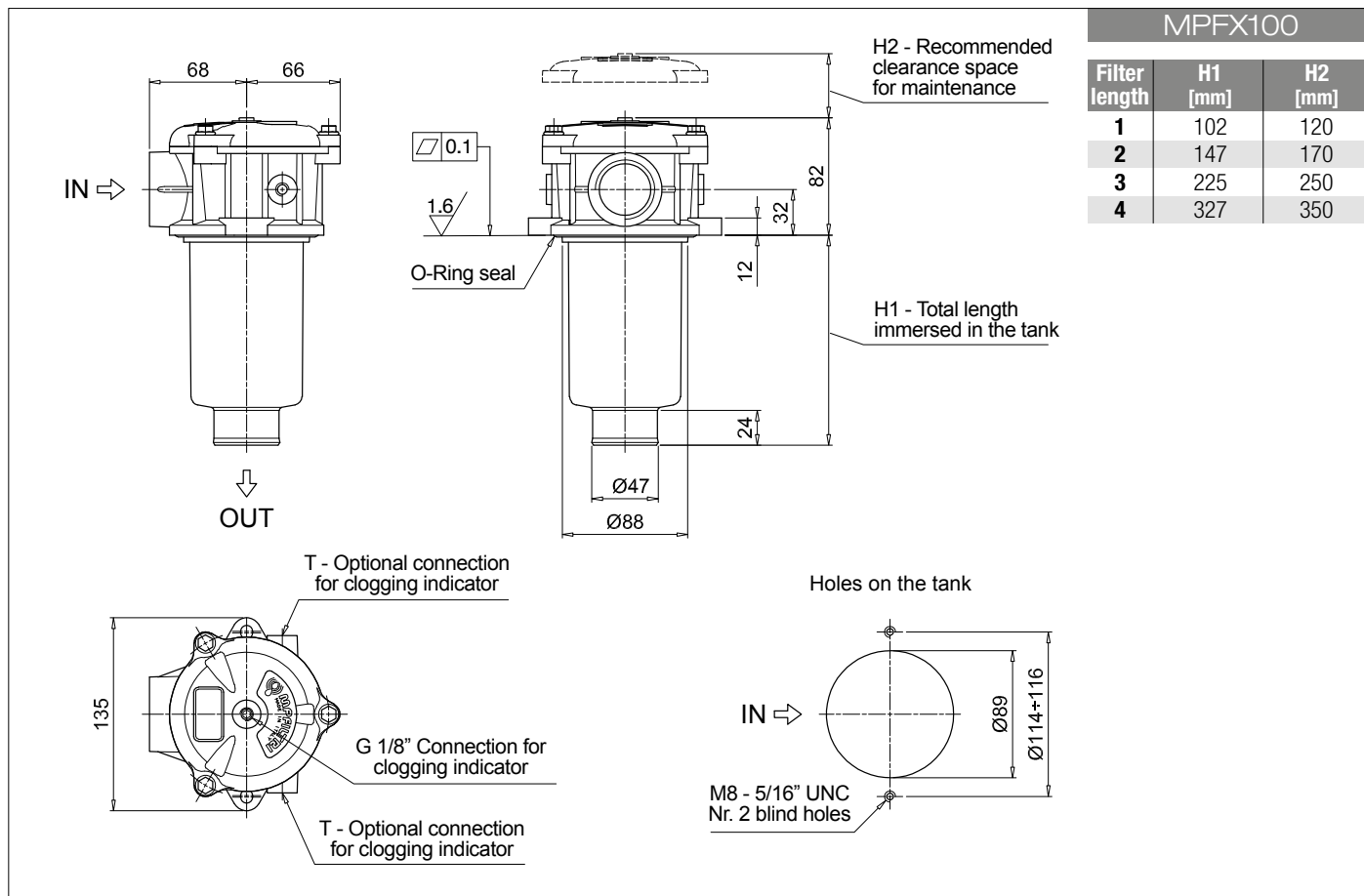
Series and size		Configuration example 1: MPFX100 2 W G3 A06 W B P01									
MPFX100 MPFX104 Filter element with private spigot		Configuration example 2: MPFX104 4 A G8 P10 N E P01									
Length											
1 2 3 4											
Seals and treatments											
A NBR											
V FPM											
W NBR head 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							
N 10 bar		Axx		Mxx		Pxx					
H 10 bar		•		•		•					
W 10 bar, compatible with fluids HFA, HFB and HFC		•		•		•					
								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: MFX100 2 A06 W B P01									
MFX100 Filter element with private spigot		Configuration example 2: MFX100 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							
N 10 bar		Axx		Mxx		Pxx					
H 10 bar		•		•		•					
W 10 bar, compatible with fluids HFA, HFB and HFC		•		•		•					
								Seals		Bypass valve	
								B NBR		E 3 bar	
								V FPM		1.75 bar	
										Execution	
										P01 MP Filtri standard	
										Pxx Customized	

ACCESSORIES

Indicators		page		page	
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239		
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239		
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240		
BVQ Visual pressure indicator with manual reset	241				
Additional features		page		page	
TE Extension tube	248	T5 Filler plug M30x1.5	249		
DFS Diffuser with fast lock connection	249	DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

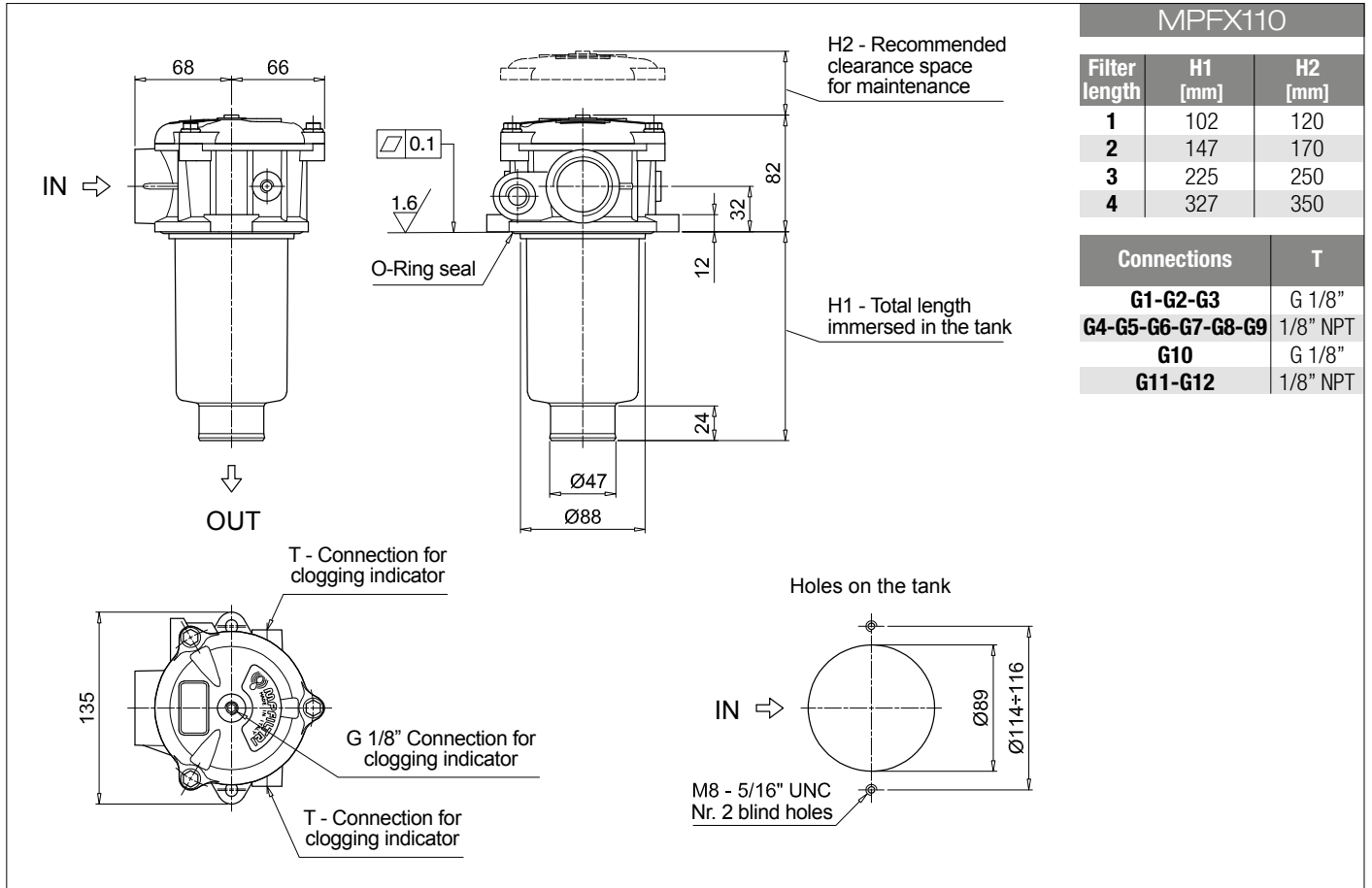
Series and size			Configuration example 1: MPFX110 3 Z G4 2 M25 W B P01								
MPFX110 Filter element with private spigot			Configuration example 2: MPFX110 4 A G8 1 P10 N E P01								
Length											
1 2 3 4											
Seals and treatments											
A NBR			W NBR head anodized								
V FPM			Z FPM head anodized								
Main Connections			Main Connections			Aux size 1			Aux size 2		
G1 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			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			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			• •								
						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: MPFX100 3 M25 W V P01								
MPFX100 Filter element with private spigot			Configuration example 2: MPFX100 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								
N 10 bar			Axx Mxx Pxx								
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			• •								
						Seals		Bypass valve		Execution	
						B NBR		E 3 bar		P01 MP Filtri standard	
						V FPM		1.75 bar		Pxx Customized	

ACCESSORIES

Indicators		page			page
BVA	Axial pressure gauge	240	BEA	Electrical pressure indicator	239
BVR	Radial pressure gauge	240	BEM	Electrical pressure indicator	239
BVP	Visual pressure indicator with automatic reset	241	BLA	Electrical / visual pressure indicator	239-240
BVQ	Visual pressure indicator with manual reset	241			
Additional features		page			page
TE	Extension tube	248	T5	Filler plug M30x1.5	249
DFS	Diffuser with fast lock connection	249	DPT	Dipstick	249



MPFX110		
Filter length	H1 [mm]	H2 [mm]
1	102	120
2	147	170
3	225	250
4	327	350

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

MPFX MPFX181 - MPFX191

Designation & Ordering code

COMPLETE FILTER

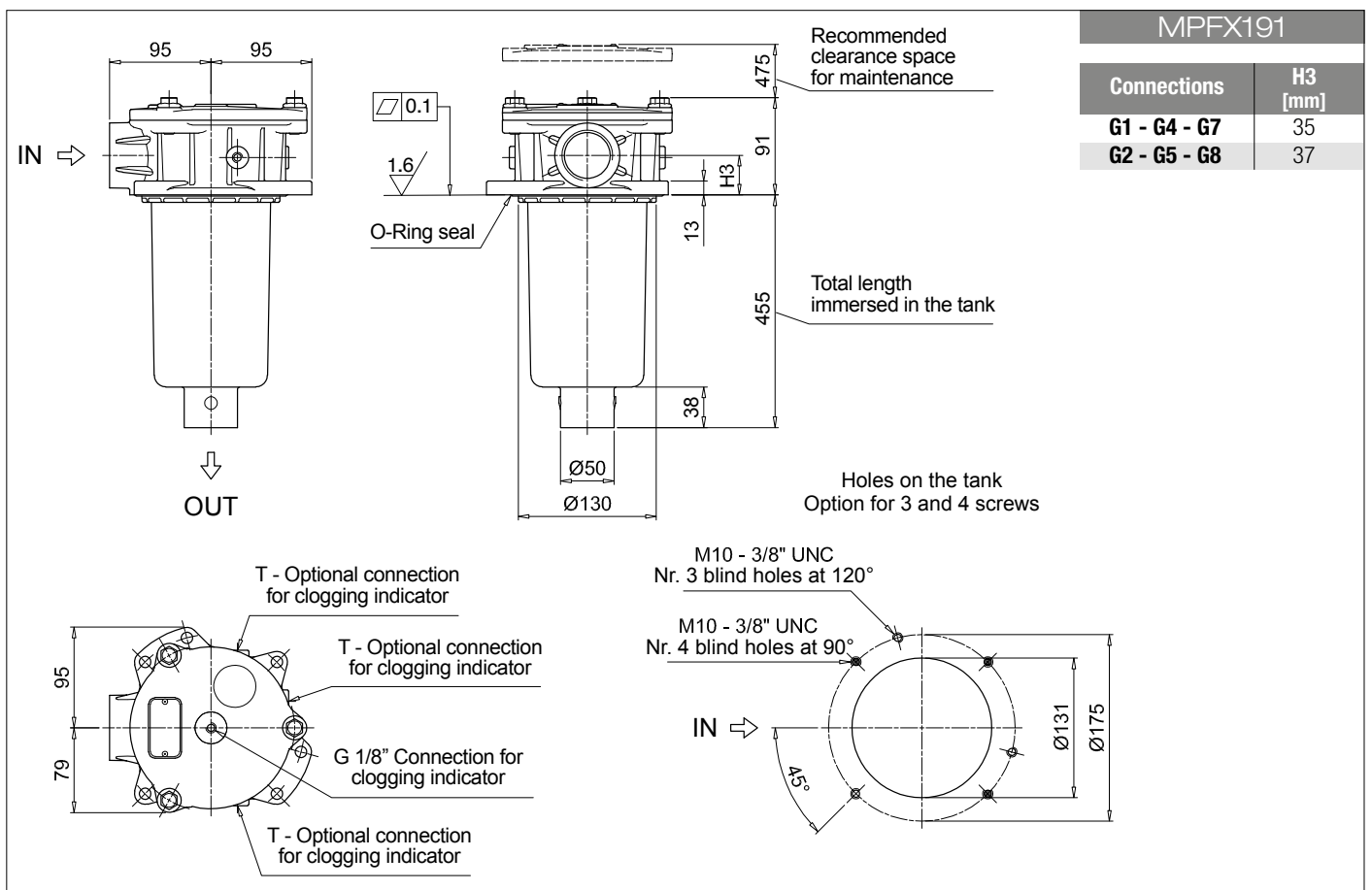
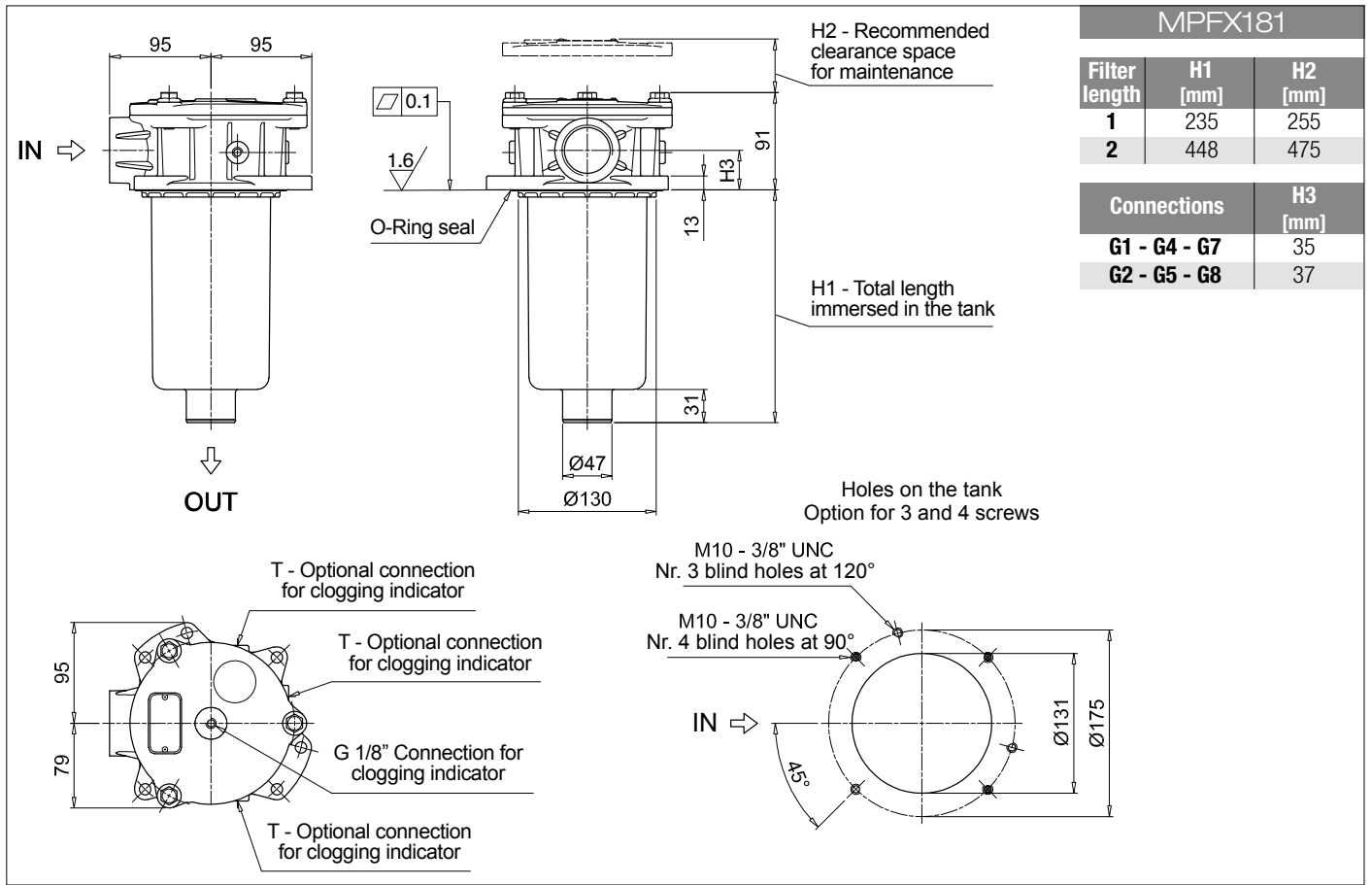
Series and size			Configuration example 1: MPFX181 1 A G1 A25 H E P01								
MPFX181 MPFX191 Filter element with private spigot			Configuration example 2: MPFX191 2 V G2 P10 N B P01								
Length											
	Size 181	Size 191									
1	•										
2	•	•									
Seals and treatments											
A	NBR	B	NBR	flat seal on head							
V	FPM	D	FPM	flat seal on head							
W	NBR	L	NBR	head anodized, flat seal on head							
Z	FPM	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		
			Axx	Mxx	Pxx						
N	10 bar			•	•	E	3 bar		P01	MP Filtri standard	
H	10 bar		•			B	1.75 bar		Pxx	Customized	
W	10 bar, compatible with fluids HFA, HFB and HFC		•	•							

FILTER ELEMENT

Element series and size			Configuration example 1: MPFX180 1 A25 H B E P01											
MPFX180 Filter element with private spigot			Configuration example 2: MPFX180 2 P10 N V P01											
Element length														
	Size 181													
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		
			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	
W	10 bar, compatible with fluids HFA, HFB and HFC		•	•										

ACCESSORIES

Indicators		page			page
BVA	Axial pressure gauge	240	BEA	Electrical pressure indicator	239
BVR	Radial pressure gauge	240	BEM	Electrical pressure indicator	239
BVP	Visual pressure indicator with automatic reset	241	BLA	Electrical / visual pressure indicator	239-240
BVQ	Visual pressure indicator with manual reset	241			
Additional features		page			
TE	Extension tube	248			
T5	Filler plug M30x1.5	249			



MPFX MPFX182 - MPFX192

Designation & Ordering code

COMPLETE FILTER

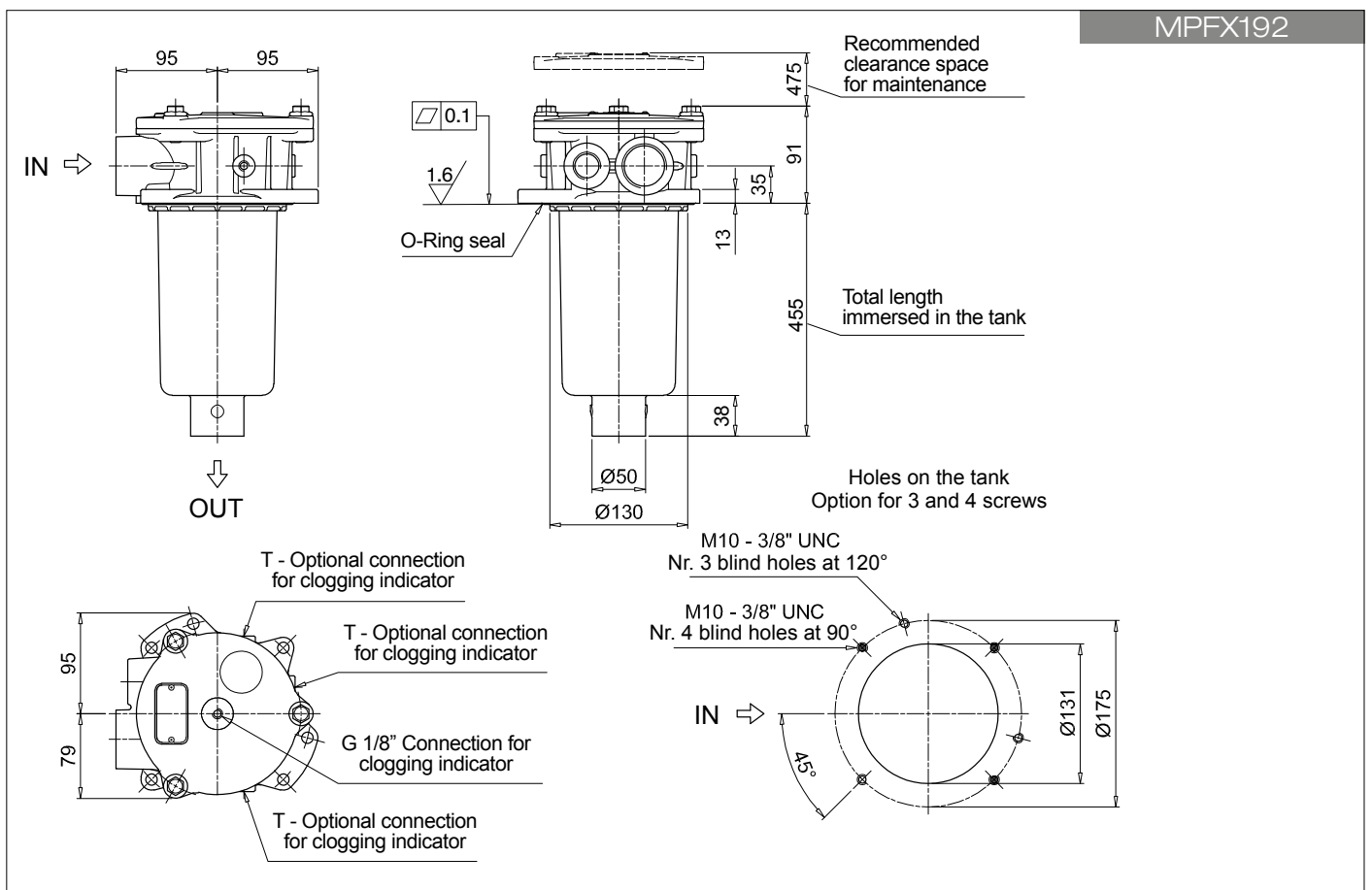
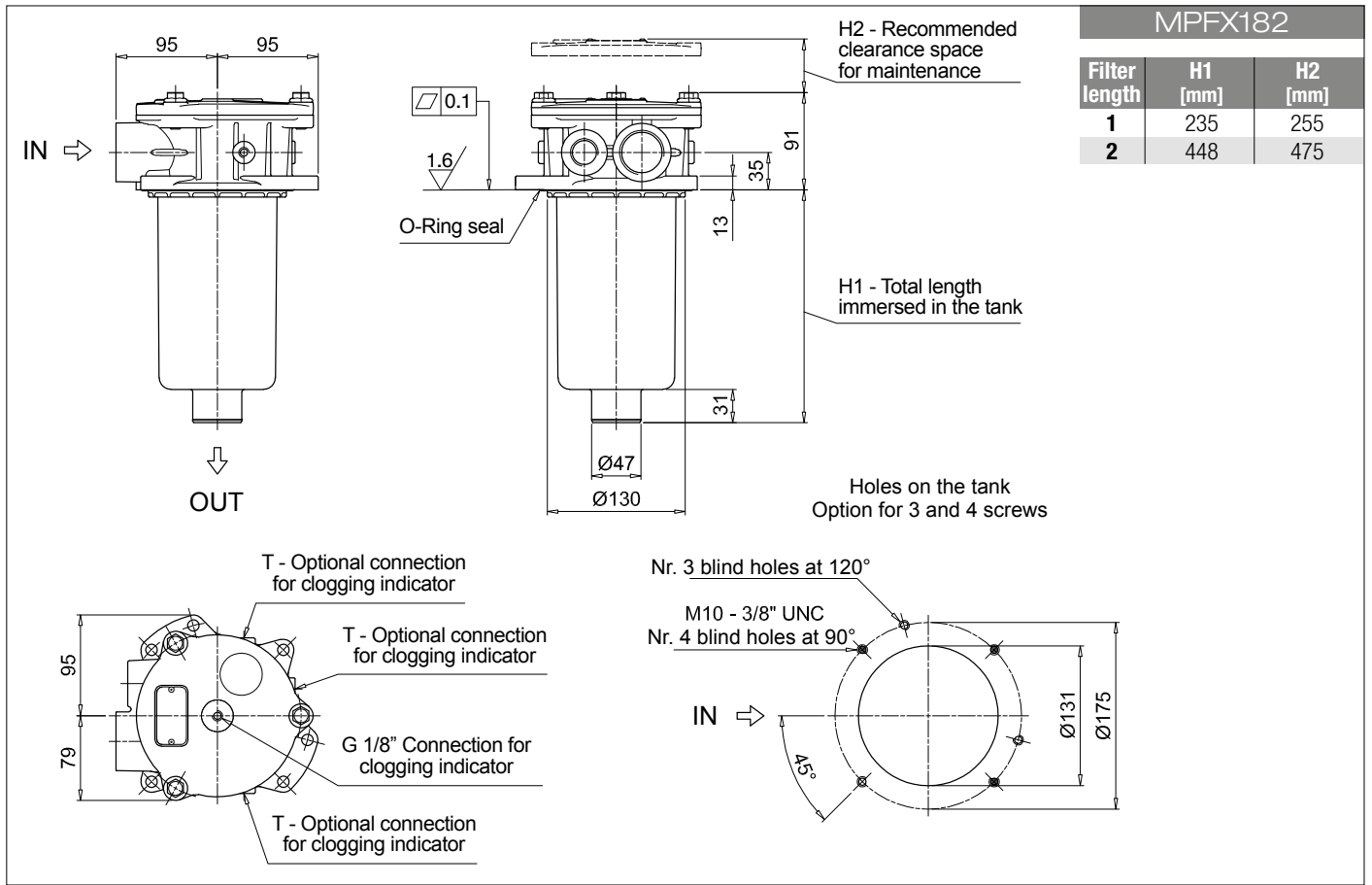
Series and size		Configuration example 1: MPFX182 1 A G1 1 A25 H E P01									
MPFX182 MPFX192 Filter element with private spigot		Configuration example 2: MPFX192 2 V G4 2 P10 N B P01									
Length		Size 182		Size 192							
1		•									
2		•		•							
Seals and treatments											
A NBR		B NBR 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								
			Axx			Mxx			Pxx		
N 10 bar			•			•					
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			•			•					
						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: MFX180 1 A25 H B E P01									
MFX180 Filter element with private spigot		Configuration example 2: MFX180 2 P10 N V P01									
Element length											
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			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			•			•					
						Seals		Bypass valve		Execution	
						B NBR		E 3 bar		P01 MP Filtri standard	
						V FPM		B 1.75 bar		Pxx Customized	

ACCESSORIES

Indicators		page		page	
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239		
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239		
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240		
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			
TE Extension tube	248				
T5 Filler plug M30x1.5	249				



MPFX MPFX184 - MPFX194

Designation & Ordering code

COMPLETE FILTER

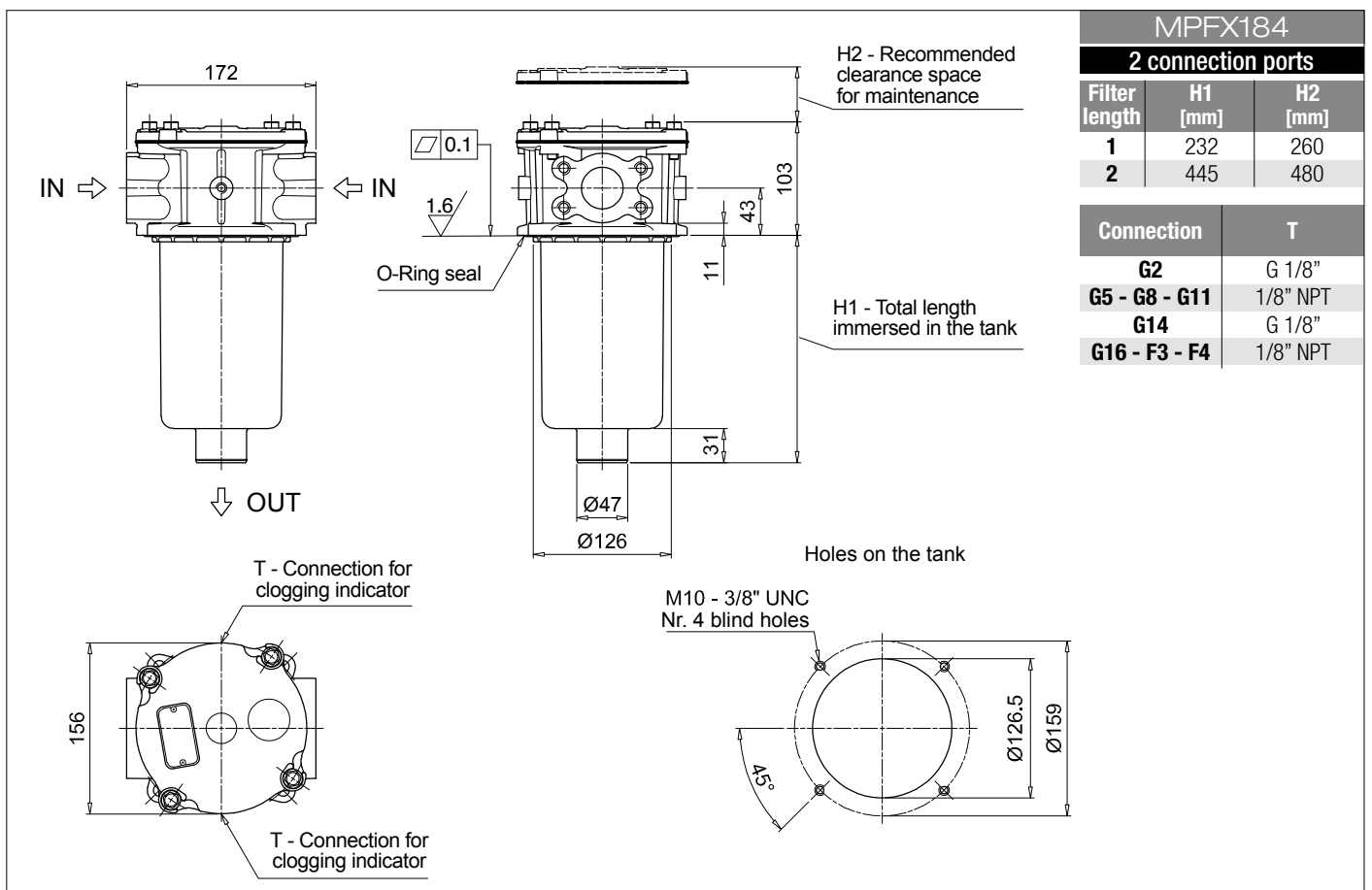
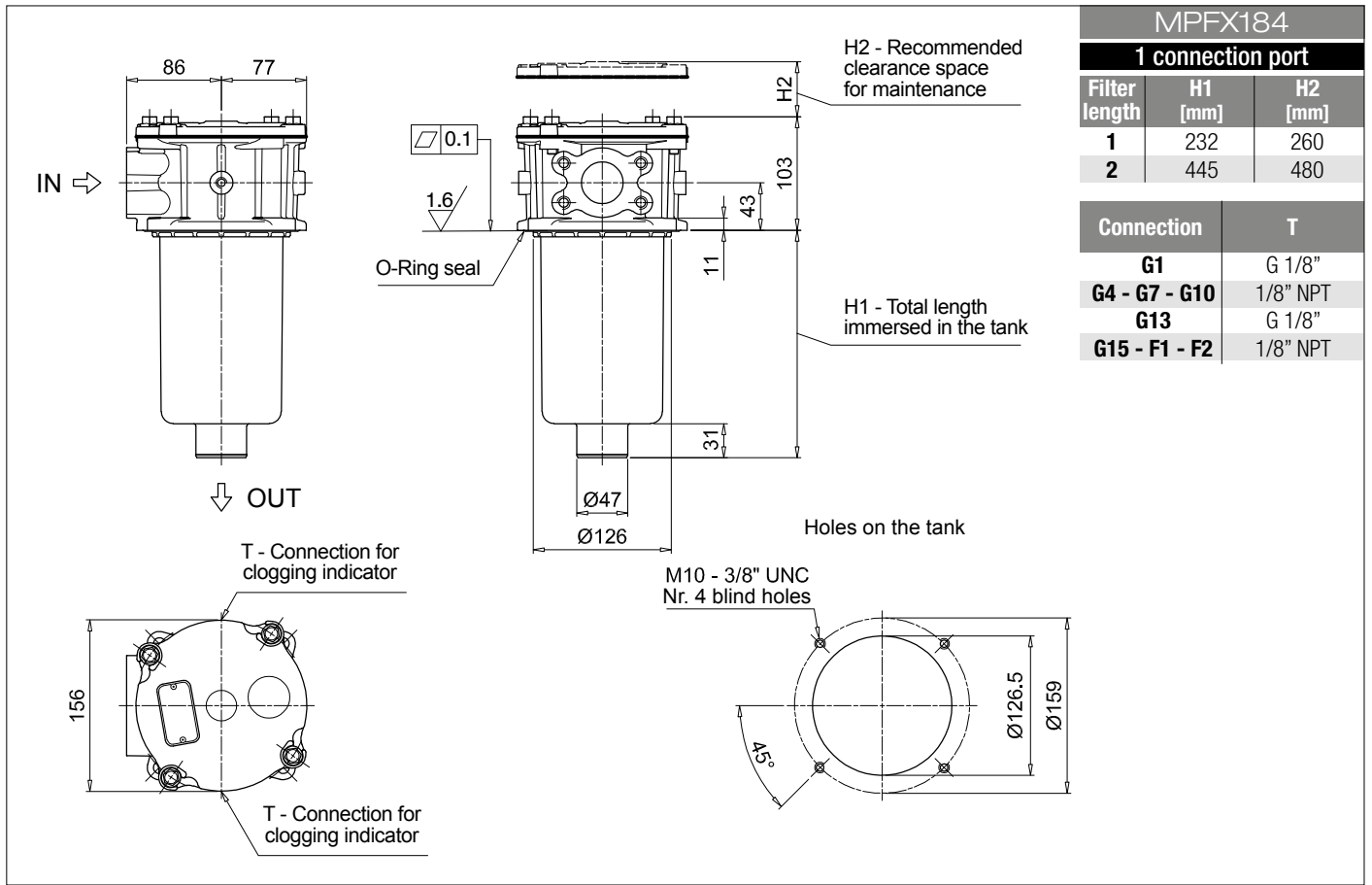
Series and size		Configuration example 1: MPFX184 1 A G1 A25 H E P01										
MPFX184 MPFX194 Filter element with private spigot		Configuration example 2: MPFX194 2 V F3 P10 N B P01										
Length	Size 184	Size 194										
1	•											
2	•	•										
Seals and treatments												
A NBR	W NBR	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										
N 10 bar	Axx	Mxx	Pxx									
H 10 bar		•	•									
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•										
				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: MPFX180 1 A25 H B E P01									
MPFX180 Filter element with private spigot		Configuration example 2: MPFX180 2 P10 N V P01									
Element length											
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									
N 10 bar	Axx	Mxx	Pxx								
H 10 bar		•	•								
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•									
				Seals		Bypass valve		Execution			
				B NBR		E 3 bar		P01 MP Filtri standard			
				V FPM		1.75 bar		Pxx Customized			

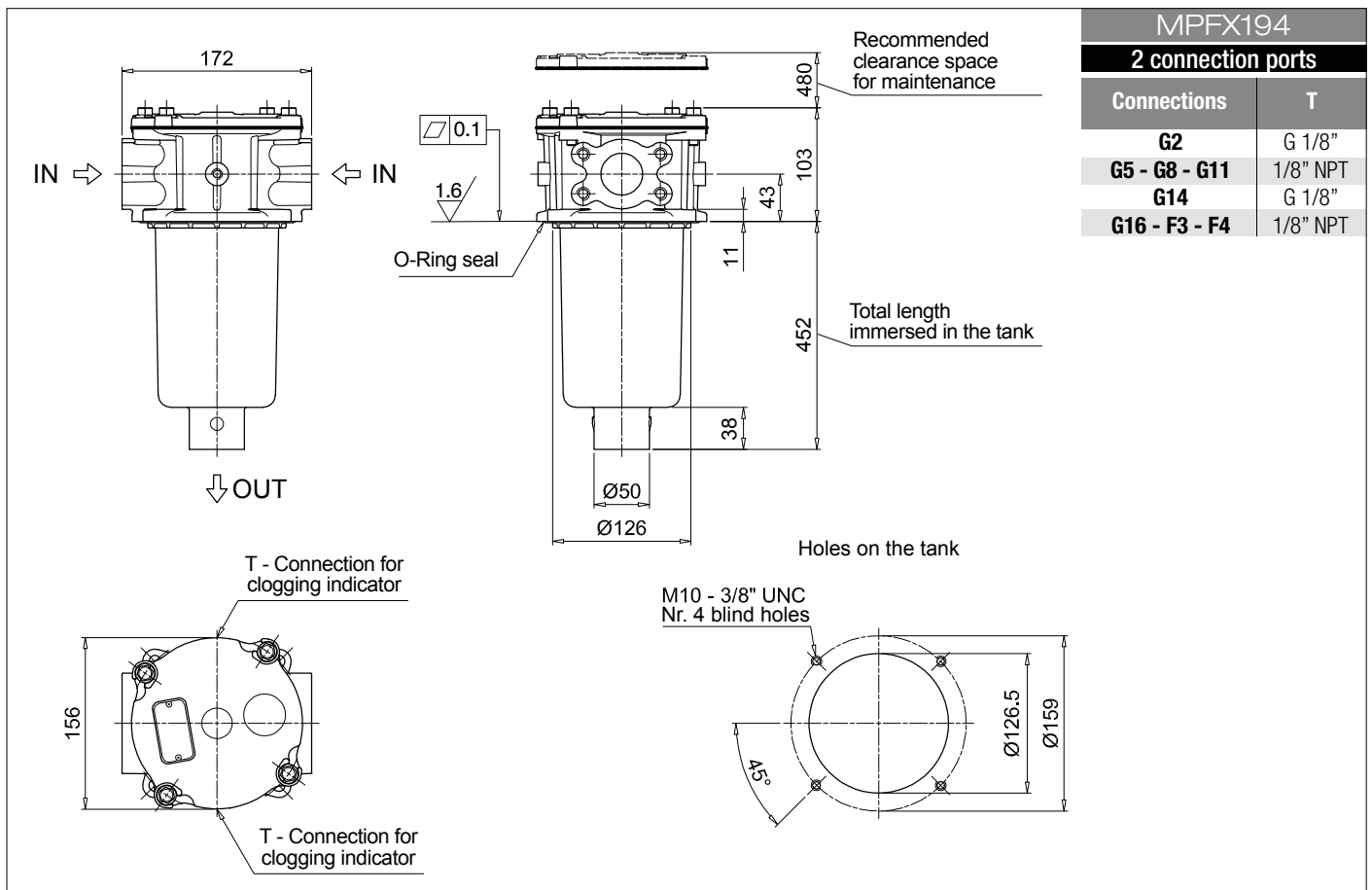
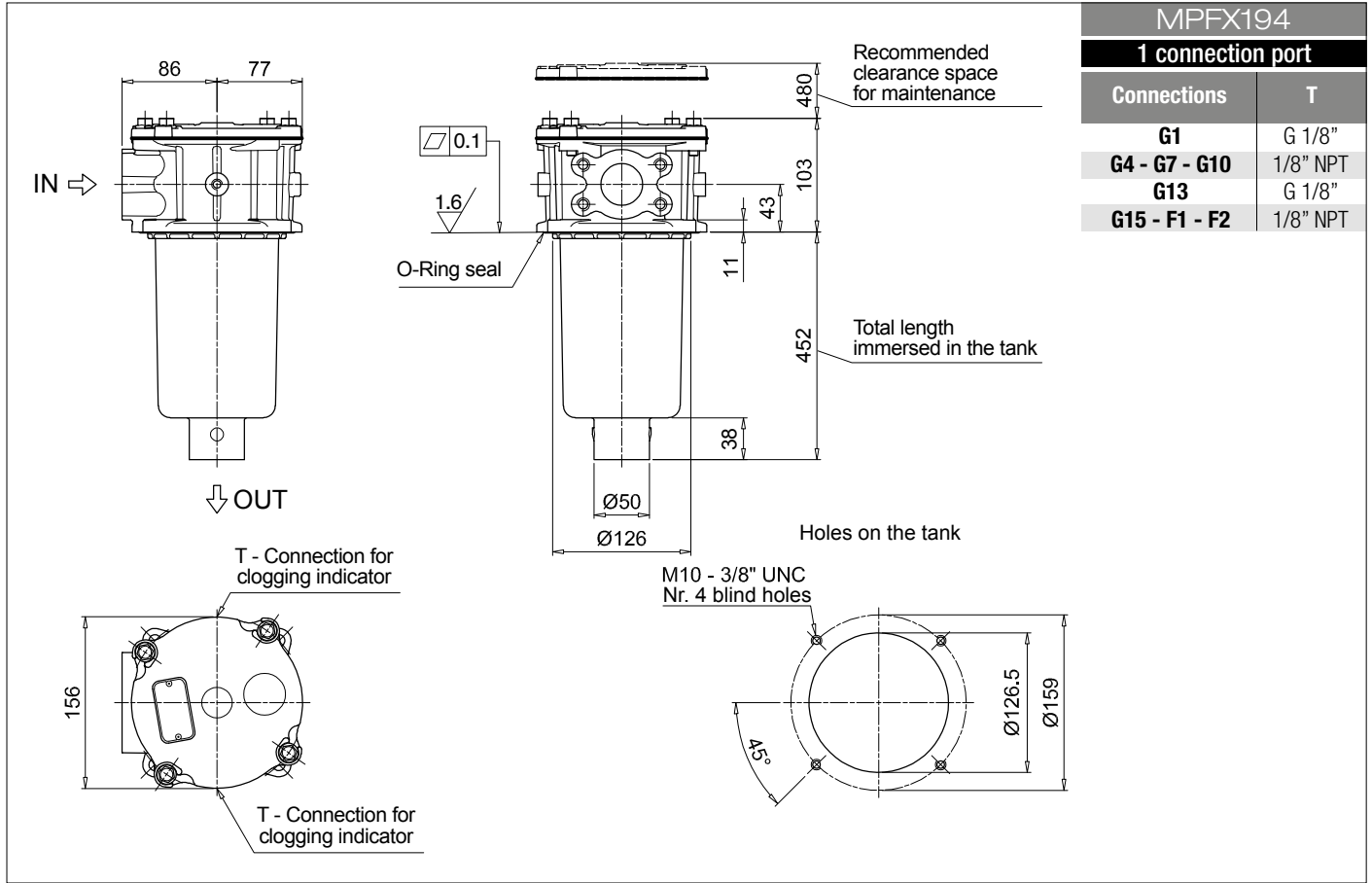
ACCESSORIES

Indicators	page			page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator		239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator		239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator		239-240
BVQ Visual pressure indicator with manual reset	241			
Additional features	page			
TE Extension tube	248			
T5 Filler plug M30x1.5	249			



MPFX MPFX184 - MPFX194

Dimensions



MPFX MPFX400

Designation & Ordering code

COMPLETE FILTER

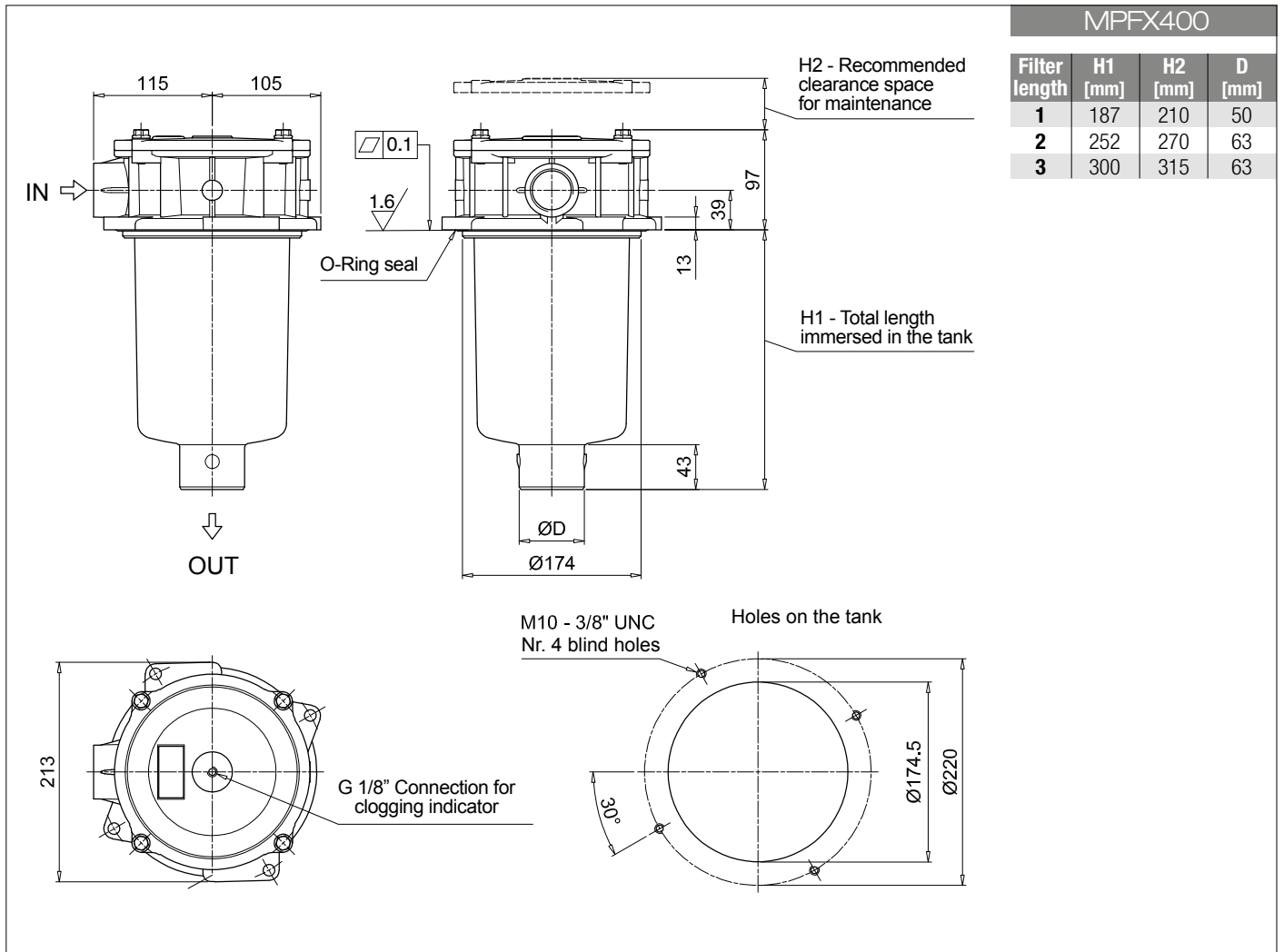
Series and size	Configuration example 1: MPFX400 1 A G9 A25 H B P01							
MPFX400 Filter element with private spigot	Configuration example 2: MPFX400 2 V G4 P10 N E P01							
Length	1 2 3							
Seals and treatments	A NBR V FPM W NBR head anodized Z FPM head anodized							
Connections	G1 G 1 1/4" 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							
	Axx	Mxx	Pxx					
N 10 bar		•	•					
H 10 bar		•						
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•						
				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: MFX400 1 A25 H B P01							
MFX400 Filter element with private spigot	Configuration example 2: MFX400 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							
	Axx	Mxx	Pxx					
N 10 bar		•	•					
H 10 bar		•						
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•						
				Seals	Bypass valve	Execution		
				B NBR	E 3 bar	P01 MP Filtri standard		
				V FPM	1.75 bar	Pxx Customized		

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
T5 Filler plug M30x1.5	249		



MPFX MPFX410

Designation & Ordering code

COMPLETE FILTER

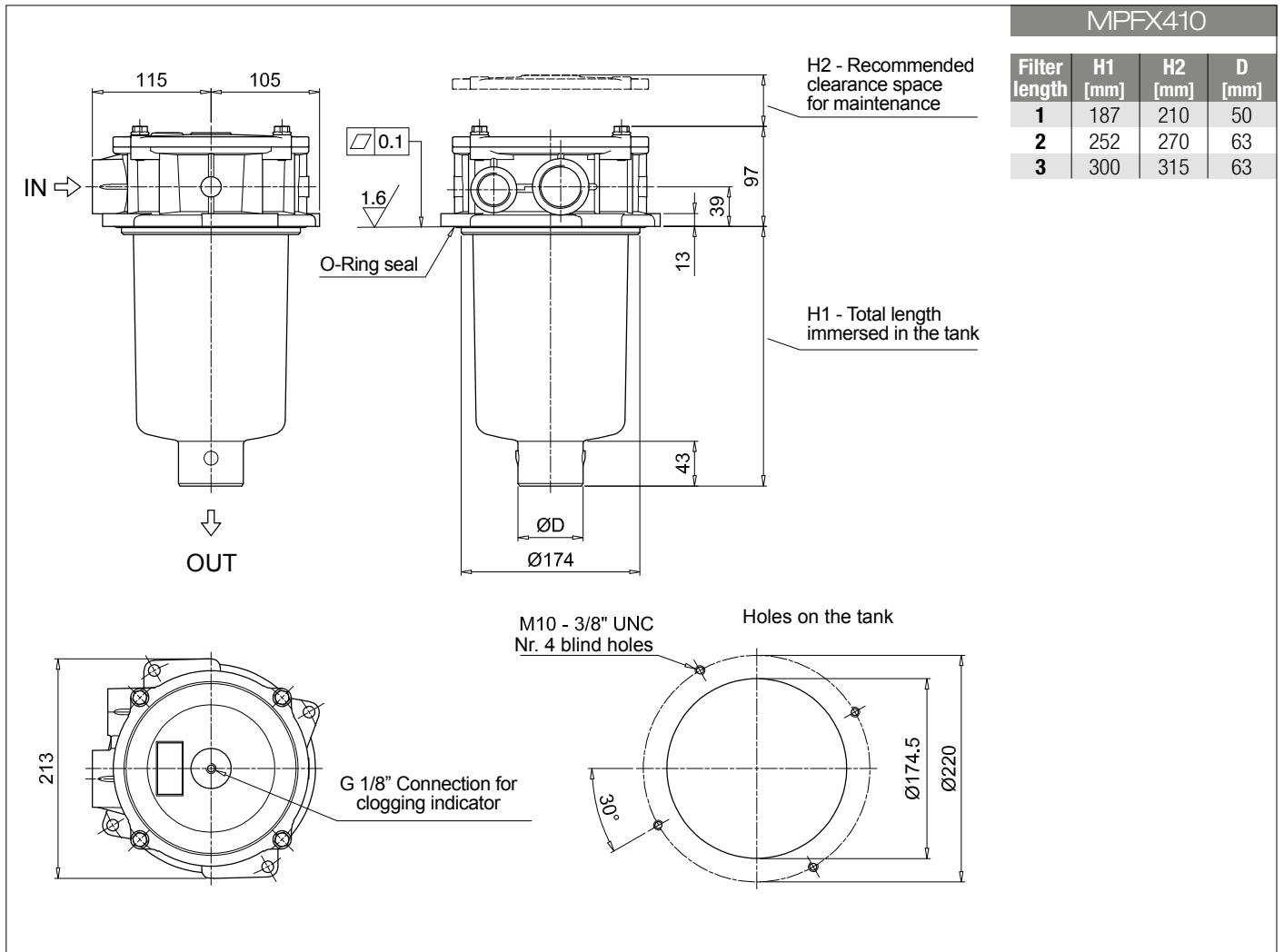
Series and size		Configuration example 1: MPFX410 1 V G4 1 P10 N E P01								
MPFX410 Filter element with private spigot		Configuration example 2: MPFX410 1 A G1 1 A25 H B P01								
Length										
1 2 3										
Seals and treatments										
A NBR										
V FPM										
W NBR head anodized										
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								
		Axx			Mxx			Pxx		
N 10 bar					•			•		
H 10 bar					•					
W 10 bar, compatible with fluids HFA, HFB and HFC		•			•					
		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: MFX400 1 P10 N V E P01								
MFX400 Filter element with private spigot		Configuration example 2: MFX400 1 A25 H B 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								
		Axx			Mxx			Pxx		
N 10 bar					•			•		
H 10 bar					•					
W 10 bar, compatible with fluids HFA, HFB and HFC		•			•					
		Seals			Bypass valve			Execution		
		B NBR			E 3 bar			P01 MP Filtri standard		
		V FPM			1.75 bar			Pxx Customized		

ACCESSORIES

Indicators		page		page	
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239		
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239		
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240		
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			
T5 Filler plug M30x1.5	249				



MPFX MPFX450 - MPFX451 - MPFX750

Designation & Ordering code

COMPLETE FILTER

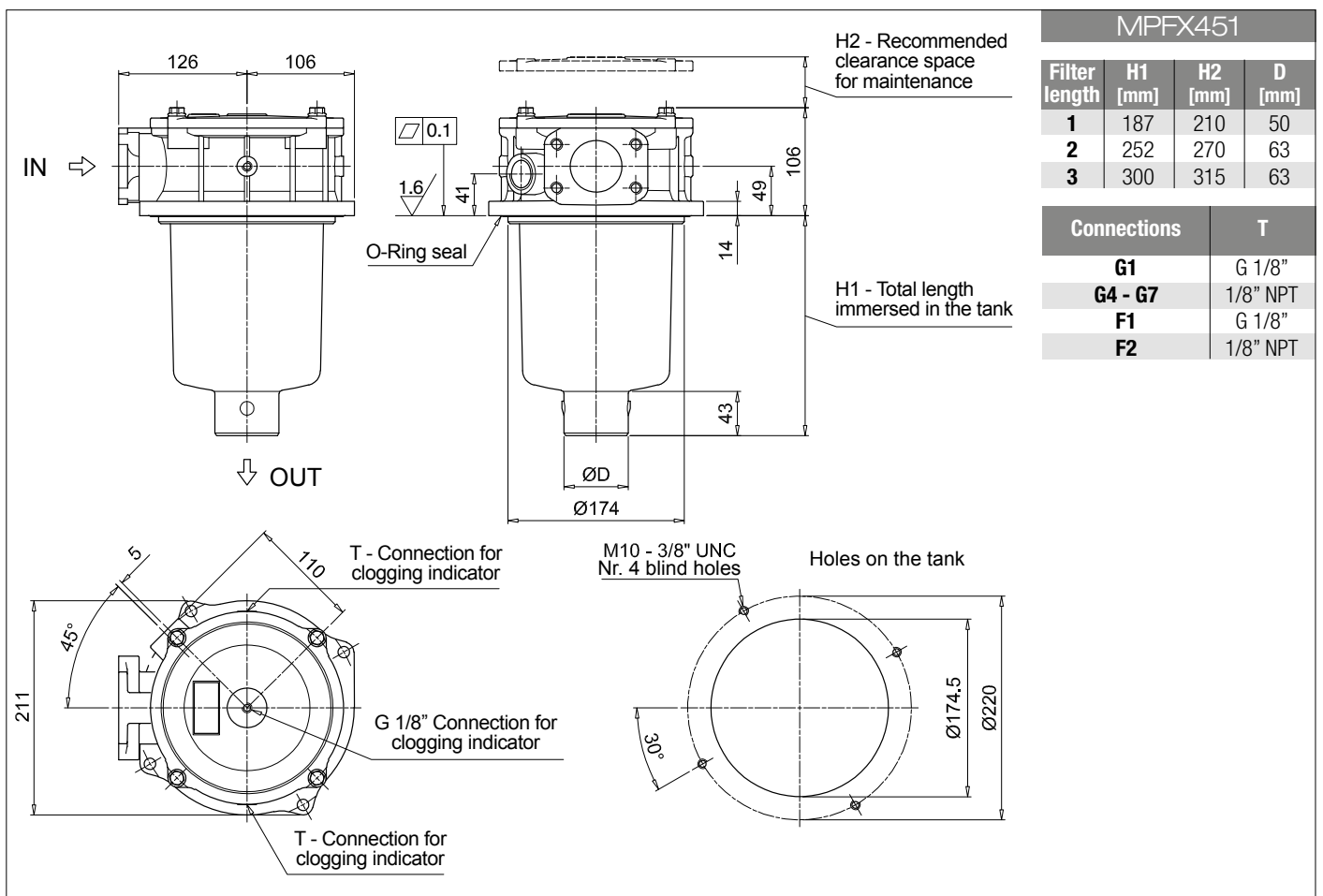
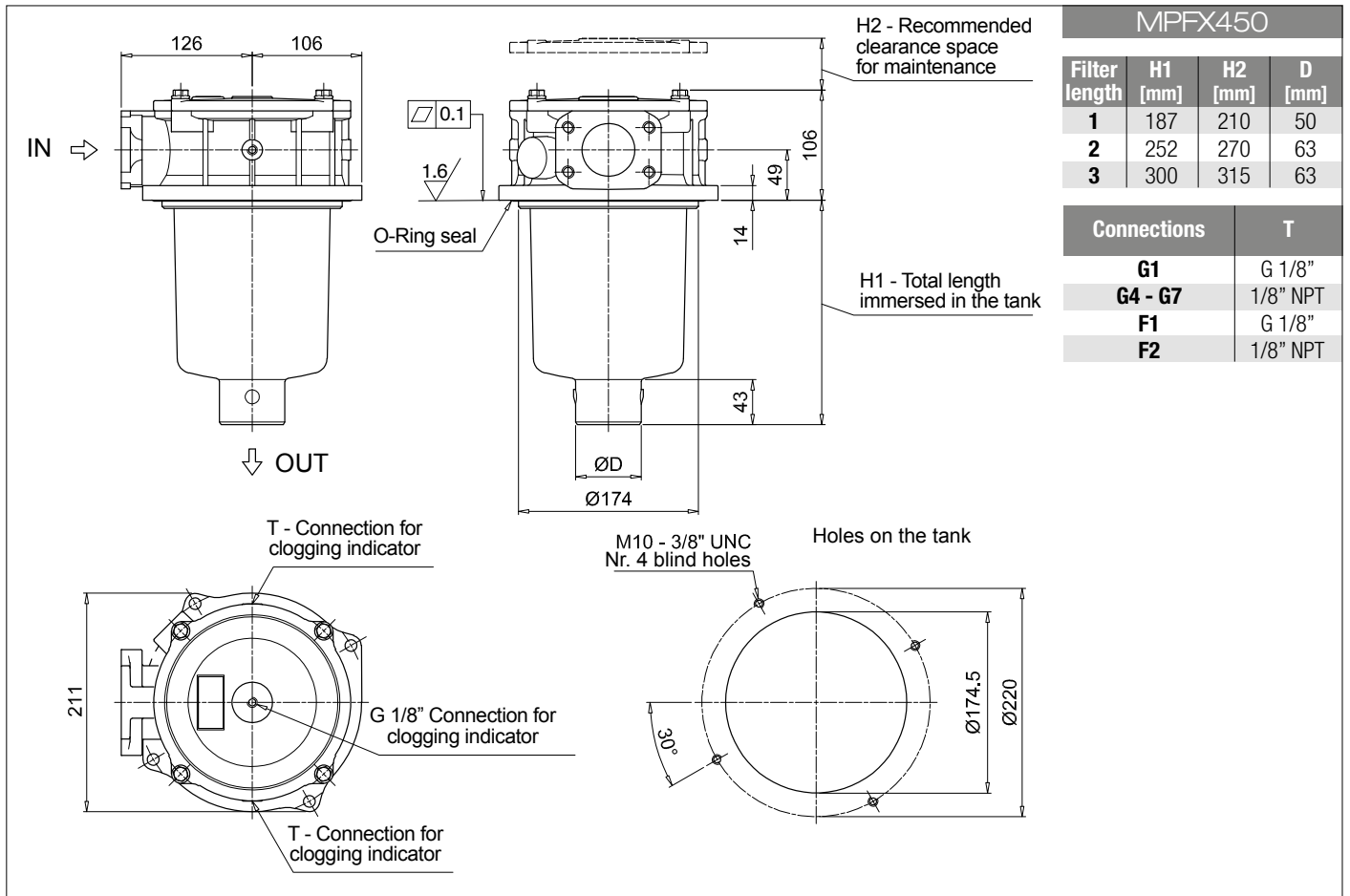
Series and size				Configuration example 1: MPFX450 1 A G1 A25 H B P01								
MPFX450 MPFX451 MPFX750 Filter element with private spigot				Configuration example 2: MPFX750 1 V F2 P10 N E P01								
Length		MPFX 450	MPFX 451	MPFX 750								
1		•	•	•								
2		•	•	•								
3		•	•	•								
Seals 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/UN		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										
		Axx	Mxx	Pxx								
N 10 bar			•	•								
H 10 bar			•									
W 10 bar, compatible with fluids HFA, HFB and HFC		•	•									
				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: MFx400 1 A25 H B P01								
MFx400 MFx750 Filter element with private spigot				Configuration example 2: MFx750 1 P10 N V E P01								
Element length		MPFX 450	MPFX 451	MPFX 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										
		Axx	Mxx	Pxx								
N 10 bar			•	•								
H 10 bar			•									
W 10 bar, compatible with fluids HFA, HFB and HFC		•	•									
				Seals		Bypass valve		Execution				
				B NBR		E 3 bar		P01 MP Filtri standard				
				V FPM		B 1.75 bar		Pxx Customized				

ACCESSORIES

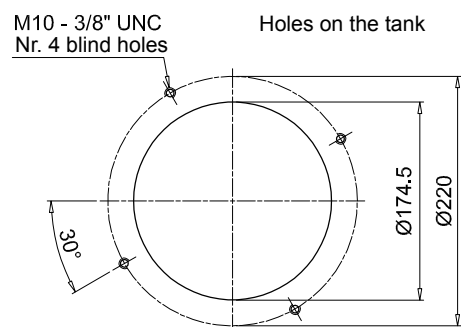
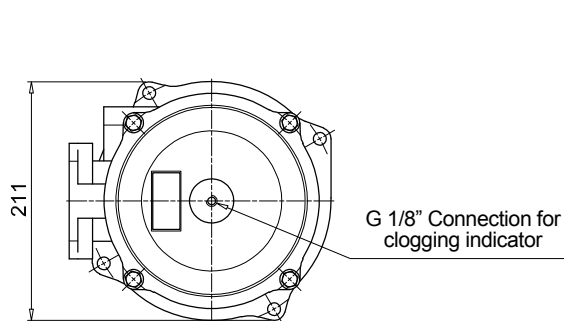
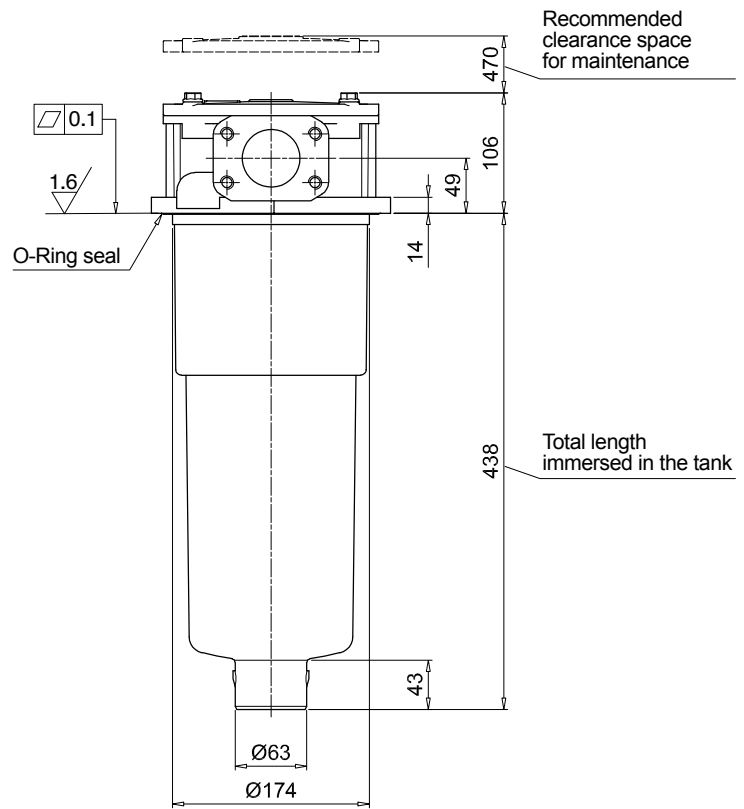
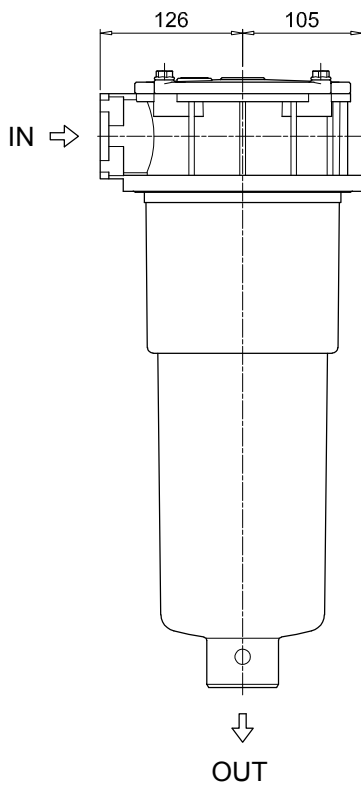
Indicators		page			page
BVA Axial pressure gauge		240	BEA Electrical pressure indicator		239
BVR Radial pressure gauge		240	BEM Electrical pressure indicator		239
BVP Visual pressure indicator with automatic reset		241	BLA Electrical / visual pressure indicator		239-240
BVQ Visual pressure indicator with manual reset		241			
Additional features		page			
T5 Filler plug M30x1.5		249			



MPFX MPFX450 - MPFX451 - MPFX750

Dimensions

MPFX750



MPFX 100

MPFX 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
MPFX 030	See order table	02050675	02050676
MPFX 100-110		02050677	02050678
MPFX 181-182		02050681	02050682
MPFX 184		02050685	02050686
MPFX 191-192		02050683	02050684
MPFX 194		02050687	02050688
MPFX 400-410		02050695	02050696
MPFX 450-451		02050697	02050698
MPFX 750		02050699	02050700

MPFX 104

MPFX 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
MPFX 104	See order table	02050679	02050680
MPFX 181-182		02050691	02050692
MPFX 191-192		02050691	02050692

MPLX series

Maximum working pressure up to 1 MPa (10 bar) - Flow rate up to 1800 l/min



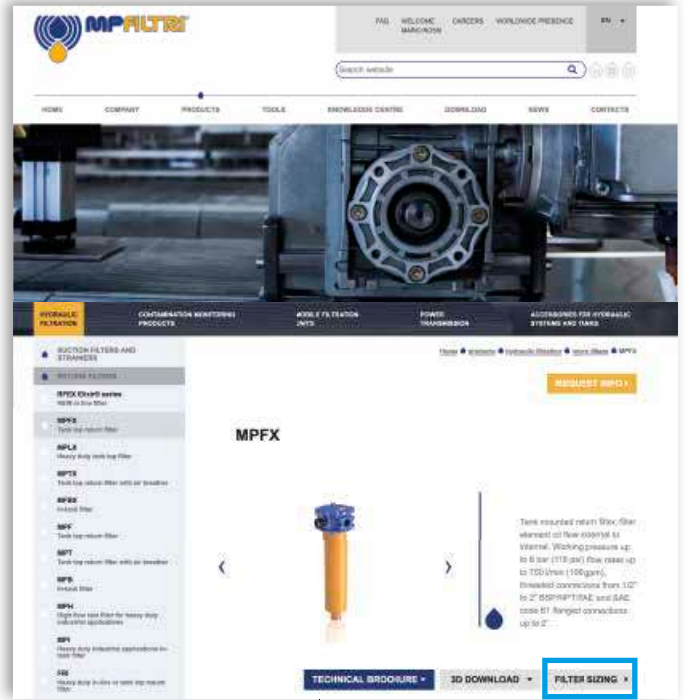
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

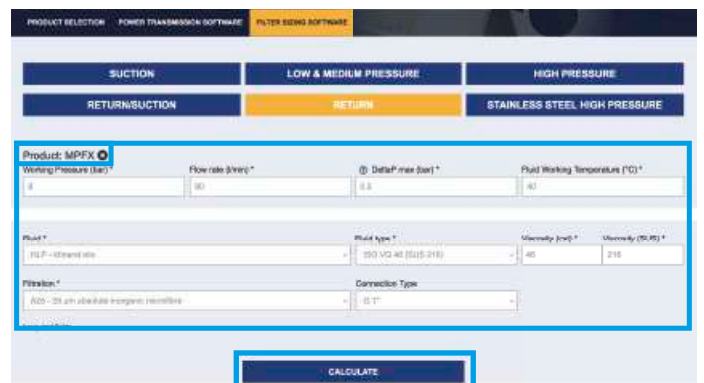
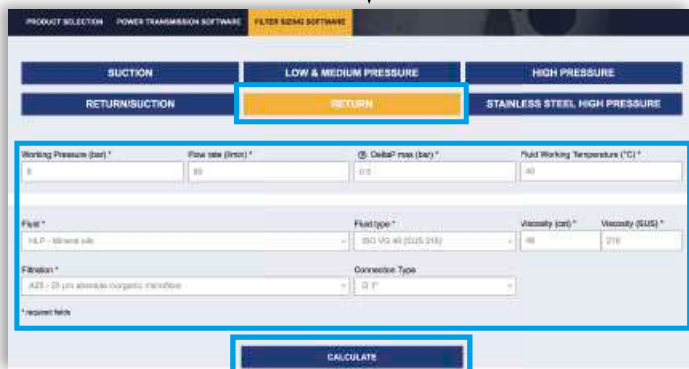
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

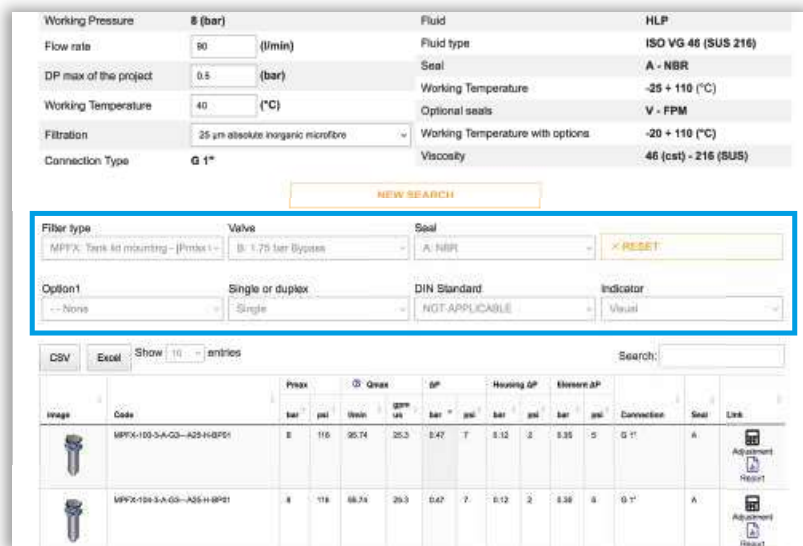
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	gpm us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPFX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPFX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new
browser window
displays the pdf



see **A**

Close the report window



By clicking your WELCOME button,
the SHOW REPORTS is displayed: select it to see your filters list.



THE NEW FILTER CONCEPT

MPFX
MPLX
MPTX
MFBX
MFX
series

NEW FILTER ELEMENT WITH EXCLUSIVE INTERFACE CONNECTION

- ◆ **Protects the machine from improper use of non-original products.**
- ◆ **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.



Filter element featuring our UNIQUE end cap with polygonal design.



UNIQUE polygonal spigot fitting within the filter bowl.

The products identified as MPFX, MPLX, MPTX, MFBX and MFX are protected by:

- ◆ Italian Patent n° 102014902261205
- ◆ Canadian Patent n° 2,937,258
- ◆ European Patent n° 16181725.9
- ◆ US Patent n° 15/224,337

Description

Technical data

Return filter

Maximum working pressure up to 1 MPa (10 bar)
Flow rate up to 1800 l/min

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

Completely interchangeable with Pall 8420 & 8520, they are directly fixed to the reservoir, in immersed or semi-immersed position.

The use of the diffuser is recommended, to place the filter output always immersed into the fluid to avoid aeration or foam generation into the reservoir.

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

Available features:

- Flanged connections up to 3", for a maximum flow rate of 1800 l/min
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve, to relieve excessive pressure drop across the filter media
- 6 fixing holes for installation, to suit a variety of reservoir surfaces
- Diffuser, to reduce the risk of aeration, foaming and noise
- Filler plug, to fill cleaned fluid into the tank without an additional connection
- Visual, electrical and electronic differential clogging indicators

Common applications:

- Heavy duty industrial equipment
- Heavy duty mobile equipment

Filter housing materials

- Head: Anodized aluminium
- Cover: Anodized aluminium
- Bowl: Phosphatized steel
- Bypass valve: Steel

Bypass valve

- Opening pressure 450 kPa (4.5 bar) $\pm 10\%$

Δp element type

- Microfiber filter elements: 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

MPLX filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]		Volumes [dm ³]	
	Length	2	Length	2
MPLX 250		8.95		2.90
MPLX 660		20.20		11.00

Filter series	Length	Filter element design - N Series						
		A03	A06	A10	A16	A25	M25 M60 M90	P10 P25
MPLX 250	2	157	155	281	312	325	583	392
MPLX 660	2	376	384	820	925	1018	1732	1332

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.

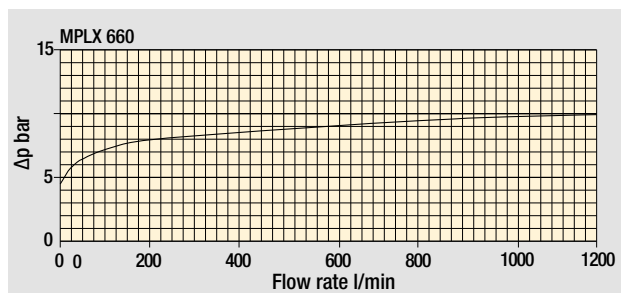
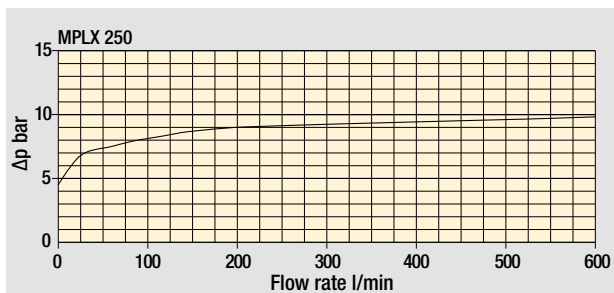
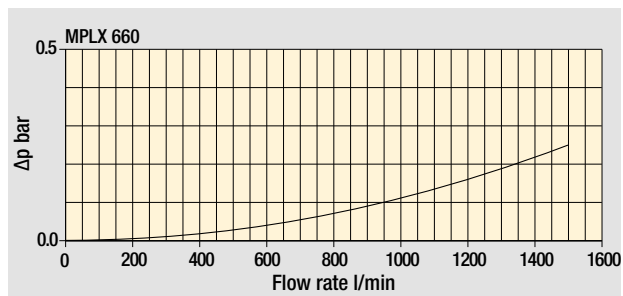
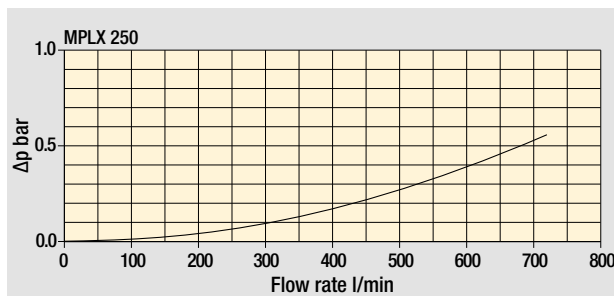
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

Hydraulic symbols

Filter series	Style 1 connection + Diff. indic.
MPLX 250	●
MPLX 660	●

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.

MPLX MPLX250 - MPLX660

Designation & Ordering code

COMPLETE FILTER

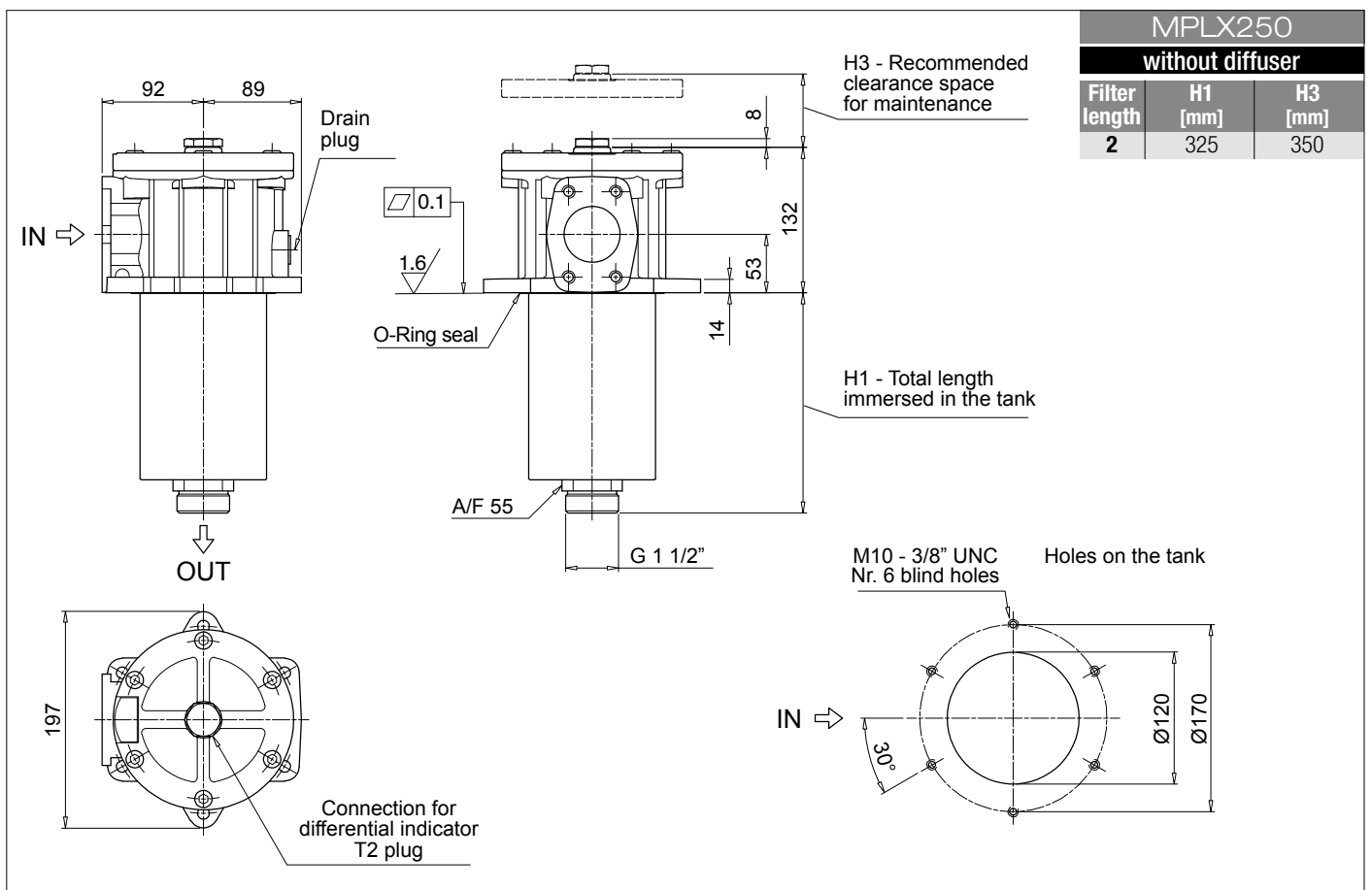
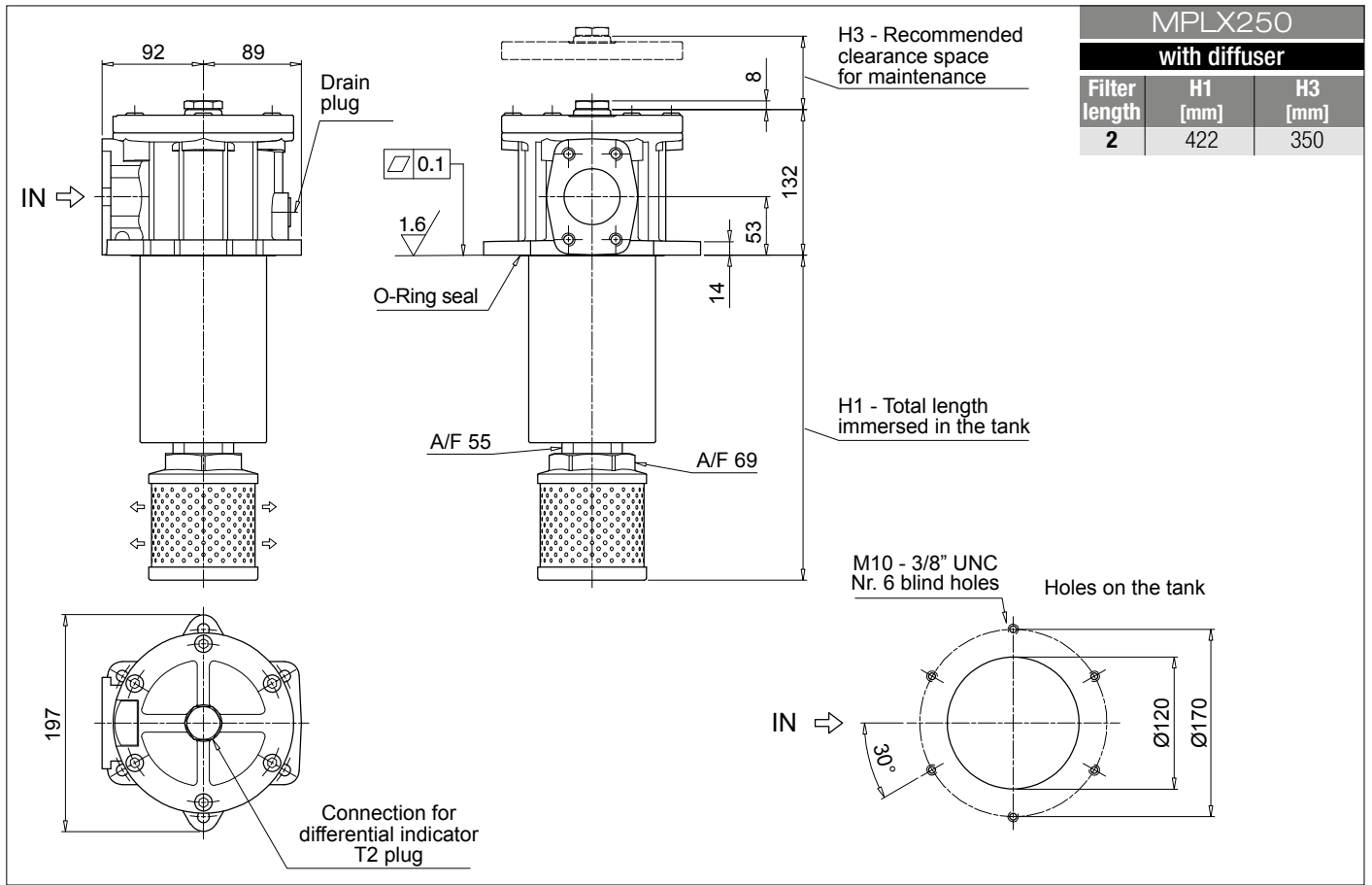
Series and size	Configuration example 1: MPLX250 2 D S W A 6 M25 P01																										
MPLX250 Filter element with private spigot	Configuration example 2: MPLX660 2 D D A B 6 A10 P01																										
MPLX660 Filter element with private spigot																											
Length	2																										
By-pass valve	D 4.5 bar																										
Diffuser	S Without diffuser D With standard diffuser																										
Seals and treatments	<table border="1"> <thead> <tr> <th colspan="3">Filtration rating</th> </tr> <tr> <th>Axx</th> <th>Mxx</th> <th>Pxx</th> </tr> </thead> <tbody> <tr> <td>A NBR</td> <td>•</td> <td>•</td> </tr> <tr> <td>V FPM</td> <td>•</td> <td>•</td> </tr> <tr> <td>W NBR filter element compatible with fluids HFA-HFB-HFC</td> <td>•</td> <td>•</td> </tr> <tr> <td>Z FPM</td> <td>•</td> <td>•</td> </tr> </tbody> </table>									Filtration rating			Axx	Mxx	Pxx	A NBR	•	•	V FPM	•	•	W NBR filter element compatible with fluids HFA-HFB-HFC	•	•	Z FPM	•	•
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Axx	Mxx	Pxx																									
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V FPM	•	•																									
W NBR filter element compatible with fluids HFA-HFB-HFC	•	•																									
Z FPM	•	•																									
Connections	MPLX250					MPLX660																					
A	2" SAE 3000 psi/M					3" SAE 3000 psi/M																					
B	2" SAE 3000 psi/UNC					3" SAE 3000 psi/UNC																					
Connection for differential indicator	6 With plugged connection																										
Filtration rating (filter media)	<table border="1"> <tbody> <tr> <td>A03 Inorganic microfiber 3 μm</td> <td>M25 Wire mesh 25 μm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 μm</td> <td>M60 Wire mesh 60 μm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 μm</td> <td>M90 Wire mesh 90 μm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 μm</td> <td>P10 Resin impregnated paper 10 μm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 μm</td> <td>P25 Resin impregnated paper 25 μm</td> </tr> </tbody> </table>										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							
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A25 Inorganic microfiber 25 μm	P25 Resin impregnated paper 25 μm																										
									Execution P01 MP Filtri standard Pxx Customized																		

FILTER ELEMENT

Element series and size	Configuration example 1: MLX250 2 M25 W P01																					
MLX250 Filter element with private spigot	Configuration example 2: MLX660 2 A10 A P01																					
MLX660 Filter element with private spigot																						
Element length	2																					
Filtration rating (filter media)	<table border="1"> <tbody> <tr> <td>A03 Inorganic microfiber 3 μm</td> <td>M25 Wire mesh 25 μm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 μm</td> <td>M60 Wire mesh 60 μm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 μm</td> <td>M90 Wire mesh 90 μm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 μm</td> <td>P10 Resin impregnated paper 10 μm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 μm</td> <td>P25 Resin impregnated paper 25 μm</td> </tr> </tbody> </table>					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							
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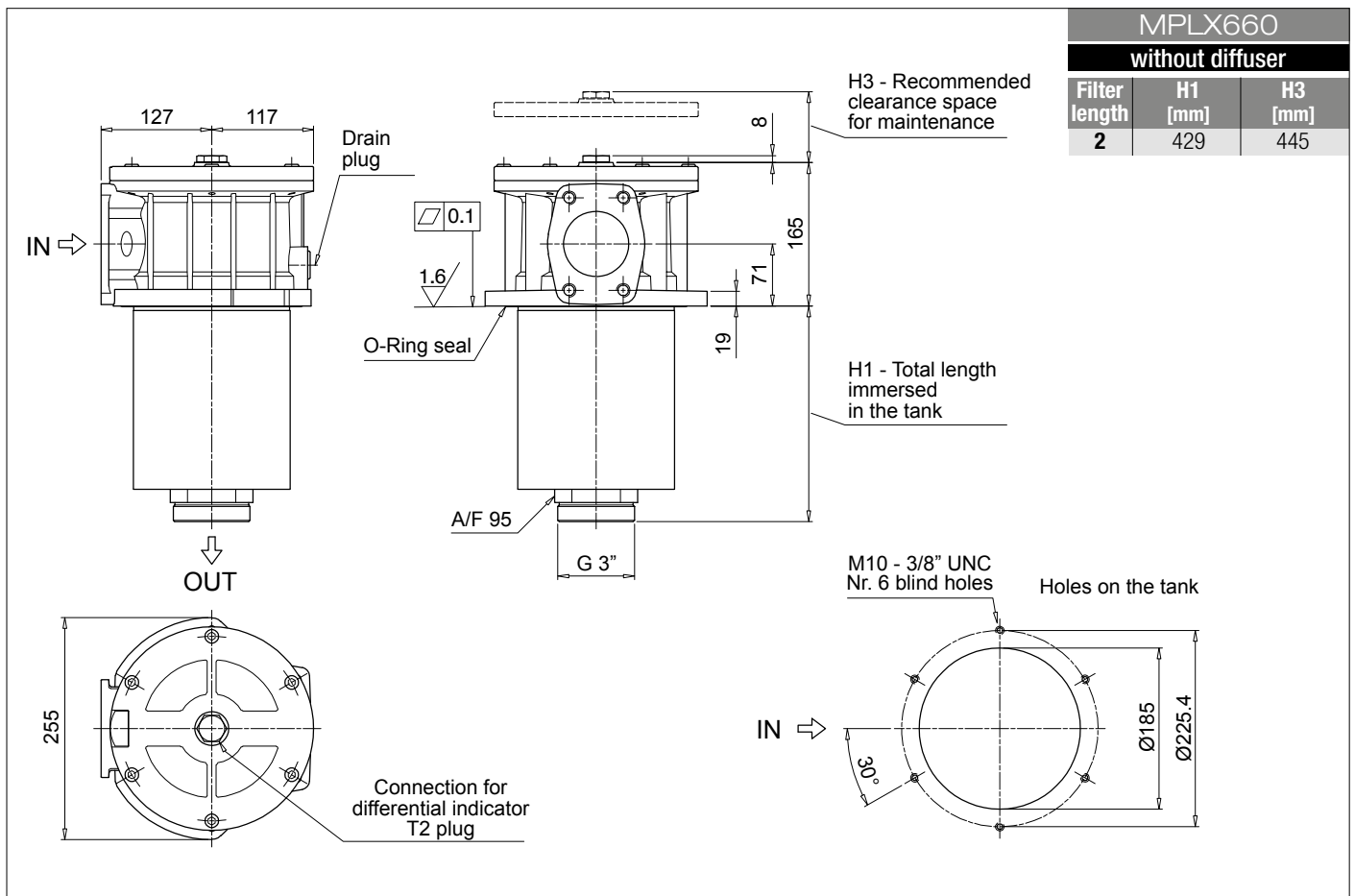
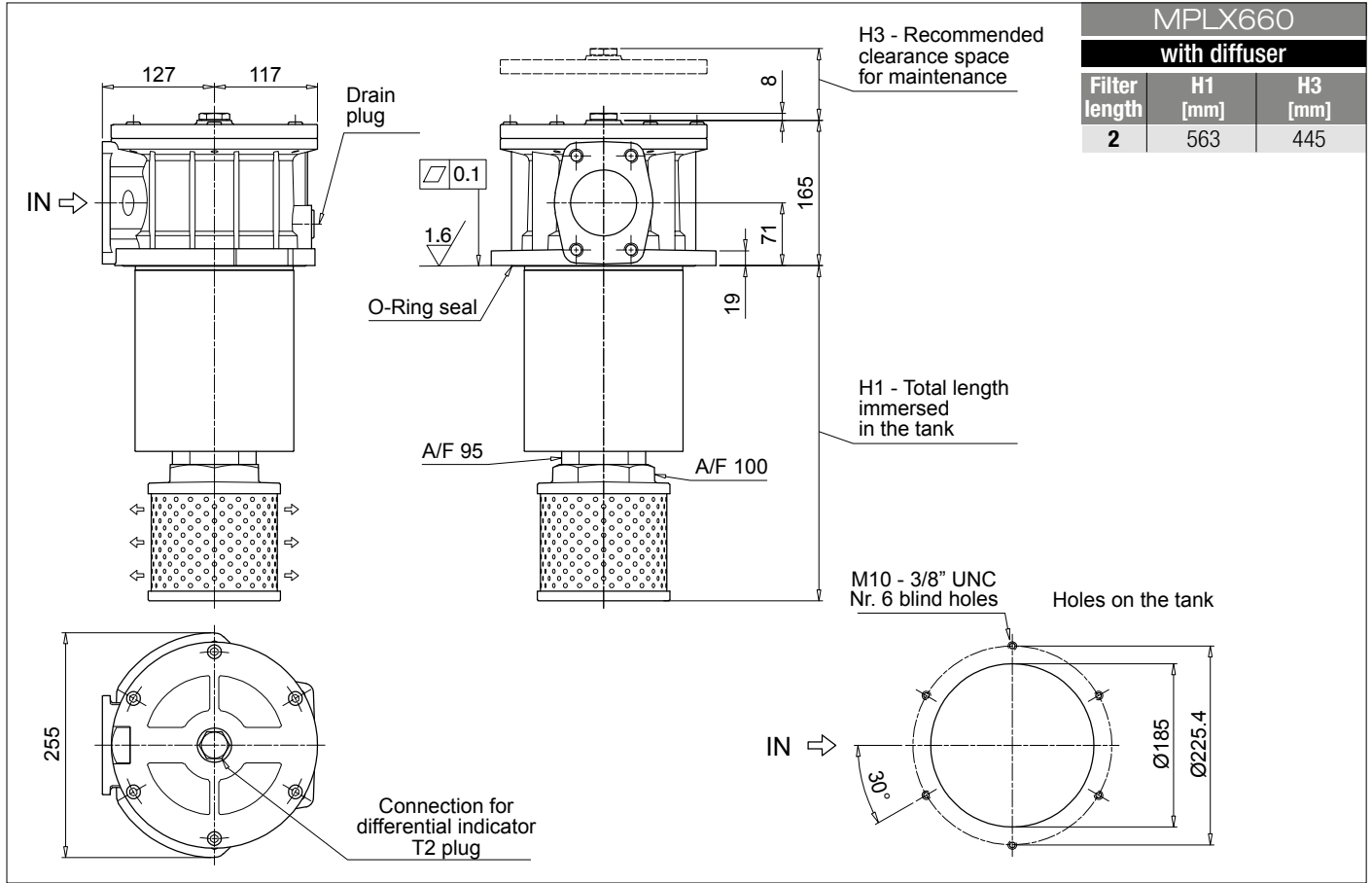
ACCESSORIES

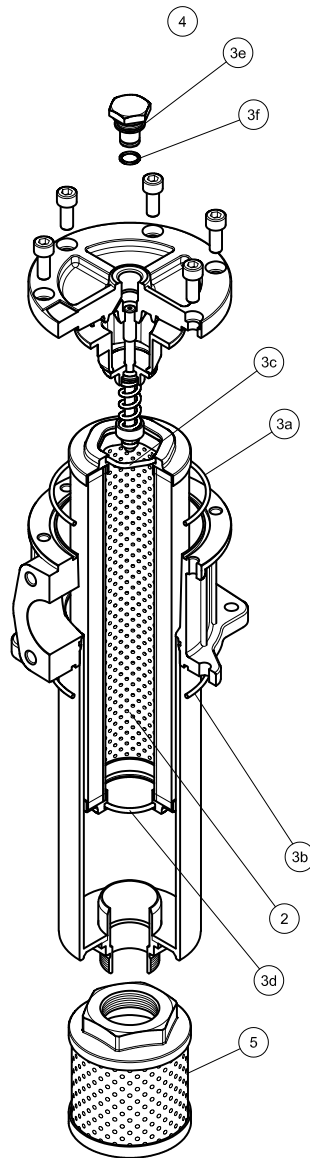
Indicators			
DEA Electrical differential indicator	242	DTA Electronic differential indicator	245
DEM Electrical differential indicator	242-243	DVA Visual differential indicator	245
DLA Electrical / visual differential indicator	243-244	DVM Visual differential indicator	245
DLE Electrical / visual differential indicator	244		
Additional features			
T2 Plug	246		



MPLX MPLX660

Dimensions





Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3f)		Q.ty: 1 pc. 4		Q.ty: 1 pc. 5
Filter series	Filter element	Seal Kit code number		Indicator connection plug		Diffuser
		NBR	FPM	NBR	FPM	
MPLX 250	See order table	02050745	02050746	T2H	T2V	STD 100 C 115 P01
MPLX 660	See order table	02050747	02050748			STD 150 E 155 P01

MPTX series

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 300 l/min



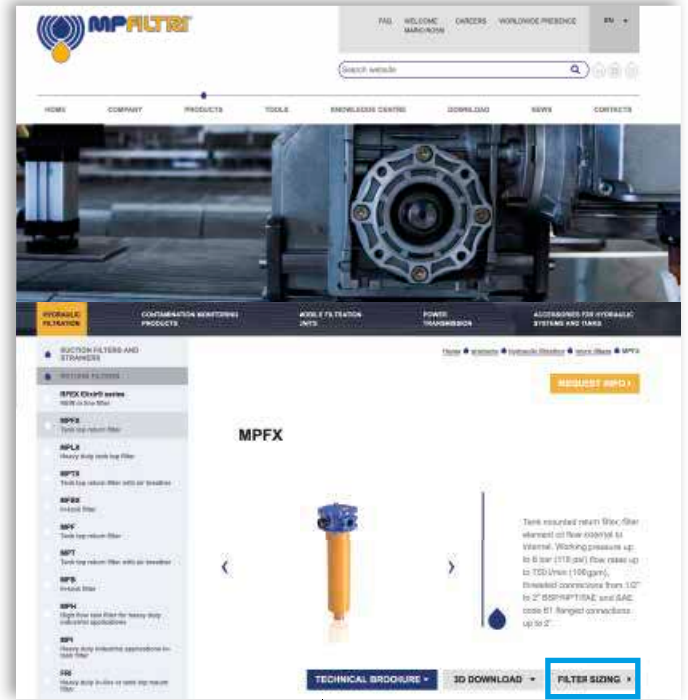
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

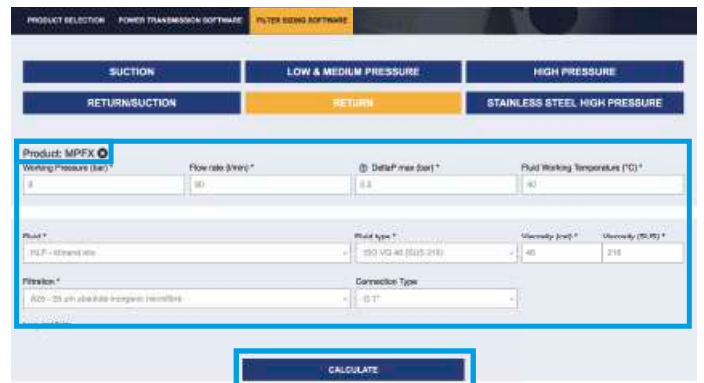
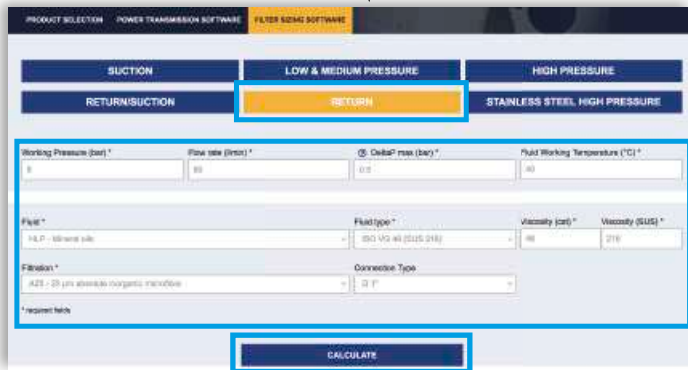
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

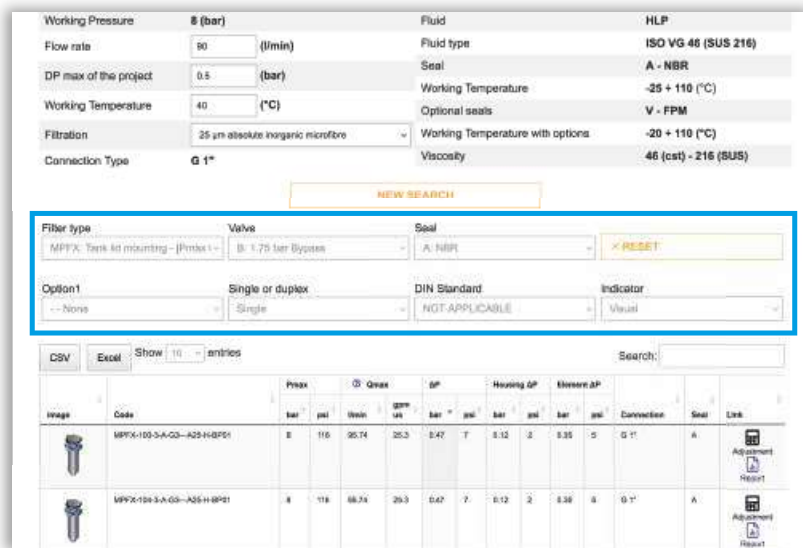
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	Qmax psi	Qmax m³/min	ΔP bar	ΔP psi	Housing ΔP bar	Element ΔP psi	Connection	Seal	Link			
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	9.12	2	0.35	5	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	9.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT



SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf

see **A**



Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.



THE NEW FILTER CONCEPT

MPFX
MPLX
MPTX
MFBX
MFX
series

NEW FILTER ELEMENT WITH EXCLUSIVE INTERFACE CONNECTION

- ◆ **Protects the machine from improper use of non-original products.**
- ◆ **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.



Filter element featuring our UNIQUE end cap with polygonal design.



UNIQUE polygonal spigot fitting within the filter bowl.

The products identified as MPFX, MPLX, MPTX, MFBX and MFX are protected by:

- ◆ Italian Patent n° 102014902261205
- ◆ Canadian Patent n° 2,937,258
- ◆ European Patent n° 16181725.9
- ◆ US Patent n° 15/224,337

Description

Technical data

Return filter

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 300 l/min

MPTX is a range of return filters with integrated breather filter, 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 1 1/4", for a maximum flow rate of 300 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 6 fixing holes for installation, to suit a variety of reservoir surfaces
- O-ring or Flat Seal to suit a variety of reservoir surfaces
- Screw-in cover with a special shape, to allow the filter element replacement without the use of specific tools
- 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)
- Integrated breather filter, to clean the air that moves into the reservoir as result of the oil level fluctuation
- Integrated breather filter with pressurization valve, to clean the air that moves into the reservoir as result of the oil level fluctuation and to guarantee the pressurization into the reservoir
- 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

Filter housing materials

- Head: Aluminium
- Cover: Nylon
- Bowl: Nylon

Bypass valve

- Opening pressure 175 kPa (1.75 bar) $\pm 10\%$
- Opening pressure 300 kPa (3 bar) $\pm 10\%$

Δp element type

- Microfiber 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

MPTX 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
MPTX 025		0.41	0.45	0.50	-		0.24	0.35	0.42	-
MPTX 027		0.44	0.48	0.55	-		0.24	0.35	0.42	-
MPTX 110		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74
MPTX 114		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
MPTX 116		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
MPTX 120		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MPTX 025-027	1	7	10	23	28	42	59	51	54
	2	17	20	45	48	56	72	64	67
	3	21	24	50	55	59	76	74	75
MPTX 110-120 114-116	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

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

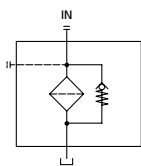
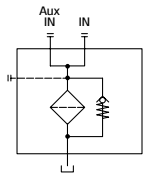
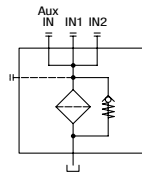
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

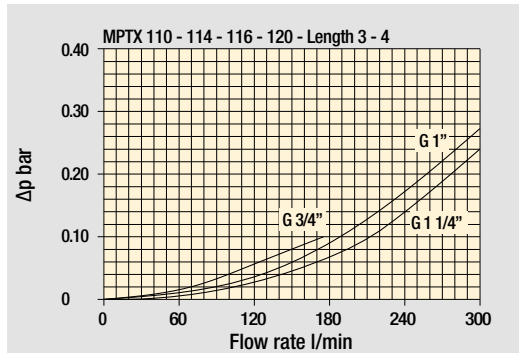
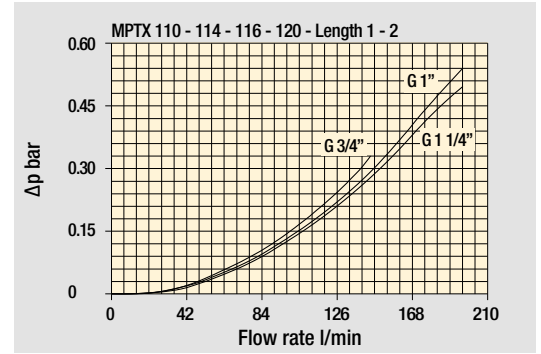
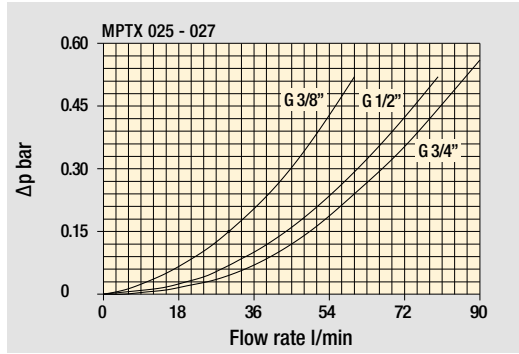
Filter series	Style 1 connection	Style 2 connections	Style 3 connections
MPTX 025	•		
MPTX 027	•		
MPTX 110		•	
MPTX 114	•		
MPTX 116	•		
MPTX 120			•

		
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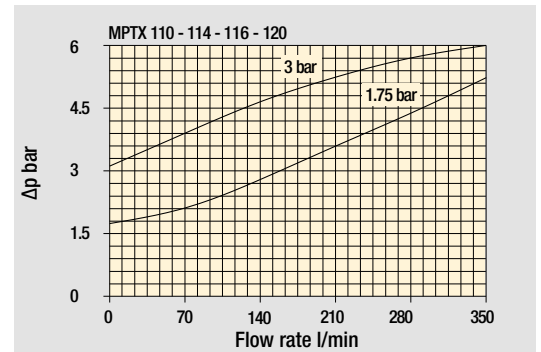
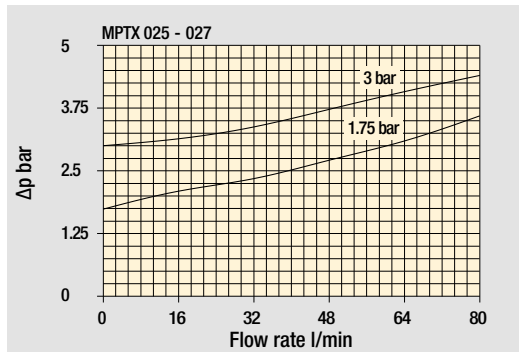
MPTX GENERAL INFORMATION

Pressure drop

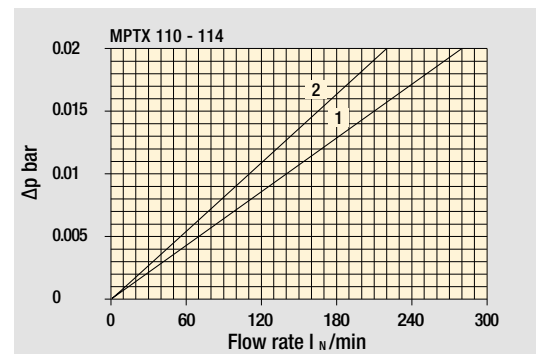
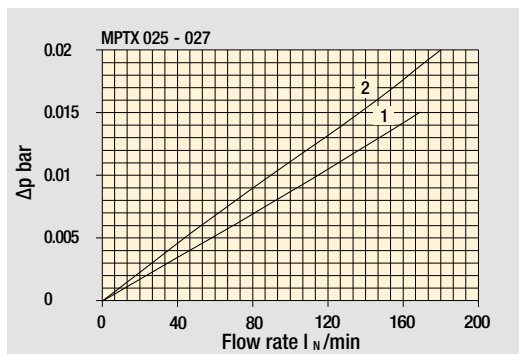
Filter housings Δp pressure drop



Bypass valve pressure drop



Air breather pressure drop







- 1 C With air breather 10 μm
- 2 D With anti-splash and SAP50 10 μm

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

MPTX 025 -027		
Air breather port plugged Indicator port	Air breather standard Indicator port	Anti-splash air breather & pressurized Double indicator port
		

Multiport - Multifunction

MPTX 110	
Standard - Single IN Port	Double IN Port - Double indicator port
	
Double IN Port Option: double drain port	Double IN Port - Indicator port Option: drain port
	

MPTX 120

Triple IN port
Option: double drain port



MPTX MPTX025 - MPTX027

Designation & Ordering code

COMPLETE FILTER

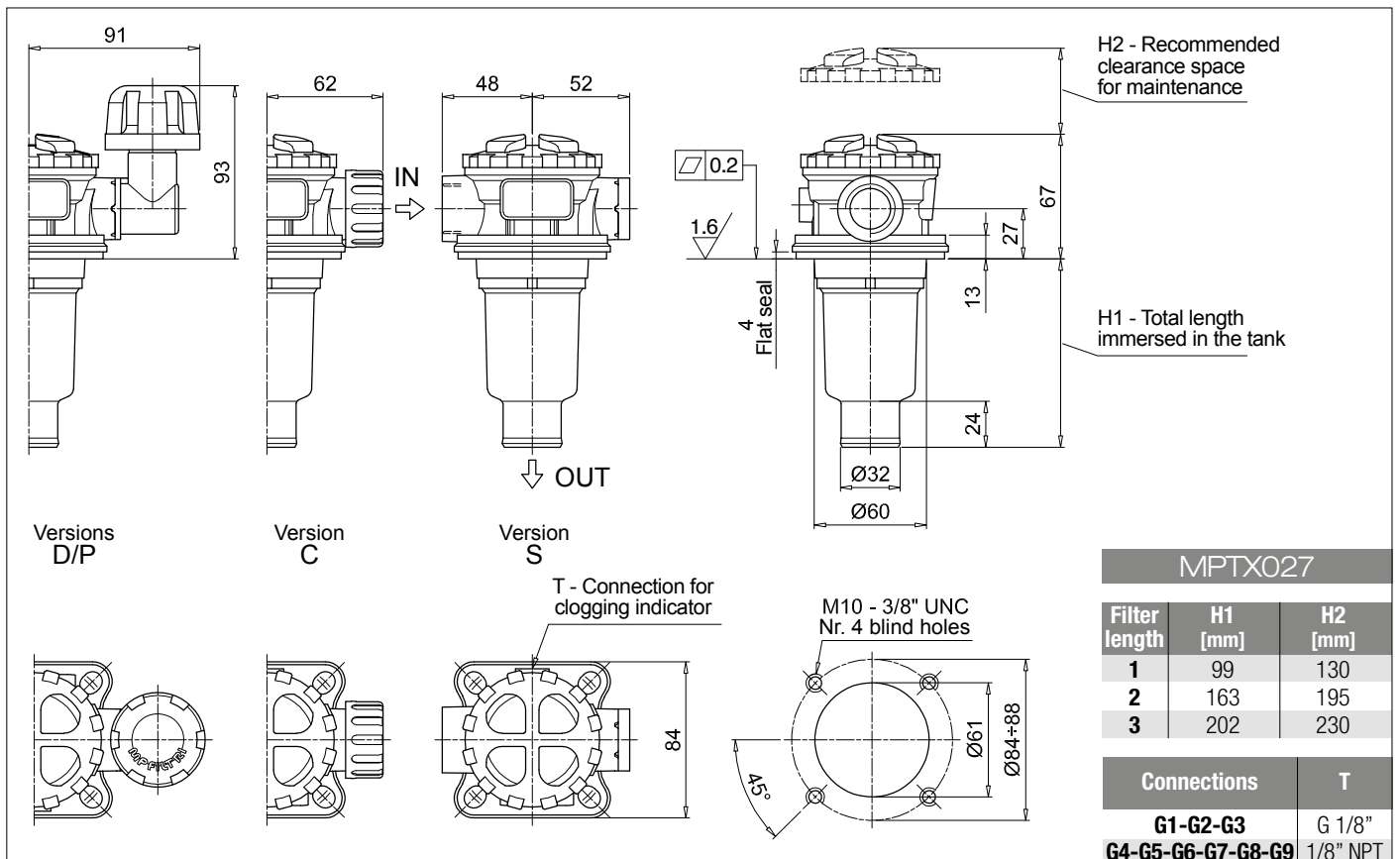
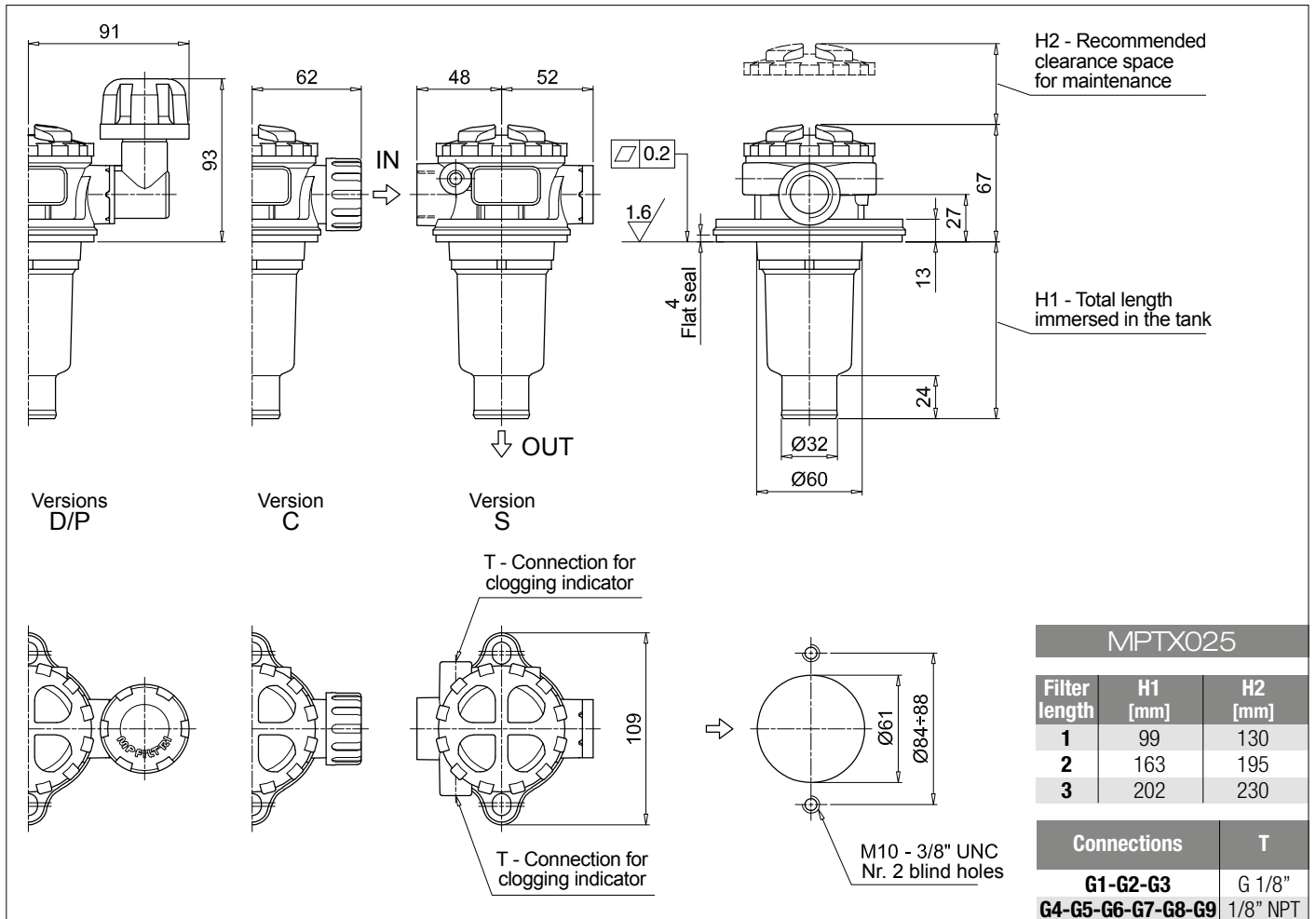
Series and size MPTX025 MPTX027 Filter element with private spigot	Configuration example 1: MPTX025 1 S A G3 A10 E P01
	Configuration example 2: MPTX027 3 C W G6 A03 B P01
Length 1 2 3	
Air breather S Without air breather C With air breather 10 µm D With anti-splash and air breather SAP050 10 µm P With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar	
Seals and treatments	Filtration rating
A NBR	Axx Mxx Pxx
V FPM	• • •
W NBR head anodized filter element compatible with fluids HFA-HFB-HFC	• •
Z FPM head anodized	• •
Connections	
G1 G 3/8"	G6 3/4" NPT
G2 G 1/2"	G7 SAE 6 - 9/16" - 18 UNF
G3 G 3/4"	G8 SAE 8 - 3/4" - 16 UNF
G4 3/8" NPT	G9 SAE 12 - 1 1/16" - 12 UN
G5 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
	Bypass valve E 3 bar B 1.75 bar
	Execution P01 MP Filtri standard Pxx Customized

FILTER ELEMENT

Element series and size MFX020 Filter element with private spigot	Configuration example 2: MFX020 1 A10 H B E P01
	Configuration example 1: MFX020 3 A03 W B 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
N 10 bar	Axx Mxx Pxx
H 10 bar	• •
W 10 bar, compatible with fluids HFA, HFB and HFC	• •
	Seals B NBR V FPM
	Bypass valve E 3 bar B 1.75 bar
	Execution P01 MP Filtri standard Pxx Customized

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
TE Extension tube	248		
DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

Series and size			Configuration example 1: MPTX110 1 S A G1 0 A06 E P01								
MPTX110 Filter element with private spigot			Configuration example 2: MPTX110 3 P V G4 1 M25 B P01								
Length											
1 2 3 4											
Air breather											
S Without air breather											
C With air breather 10 µm											
D With anti-splash and air breather SAP050 10 µm											
P With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar											
Seals and treatments			Filtration rating								
			Axx	Mxx	Pxx						
A NBR			•	•	•						
V FPM			•	•	•						
W NBR head anodized			•	•		filter element compatible with fluids HFA-HFB-HFC					
Z FPM head anodized			•	•							
Main Connections		Aux size 1	Aux size 2	Main Connections		Aux size 1	Aux size 2				
G1 G 3/4"		G 3/8"	G 1/2"	G6 1 1/4" NPT		3/8" NPT	1/2" NPT				
G2 G 1"				G7 SAE 12 - 1 1/16" - 12 UN		SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF				
G3 G 1 1/4"		3/8" NPT	1/2" NPT	G8 SAE 16 - 1 5/16" - 12 UN							
G4 3/4" NPT				G9 SAE 20 - 1 5/8" - 12 UN							
G5 1" NPT											
Aux connection - see previous table											
0 Not machined 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								
						Bypass valve		Execution			
						E 3 bar		P01 MP Filtri standard			
						B 1.75 bar		Pxx Customized			

FILTER ELEMENT

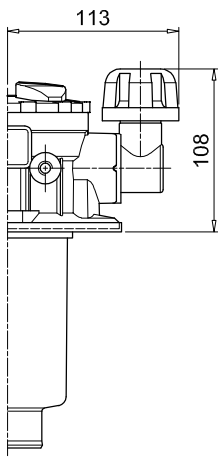
Element series and size			Configuration example 1: MFx100 1 A06 H B E P01								
MFx100 Filter element with private spigot			Configuration example 2: MFx100 3 M25 N V P01								
Element length											
1 2 3 4											
Filtration rating (filter media)											
A03 Inorganic microfiber 3 µm			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								
			Axx	Mxx	Pxx						
N 10 bar			•	•							
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			•	•							
			Seals		Bypass valve		Execution				
			B NBR		E 3 bar		P01 MP Filtri standard				
			V FPM		B 1.75 bar		Pxx Customized				

ACCESSORIES

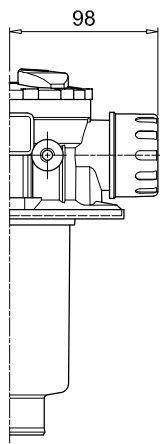
Indicators		page			page
BVA Axial pressure gauge	240		BEA Electrical pressure indicator	239	
BVR Radial pressure gauge	240		BEM Electrical pressure indicator	239	
BVP Visual pressure indicator with automatic reset	241		BLA Electrical / visual pressure indicator	239-240	
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			page
TE Extension tube	248		DPT Dipstick	249	
DFS Diffuser with fast lock connection	249				

MPTX110		
Filter length	H1 [mm]	H2 [mm]
1	99	120
2	144	170
3	222	250
4	324	350

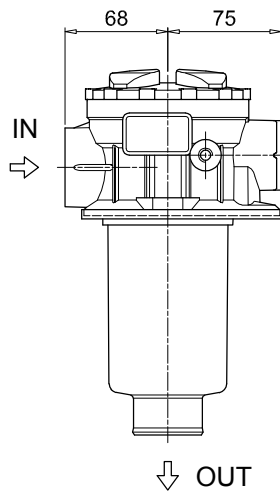
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



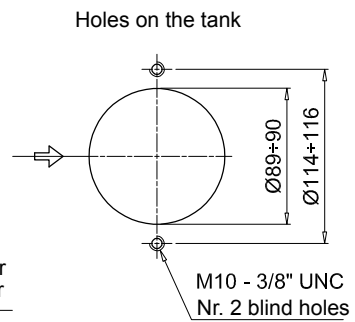
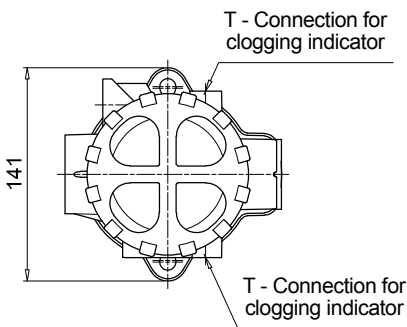
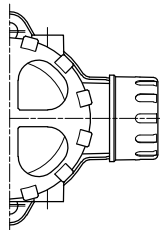
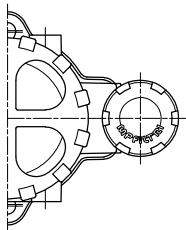
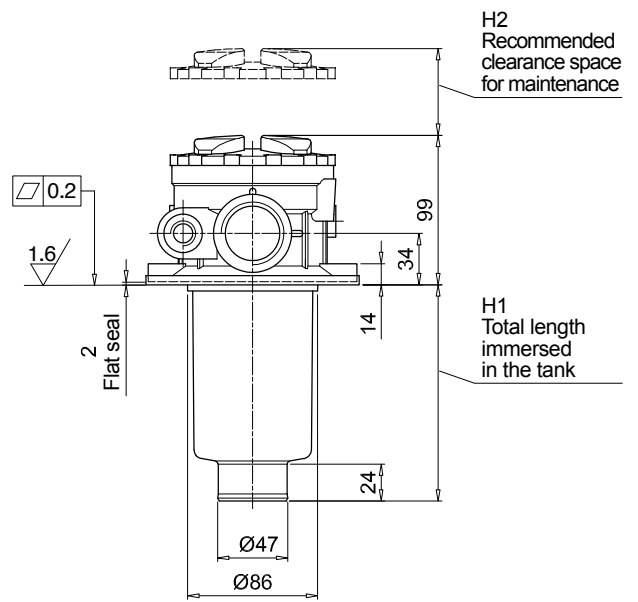
Versions D/P



Version C



Version S



Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1:	MPTX114	4	S	A	G3	A10	E	P01
MPTX114 Filter element with private spigot	Configuration example 2:	MPTX114	3	C	W	G6	A03	B	P01

Length	
1 2 3 4	

Air breather	
S Without air breather	
C With air breather 10 µm	
D With anti-splash and air breather SAP050 10 µm	
P With anti-splash and air breather SAP050 10 µm pressurization 0.5 bar	

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
A NBR	•	•	•
V FPM	•	•	•
W NBR head anodized	•	•	
Z FPM head anodized	•	•	

filter element compatible with fluids HFA-HFB-HFC

Connections	
G1 G 3/4"	G6 1 1/4" NPT
G2 G 1"	G7 SAE 12 - 1 1/16" - 12 UN
G3 G 1 1/4"	G8 SAE 16 - 1 5/16" - 12 UN
G4 3/4" NPT	G9 SAE 20 - 1 5/8" - 12 UN
G5 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

Bypass valve	Execution
E 3 bar	P01 MP Filtri standard
B 1.75 bar	Pxx Customized

FILTER ELEMENT

Element series and size	Configuration example 2:	MFx100	4	A10	H	B	E	P01
MFx100 Filter element with private spigot	Configuration example 1:	MFx100	3	A03	W	B		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		
	Axx	Mxx	Pxx
N 10 bar		•	•
H 10 bar	•		
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•	

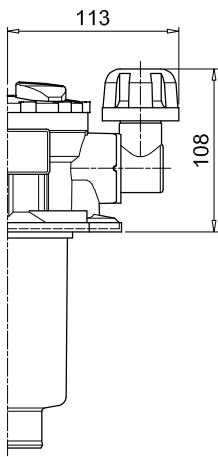
Seals	Bypass valve	Execution
B NBR	E 3 bar	P01 MP Filtri standard
V FPM	1.75 bar	Pxx Customized

ACCESSORIES

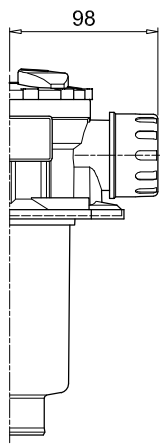
Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		page
TE Extension tube	248	DPT Dipstick	249
DFS Diffuser with fast lock connection	249		

MPTX114		
Filter length	H1 [mm]	H2 [mm]
1	99	120
2	144	170
3	222	250
4	324	350

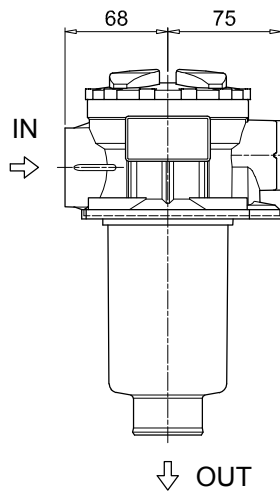
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



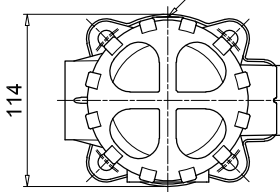
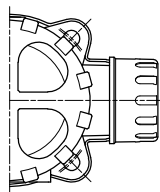
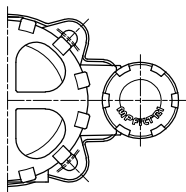
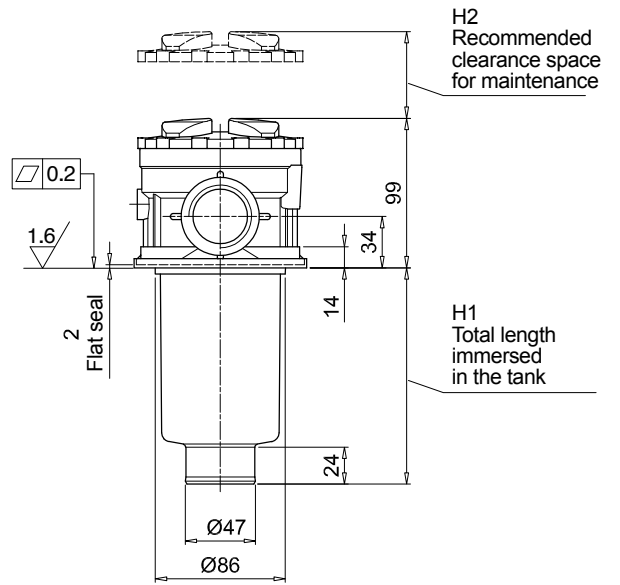
Versions D/P



Version C

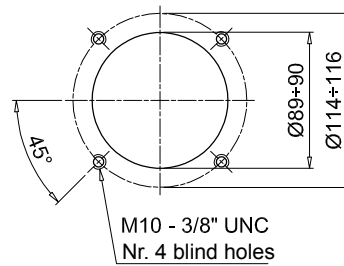


Version S



T - Connection for clogging indicator

Holes on the tank



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

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1: MPTX116 1 S A G1 M90 E P01								
MPTX116 Filter element with private spigot	Configuration example 2: MPTX116 2 S Z G9 A03 B P01								
Length	1 2 3 4								
Air breather	S Without air breather								
Seals and treatments	Filtration rating								
	Axx	Mxx	Pxx						
A NBR	•	•	•						
V FPM	•	•	•						
W NBR head anodized	•	•		filter element compatible with fluids HFA-HFB-HFC					
Z FPM head anodized	•	•							
Flat seal on the head on request									
Connections									
G1 G 3/4"	G6 1 1/4" NPT								
G2 G 1"	G7 SAE 12 - 1 1/16" - 12 UN								
G3 G 1 1/4"	G8 SAE 16 - 1 5/16" - 12 UN								
G4 3/4" NPT	G9 SAE 20 - 1 5/8" - 12 UN								
G5 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								
	Bypass valve		Execution						
	E 3 bar		P01 MP Filtri standard						
	B 1.75 bar		Pxx Customized						

FILTER ELEMENT

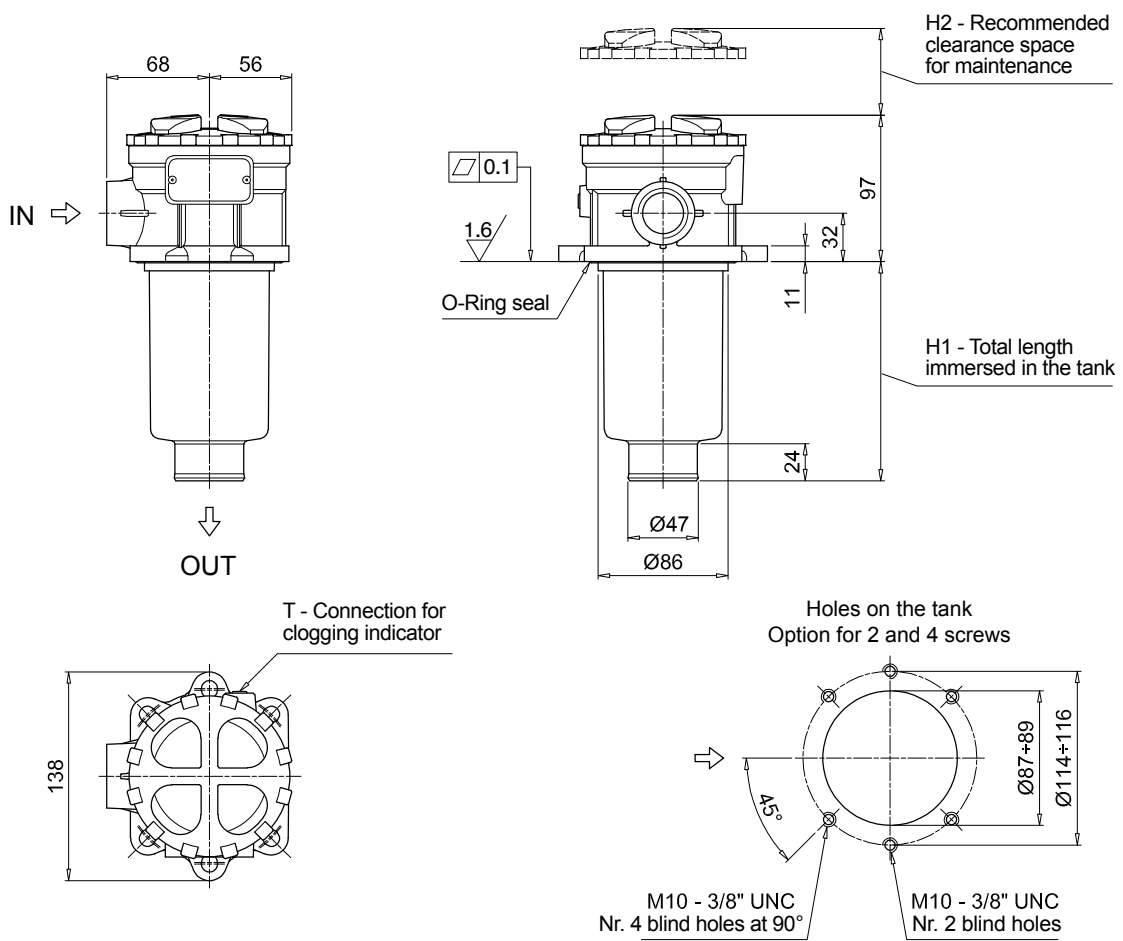
Element series and size	Configuration example 2: MFx100 1 M90 N B E P01							
MFx100 Filter element with private spigot	Configuration example 1: MFx100 2 A03 W V P01							
Element length	1 2 3 4							
Filtration rating (filter media)								
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm							
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							
	Axx	Mxx	Pxx					
N 10 bar		•	•					
H 10 bar	•							
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•						
	Seals		Bypass valve		Execution			
	B NBR		E 3 bar		P01 MP Filtri standard			
	V FPM		B 1.75 bar		Pxx Customized			

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		page
TE Extension tube	248	DPT Dipstick	249
DFS Diffuser with fast lock connection	249		

MPTX116		
Filter length	H1 [mm]	H2 [mm]
1	99	120
2	146	170
3	224	250
4	326	350

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



Designation & Ordering code

COMPLETE FILTER

Series and size		Configuration example 1: MPTX120 1 A G1 0 A06 E P01													
MPTX120 Filter element with private spigot		Configuration example 2: MPTX120 3 V G4 1 M25 B P01													
Length		1 2 3 4													
Seals and treatments		Filtration rating													
		Axx	Mxx	Pxx											
A	NBR	•	•	•											
V	FPM	•	•	•											
W	NBR head anodized	•	•		filter element compatible with fluids HFA-HFB-HFC										
Z	FPM head anodized	•	•												
Main Connections		Rear connections		Aux size 1		Aux size 2									
G1	G 3/4"	G 3/4"		G 3/8"		G 1/2"									
G2	G 1"	G 1"													
G3	G 1 1/4"	G 3/4"													
G4	3/4" NPT	3/4" NPT		3/8" NPT		1/2" NPT									
G5	1" NPT	1" NPT													
G6	1 1/4" NPT	3/4" NPT		SAE 6 - 9/16" - 18 UNF		SAE 8 - 3/4" - 16 UNF									
G7	SAE 12 - 1 1/16" - 12 UN	SAE 12 - 1 1/16" - 12 UN													
G8	SAE 16 - 1 5/16" - 12 UN	SAE 16 - 1 5/16" - 12 UN													
G9	SAE 20 - 1 5/8" - 12 UN	SAE 12 - 1 1/16" - 12 UN													
Aux connection - see previous table															
0	Not machined	1	Aux size 1	2	Aux size 2										
Filtration rating (filter media)															
A03	Inorganic microfiber 3 µm	M25		Wire mesh 25 µm						Bypass valve		Execution			
A06	Inorganic microfiber 6 µm	M60		Wire mesh 60 µm						E	3 bar		P01	MP Filtri standard	
A10	Inorganic microfiber 10 µm	M90		Wire mesh 90 µm						B	1.75 bar		Pxx	Customized	
A16	Inorganic microfiber 16 µm	P10		Resin impregnated paper 10 µm											
A25	Inorganic microfiber 25 µm	P25		Resin impregnated paper 25 µm											

FILTER ELEMENT

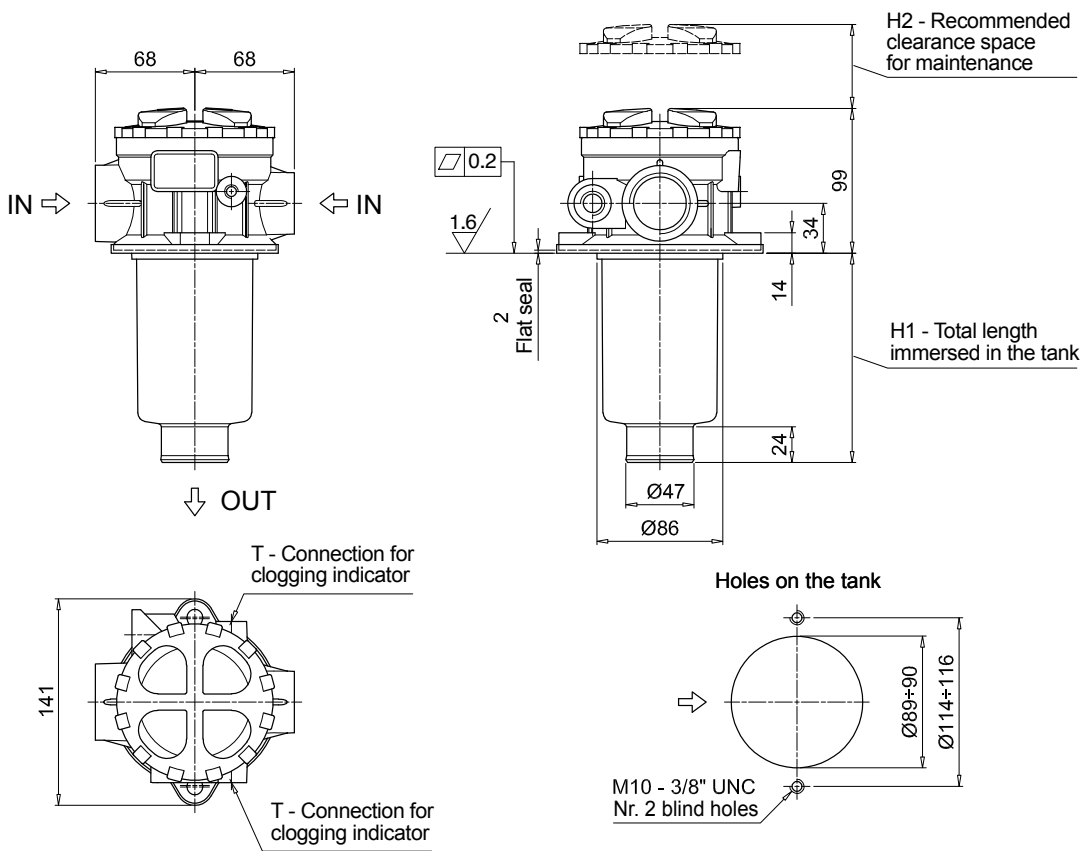
Element series and size		Configuration example 1: MFx100 1 A06 H B E P01													
MFx100 Filter element with private spigot		Configuration example 2: MFx100 3 M25 N V P01													
Element length		1 2 3 4													
Filtration rating (filter media)															
A03	Inorganic microfiber 3 µm	M25		Wire mesh 25 µm						Seals		Bypass valve		Execution	
A06	Inorganic microfiber 6 µm	M60		Wire mesh 60 µm						B	NBR		E	3 bar	
A10	Inorganic microfiber 10 µm	M90		Wire mesh 90 µm						V	FPM		P01	MP Filtri standard	
A16	Inorganic microfiber 16 µm	P10		Resin impregnated paper 10 µm										Pxx	Customized
A25	Inorganic microfiber 25 µm	P25		Resin impregnated paper 25 µm											
Element Δp		Filter media													
		Axx	Mxx	Pxx											
N	10 bar		•	•											
H	10 bar	•													
W	10 bar, compatible with fluids HFA, HFB and HFC	•	•												

ACCESSORIES

Indicators		page			page
BVA	Axial pressure gauge	240	BEA	Electrical pressure indicator	239
BVR	Radial pressure gauge	240	BEM	Electrical pressure indicator	239
BVP	Visual pressure indicator with automatic reset	241	BLA	Electrical / visual pressure indicator	239-240
BVQ	Visual pressure indicator with manual reset	241			
Additional features		page			page
TE	Extension tube	248	DPT	Dipstick	249
DFS	Diffuser with fast lock connection	249			

MPTX120		
Filter length	H1 [mm]	H2 [mm]
1	99	120
2	144	170
3	222	250
4	324	350

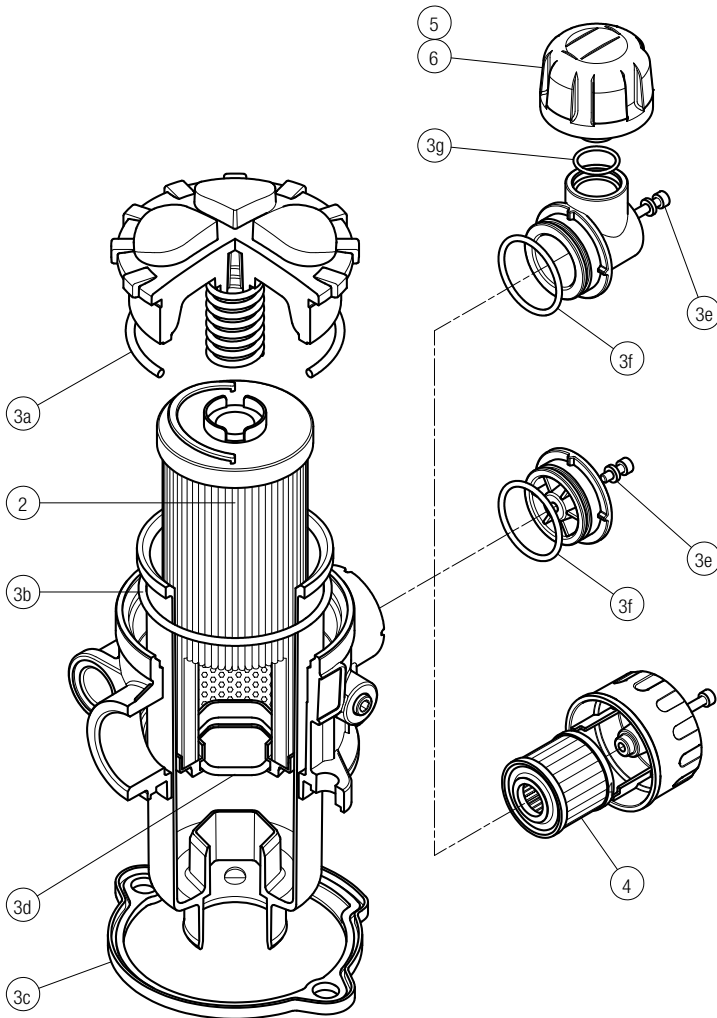
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



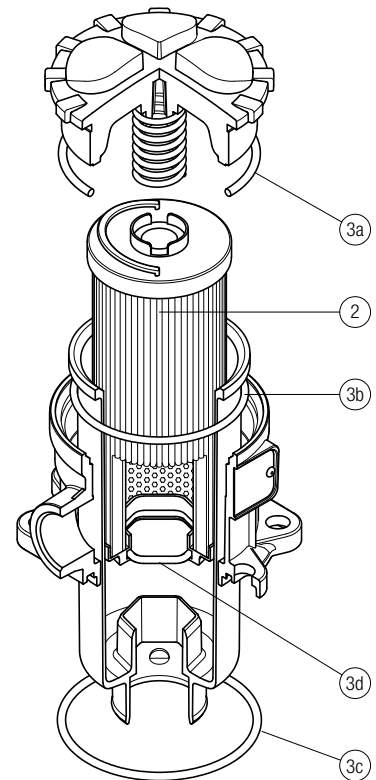
MPTX SPARE PARTS

Order number for spare parts

MPTX 025 - 027 - 110



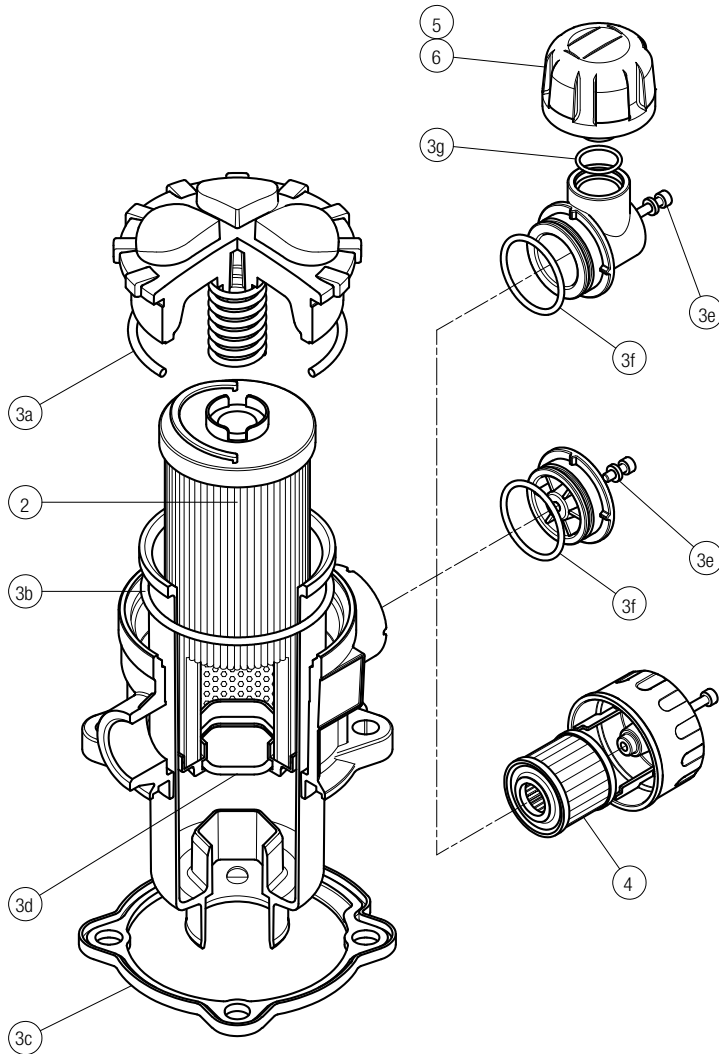
MPTX 116



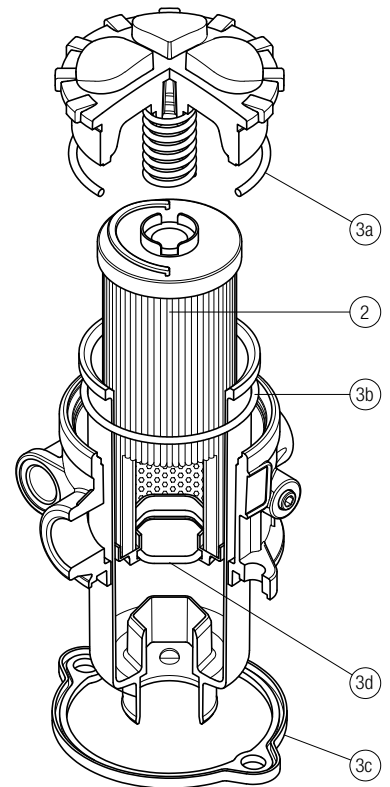
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number NBR	FPM	Air breather filter element - version:		
				C	D	P
MPTX 025	See order table	02050701	02050702	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01
MPTX 027		02050703	02050704	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01
MPTX 110		02050709	02050710	10 µm A5L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01

Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number NBR	FPM
MPTX 116	See order table	02050737	02050738

MPTX 114



MPTX 120



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		Air breather filter element - version:		
		NBR	FPM	C	D	P
MPTX 114	See order table	02050707	02050708	10 µm A5L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01

Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPTX 120	See order table	02050711	02050712

MFBX series

BOWL ASSEMBLY

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 700 l/min



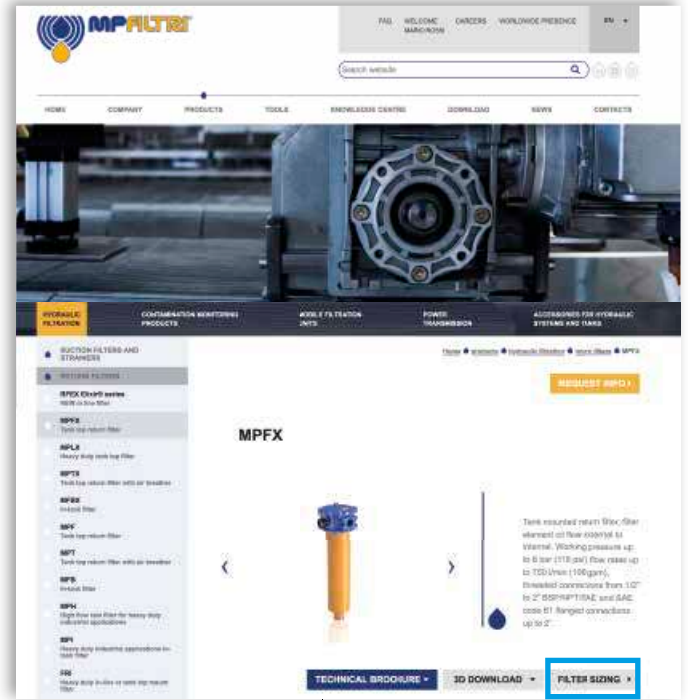
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

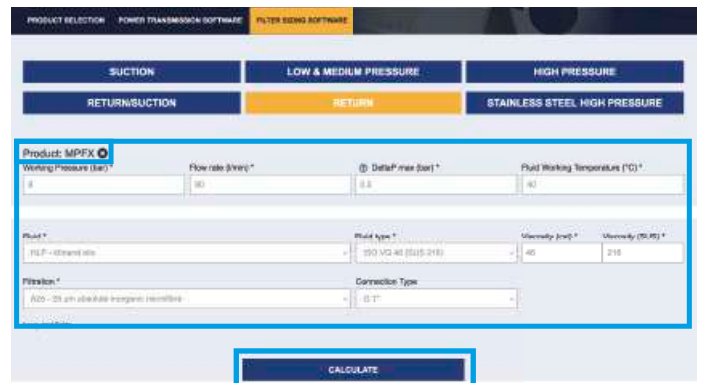
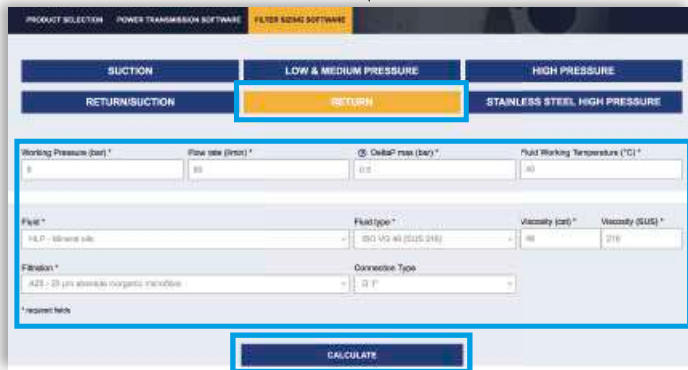
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

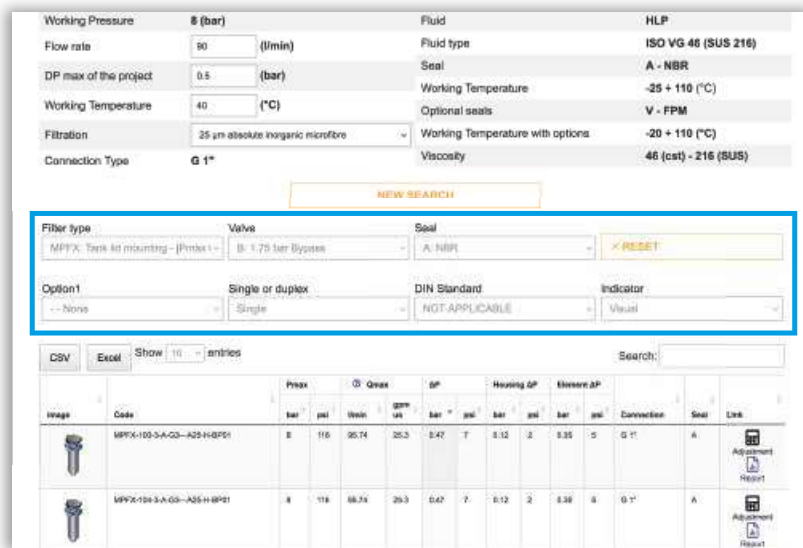
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	gpm us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF



A new browser window displays the pdf

see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.



THE NEW FILTER CONCEPT

MPFX
MPLX
MPTX
MFBX
MFX
series

NEW FILTER ELEMENT WITH EXCLUSIVE INTERFACE CONNECTION

- ◆ **Protects the machine from improper use of non-original products.**
- ◆ **Safety of constant quality protection & reliability**

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.



Filter element featuring our UNIQUE end cap with polygonal design.



UNIQUE polygonal spigot fitting within the filter bowl.

The products identified as MPFX, MPLX, MPTX, MFBX and MFX are protected by:

- ◆ Italian Patent n° 102014902261205
- ◆ Canadian Patent n° 2,937,258
- ◆ European Patent n° 16181725.9
- ◆ US Patent n° 15/224,337

Return filter Bowl assembly

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 700 l/min

MFBX is a range of return filter kits for protection of the reservoir against the system contamination.

They are directly integrated in the moulded reservoir in immersed or semi-immersed position to save space into the tank.

Treaded or flanged covers can be provided.

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

Available features:

- 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
- 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)
- 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:

Mobile machines

Bowl assembly materials

- Cover
Nylon: MFBX 020-030-100
Aluminium: MFBX 180-190

- Bowl: Nylon

Filter element materials

- Caps: Nylon
- Spring: Spring steel

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

MFBX 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
MFBX 020		0.25	0.35	0.40	-		0.10	0.15	0.20	-
MFBX 030		0.25	-	-	-		0.15	-	-	-
MFBX 100		0.50	0.60	0.75	0.95		0.35	0.50	0.80	1.10
MFBX 180		1.60	2.40	-	-		1.50	2.90	-	-
MFBX 190		-	2.40	-	-		-	3.00	-	-

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MFBX 020	1	7	10	23	28	42	59	51	54
	2	17	20	45	48	56	72	64	67
	3	21	24	50	55	59	76	74	75
MFBX 030	1	7	10	24	29	47	84	60	66
MFBX 100	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
MFBX 180	1	127	148	235	243	278	441	285	299
	2	231	262	358	382	388	472	404	412
MFBX 190	2	261	305	489	528	546	696	583	598

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

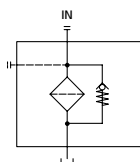
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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
MFBX 020	•
MFBX 030	•
MFBX 100	•
MFBX 180	•
MFBX 190	•



Designation & Ordering code

COMPLETE FILTER

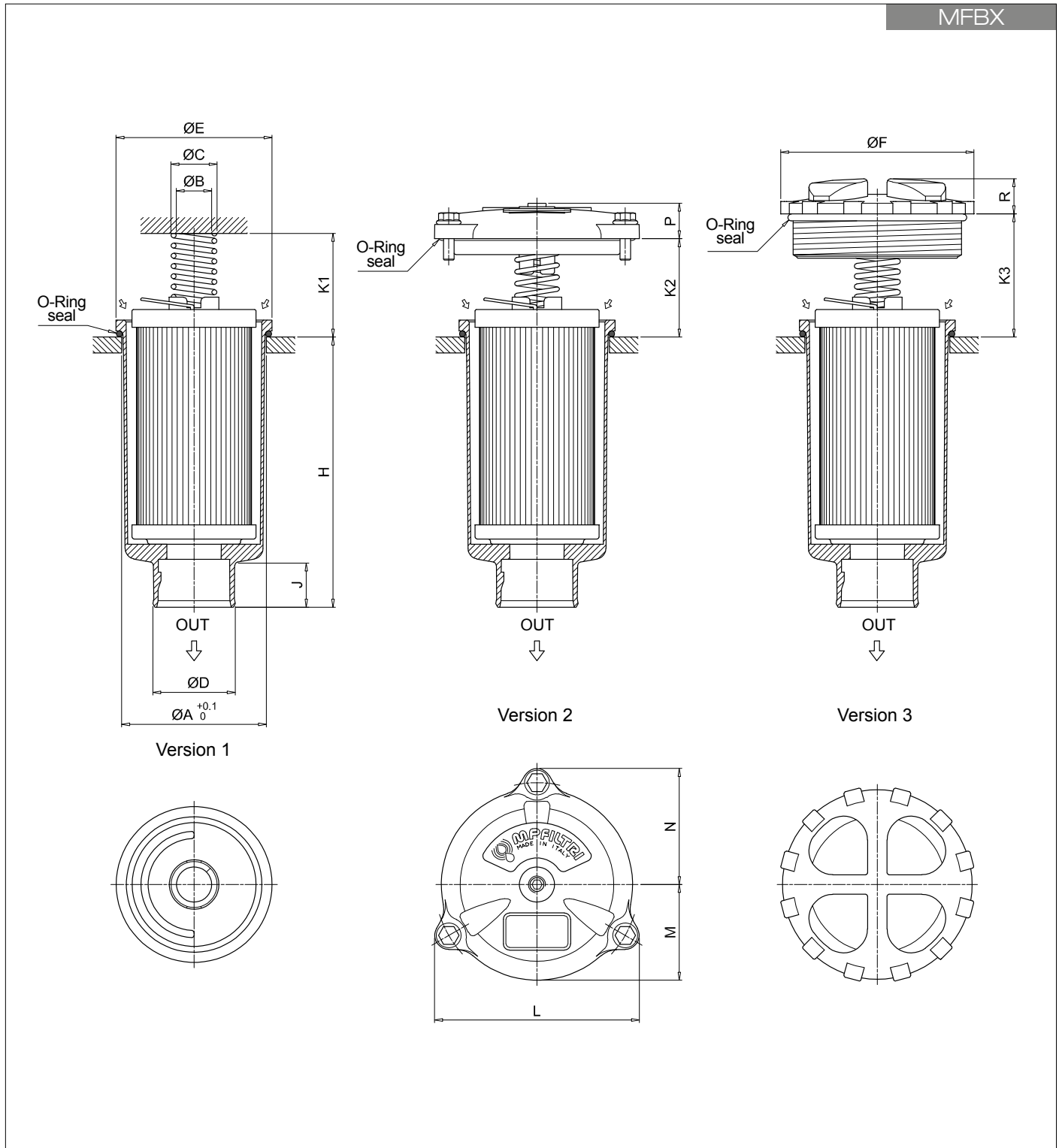
Series and size						Configuration example 1: MFBX100 1 A 2 A10 H E P01							
MFBX020 MFBX030 MFBX100 MFBX180 MFBX190						Configuration example 2: MFBX180 2 V 1 M25 N B P01							
Filter element with private spigot													
Length	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190								
1	•	•	•	•									
2	•		•	•	•								
3	•		•										
4			•										
Seals													
A NBR													
V FPM													
Version													
1 Without cover													
2 With flanged cover type MPF													
3 With threaded cover type MPT													
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													
N 10 bar													
H 10 bar													
W 10 bar, compatible with fluids HFA, HFB and HFC													
										Bypass valve			
										E 3 bar			
										B 1.75 bar			
										Execution			
										P01 MP Filtri standard			
										Pxx Customized			

FILTER ELEMENT

Element series and size						Configuration example 1: MFX180 2 M25 H V P01							
MFX020 MFX030 MFX100 MFX180						Configuration example 2: MFX100 1 A10 N B E P01							
Filter element with private spigot													
Element length	MFX020	MFX030	MFX100	MFX180	MFX190								
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													
N 10 bar													
H 10 bar													
										Seals			
										B NBR			
										V FPM			
										Bypass valve			
										E 3 bar			
										 1.75 bar			
										Execution			
										P01 MP Filtri standard			
										Pxx Customized			

ACCESSORIES

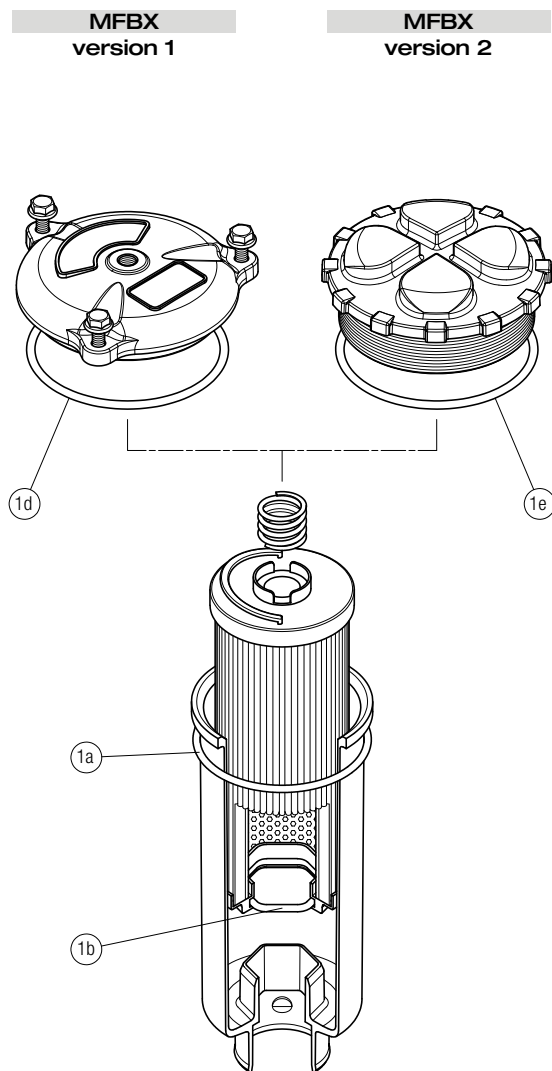
Additional features											page
						MFBX020	MFBX030	MFBX100	MFBX180	MFBX190	
TE	Extension tube					•	•	•	•	•	248
DFS	Diffuser with fast lock connection							•			249



Filter size	Filter Length	Ø A [mm]	Ø B [mm]	Ø C [mm]	Ø D [mm]	Ø E [mm]	Ø F [mm]	H [mm]	J [mm]	K1 [mm]	K2 [mm]	K3 [mm]	L [mm]	M [mm]	N [mm]	P [mm]	R [mm]
020	1	52	20.5	26	32	56	75	111	24	42	-	36	-	-	-	-	18
	2	52	20.5	26	32	56	75	175	24	42	-	36	-	-	-	-	18
	3	52	20.5	26	32	56	75	214	24	42	-	36	-	-	-	-	18
030	1	60.5	20	25.5	32	68	-	93	21	33	35	-	92	42	52	18	-
	2	80.5	20	26	47	88	111	109	24	58	55	69	116	54	66	20	20
100	1	80.5	20	26	47	88	111	154	24	58	55	69	116	54	66	20	20
	2	80.5	20	26	47	88	111	232	24	58	55	69	116	54	66	20	20
	3	80.5	20	26	47	88	111	334	24	58	55	69	116	54	66	20	20
180	1	112.5	26	33.5	47	121	-	234	31	58	69	-	159	76	95	21	-
	2	112.5	26	33.5	47	121	-	447	31	58	69	-	159	76	95	21	-
190	2	112.5	26	33.5	50	121	-	454	38	58	69	-	159	76	95	21	-

MFBX SPARE PARTS

Order number for spare parts



Item: Q.ty: 1 pc.		
1 (1a ÷ 1d)		
Filter series	Seal Kit code number	
	NBR	FPM
MFBX 020	02050713	02050714
MFBX 030	02050715	02050716
MFBX 100	02050717	02050718
MFBX 180-190	02050719	02050720

MPF series

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



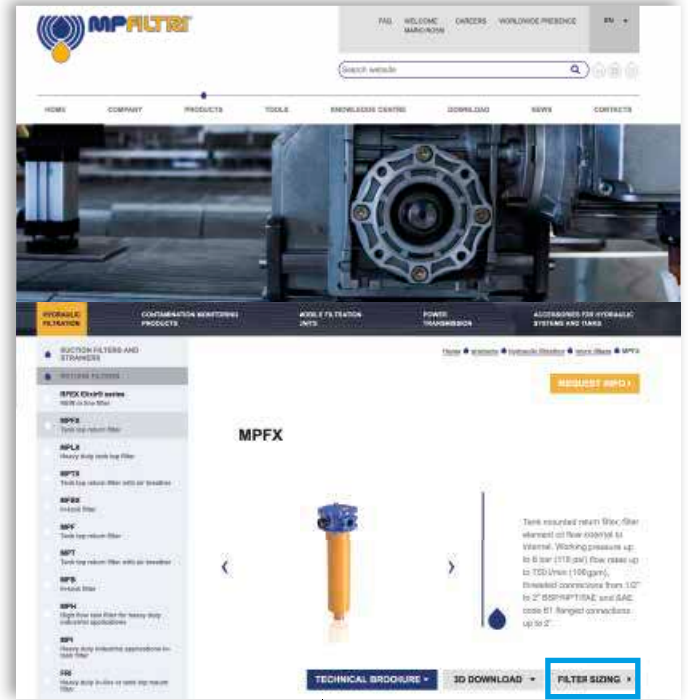
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

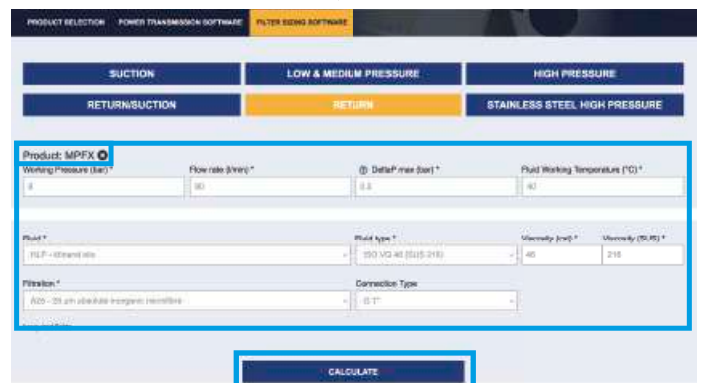
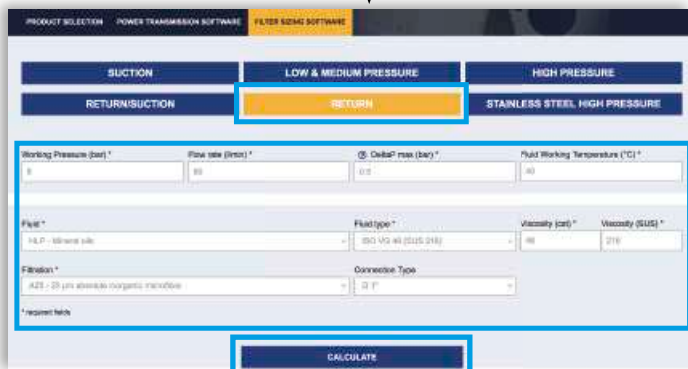
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

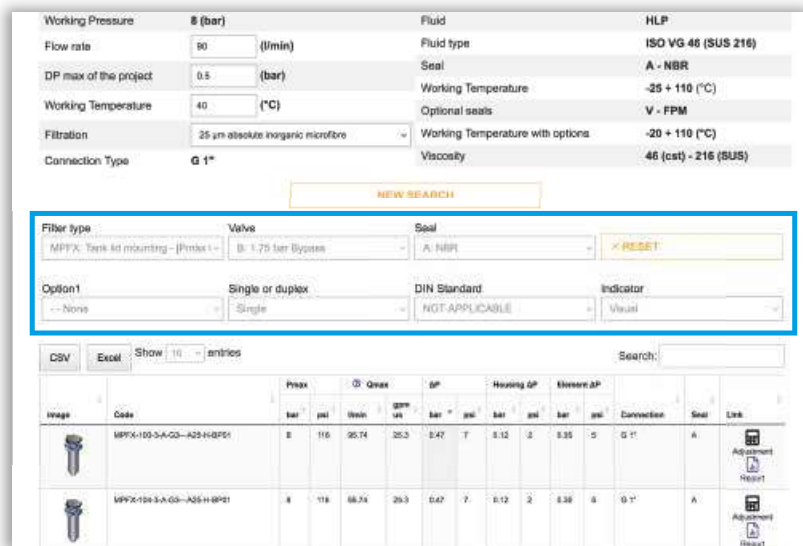
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Strain	Qmax gpm	us	AP bar	psi	Housing AP bar	psi	Element AP bar	psi	Connection	Seal	Link
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	9.12	2	0.35	5	0.47	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	9.12	2	0.35	5	0.47	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT



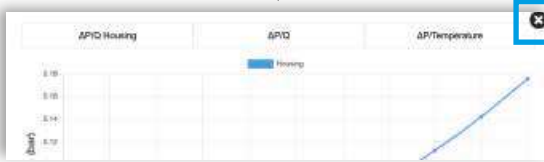
SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf

see **A**



Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

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 750 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
Nylon: MPF 020-030-100-104-110
Aluminium: MPF 181-182-184-191-192-194-400-410-450-451-750
- Bowl: Nylon

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	-	-	-

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.

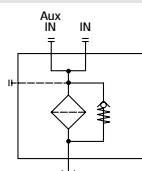
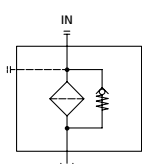
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

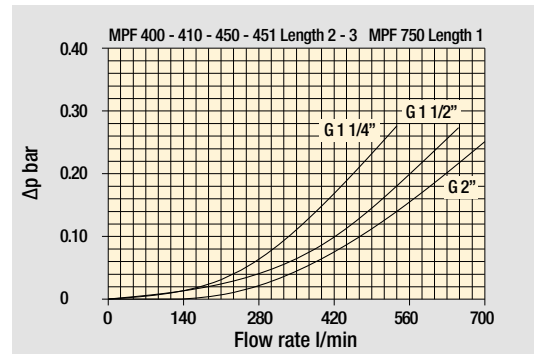
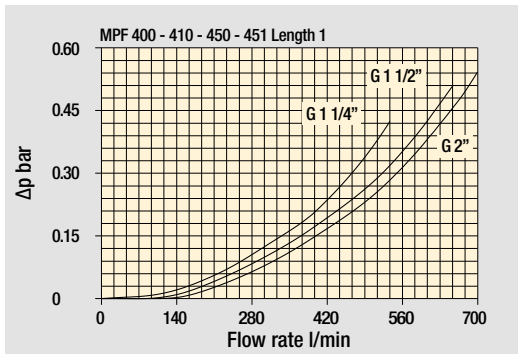
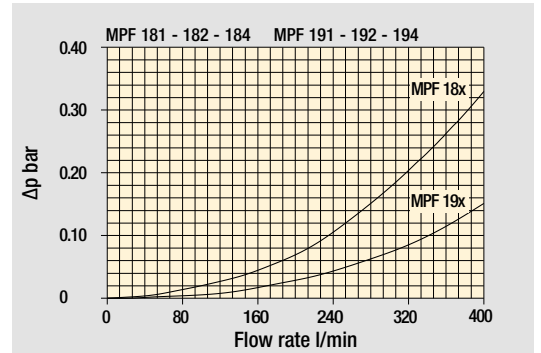
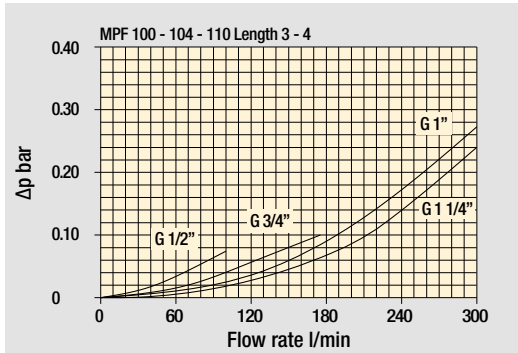
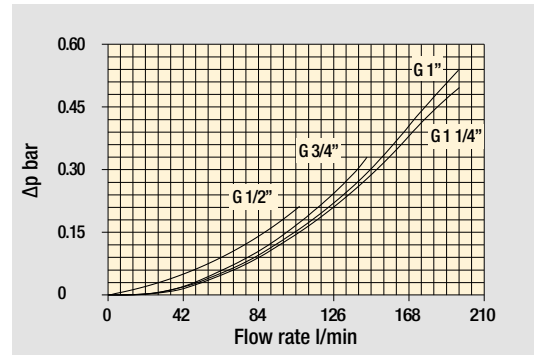
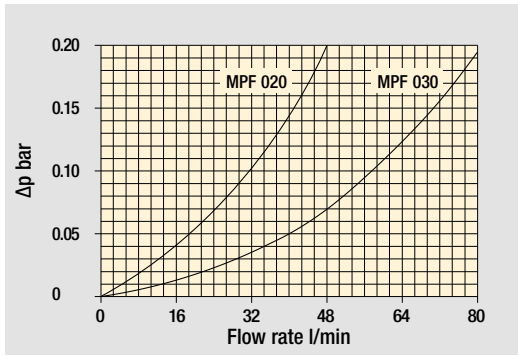
Hydraulic symbols

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	•	

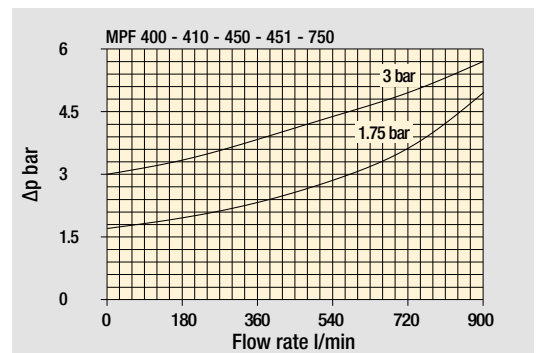
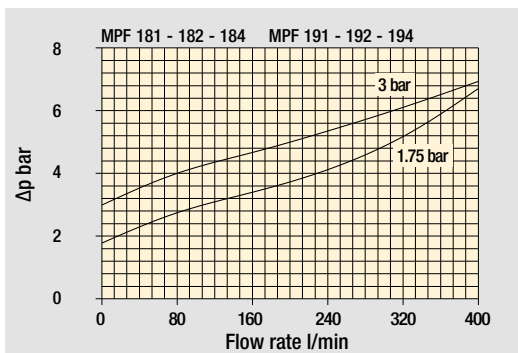
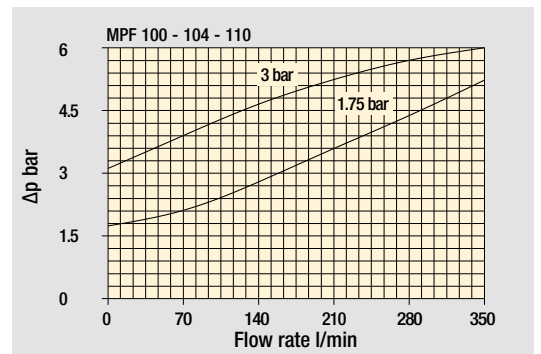
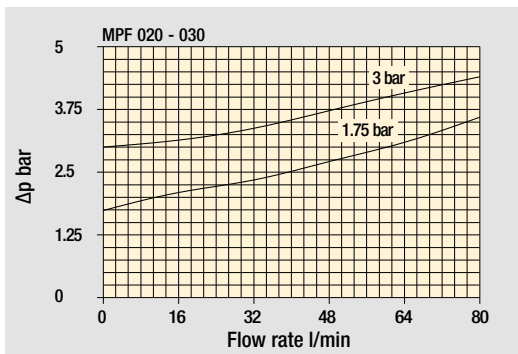


Pressure drop

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

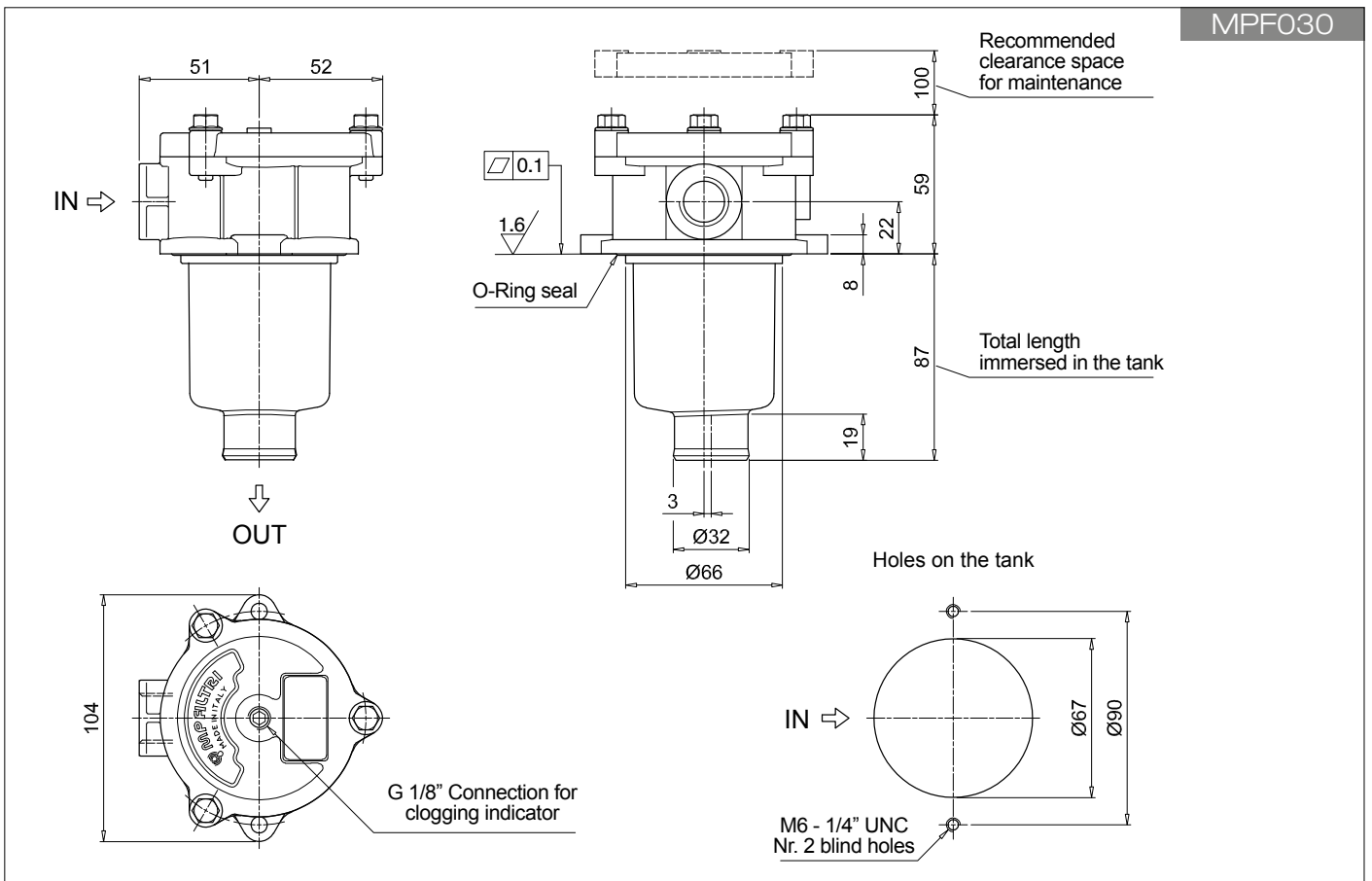
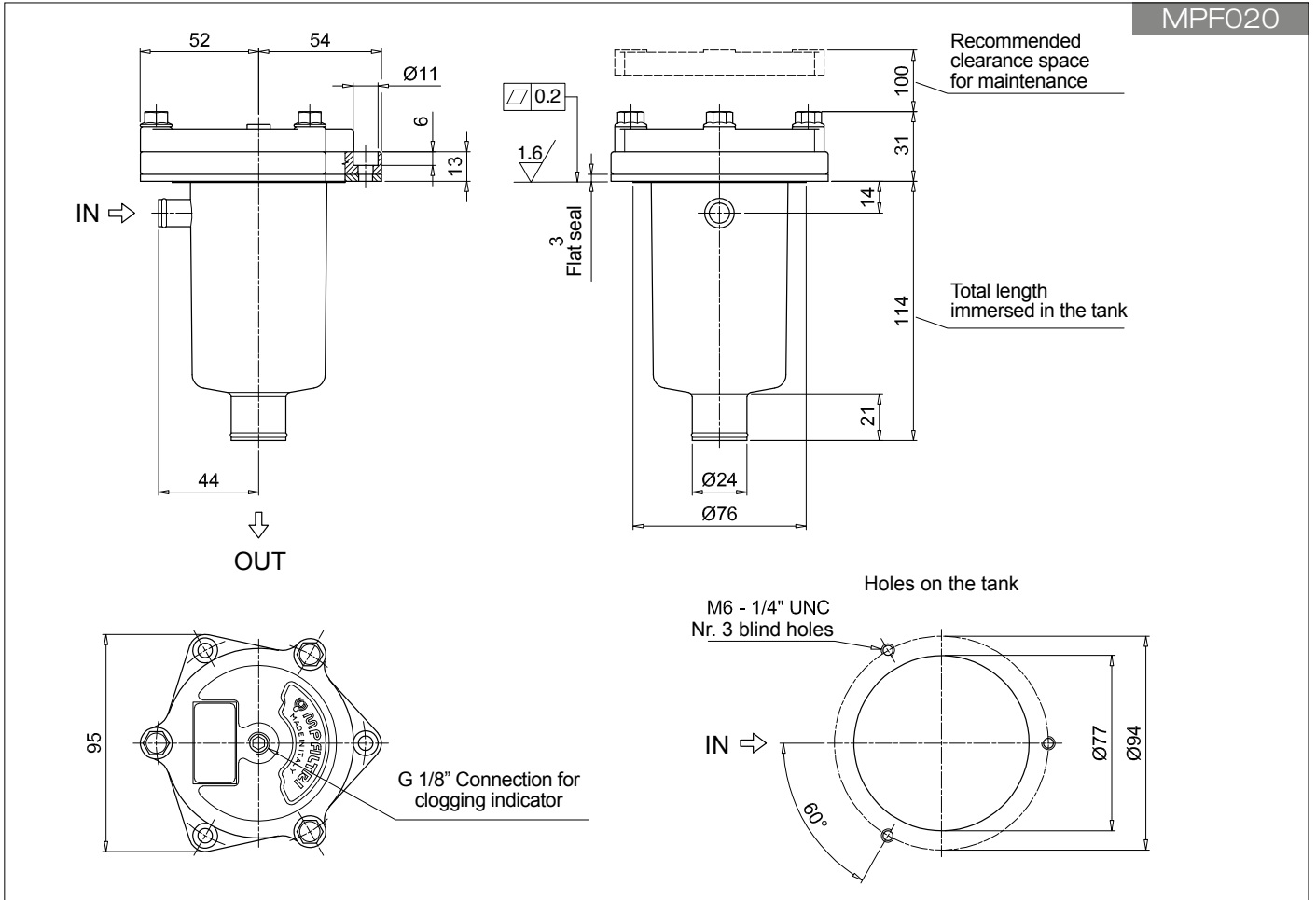
Series and size	Configuration example 1:	MPF020	1	A	P1	A10	H	E	P01
MPF020 MPF030 Filter element with standard spigot	Configuration example 2:	MPF030	1	V	G1	M25	N	B	P01
Length									
1									
Seals and treatments									
A NBR									
V FPM									
W NBR head anodized									
Z FPM head anodized									
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								
	Axx	Mxx	Pxx						
N 10 bar		•	•						
H 10 bar	•								
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•							
	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							
	Axx	Mxx	Pxx					
N 10 bar		•	•					
H 10 bar	•							
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•						
	Seals		Bypass valve		Execution			
	B NBR		E 3 bar		P01 MP Filtri standard			
	V FPM		B 1.75 bar		Pxx Customized			

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
TE Extension tube	248		
T5 Filler plug M30x1.5	249		



MPF MPF100 - MPF104

Designation & Ordering code

COMPLETE FILTER

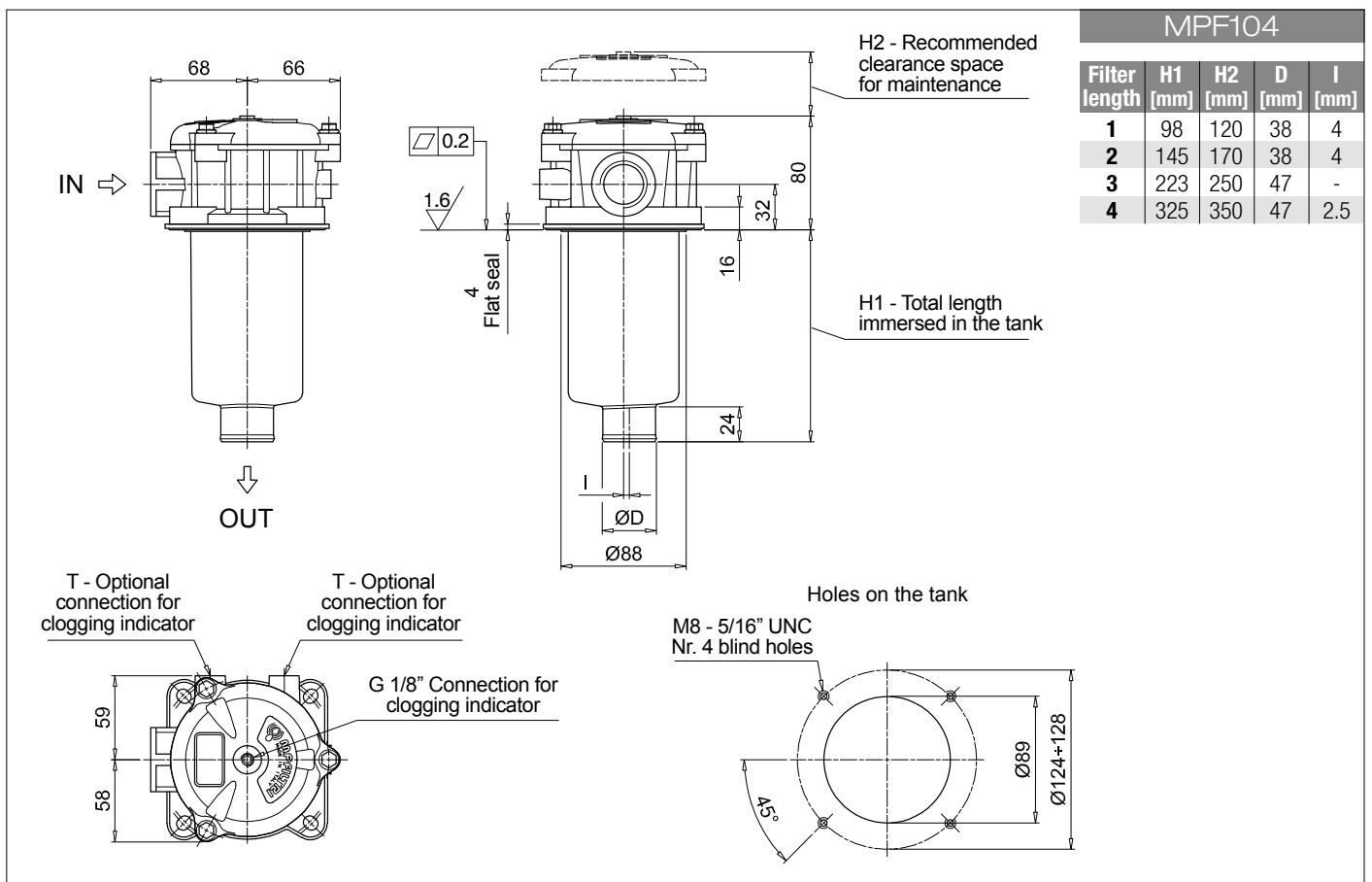
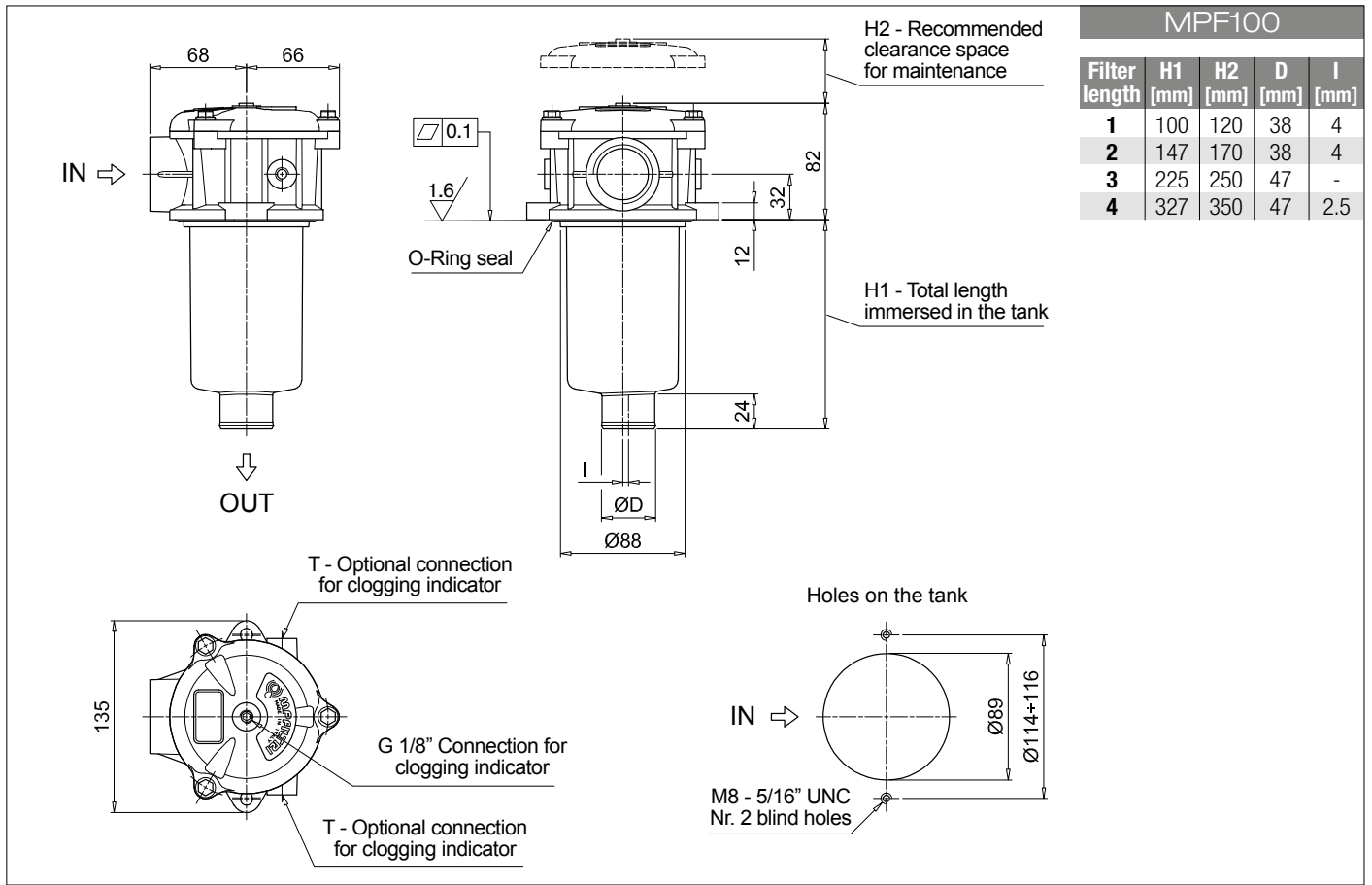
Series and size		Configuration example 1: MPF100 2 W G3 A06 W B P01									
MPF100 MPF104 Filter element with standard spigot		Configuration example 2: MPF104 4 A G8 P10 N E P01									
Length											
1 2 3 4											
Seals and treatments											
A NBR											
V FPM											
W NBR head 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							
		Axx Mxx Pxx									
N 10 bar				•		•					
H 10 bar				•							
W 10 bar, compatible with fluids HFA, HFB and HFC				•		•					
								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: MF100 2 A06 W 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							
		Axx Mxx Pxx									
N 10 bar				•		•					
H 10 bar				•							
W 10 bar, compatible with fluids HFA, HFB and HFC				•		•					
								Seals		Bypass valve	
								B NBR		E 3 bar	
								V FPM		1.75 bar	
										Execution	
										P01 MP Filtri standard	
										Pxx Customized	

ACCESSORIES

Indicators		page		page	
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239		
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239		
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240		
BVQ Visual pressure indicator with manual reset	241				
Additional features		page		page	
TE Extension tube	248	T5 Filler plug M30x1.5	249		
DFS Diffuser with fast lock connection	249	DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

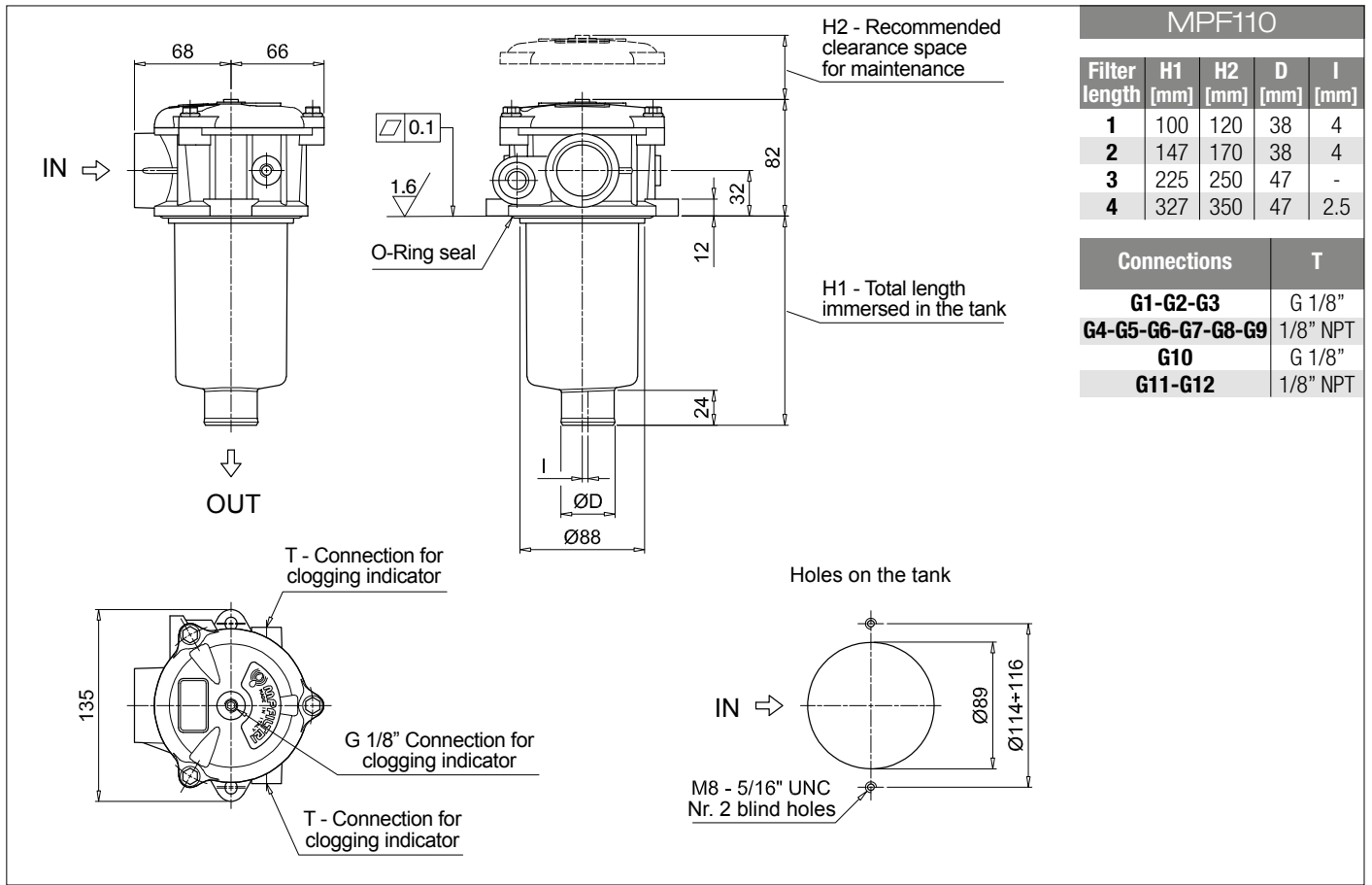
Series and size			Configuration example 1: MPF110 2 A G2 1 A16 H E P01								
MPF110 Filter element with standard spigot			Configuration example 2: MPF110 4 V G12 1 M60 N B P01								
Length											
1 2 3 4											
Seals and treatments											
A NBR			W NBR head anodized								
V FPM			Z FPM head anodized								
Main Connections			Aux size 1			Aux size 2					
G1 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			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								
			Axx Mxx Pxx								
N 10 bar						• •					
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			• •								
						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: 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								
			Axx Mxx Pxx								
N 10 bar						• •					
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			• •								
						Seals		Bypass valve		Execution	
						B NBR		E 3 bar		P01 MP Filtri standard	
						V FPM		B 1.75 bar		Pxx Customized	

ACCESSORIES

Indicators		page			page
BVA Axial pressure gauge	240		BEA Electrical pressure indicator	239	
BVR Radial pressure gauge	240		BEM Electrical pressure indicator	239	
BVP Visual pressure indicator with automatic reset	241		BLA Electrical / visual pressure indicator	239-240	
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			page
TE Extension tube	248		T5 Filler plug M30x1.5	249	
DFS Diffuser with fast lock connection	249		DPT Dipstick	249	



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

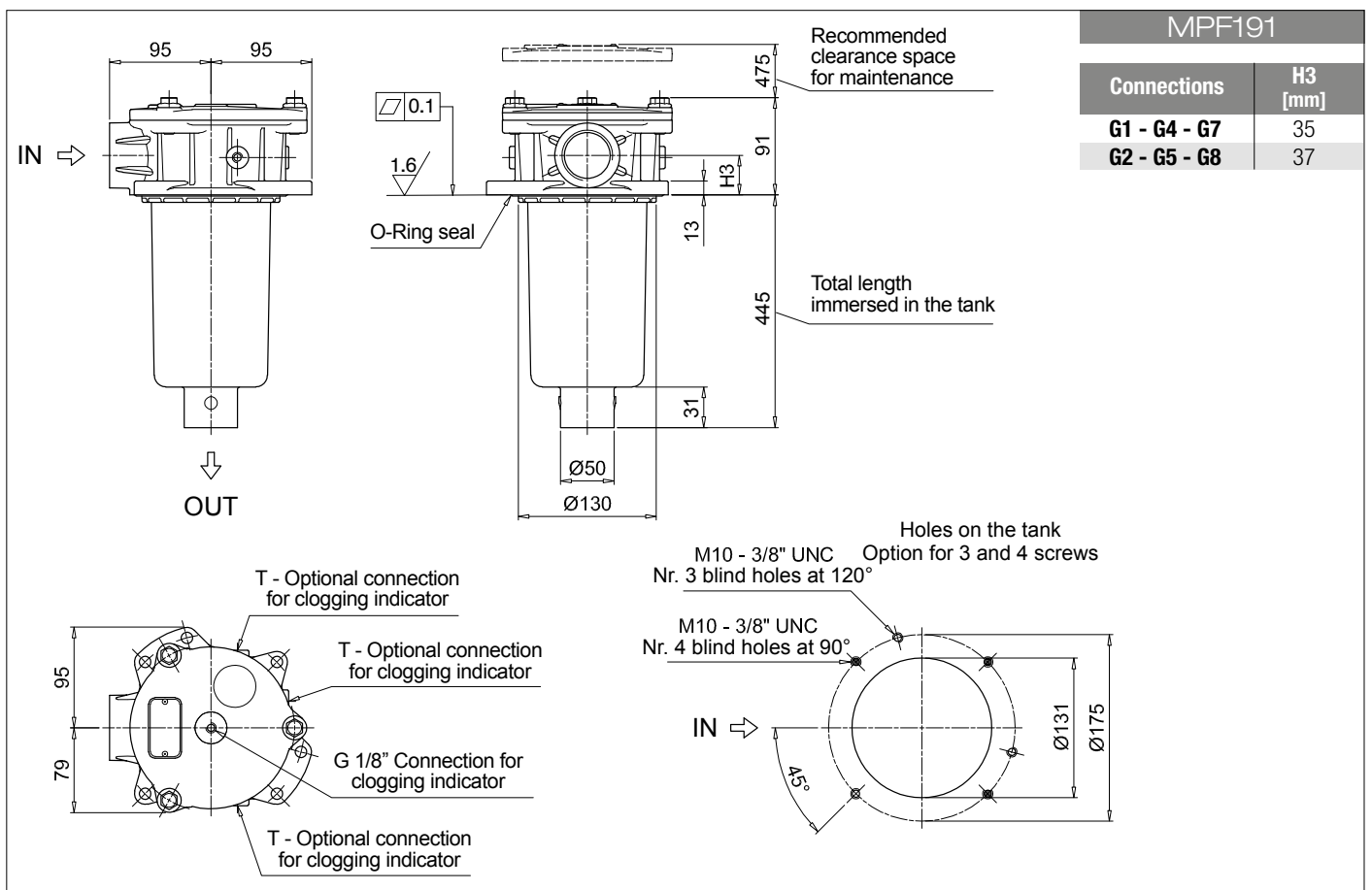
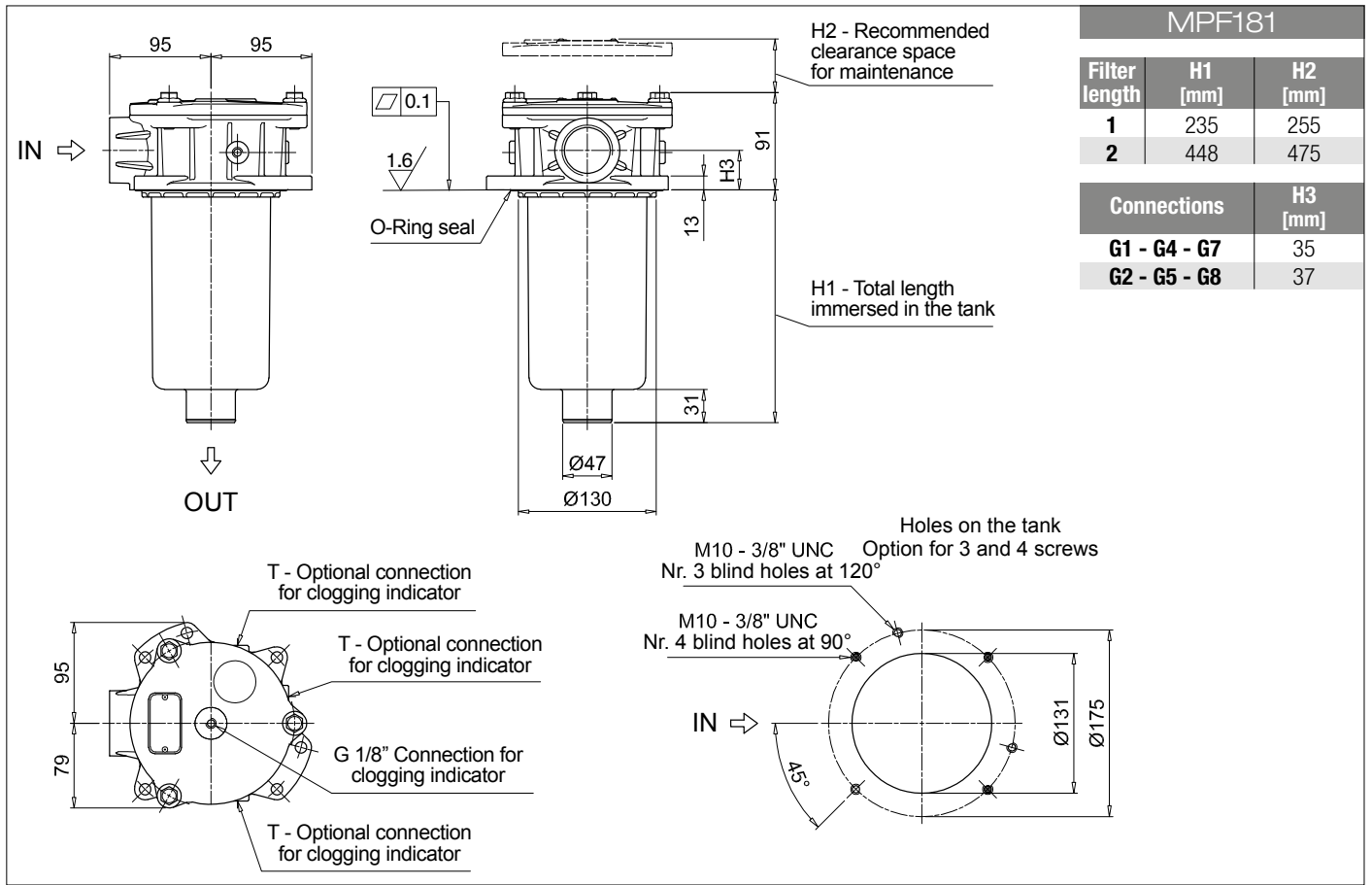
Series and size			Configuration example 1: MPF181 1 A G1 A25 H E P01								
MPF181 MPF191 Filter element with standard spigot			Configuration example 2: MPF191 2 V G2 P10 N B P01								
Length		Size 181	Size 191								
1		•									
2		•	•								
Seals and treatments											
A NBR	B NBR flat seal 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										
			Filter media								
Element Δp	Axx	Mxx	Pxx								
N 10 bar		•	•								
H 10 bar		•									
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•									
			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										
			Filter media								
Element Δp	Axx	Mxx	Pxx								
N 10 bar		•	•								
H 10 bar		•									
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•									
			Seals		Bypass valve		Execution				
			B NBR		E 3 bar		P01 MP Filtri standard				
			V FPM		 1.75 bar		Pxx Customized				

ACCESSORIES

Indicators		page			page
BVA Axial pressure gauge	240		BEA Electrical pressure indicator	239	
BVR Radial pressure gauge	240		BEM Electrical pressure indicator	239	
BVP Visual pressure indicator with automatic reset	241		BLA Electrical / visual pressure indicator	239-240	
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			
TE Extension tube	248				
Sxx Extension tube	248				
T5 Filler plug M30x1.5	249				



MPF MPF182 - MPF192

Designation & Ordering code

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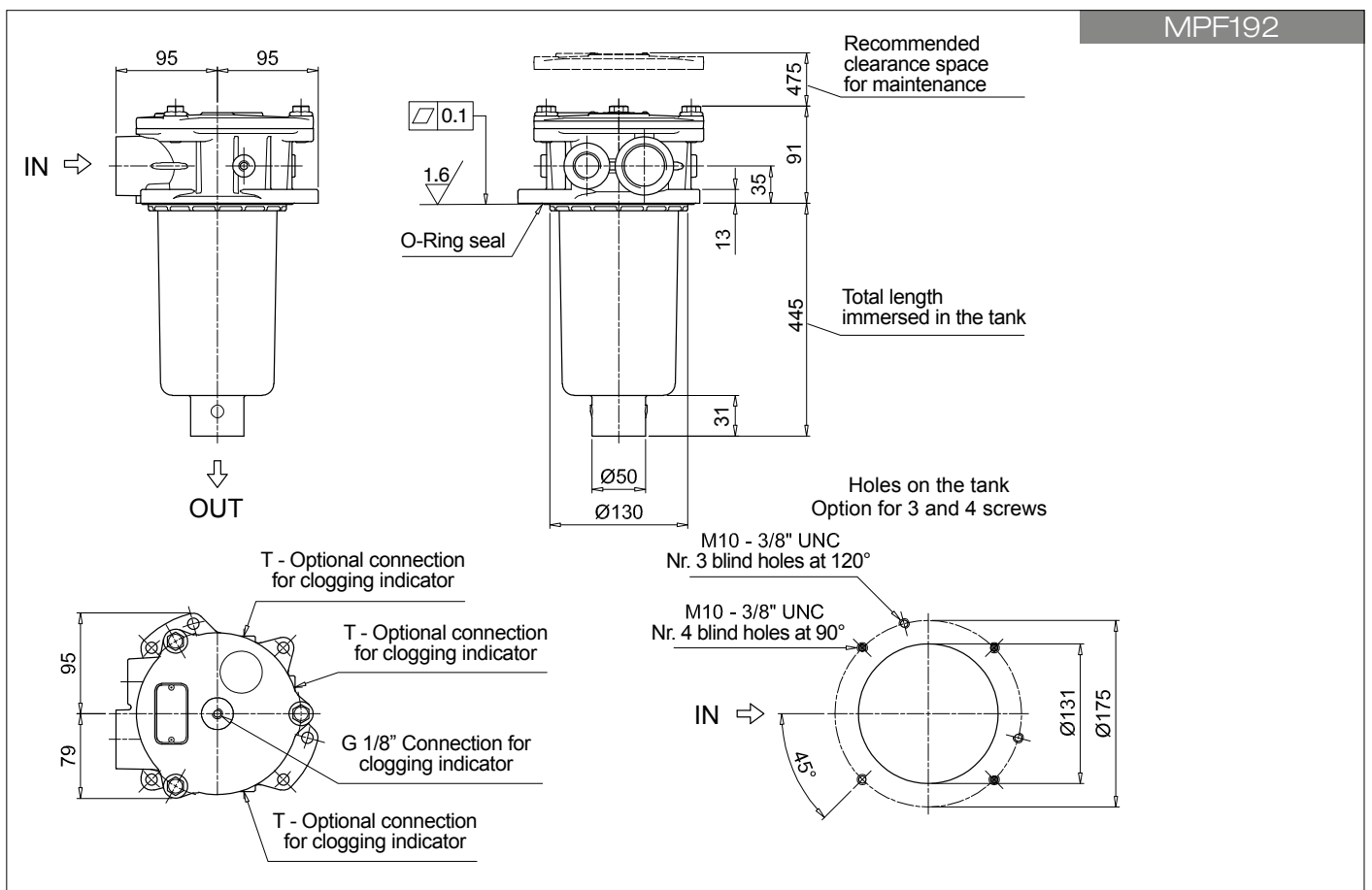
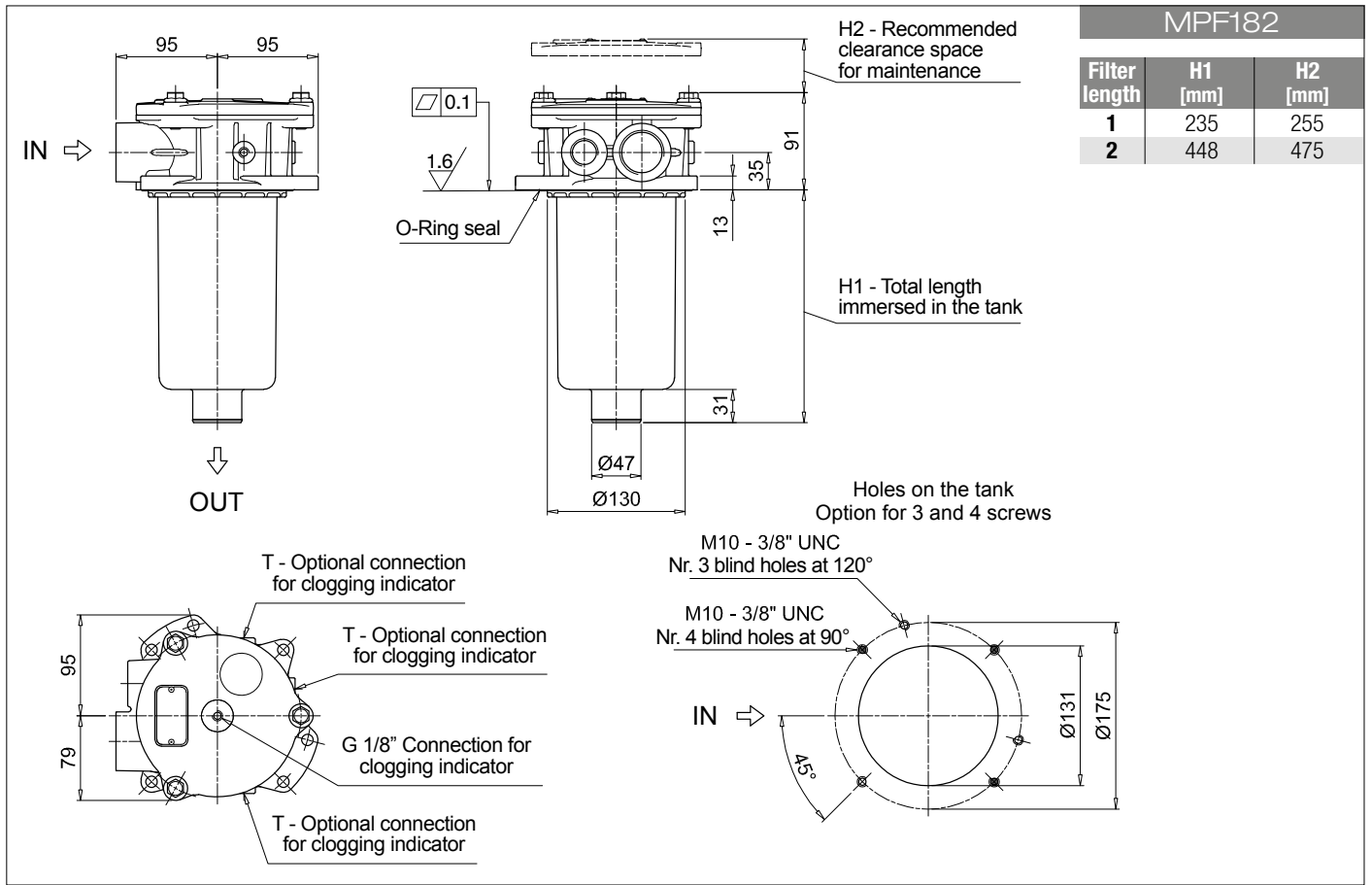
Series and size		Configuration example 1: MPF182 1 A G1 1 A25 H E P01									
MPF182 MPF192 Filter element with standard spigot		Configuration example 2: MPF192 2 V G4 2 P10 N B P01									
Length		Size 182		Size 192							
1		•									
2		•		•							
Seals and treatments											
A NBR		B NBR flat 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								
N 10 bar			Axx Mxx Pxx			• • •					
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			• •								
						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								
N 10 bar			Axx Mxx Pxx			• • •					
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			• •								
						Seals		Bypass valve		Execution	
						B NBR		E 3 bar		P01 MP Filtri standard	
						V FPM		1.75 bar		Pxx Customized	

ACCESSORIES

Indicators		page			
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239		
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239		
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240		
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			
TE Extension tube	248				
Sxx Extension tube	248				
T5 Filler plug M30x1.5	249				



MPF MPF184 - MPF194

Designation & Ordering code

COMPLETE FILTER

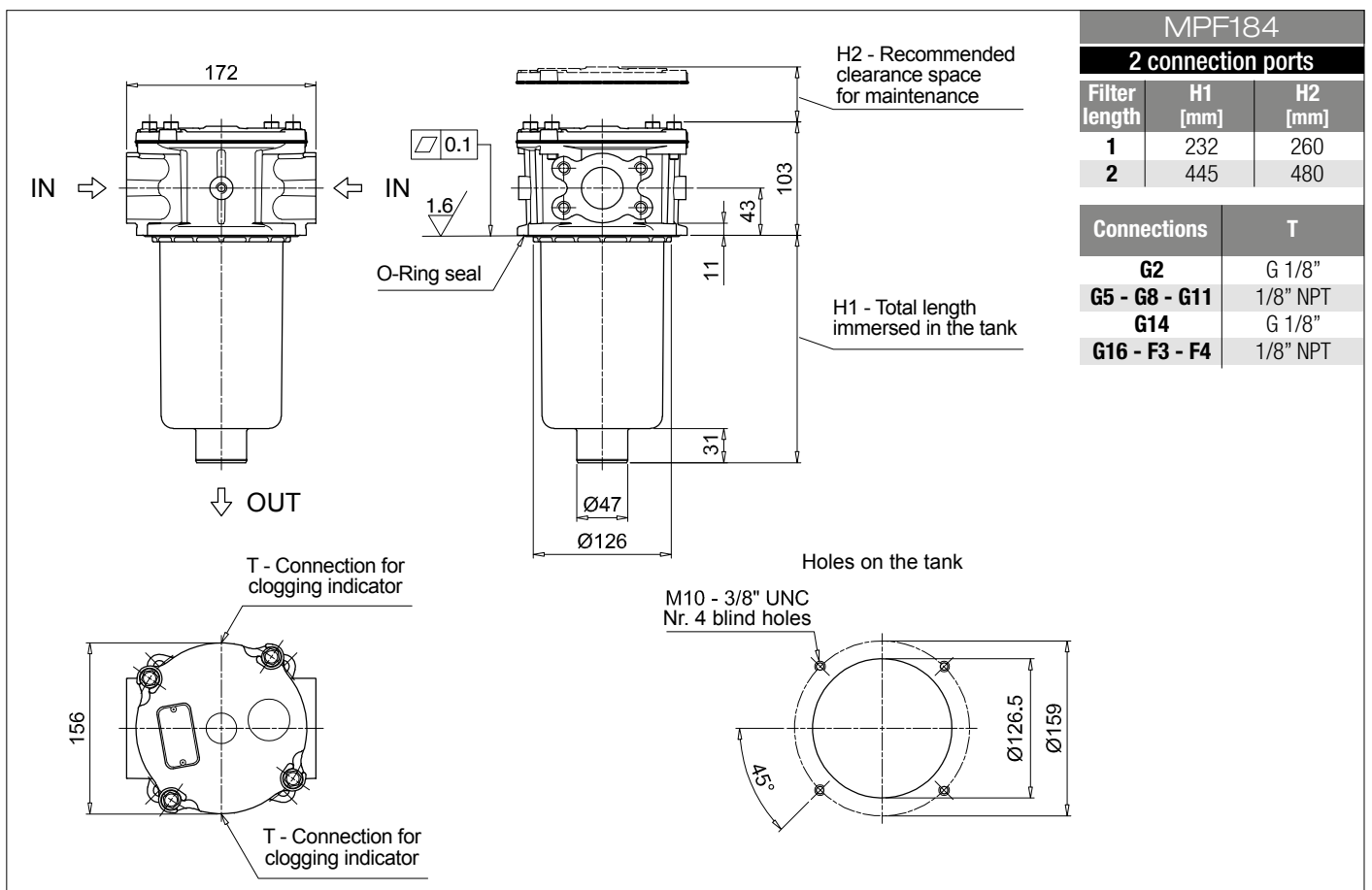
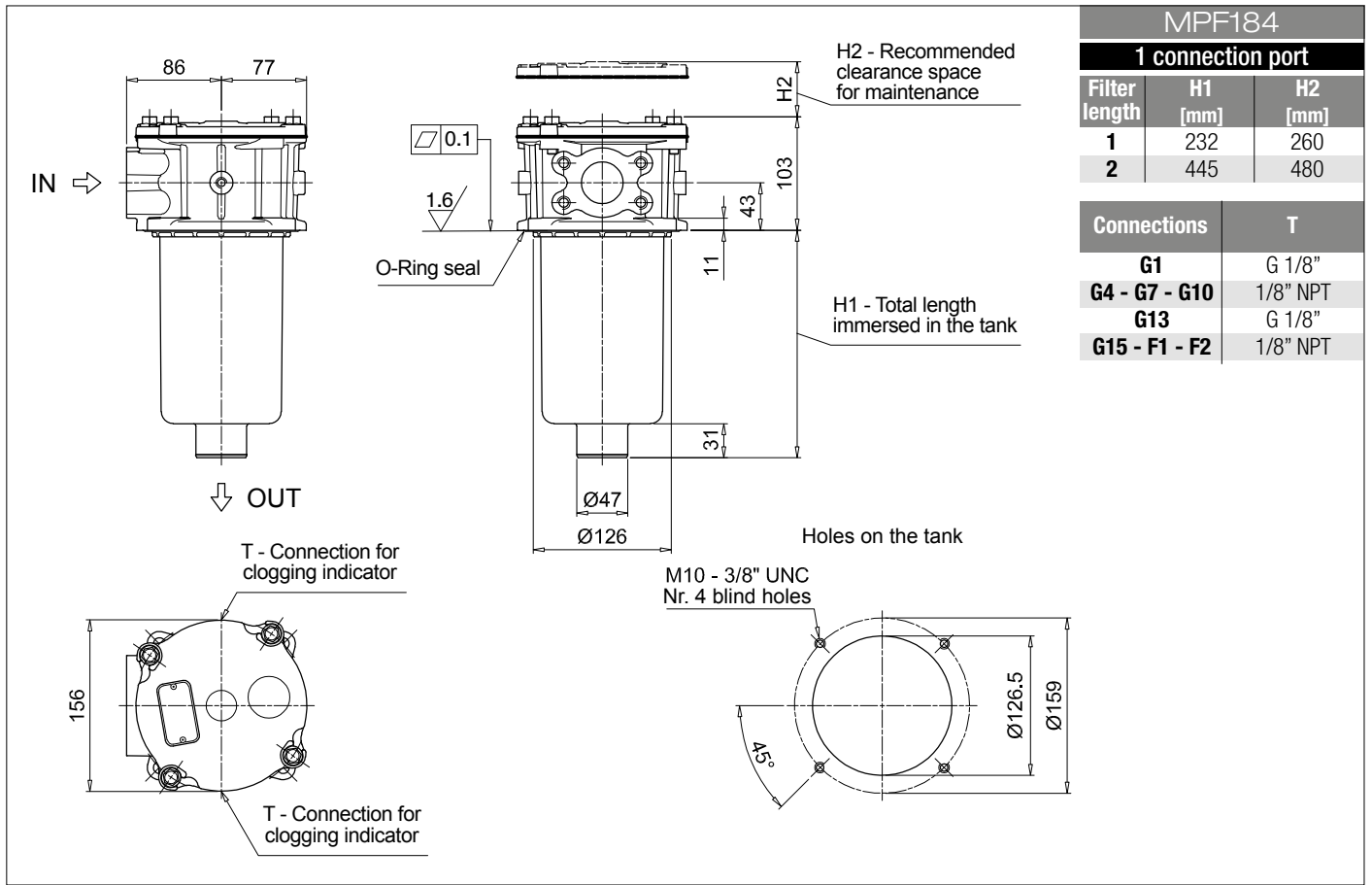
Series and size			Configuration example 1: MPF184 1 A G1 A25 H E P01									
MPF184 MPF194 Filter element with standard spigot			Configuration example 2: MPF194 2 V F3 P10 N B P01									
Length		Size 184	Size 194									
1		•										
2		•	•									
Seals and treatments												
A NBR		W NBR 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				•								
W 10 bar, compatible with fluids HFA, HFB and HFC			•	•								
						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				•								
W 10 bar, compatible with fluids HFA, HFB and HFC			•	•								
						Seals		Bypass valve		Execution		
						B NBR		E 3 bar		P01 MP Filtri standard		
						V FPM		1.75 bar		Pxx Customized		

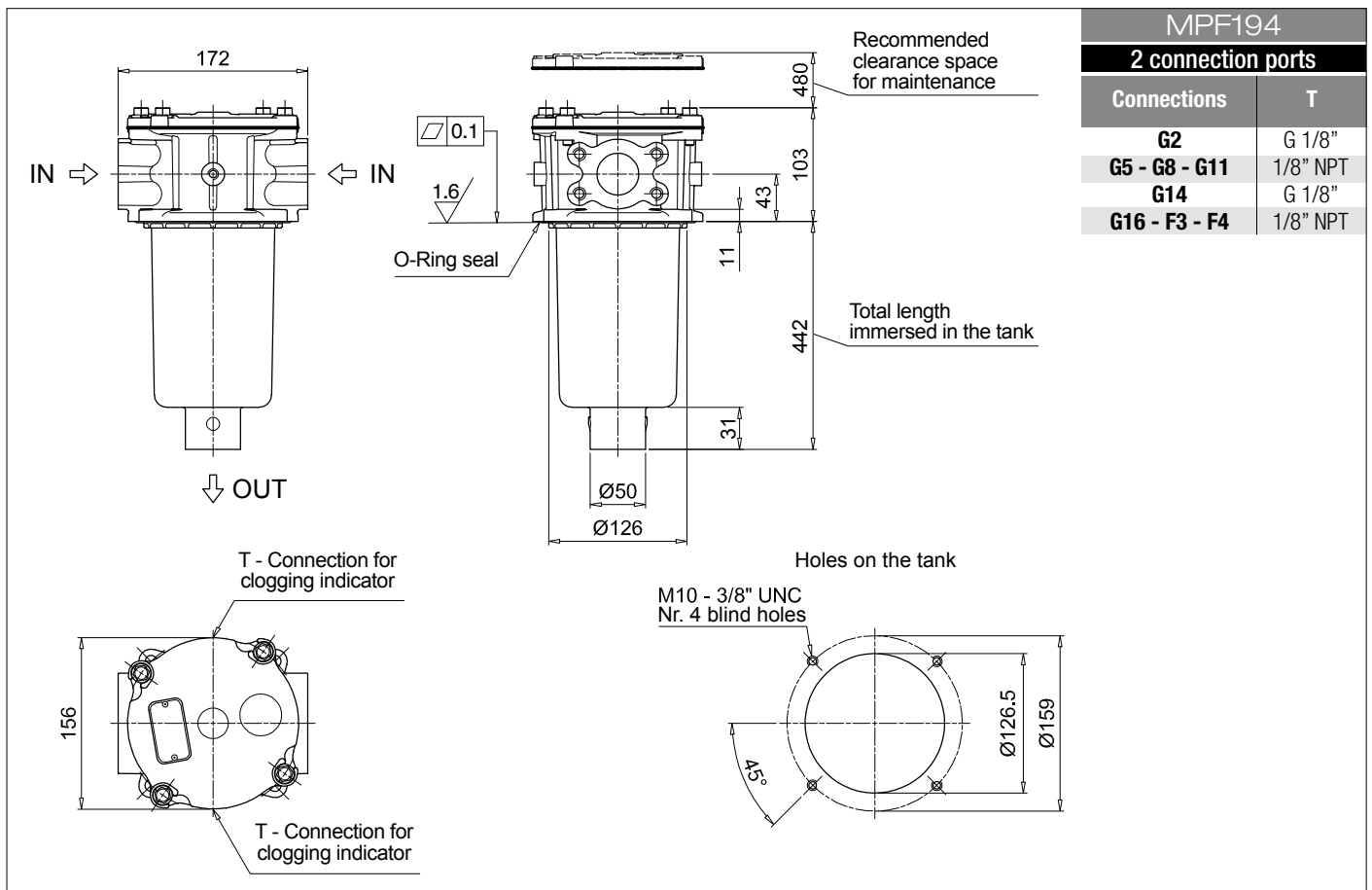
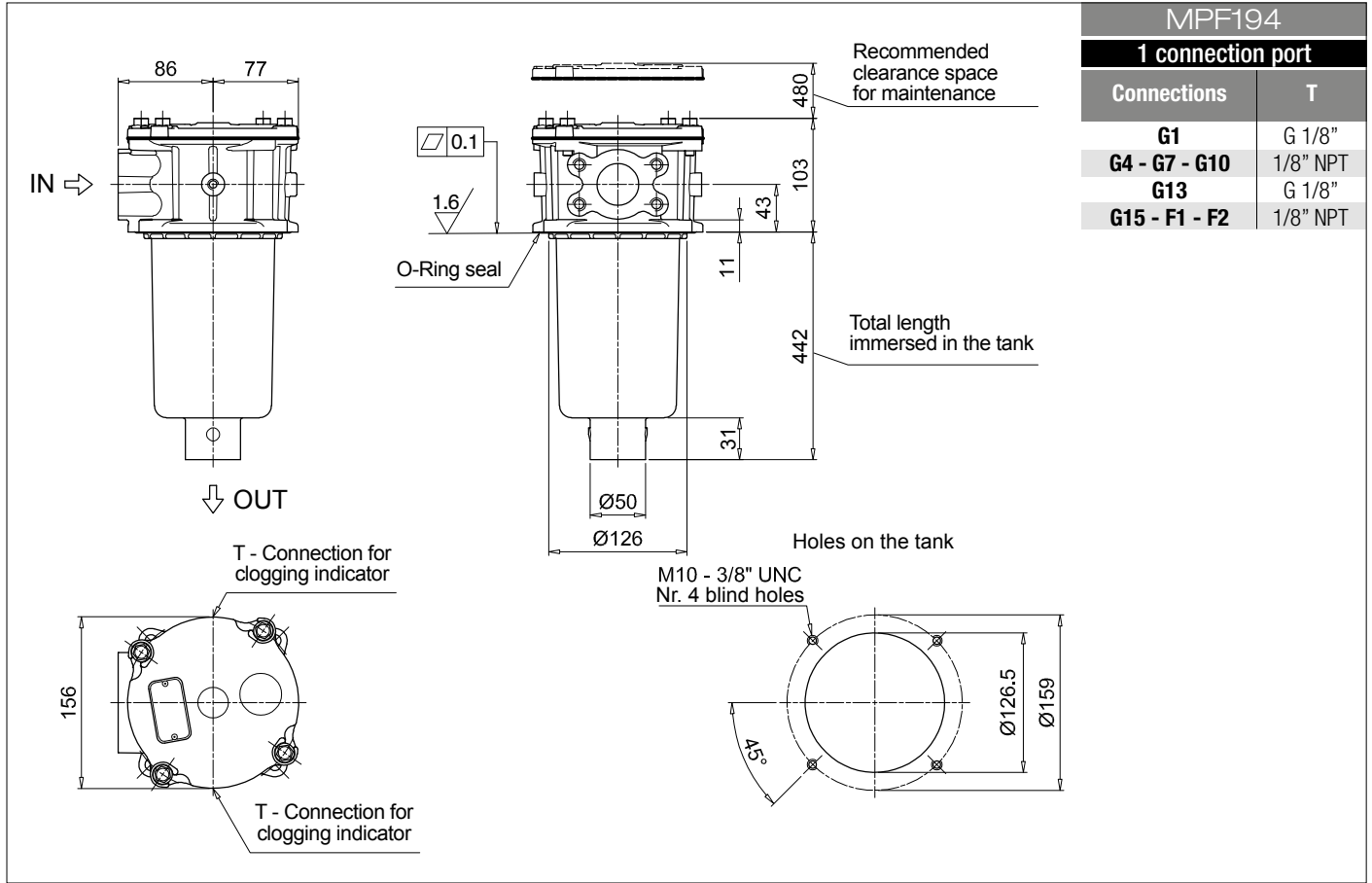
ACCESSORIES

Indicators		page			page
BVA Axial pressure gauge		240	BEA Electrical pressure indicator		239
BVR Radial pressure gauge		240	BEM Electrical pressure indicator		239
BVP Visual pressure indicator with automatic reset		241	BLA Electrical / visual pressure indicator		239-240
BVQ Visual pressure indicator with manual reset		241			
Additional features		page			
TE Extension tube		248			
Sxx Extension tube		248			
T5 Filler plug M30x1.5		249			



MPF MPF184 - MPF194

Dimensions



Designation & Ordering code

COMPLETE FILTER

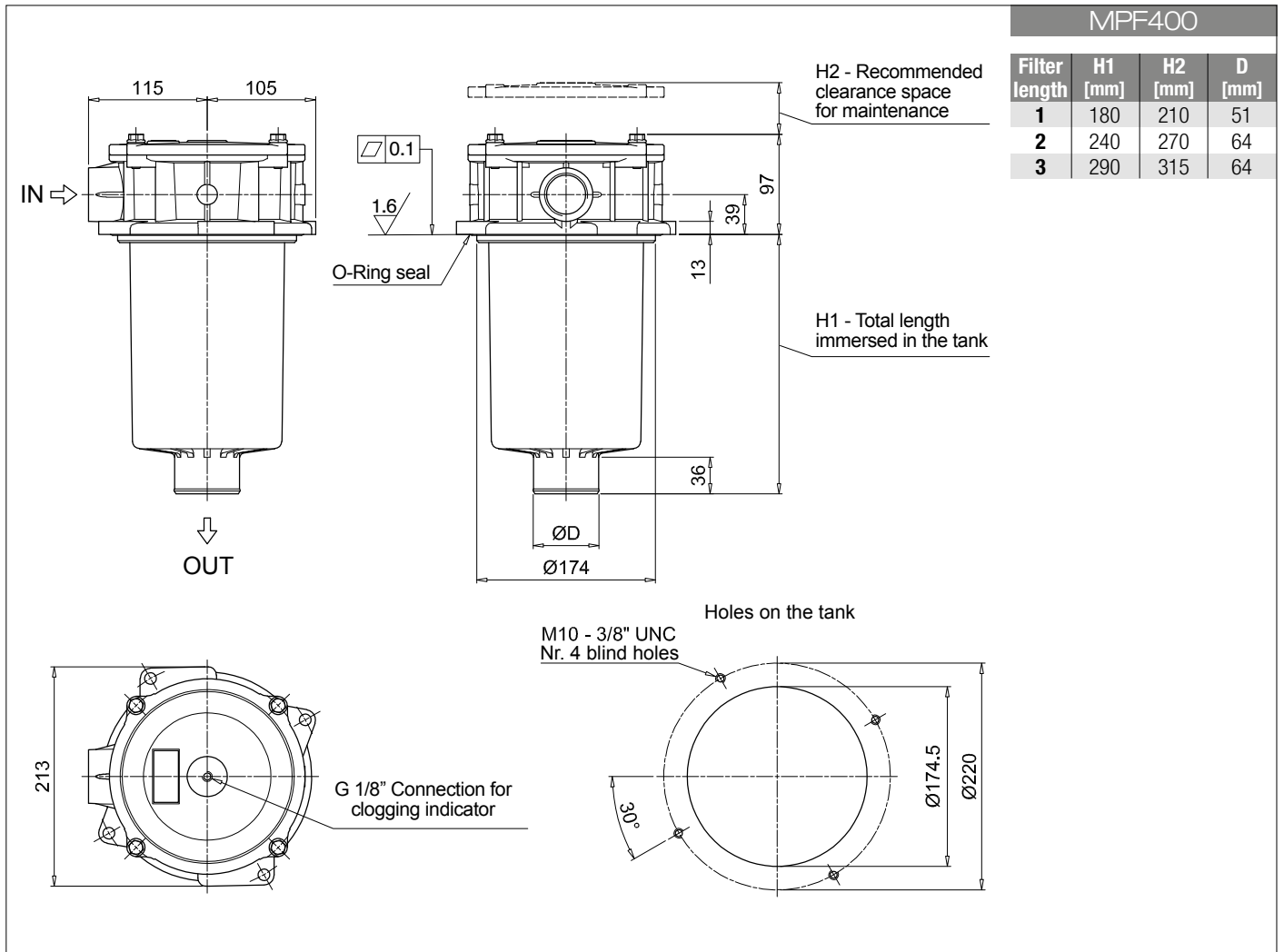
Series and size	Configuration example 1: MPF400 1 A G9 A25 H B P01							
MPF400 Filter element with standard spigot	Configuration example 2: MPF400 2 V G4 P10 N E P01							
Length	1 2 3							
Seals and treatments	A NBR V FPM W NBR head anodized Z FPM head anodized							
Connections	G1 G 1 1/4" G6 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							
	Axx	Mxx	Pxx					
N 10 bar		•	•					
H 10 bar		•						
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•						
				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: 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							
	Axx	Mxx	Pxx					
N 10 bar		•	•					
H 10 bar		•						
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•						
				Seals	Bypass valve	Execution		
				B NBR	E 3 bar	P01 MP Filtri standard		
				V FPM	1.75 bar	Pxx Customized		

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
Sxx Extension tube	248		
T5 Filler plug M30x1.5	249		



Designation & Ordering code

COMPLETE FILTER

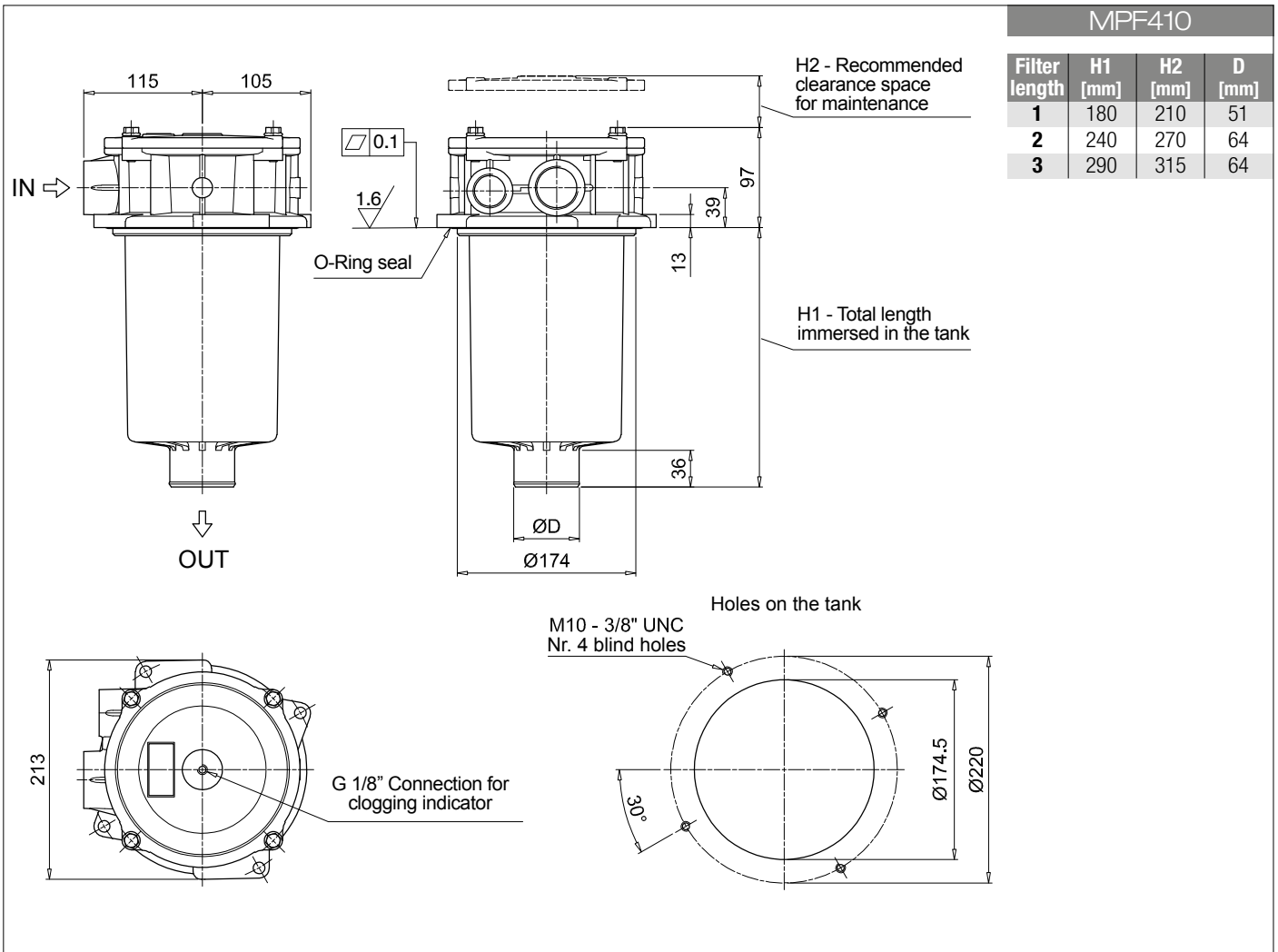
Series and size	Configuration example 1:	MPF410	1	A	G1	1	A25	H	B	P01
MPF410 Filter element with standard spigot	Configuration example 2:	MPF410	1	V	G4	1	P10	N	E	P01
Length										
1 2 3										
Seals and treatments										
A NBR										
V FPM										
W NBR head anodized										
Z FPM head 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										
N 10 bar										
H 10 bar										
W 10 bar, compatible with fluids HFA, HFB and HFC										
Filter media										
Axx Mxx Pxx										
N 10 bar										
H 10 bar										
W 10 bar, compatible with fluids HFA, HFB and HFC										
Bypass valve										
E 3 bar										
B 1.75 bar										
Execution										
P01 MP Filtri standard										
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								
N 10 bar								
H 10 bar								
W 10 bar, compatible with fluids HFA, HFB and HFC								
Filter media								
Axx Mxx Pxx								
N 10 bar								
H 10 bar								
W 10 bar, compatible with fluids HFA, HFB and HFC								
Seals								
B NBR								
V FPM								
Bypass valve								
E 3 bar								
1.75 bar								
Execution								
P01 MP Filtri standard								
Pxx Customized								

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
Sxx Extension tube	248		
T5 Filler plug M30x1.5	249		



MPF MPF450 - MPF451 - MPF750

Designation & Ordering code

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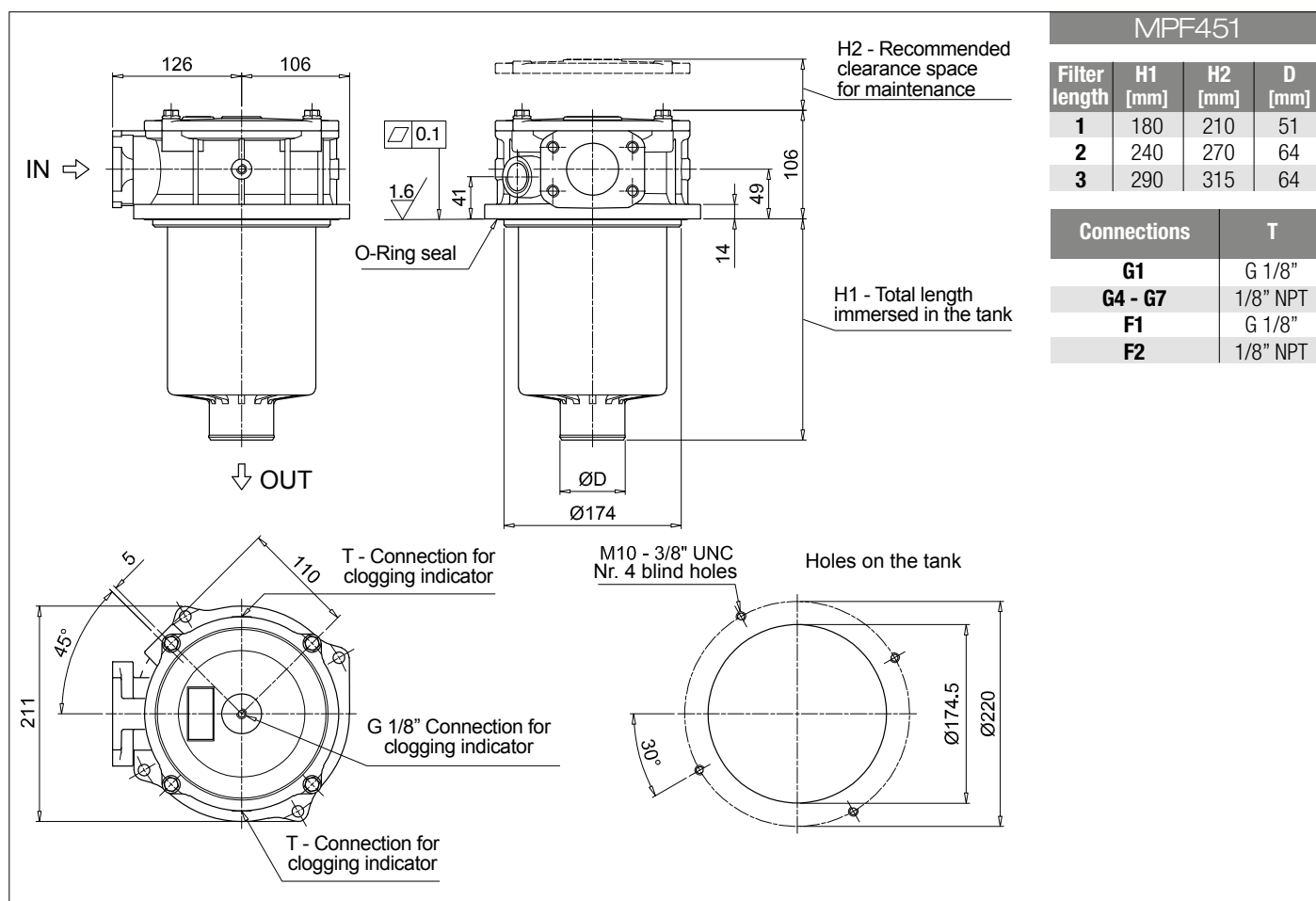
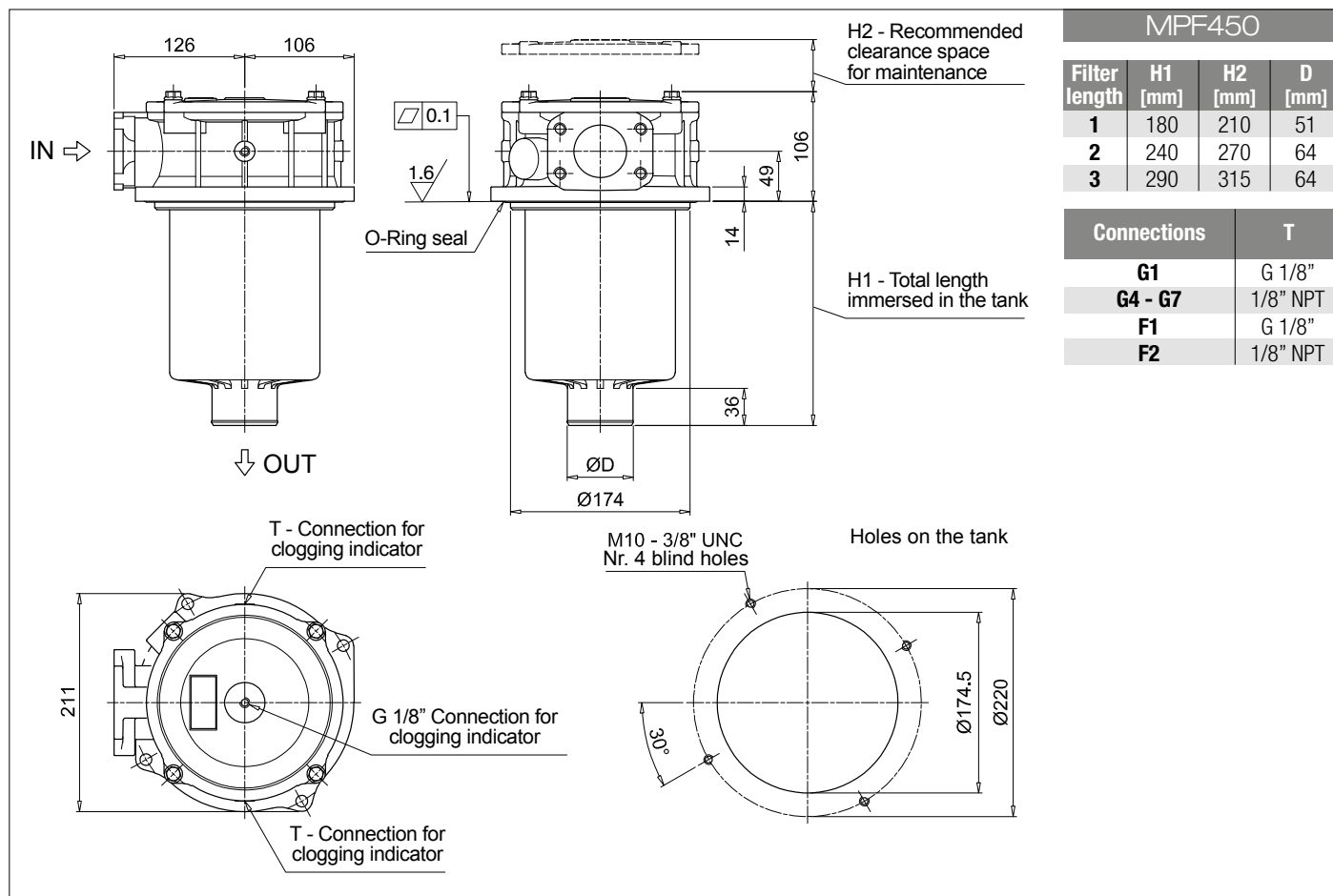
Series and size			Configuration example 1: MPF450 1 A G1 A25 H B P01								
MPF450 MPF451 MPF750	Filter element with standard spigot		Configuration example 2: MPF750 1 V F2 P10 N E P01								
Length			MPF 450	MPF 451	MPF 750						
1			•	•	•						
2			•	•							
3			•	•							
Seals and treatments											
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/UN	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								
			Axx	Mxx	Pxx						
N 10 bar				•	•						
H 10 bar				•							
W 10 bar, compatible with fluids HFA, HFB and HFC			•	•							
						Bypass valve		Execution			
						E 3 bar		P01 MP Filtri standard			
						B 1.75 bar		Pxx Customized			

FILTER ELEMENT

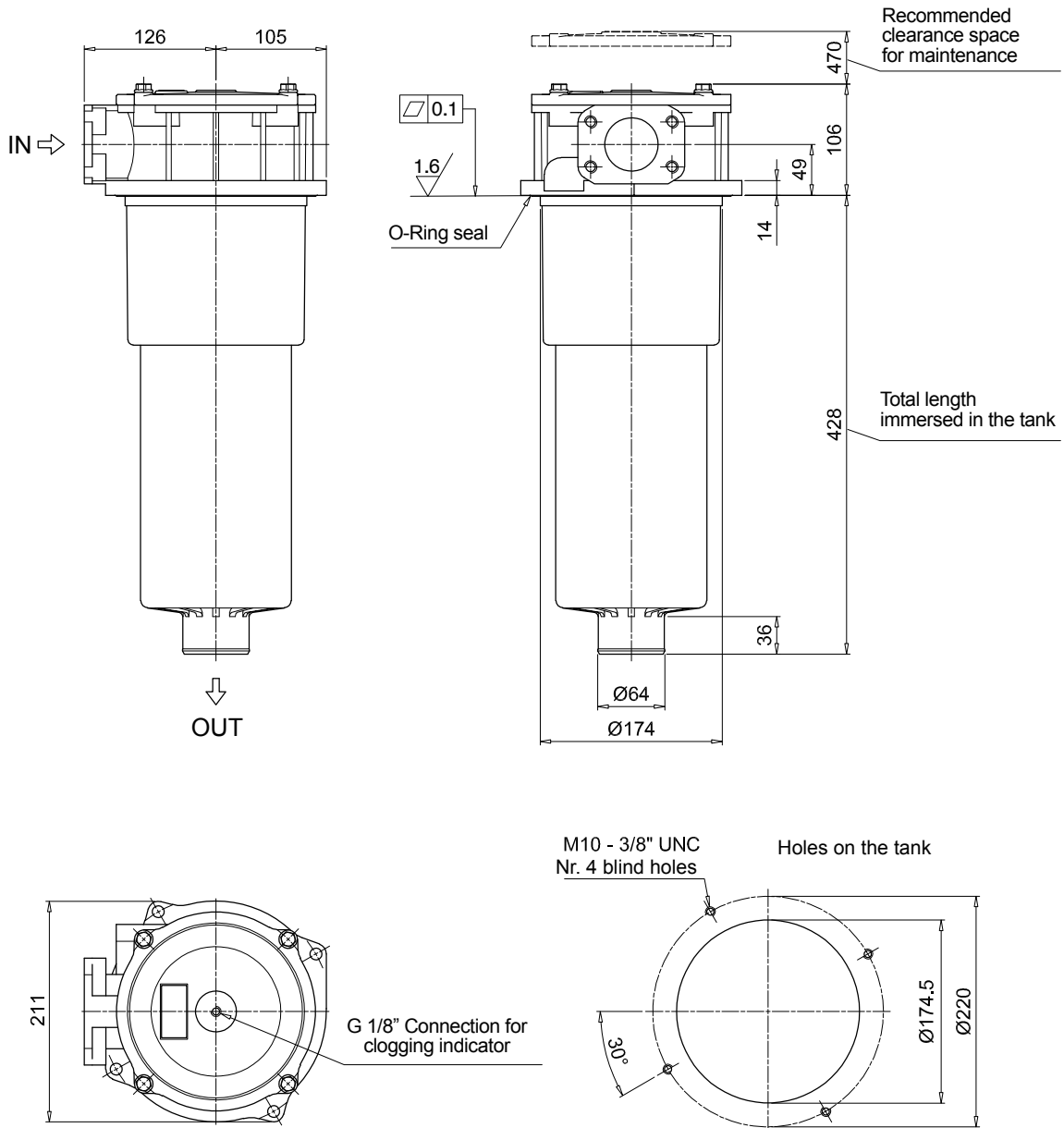
Element series and size			Configuration example 1: MF400 1 A25 H B P01								
MF400 MF750	Filter element with standard spigot		Configuration example 2: MFX750 1 P10 N V E P01								
Element length			MPF 450	MPF 451	MPF 750						
1			•	•	•						
2			•	•							
3			•	•							
Filtration rating (filter 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								
			Axx	Mxx	Pxx						
N 10 bar				•	•						
H 10 bar				•							
W 10 bar, compatible with fluids HFA, HFB and HFC			•	•							
						Seals		Bypass valve		Execution	
						B NBR		E 3 bar		P01 MP Filtri standard	
						V FPM		B 1.75 bar		Pxx Customized	

ACCESSORIES

Indicators		page			page
BVA Axial pressure gauge		240	BEA Electrical pressure indicator		239
BVR Radial pressure gauge		240	BEM Electrical pressure indicator		239
BVP Visual pressure indicator with automatic reset		241	BLA Electrical / visual pressure indicator		239-240
BVQ Visual pressure indicator with manual reset		241			
Additional features		page			
Sxx Extension tube		248			
T5 Filler plug M30x1.5		249			



MPF750



MPF 100

MPF 181

O-RING SEAL

	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3d)	
Item:			
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. 2	Q.ty: 1 pc. 3 (3a ÷ 3d)	
Item:			
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

MPT series

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 300 l/min



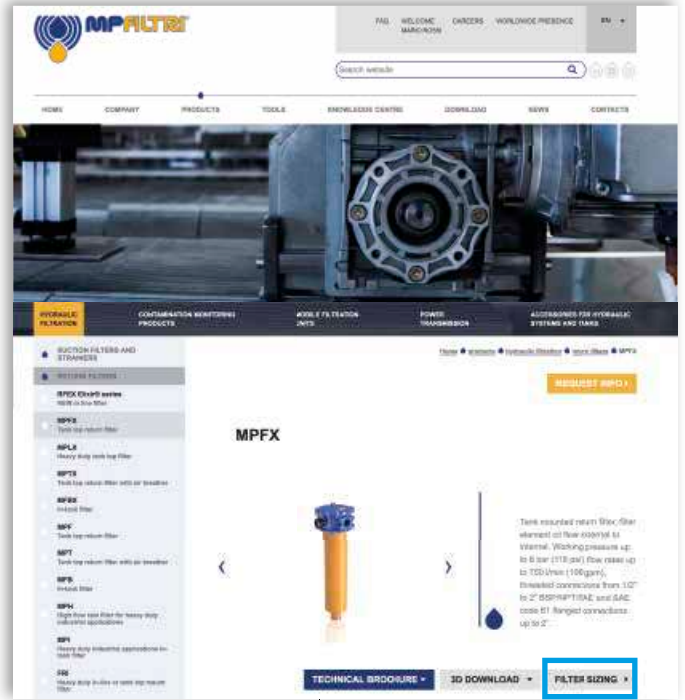
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

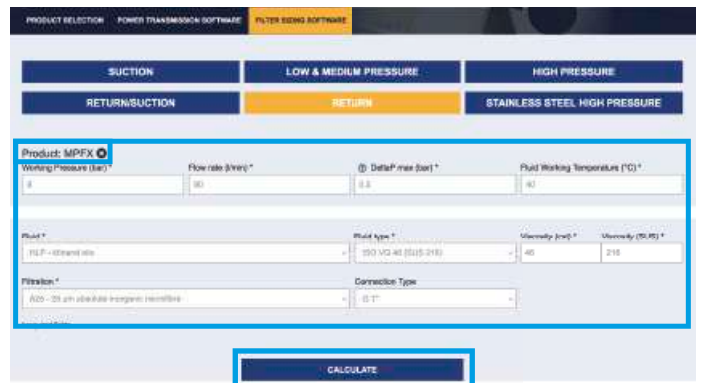
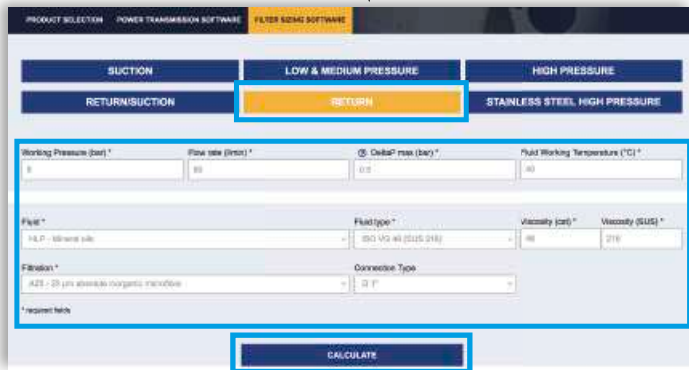
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

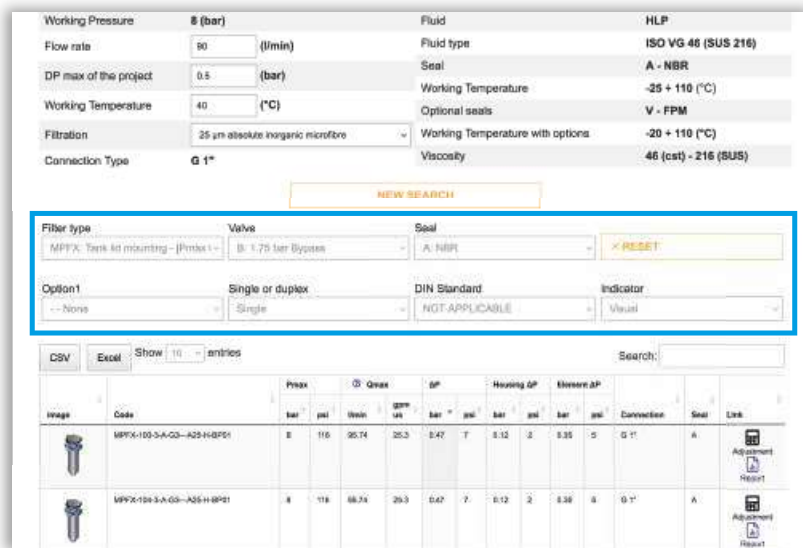
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	Qmax psi	Qmax m³/min	ΔP bar	ΔP psi	Housing ΔP bar	Element ΔP psi	Connection	Seal	Link			
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	9.12	2	0.35	5	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	9.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf



see A

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

Description

Technical data

Return filter

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 300 l/min

MPT is a range of return filters with integrated breather filter, 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 1 1/4", for a maximum flow rate of 300 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 6 fixing holes for installation, to suit a variety of reservoir surfaces
- O-ring or Flat Seal to suit a variety of reservoir surfaces
- Screw-in cover with a special shape, to allow the filter element replacement without the use of specific tools
- 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)
- Integrated breather filter, to clean the air that moves into the reservoir as result of the oil level fluctuation
- Integrated breather filter with pressurization valve, to clean the air that moves into the reservoir as result of the oil level fluctuation and to guarantee the pressurization into the reservoir
- Visual, electrical and electronic clogging indicators

Common applications:

- Light industrial equipment
- Mobile application

Filter housing materials

- Head: Aluminium
- Cover: Nylon
- Bowl: Nylon

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

MPT 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
MPT 025		0.41	0.45	0.50	-		0.24	0.35	0.42	-
MPT 027		0.44	0.48	0.55	-		0.24	0.35	0.42	-
MPT 110		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74
MPT 114		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
MPT 116		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
MPT 120		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MPT 025-027	1	7	10	23	28	42	59	51	54
	2	17	20	45	48	56	72	64	67
	3	21	24	50	55	59	76	74	75
MPT 110-114 116-120	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

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

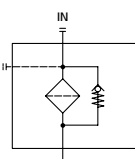
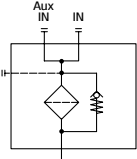
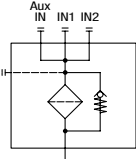
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

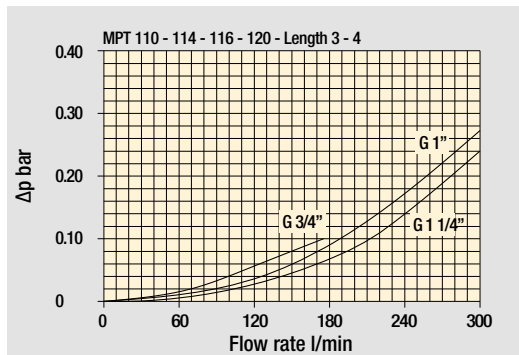
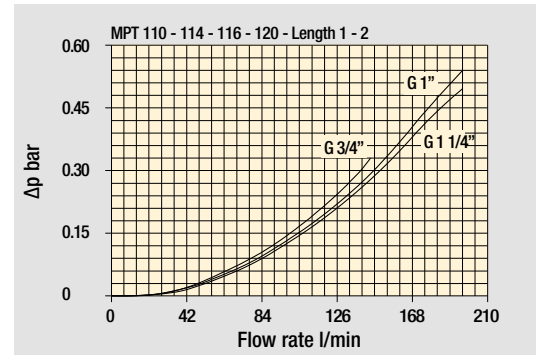
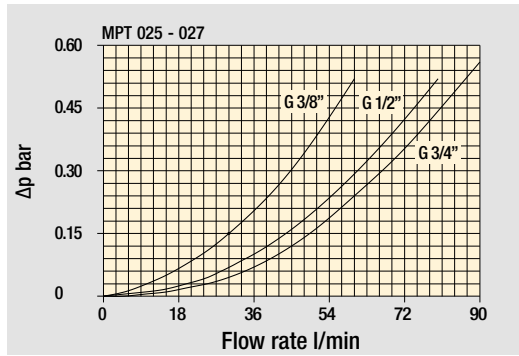
Hydraulic symbols

Filter series	Style 1 connection	Style 2 connections	Style 3 connections
MPT 025	•		
MPT 027	•		
MPT 110		•	
MPT 114	•		
MPT 116	•		
MPT 120			•

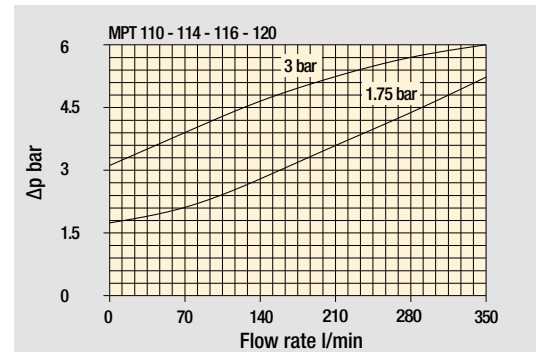
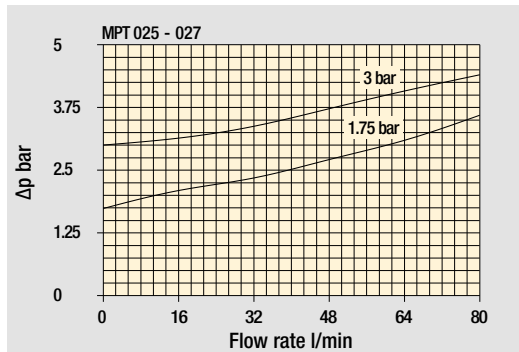
		
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Pressure drop

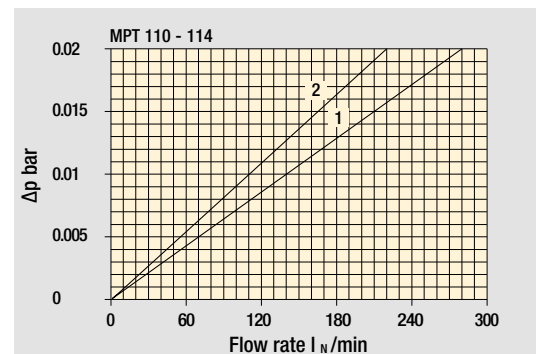
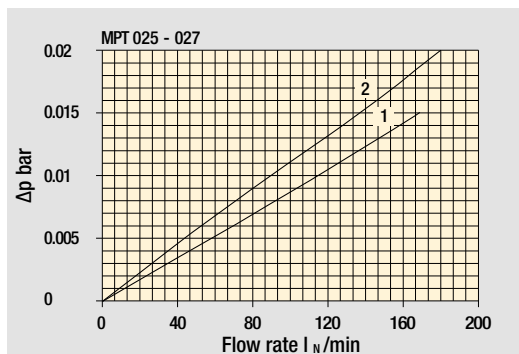
Filter housings Δp pressure drop



Bypass valve pressure drop



Air breather pressure drop







- 1 C With air breather 10 μ m
- 2 D With anti-splash and SAP50 10 μ m

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

MPT 025 -027		
Air breather port plugged Indicator port	Air breather standard Indicator port	Anti-splash air breather & pressurized Double indicator port
		

Multiport - Multifunction

MPT 110	
Standard - Single IN Port	Double IN Port - Double indicator port
	
Double IN Port Option: double drain port	Double IN Port - Indicator port Option: drain port
	

MPT 120

Triple IN port
Option: double drain port



MPT MPT025 - MPT027

Designation & Ordering code

COMPLETE FILTER

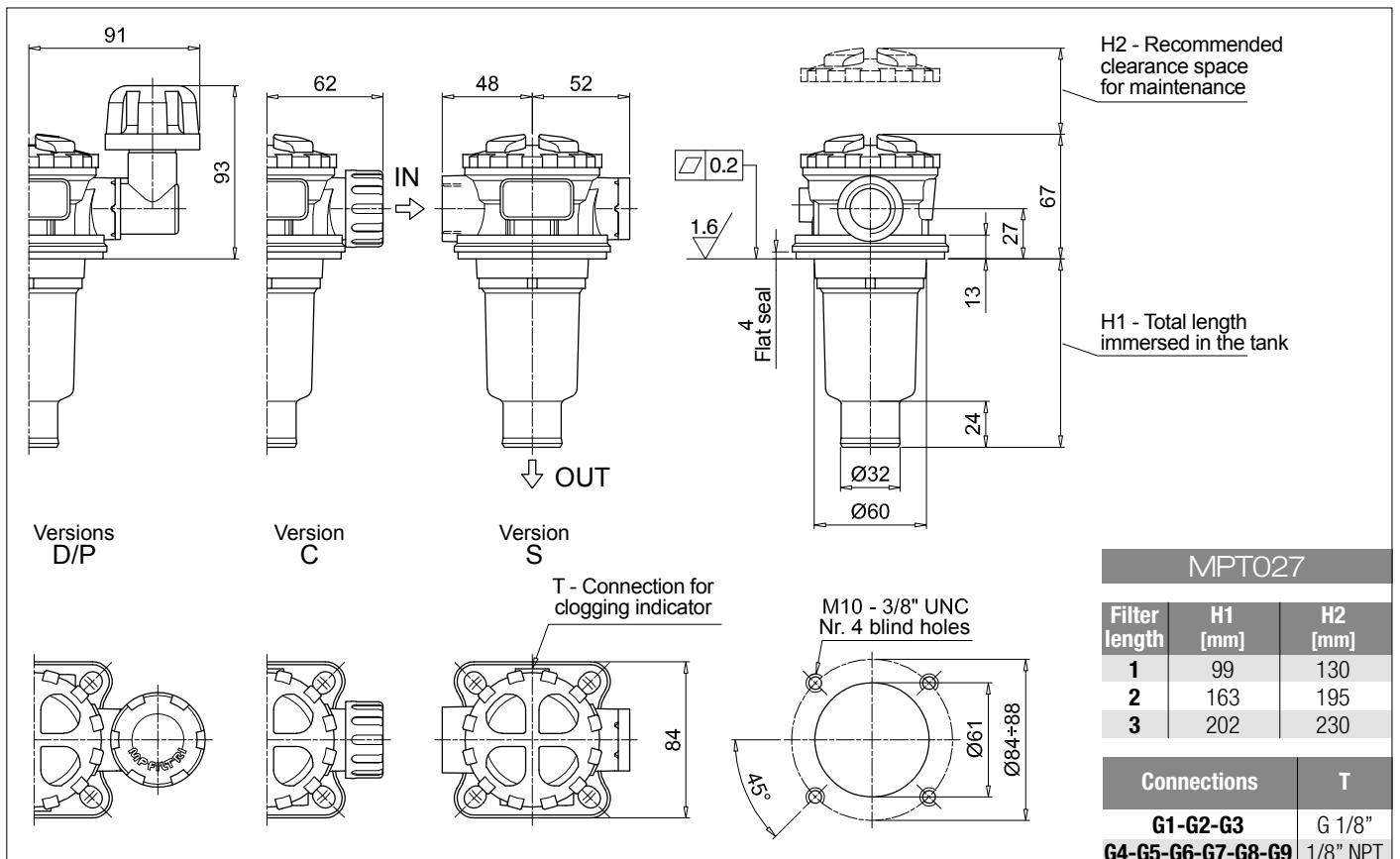
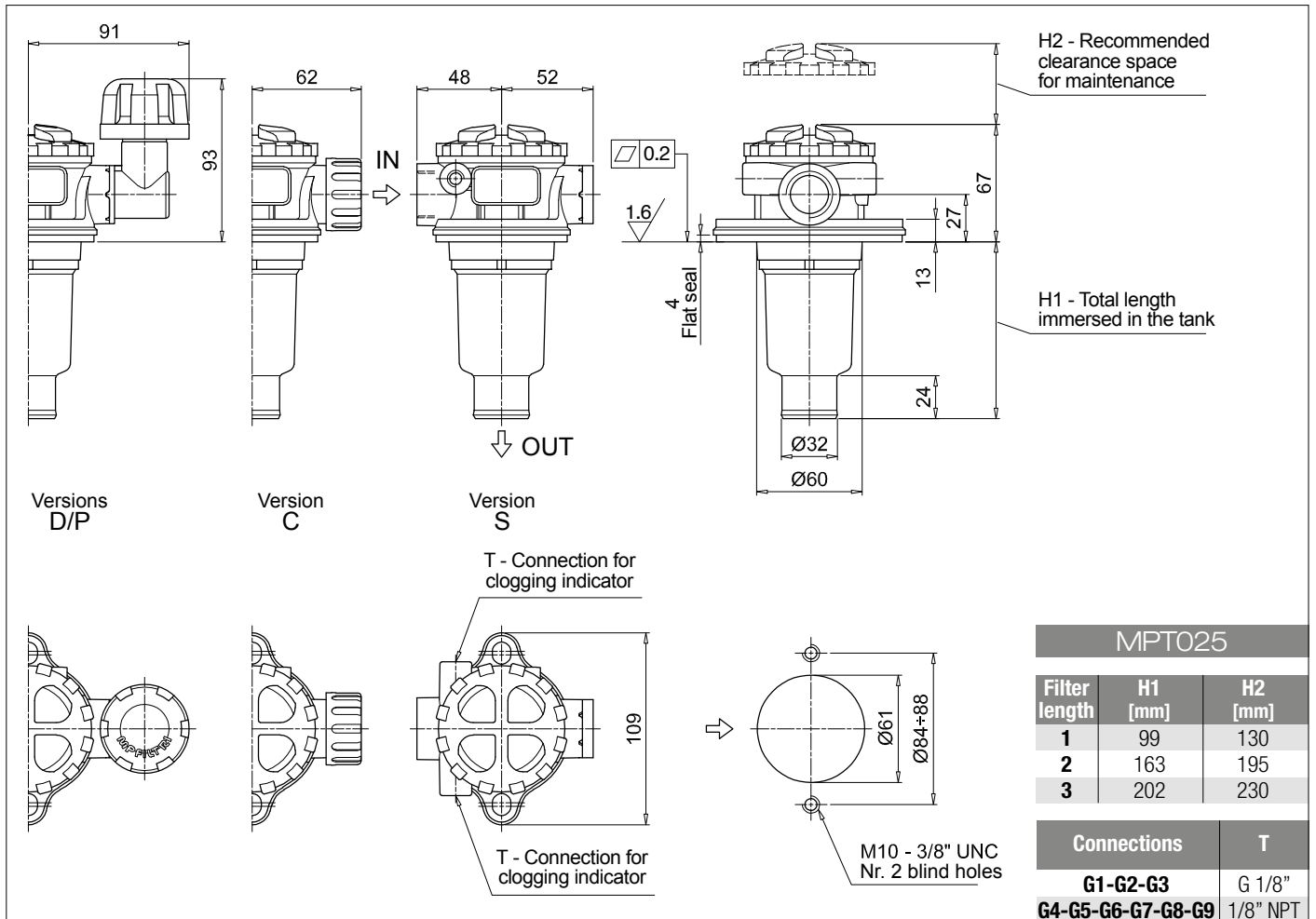
Series and size MPT025 MPT027 Filter element with standard spigot	Configuration example 1: MPT025 1 S A G3 A10 E P01
	Configuration example 2: MPT027 3 C W G6 A03 B P01
Length 1 2 3	
Air breather S Without air breather C With air breather 10 µm D With anti-splash and air breather SAP050 10 µm P With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar	
Seals and treatments	Filtration rating
A NBR	Axx Mxx Pxx
V FPM	• • •
W NBR head anodized filter element compatible with fluids HFA-HFB-HFC	• • •
Z FPM head anodized	• • •
Connections	
G1 G 3/8"	G6 3/4" NPT
G2 G 1/2"	G7 SAE 6 - 9/16" - 18 UNF
G3 G 3/4"	G8 SAE 8 - 3/4" - 16 UNF
G4 3/8" NPT	G9 SAE 12 - 1 1/16" - 12 UN
G5 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
	Bypass valve E 3 bar B 1.75 bar
	Execution P01 MP Filtri standard Pxx Customized

FILTER ELEMENT

Element series and size MF020 Filter element with standard spigot	Configuration example 1: MF020 1 A10 H B E P01
	Configuration example 2: MF020 3 A03 W B 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
N 10 bar	Axx Mxx Pxx
H 10 bar	• • •
W 10 bar, compatible with fluids HFA, HFB and HFC	• • •
	Seals B NBR V FPM
	Bypass valve E 3 bar B 1.75 bar
	Execution P01 MP Filtri standard Pxx Customized

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
TE Extension tube	248		
DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

Series and size			Configuration example 1: MPT110 1 S A G1 0 A06 E P01								
MPT110 Filter element with standard spigot			Configuration example 2: MPT110 3 P V G4 1 M25 B P01								
Length											
1 2 3 4											
Air breather											
S Without air breather											
C With air breather 10 µm											
D With anti-splash and air breather SAP050 10 µm											
P With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar											
Seals and treatments			Filtration rating								
			Axx	Mxx	Pxx						
A NBR			•	•	•						
V FPM			•	•	•						
W NBR head anodized			•	•		filter element compatible with fluids HFA-HFB-HFC					
Z FPM head anodized			•	•							
Main Connections		Aux size 1	Aux size 2	Main Connections		Aux size 2	Aux size 2				
G1 G 3/4"		G 3/8"	G 1/2"	G6 1 1/4" NPT		3/8" NPT	1/2" NPT				
G2 G 1"				G7 SAE 12 - 1 1/16" - 12 UN		SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF				
G3 G 1 1/4"				G8 SAE 16 - 1 5/16" - 12 UN							
G4 3/4" NPT		3/8" NPT	1/2" NPT	G9 SAE 20 - 1 5/8" - 12 UN							
G5 1" NPT											
Aux connection - see previous table											
0 Not machined			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								
						Bypass valve		Execution			
						E 3 bar		P01 MP Filtri standard			
						B 1.75 bar		Pxx Customized			

FILTER ELEMENT

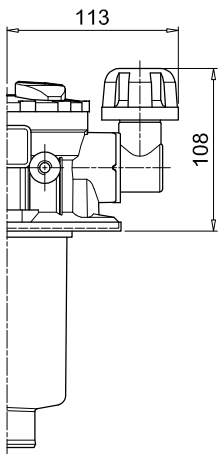
Element series and size			Configuration example 1: MF100 1 A06 H B E P01								
MF100 Filter element with standard spigot			Configuration example 2: MF100 3 M25 N V P01								
Element length											
1 2 3 4											
Filtration rating (filter media)											
A03 Inorganic microfiber 3 µm			M25 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								
			Axx	Mxx	Pxx						
N 10 bar			•	•	•						
H 10 bar			•								
W 10 bar, compatible with fluids HFA, HFB and HFC			•	•							
						Seals		Bypass valve		Execution	
						B NBR		E 3 bar		P01 MP Filtri standard	
						V FPM		B 1.75 bar		Pxx Customized	

ACCESSORIES

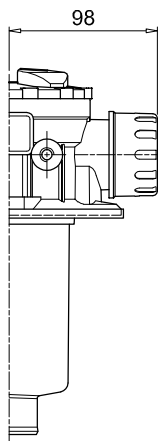
Indicators		page			page
BVA Axial pressure gauge	240		BEA Electrical pressure indicator	239	
BVR Radial pressure gauge	240		BEM Electrical pressure indicator	239	
BVP Visual pressure indicator with automatic reset	241		BLA Electrical / visual pressure indicator	239-240	
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			page
TE Extension tube	248		DPT Dipstick	249	
DFS Diffuser with fast lock connection	249				

MPT110				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	97	120	38	4
2	144	170	38	4
3	222	250	47	-
4	324	350	47	2.5

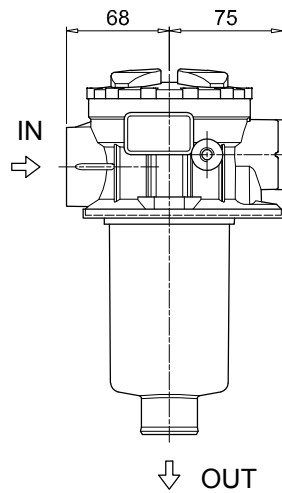
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



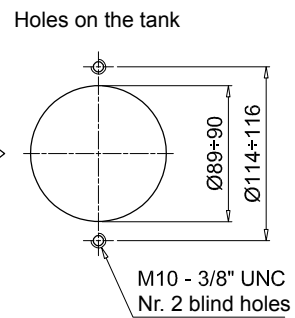
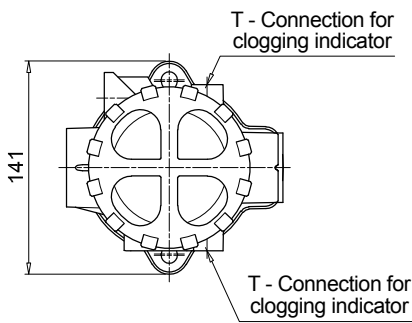
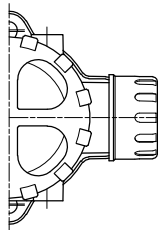
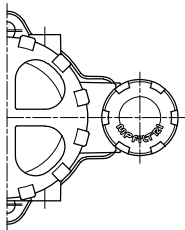
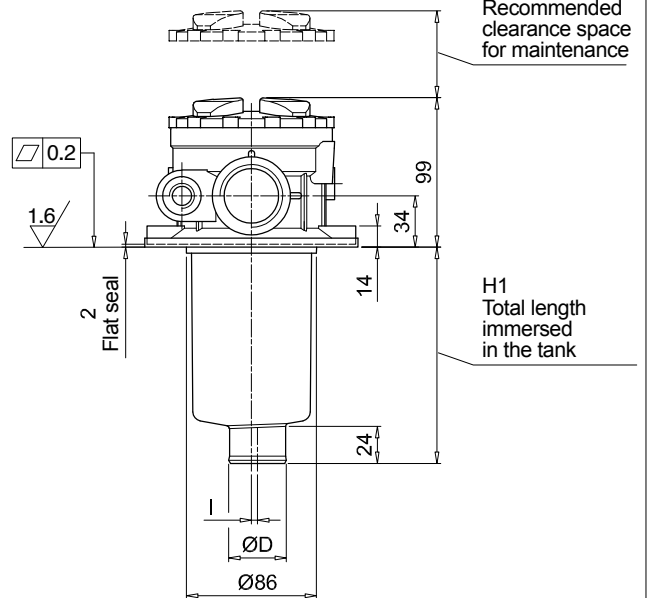
Versions D/P



Version C



Version S



Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1:	MPT114	4	S	A	G3	A10	E	P01
MPT114 Filter element with standard spigot	Configuration example 2:	MPT114	3	C	W	G6	A03	B	P01

Length	
1 2 3 4	

Air breather	
S Without air breather	
C With air breather 10 µm	
D With anti-splash and air breather SAP050 10 µm	
P With anti-splash and air breather SAP050 10 µm pressurization 0.5 bar	

Seals and treatments		Filtration rating
A NBR		Axx Mxx Pxx
V FPM		• • •
W NBR head anodized	filter element compatible with fluids HFA-HFB-HFC	• •
Z FPM head anodized		• •

Connections	
G1 G 3/4"	G6 1 1/4" NPT
G2 G 1"	G7 SAE 12 - 1 1/16" - 12 UN
G3 G 1 1/4"	G8 SAE 16 - 1 5/16" - 12 UN
G4 3/4" NPT	G9 SAE 20 - 1 5/8" - 12 UN
G5 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

Bypass valve	Execution
E 3 bar	P01 MP Filtri standard
B 1.75 bar	Pxx Customized

FILTER ELEMENT

Element series and size	Configuration example 2:	MF100	4	A10	H	B	E	P01
MF100 Filter element with standard spigot	Configuration example 1:	MF100	3	A03	W	B		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
N 10 bar		Axx Mxx Pxx
H 10 bar		• •
W 10 bar, compatible with fluids HFA, HFB and HFC		• •

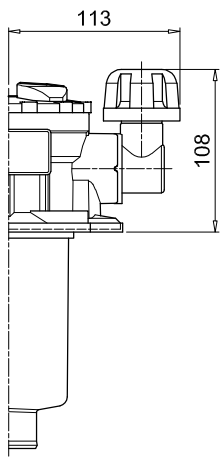
Seals	Bypass valve	Execution
B NBR	E 3 bar	P01 MP Filtri standard
V FPM	1.75 bar	Pxx Customized

ACCESSORIES

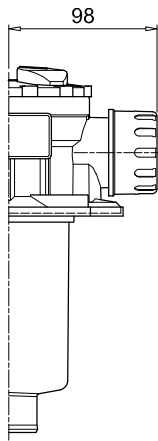
Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		page
TE Extension tube	248	DPT Dipstick	249
DFS Diffuser with fast lock connection	249		

MPT114				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	97	120	38	4
2	144	170	38	4
3	222	250	47	-
4	324	350	47	2.5

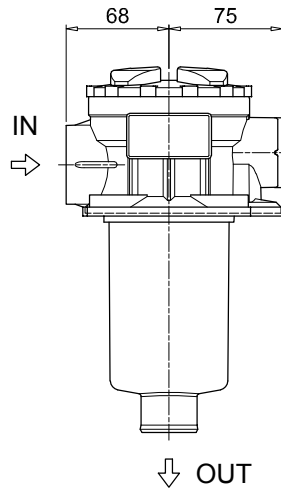
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



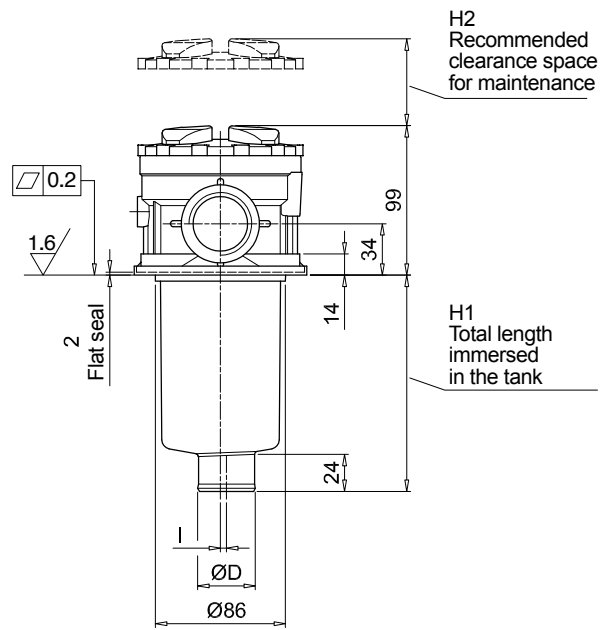
Versions D/P



Version C

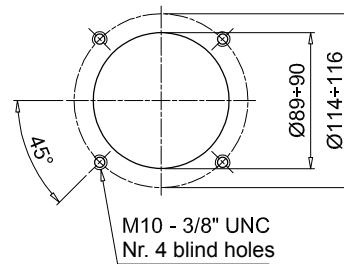
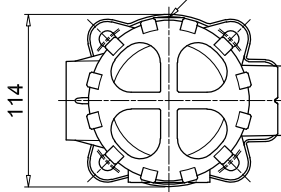
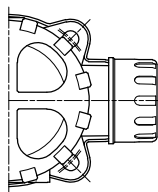
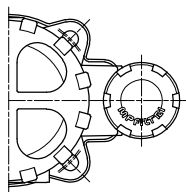


Version S



T - Connection for clogging indicator

Holes on the tank



Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1:	MPT116	1	S	A	G1	M90	E	P01
MPT116 Filter element with standard spigot	Configuration example 2:	MPT116	2	S	Z	G9	A03	B	P01

Length	
1 2 3 4	

Air breather	
S Without air breather	

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
A NBR	•	•	•
V FPM	•	•	•
W NBR head anodized	•	•	
Z FPM head anodized	•	•	

filter element compatible with fluids HFA-HFB-HFC

Flat seal on the head on request

Connections	
G1 G 3/4"	G6 1 1/4" NPT
G2 G 1"	G7 SAE 12 - 1 1/16" - 12 UN
G3 G 1 1/4"	G8 SAE 16 - 1 5/16" - 12 UN
G4 3/4" NPT	G9 SAE 20 - 1 5/8" - 12 UN
G5 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

Bypass valve	Execution
E 3 bar	P01 MP Filtri standard
B 1.75 bar	Pxx Customized

FILTER ELEMENT

Element series and size	Configuration example 2:	MF100	1	M90	N	B	E	P01
MF100 Filter element with standard spigot	Configuration example 1:	MF100	2	A03	W	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		
	Axx	Mxx	Pxx
N 10 bar		•	•
H 10 bar	•		
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•	

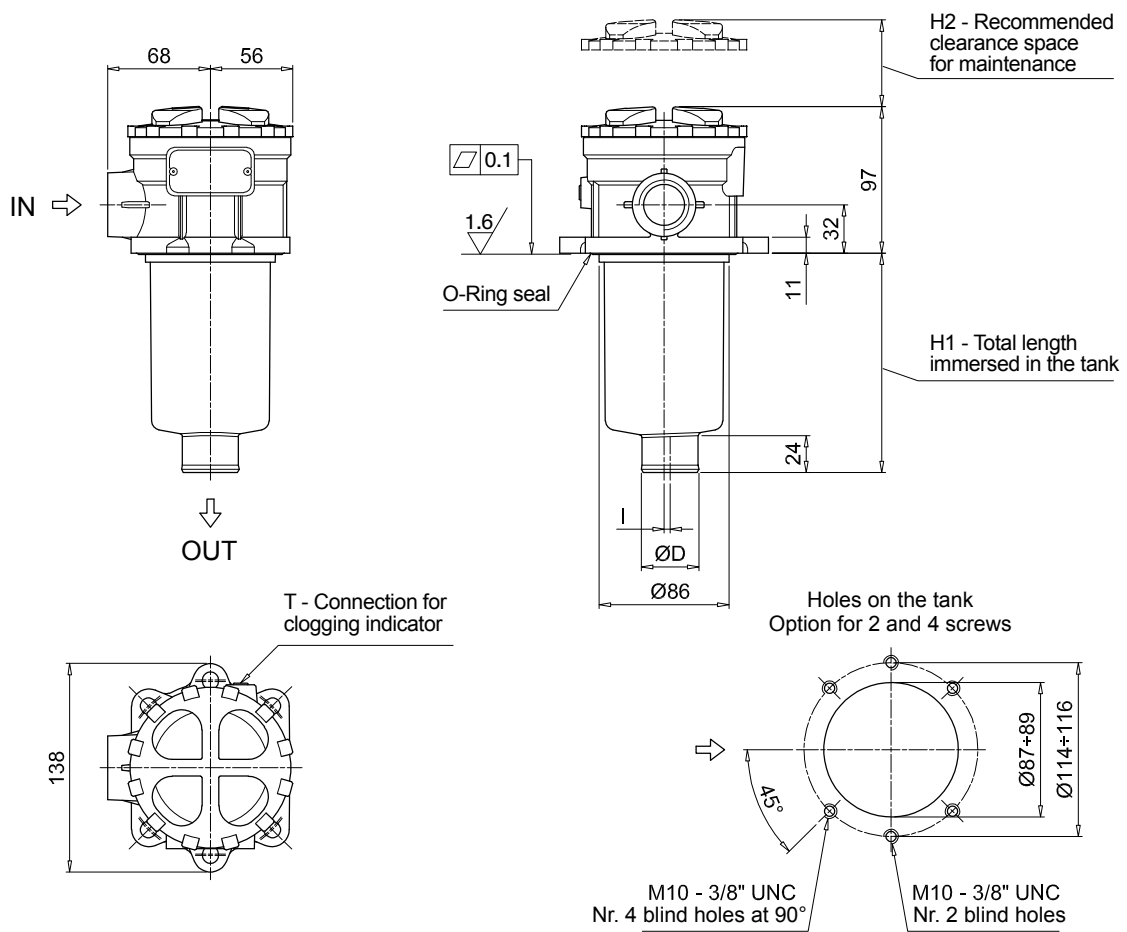
Seals	Bypass valve	Execution
B NBR	E 3 bar	P01 MP Filtri standard
V FPM	1.75 bar	Pxx Customized

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		page
TE Extension tube	248	DPT Dipstick	249
DFS Diffuser with fast lock connection	249		

MPT116				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	99	120	38	4
2	146	170	38	4
3	224	250	47	-
4	326	350	47	2.5

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



Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1:	MPT120	1	A	G1	0	A06	E	P01
MPT120 Filter element with standard spigot	Configuration example 2:	MPT120	3	V	G4	1	M25	B	P01

Length	
1 2 3 4	

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
A NBR	•	•	•
V FPM	•	•	•
W NBR head anodized	•	•	•
Z FPM head anodized	•	•	•

filter element compatible with fluids HFA-HFB-HFC

Main Connections	Rear connections	Aux size 1	Aux size 2
G1 G 3/4"	G 3/4"	G 3/8"	G 1/2"
G2 G 1"	G 1"		
G3 G 1 1/4"	G 3/4"		
G4 3/4" NPT	3/4" NPT	3/8" NPT	1/2" NPT
G5 1" NPT	1" NPT		
G6 1 1/4" NPT	3/4" NPT	SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF
G7 SAE 12 - 1 1/16" - 12 UN	SAE 12 - 1 1/16" - 12 UN		
G8 SAE 16 - 1 5/16" - 12 UN	SAE 16 - 1 5/16" - 12 UN		
G9 SAE 20 - 1 5/8" - 12 UN	SAE 12 - 1 1/16" - 12 UN		

Aux connection - see previous table
0 Not machined 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

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:	MF100	1	A06	H	B	E	P01
MF100 Filter element with standard spigot	Configuration example 2:	MF100	3	M25	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		
	Axx	Mxx	Pxx
N 10 bar	•	•	•
H 10 bar	•	•	•
W 10 bar, compatible with fluids HFA, HFB and HFC	•	•	•

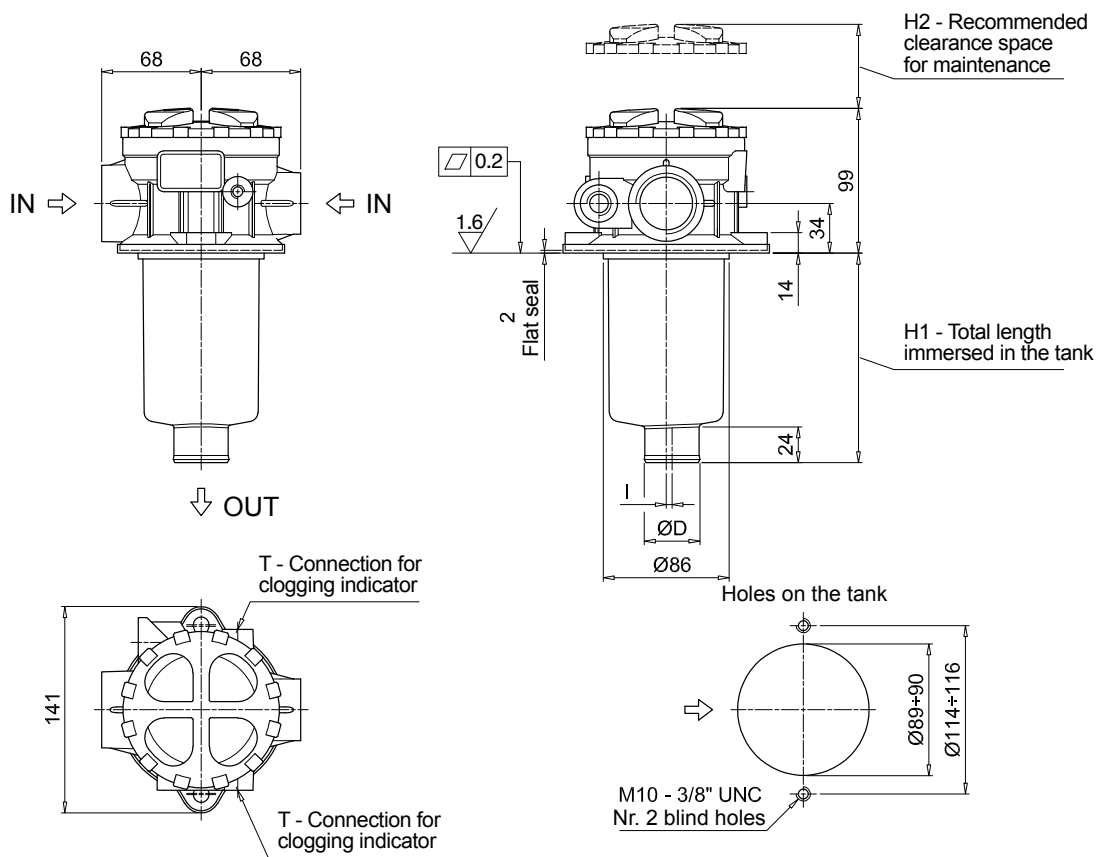
Seals	Bypass valve	Execution
B NBR	E 3 bar	P01 MP Filtri standard
V FPM	1.75 bar	Pxx Customized

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		page
TE Extension tube	248	DPT Dipstick	249
DFS Diffuser with fast lock connection	249		

MPT120				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	97	120	38	4
2	147	170	38	4
3	222	250	47	-
4	324	350	47	2.5

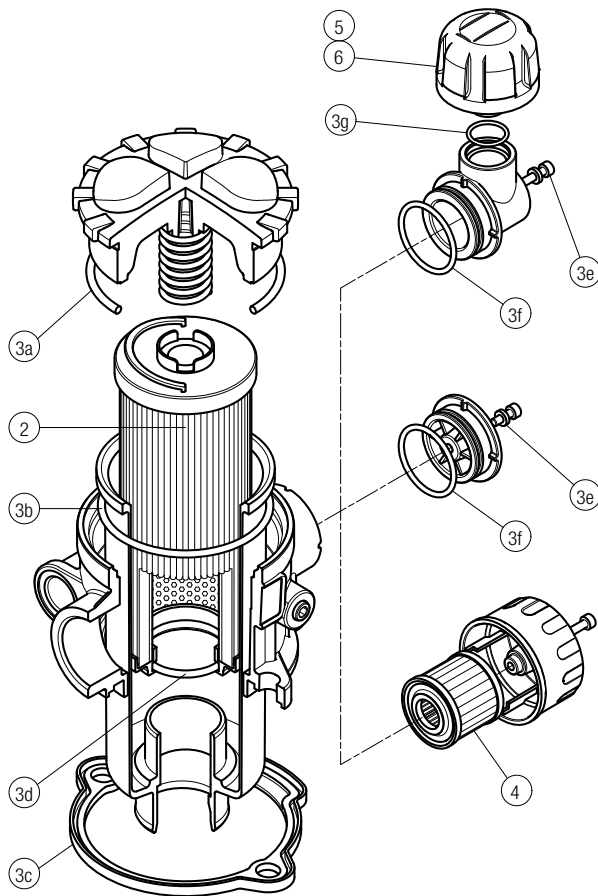
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



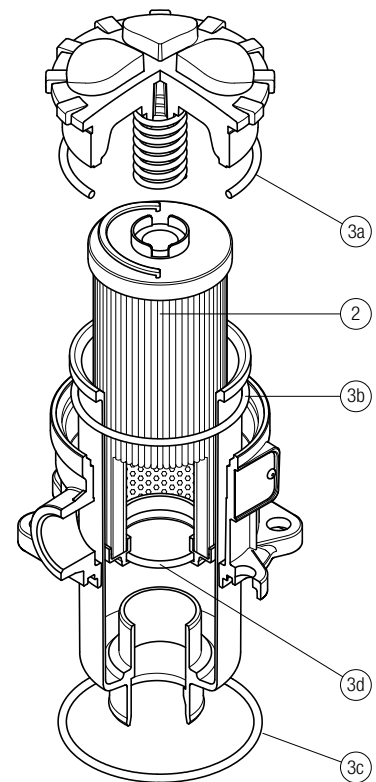
MPT SPARE PARTS

Order number for spare parts

MPT 025 - 027 - 110



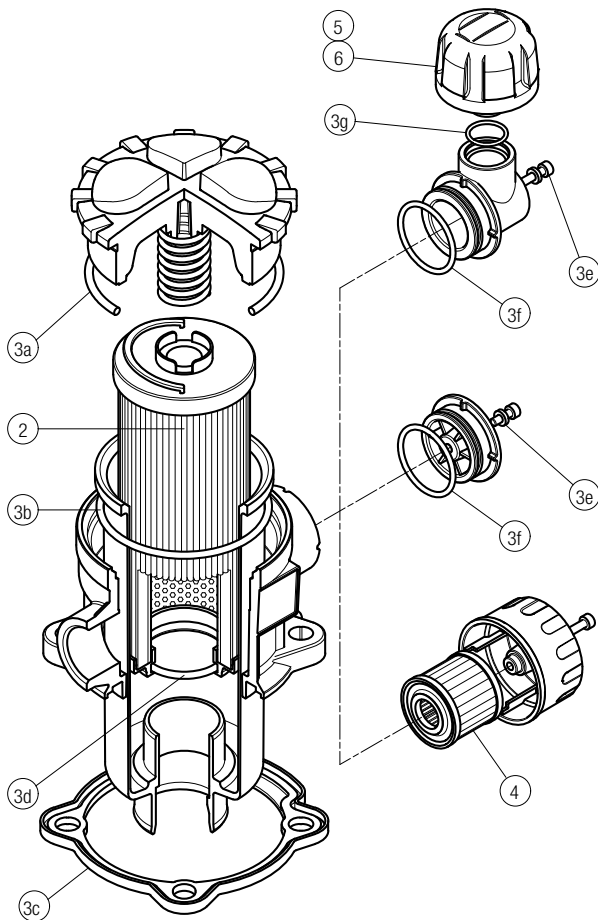
MPT 116



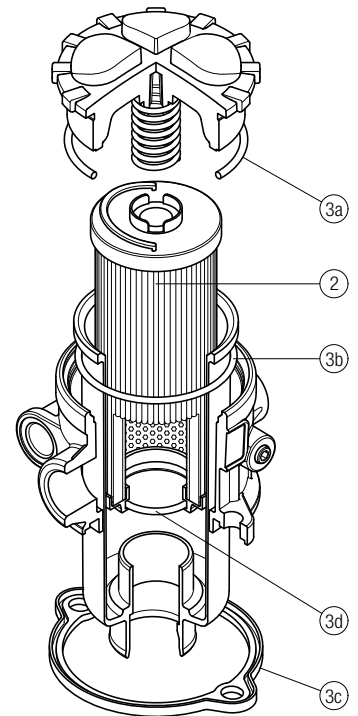
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		C	D	P
		NBR	FPM			
MPT 025	See order table	02050557	02050558	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01
MPT 027		02050559	02050560	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01
MPT 110		02050561	02050562	10 µm A5L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01

Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPT 116	See order table	02050466	02050467

MPT 114



MPT 120



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.
Filter series	Filter element	Seal Kit code number	Air breather filter element - version:		
		NBR	FPM	C	D
MPT 114	See order table	02050580	02050581	10 µm A5L03	10 µm SAP50G3L03A0P01

Item:	Q.ty: 1 pc.	Q.ty: 1 pc.
Filter series	Filter element	Seal Kit code number
		NBR
MPT 120	See order table	02050563

MFB series

BOWL ASSEMBLY

Maximum working pressure up to 800 kPa (8 bar) - Flow rate up to 700 l/min



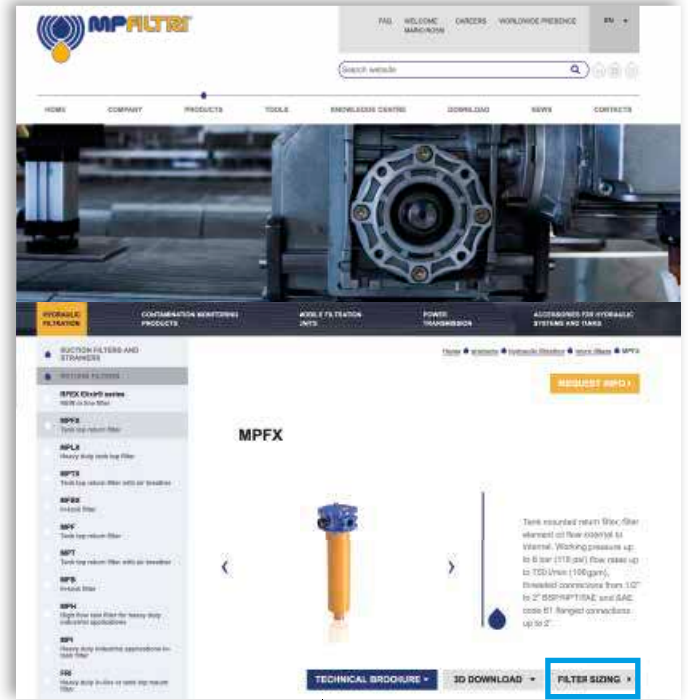
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

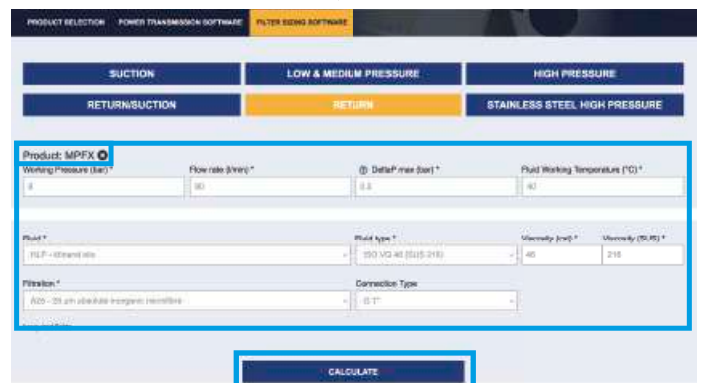
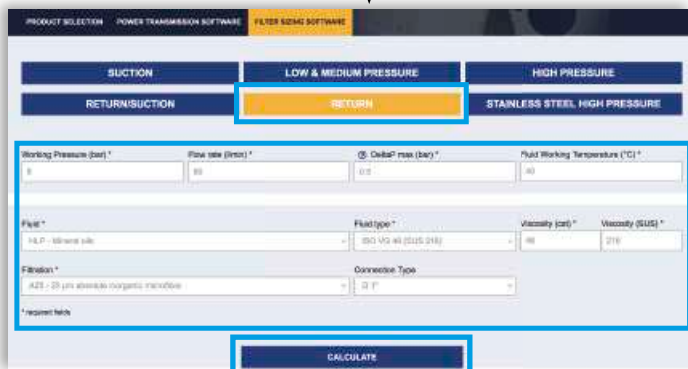
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

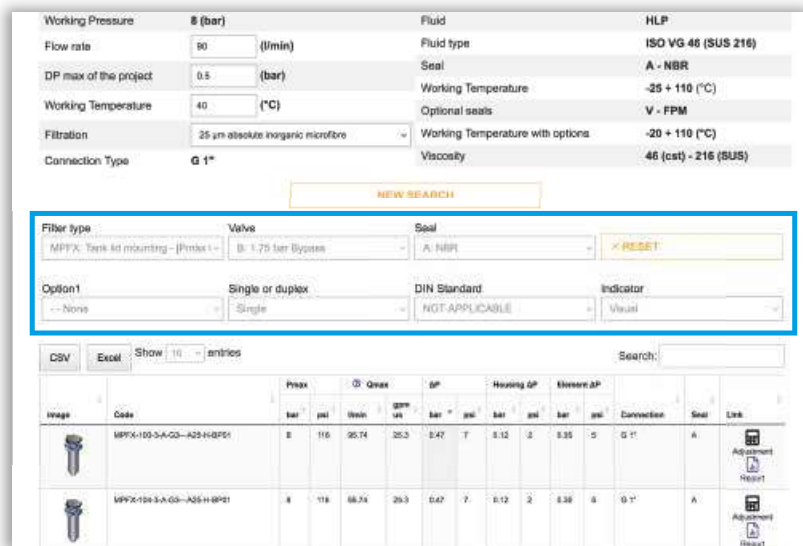
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	gpm us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf



see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

Return filter Bowl assembly

Maximum working pressure up to 800 kPa (8 bar)

Flow rate up to 700 l/min

MFB is a range of return filter kits for protection of the reservoir against the system contamination.

They are directly integrated in the moulded reservoir in immersed or semi-immersed position to save space into the tank.

Treaded or flanged covers can be provided.

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

Available features:

- 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
- 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)

Common applications:

Mobile machines

Bowl assembly materials

- Cover
Nylon: MFB 020-030-100
Aluminium: MFB 180-190

- Bowl: Nylon

Filter element materials

- Caps: Nylon
- Spring: Spring steel

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

MFB 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
MFB 020		0.25	0.35	0.40	-		0.10	0.15	0.20	-
MFB 030		0.25	-	-	-		0.15	-	-	-
MFB 100		0.50	0.60	0.75	0.95		0.35	0.50	0.80	1.10
MFB 180		1.60	2.40	-	-		1.50	2.90	-	-
MFB 190		-	2.40	-	-		-	3.00	-	-

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MFB 020	1	7	10	23	28	42	59	51	54
	2	17	20	45	48	56	72	64	67
	3	21	24	50	55	59	76	74	75
MFB 030	1	7	10	24	29	47	84	60	66
MFB 100	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
MFB 180	1	127	148	235	243	278	441	285	299
	2	231	262	358	382	388	472	404	412
MFB 190	2	261	305	489	528	546	696	583	598

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.

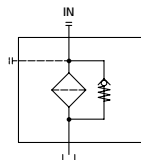
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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
MFB 020	•
MFB 030	•
MFB 100	•
MFB 180	•
MFB 190	•



Designation & Ordering code

COMPLETE FILTER

Series and size						Configuration example 1: MFB100 1 A 2 A10 H E P01					
MFB020 MFB030 MFB100 MFB180 MFB190						Configuration example 2: MFB180 2 V 1 M25 N B P01					
Filter element with private spigot											
Length	MFB020	MFB030	MFB100	MFB180	MFB190						
1	•	•	•	•							
2	•		•	•	•						
3	•		•								
4			•								
Seals											
A NBR											
V FPM											
Version											
1	Without cover	•	•	•	•						
2	With flanged cover type MPF		•	•	•						
3	With threaded cover type MPT	•		•							
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											
N	10 bar										
H	10 bar										
W	10 bar, compatible with fluids HFA, HFB and HFC										
Filter media											
Axx Mxx Pxx											
						Bypass valve		Execution			
						E 3 bar		P01 MP Filtri standard			
						B 1.75 bar		Pxx Customized			

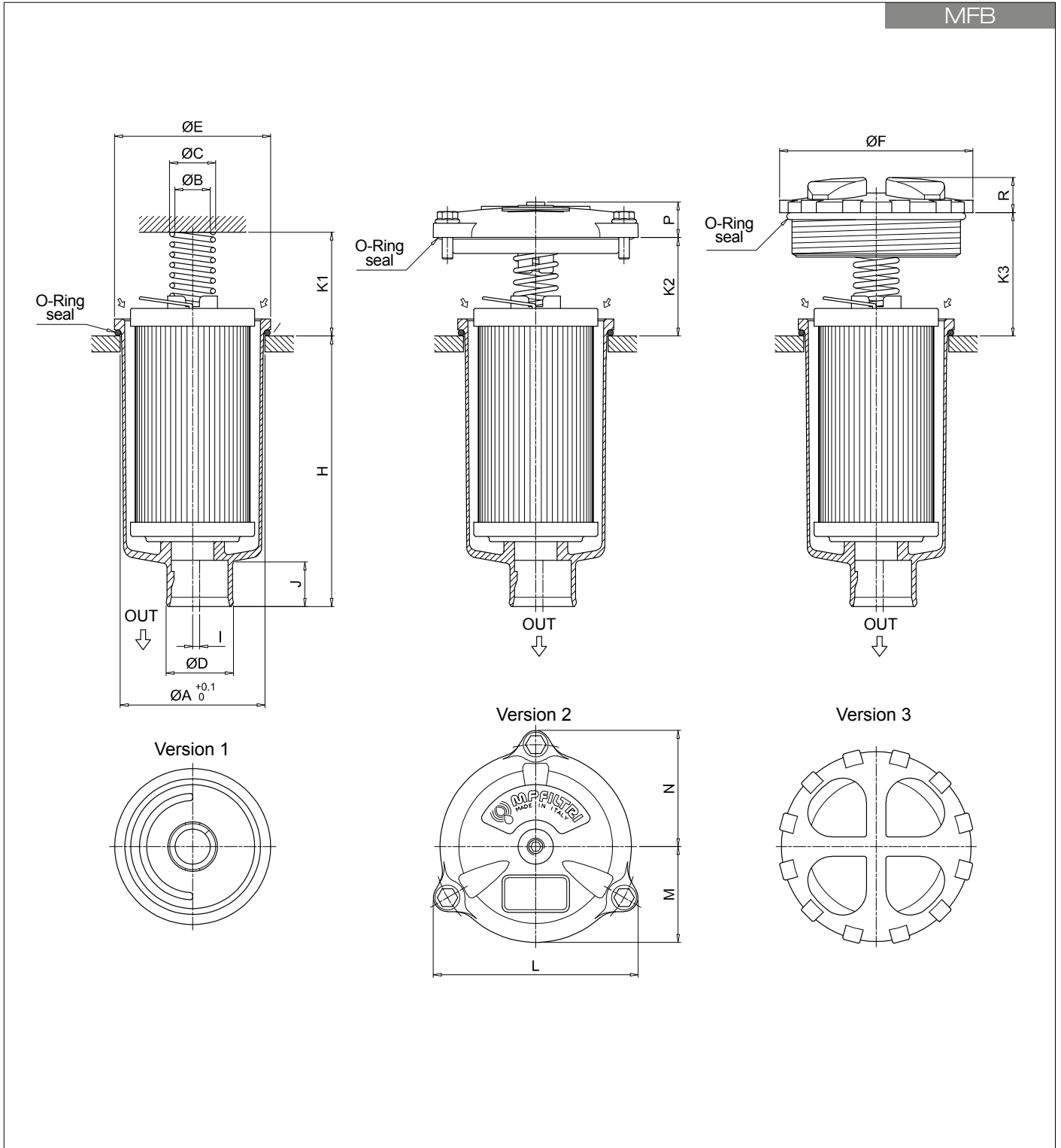
FILTER ELEMENT

Element series and size						Configuration example 1: MF100 1 A10 H B E P01					
MF020 MF030 MF100 MF180 MF190						Configuration example 2: MF180 2 M25 N V P01					
Filter element with private spigot											
Element length	MF020	MF030	MF100	MF180	MF190						
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											
N	10 bar										
H	10 bar										
Filter media											
Axx Mxx Pxx											
						Seals		Bypass valve			
						B NBR		E 3 bar			
						V FPM		 1.75 bar			
								P01 MP Filtri standard			
								Pxx Customized			

ACCESSORIES

Additional features											page	
TE	Extension tube	MFB020	MFB030	MFB100	MFB180	MFB190						248
DFS	Diffuser with fast lock connection											249

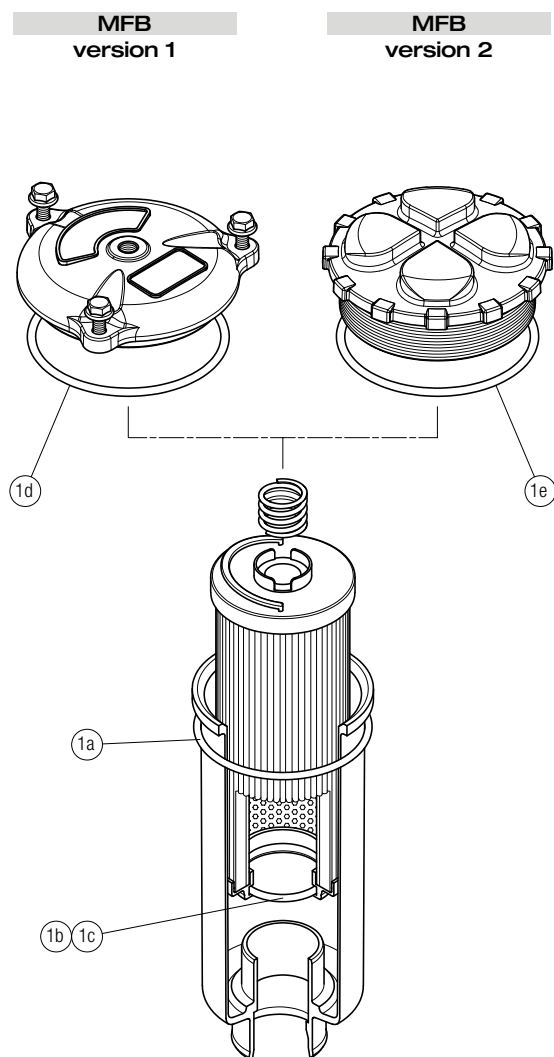
MFB



Filter size	Filter Length	ø A [mm]	ø B [mm]	ø C [mm]	ø D [mm]	ø E [mm]	ø F [mm]	H [mm]	I [mm]	J [mm]	K1 [mm]	K2 [mm]	K3 [mm]	L [mm]	M [mm]	N [mm]	P [mm]	R [mm]
020	1	52	20.5	26	32	56	75	111	0	24	42	-	36	-	-	-	-	18
	2	52	20.5	26	32	56	75	175	0	24	42	-	36	-	-	-	-	18
	3	52	20.5	26	32	56	75	214	0	24	42	-	36	-	-	-	-	18
030	1	60.5	20	25.5	32	68	-	92	3	21	33	35	-	92	42	52	18	-
	1	80.5	20	26	38	88	111	107	4	24	58	55	69	116	54	66	20	20
	2	80.5	20	26	38	88	111	154	4	24	58	55	69	116	54	66	20	20
	3	80.5	20	26	47	88	111	232	0	24	58	55	69	116	54	66	20	20
100	4	80.5	20	26	47	88	111	334	2.5	24	58	55	69	116	54	66	20	20
	1	112.5	26	33.5	47	121	-	234	0	31	58	58	69	159	76	95	21	-
	2	112.5	26	33.5	47	121	-	447	0	31	58	58	69	159	76	95	21	-
	2	112.5	26	33.5	50	121	-	454	0	38	58	58	69	159	76	95	21	-

MFB SPARE PARTS

Order number for spare parts



Q.ty: 1 pc.		
1 (1a ÷ 1e)		
Item:	Seal Kit code number	
Filter series	NBR	FPM
MFB 020	02050572	02050573
MFB 030	02050574	02050575
MFB 100	02050555	02050556
MFB 180	02050576	02050577
MFB 190	02050578	02050579

MPH series

Maximum working pressure up to 1 MPa (10 bar) - Flow rate up to 3500 l/min



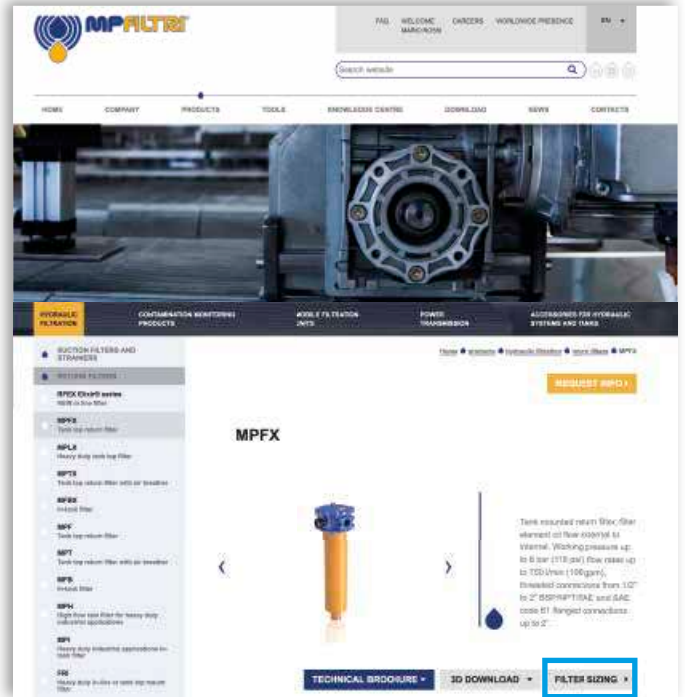
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

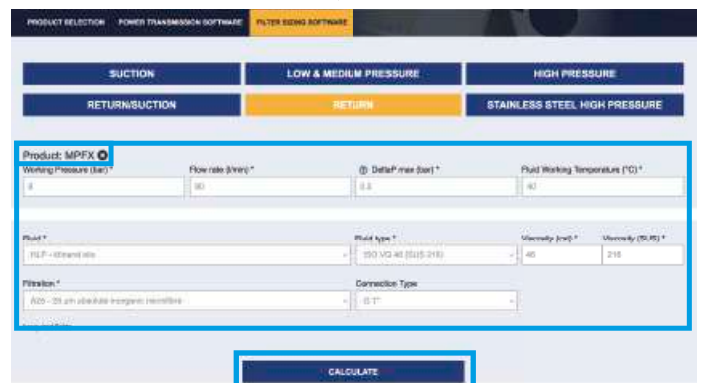
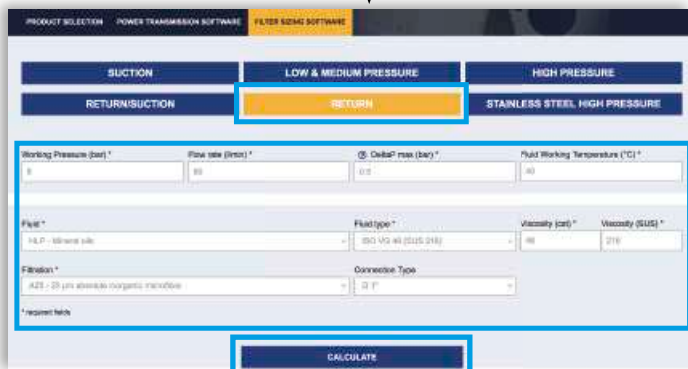
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

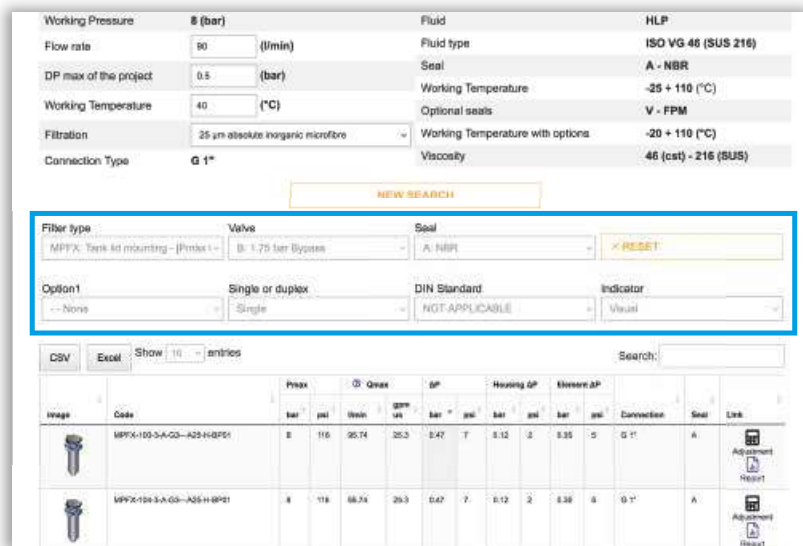
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax dm³/min	gpm us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPFX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPFX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT



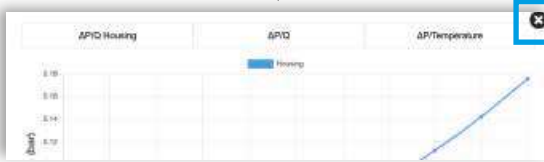
SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf

see **A**



Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

Description

Technical data

Return filter

Maximum working pressure up to 1 MPa (10 bar)

Flow rate up to 3500 l/min

MPH 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 use of the diffuser is recommended, to place the filter output always immersed into the fluid to avoid aeration or foam generation into the reservoir.

The filtration from inside to outside allows a cleaner filter element replacement, the dirty remains into the filter element.

Available features:

- Female threaded connections up to 1 1/2" and flanged connections up to 4", for a maximum flow rate of 3000 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, to relieve excessive pressure drop across the filter media
- Magnetic filter, to hold the ferrous particles
- 2, 3, 4 or 8 fixing holes for installation, to suit a variety of reservoir surfaces
- Flat Seal to suit a variety of reservoir surfaces
- Oil dipstick, to easily check the level of the fluid into the reservoir (separate item)
- Diffuser, to reduce the risk of aeration, foaming and noise
- Filler plug, to fill cleaned fluid into the tank without an additional plug
- Integrated breather filter, to clean the air that moves into the reservoir as result of the oil level fluctuation (MPH110/114)
- Integrated breather filter with pressurization valve, to clean the air that moves into the reservoir as result of the oil level fluctuation and to guarantee the pressurization into the reservoir (MPH110/114)
- Visual, electrical and electronic clogging indicators

Common applications:

Heavy duty industrial equipment

Filter housing materials

- Head
 - Aluminium: MPH 110-114-116-120-250
 - Anodized Aluminium: MPH 630-850
 - Painted Aluminium: MPH 660

- Cover
 - Nylon: MPH 110-114-116-120
 - Aluminium: MPH 250
 - Anodized Aluminium: MPH 630
 - Painted Aluminium: MPH 660
 - Steel: MPH 850

- Insert assembly
 - Nylon: MPH 110-114-116-120
 - Aluminium: MPH 250-630-660-850

- Diffuser: Tinned Steel

- Valve: Phosphatized Steel

Bypass valve

- Opening pressure 175 kPa (1.75 bar)±10%
- Opening pressure 250 kPa (2.5 bar) ±10%, except for MPH 850

Δp element type

- Microfibre filter elements - series MR: 10 bar
- Fluid flow through the filter element from IN to OUT

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

MPH filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm ³]						
	Length	1	2	3	4	5	Length	1	2	3	4	5
MPH 110	1.60	1.70	1.80	2.20	2.60		1.60	1.70	1.80	2.20	2.60	
MPH 114	1.60	1.70	1.80	2.20	2.60		1.60	1.70	1.80	2.20	2.60	
MPH 116	1.60	1.70	1.80	2.20	2.60		1.60	1.70	1.80	2.20	2.60	
MPH 120	1.60	1.70	1.80	2.20	2.60		1.60	1.70	1.80	2.20	2.60	
MPH 250	3.60	3.90	4.20	5.60	-		4.40	4.40	5.40	8.00	-	
MPH 630	6.50	7.00	7.40	8.50	10.50		7.30	9.00	11.00	13.00	19.20	
MPH 660	-	-	-	11.50	14.00		-	-	-	14.60	21.00	
MPH 850	32.00	35.00	38.00	42.00	-		13.00	16.50	21.00	25.00	-	

Filter series	Length	A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MPH 110-114 116-120	1	26	29	72	79	107	282	164	190
	2	43	46	112	114	161	318	164	190
	3	64	72	132	156	178	324	219	251
	4	90	99	184	198	216	324	266	302
	5	117	128	201	219	244	324	282	318
MPH 250	1	93	102	210	251	315	1093	339	383
	2	124	151	327	412	421	1122	460	514
	3	189	221	418	445	500	1137	544	616
	4	261	304	592	670	766	1166	832	923
MPH 630	1	160	200	369	423	518	1894	565	632
	2	240	257	571	611	1045	1929	1137	1285
	3	330	374	745	788	1308	1938	1416	1577
	4	374	403	887	1010	1348	1956	1448	1612
	5	625	698	1210	1257	1723	2121	1839	1929
MPH 660	4	370	399	903	1042	1460	2376	1596	1830
	5	624	699	1282	1343	1997	2663	2182	2331
MPH 850	1	775	1041	1246	1568	2242	3311	2371	2625
	2	1176	1522	1682	1747	2449	3378	2684	2886
	3	1490	1914	1995	2014	3035	3405	3144	3220
	4	1668	2088	2305	2363	3169	3517	3272	3378

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

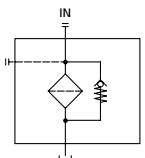
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

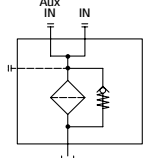
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

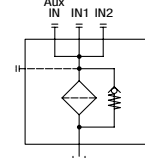
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

Hydraulic symbols

Filter series	Style 1 connection	Style 2 connections	Style 3 connections
MPH 110		•	
MPH 114	•		
MPH 116	•		
MPH 120			•
MPH 250	•	•	
MPH 630	•	•	
MPH 660	•		
MPH 850		•	



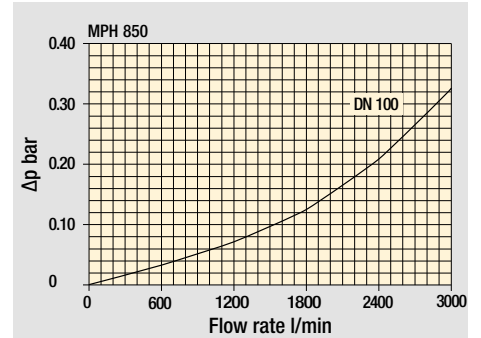
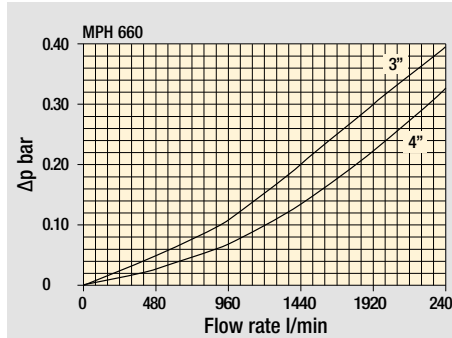
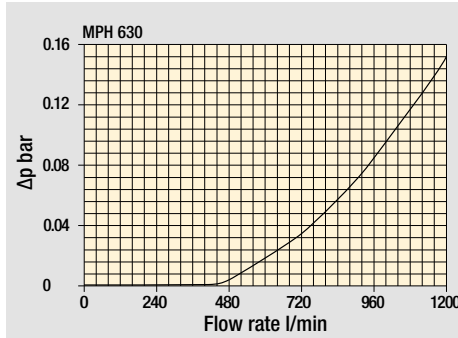
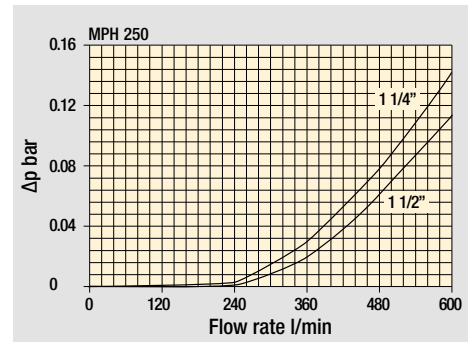
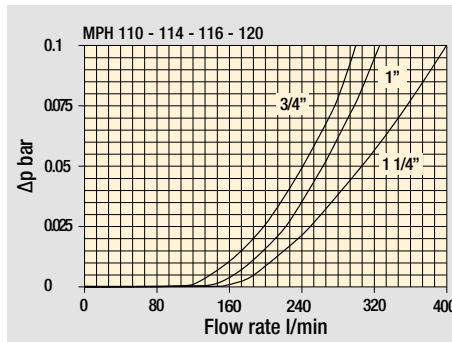




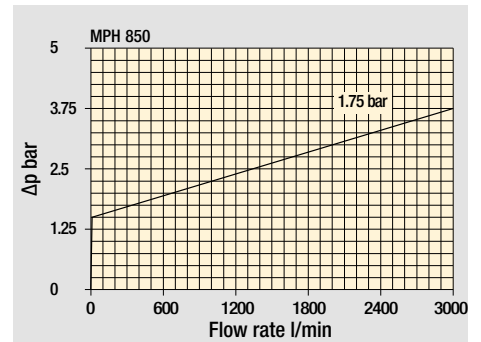
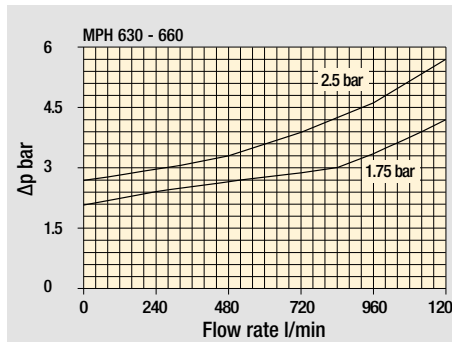
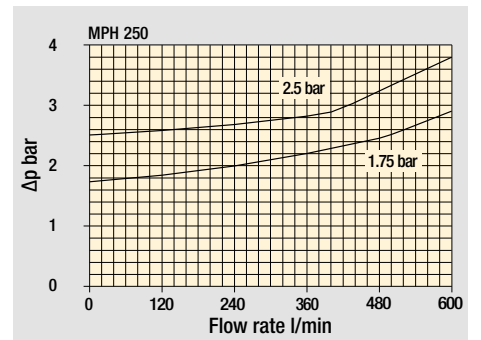
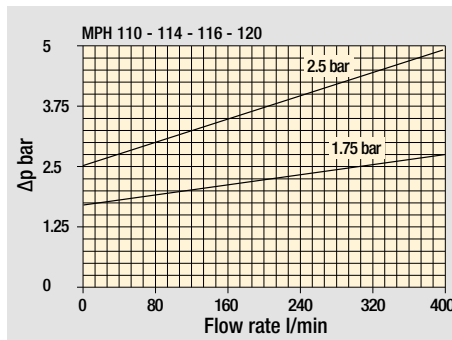
MPH GENERAL INFORMATION

Pressure drop

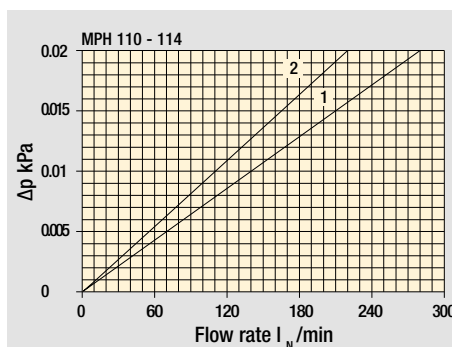
Filter housings Δp pressure drop



Bypass valve pressure drop



Air breather pressure drop



- 1 C With air breather 10 μ m
- 2 D With anti-splash and SAP50 10 μ m

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

Designation & Ordering code

COMPLETE FILTER

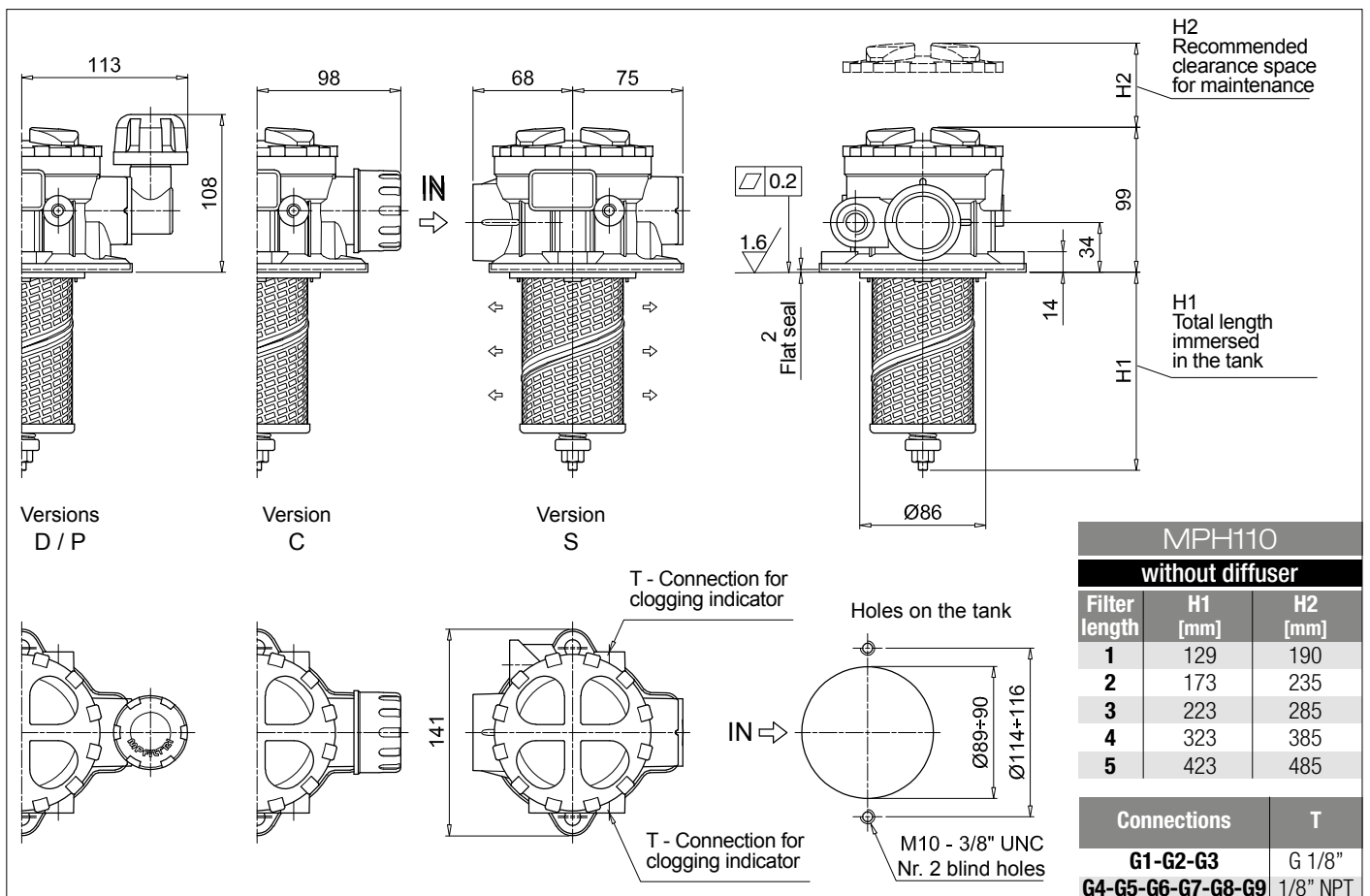
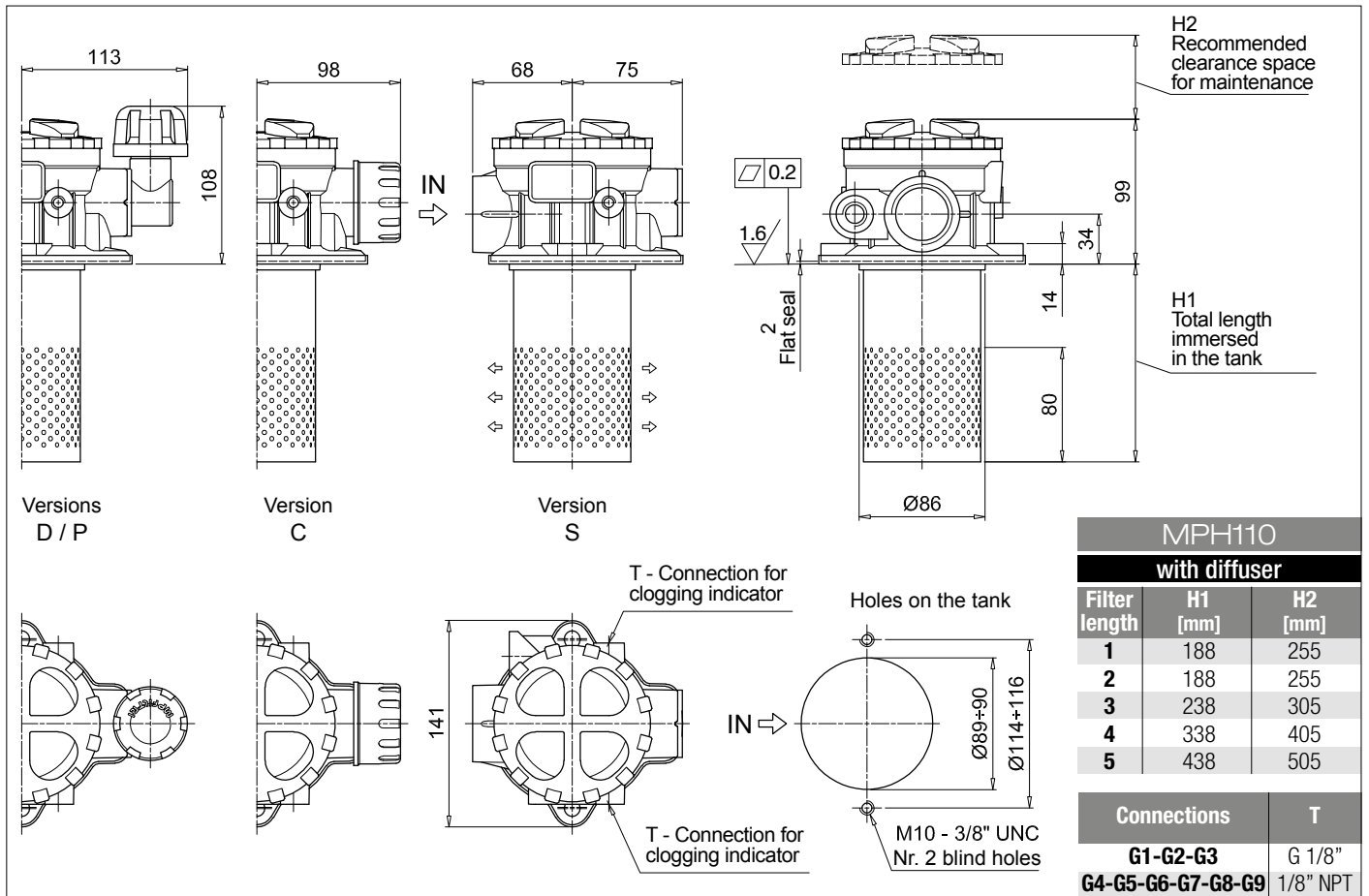
Series and size		Configuration example: MPH110 1 S D S A G1 1 A10 P01																			
MPH110																					
Length		1 2 3 4 5																			
Bypass valve		S Without bypass C 1.75 bar E 2.5 bar																			
Diffuser and magnetic filter		D With diffuser, with magnetic filter F With diffuser, without magnetic filter O Without diffuser, with magnetic filter E Without diffuser, without magnetic filter																			
Air breather		S Without air breather C With air breather 10 µm D With anti-splash and air breather SAP050 10 µm P With anti-splash and air breather SAP050 10 µm pressurization 0.5 bar																			
Seals and treatments		Filtration rating																			
		Axx	Mxx	Pxx																	
A NBR		•	•	•																	
V FPM		•	•	•																	
W NBR head anodized		•	•		filter element compatible with fluids HFA-HFB-HFC																
Z FPM head anodized		•	•																		
Main Connections		Aux size 1		Aux size 2		Main Connections		Aux size 1		Aux size 2											
G1 G 3/4"		G 3/8"		G 1/2"		G7 SAE 12 - 1 1/16" - 12 UN		SAE 6 - 9/16" - 18 UNF		SAE 8 - 3/4" - 16 UNF											
G2 G 1"						G8 SAE 16 - 1 5/16" - 12 UN															
G3 G 1 1/4"						G9 SAE 20 - 1 5/8" - 12 UN															
G4 3/4" NPT																					
G5 1" NPT						3/8" NPT		1/2" NPT													
G6 1 1/4" NPT																					
Aux connection - see previous table		0 Not machined 1 Aux size 1 2 Aux size 2																			
Filtration rating (filter media)		<table border="0"> <tr> <td>A03 Inorganic microfiber 3 µm</td> <td>M25 Wire mesh 25 µm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 µm</td> <td>M60 Wire mesh 60 µm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 µm</td> <td>M90 Wire mesh 90 µm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 µm</td> <td>P10 Resin impregnated paper 10 µm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 µm</td> <td>P25 Resin impregnated paper 25 µm</td> </tr> </table>										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
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A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm																				
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm																				
										Execution											
										P01 MP Filtri standard											
										Pxx Customized											

FILTER ELEMENT

Element series and size		Configuration example: MR100 1 A10 A P01														
MR100																
Element length		1 2 3 4 5														
Filtration rating (filter media)		<table border="0"> <tr> <td>A03 Inorganic microfiber 3 µm</td> <td>M25 Wire mesh 25 µm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 µm</td> <td>M60 Wire mesh 60 µm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 µm</td> <td>M90 Wire mesh 90 µm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 µm</td> <td>P10 Resin impregnated paper 10 µm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 µm</td> <td>P25 Resin impregnated paper 25 µm</td> </tr> </table>					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
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm															
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A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm															
		Seals		Execution												
		A NBR		P01 MP Filtri standard												
		V FPM		Pxx Customized												

ACCESSORIES

Indicators		page		page	
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239		
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239		
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240		
BVQ Visual pressure indicator with manual reset	241				
Additional features		page			
DPT Dipstick	249				



Designation & Ordering code

COMPLETE FILTER

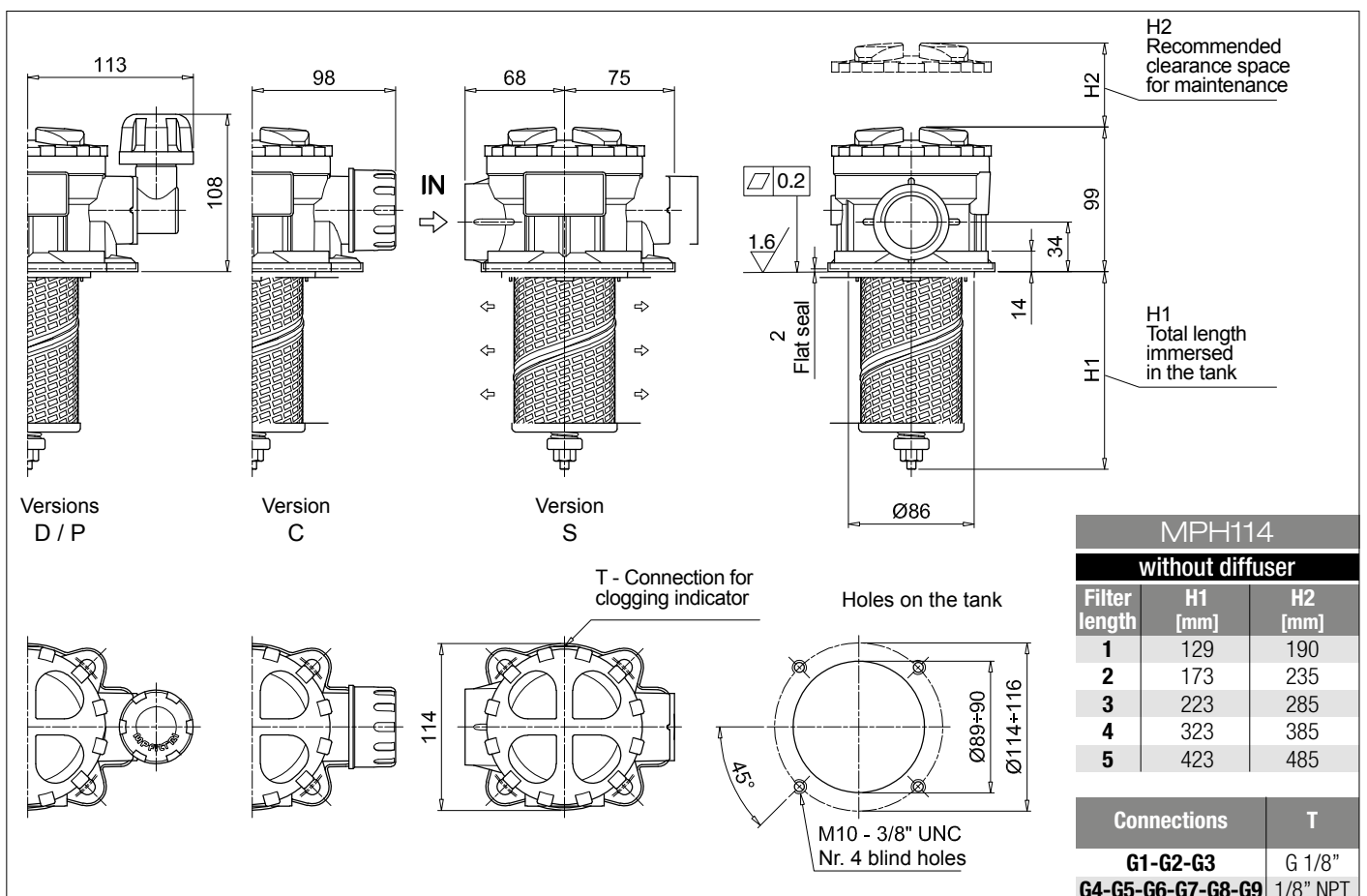
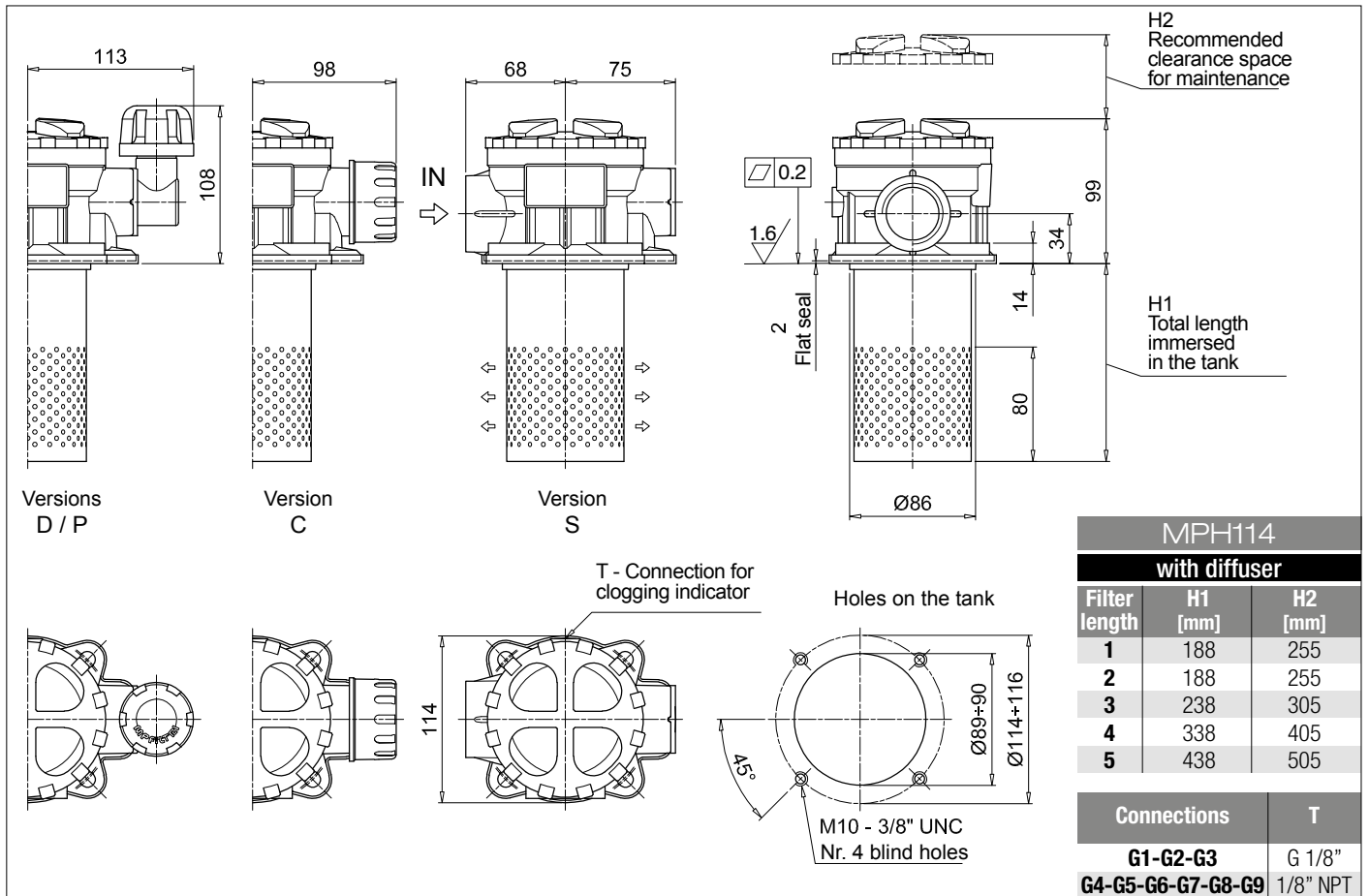
Series and size MPH114	Configuration example: MPH114 3 C E C Z G6 M60 P01									
Length 1 2 3 4 5										
Bypass valve S Without bypass C 1.75 bar E 2.5 bar										
Diffuser and magnetic filter D With diffuser, with magnetic filter F With diffuser, without magnetic filter O Without diffuser, with magnetic filter E Without diffuser, without magnetic filter										
Air breather S Without air breather C With air breather 10 µm D With anti-splash and air breather SAP050 10 µm P With anti-splash and air breather SAP050 10 µm pressurization 0.5 bar										
Seals and treatments	Filtration rating									
A NBR	Axx	Mxx	Pxx							
V FPM	•	•	•							
W NBR head anodized	•	•		filter element compatible with fluids HFA-HFB-HFC						
Z FPM head anodized	•	•								
Connections										
G1 G 3/4"	G6 1 1/4" NPT									
G2 G 1"	G7 SAE 12 - 1 1/16" - 12 UN									
G3 G 1 1/4"	G8 SAE 16 - 1 5/16" - 12 UN									
G4 3/4" NPT	G9 SAE 20 - 1 5/8" - 12 UN									
G5 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									
										Execution
										P01 MP Filtri standard
										Pxx Customized

FILTER ELEMENT

Element series and size MR100	Configuration example: MR100 3 M60 V P01			
Element length 1 2 3 4 5				
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			
		Seals	Execution	
		A NBR	P01 MP Filtri standard	
		V FPM	Pxx Customized	

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

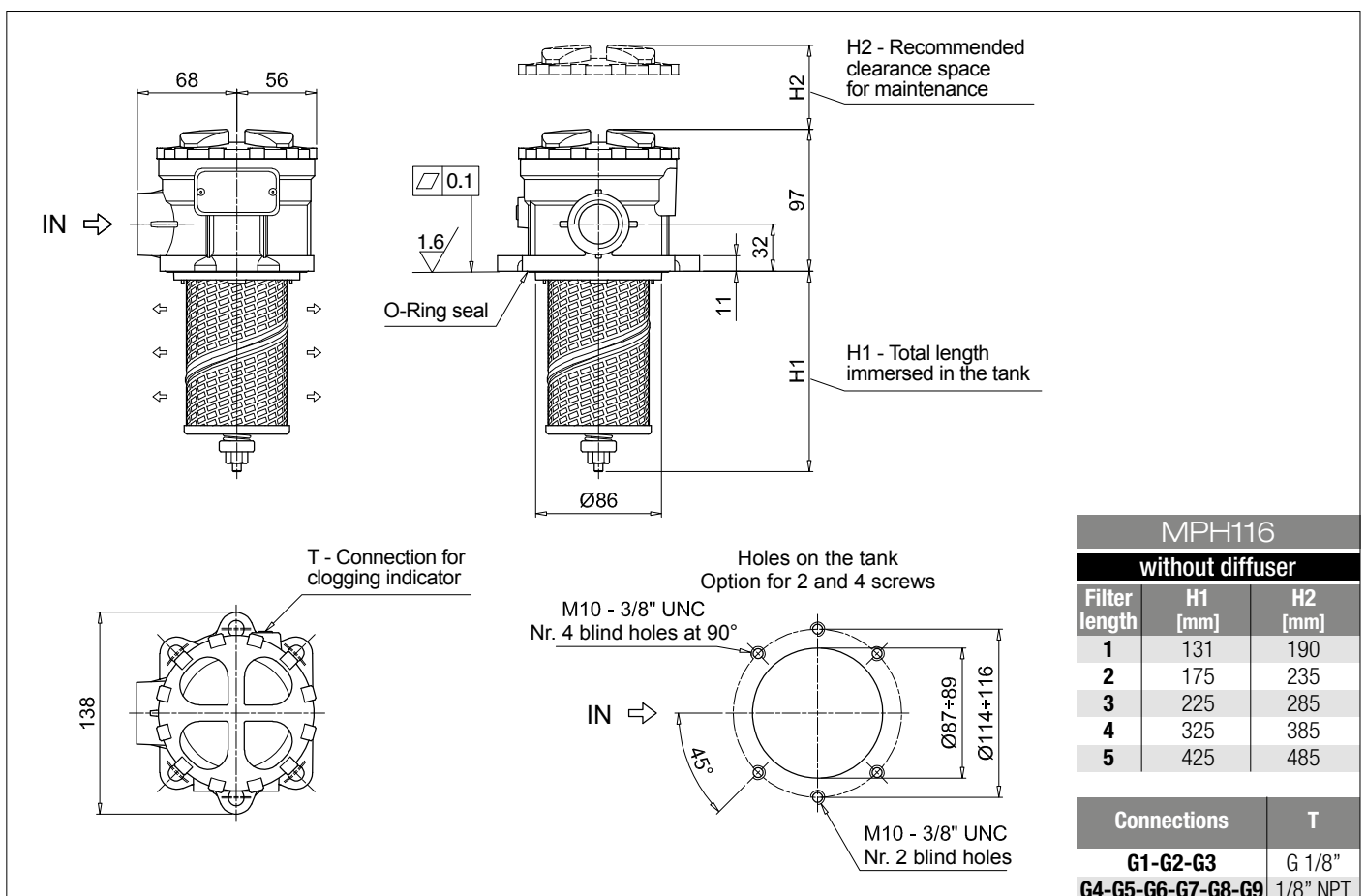
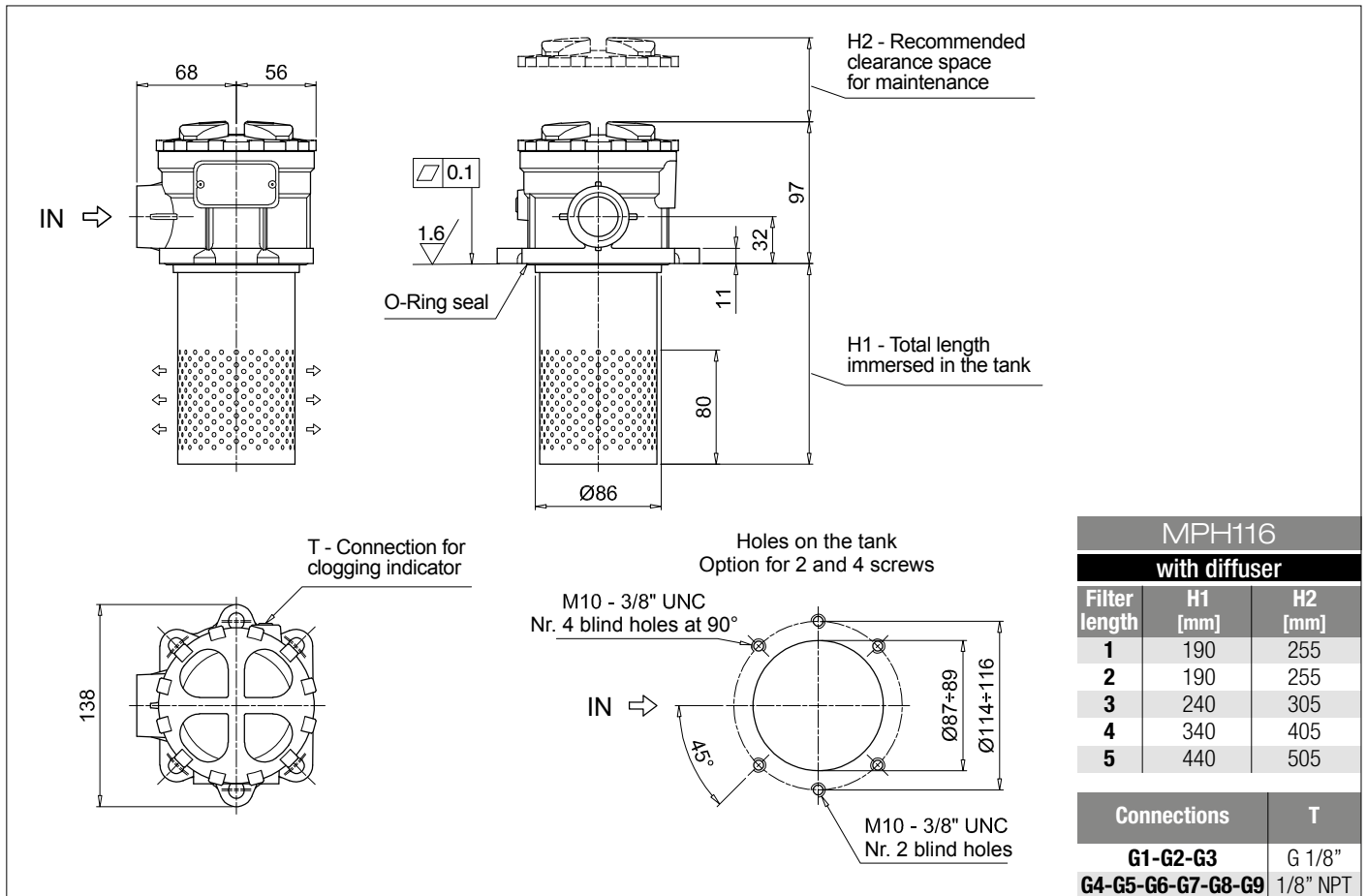
Series and size MPH116	Configuration example: MPH116 5 S D S A G1 A10 P01									
Length 1 2 3 4 5										
Bypass valve S Without bypass C 1.75 bar E 2.5 bar										
Diffuser and magnetic filter D With diffuser, with magnetic filter F With diffuser, without magnetic filter O Without diffuser, with magnetic filter E Without diffuser, without magnetic filter										
Air breather S Without air breather										
Seals and treatments	Filtration rating									
A NBR	Axx	Mxx	Pxx							
V FPM										
W NBR head anodized				filter element compatible with fluids HFA-HFB-HFC						
Z FPM head anodized										
Flat seal on the head on request										
Connections										
G1 G 3/4"	G6 1 1/4" NPT									
G2 G 1"	G7 SAE 12 - 1 1/16" - 12 UN									
G3 G 1 1/4"	G8 SAE 16 - 1 5/16" - 12 UN									
G4 3/4" NPT	G9 SAE 20 - 1 5/8" - 12 UN									
G5 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									
										Execution
										P01 MP Filtri standard
										Pxx Customized

FILTER ELEMENT

Element series and size MR100	Configuration example: MR100 5 A10 A P01				
Element length 1 2 3 4 5					
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				
		Seals	Execution		
		A NBR	P01 MP Filtri standard		
		V FPM	Pxx Customized		

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

Series and size **MPH120** Configuration example: **MPH120** | **1** | **S** | **D** | **A** | **G1** | **1** | **A10** | **P01**

Length

1 | **2** | **3** | **4** | **5** |

Bypass valve

S Without bypass | **C** 1.75 bar | **E** 2.5 bar

Diffuser and magnetic filter

D With diffuser, with magnetic filter
F With diffuser, without magnetic filter
O Without diffuser, with magnetic filter
E Without diffuser, without magnetic filter

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
A NBR	•	•	•
V FPM	•	•	•
W NBR head anodized	•	•	
Z FPM head anodized	•	•	

Main Connections	Rear connections	Aux size 1	Aux size 2
G1 G 3/4"	G 3/4"	G 3/8"	G 1/2"
G2 G 1"	G 1"		
G3 G 1 1/4"	G 3/4"		
G4 3/4" NPT	3/4" NPT	3/8" NPT	1/2" NPT
G5 1" NPT	1" NPT		
G6 1 1/4" NPT	3/4" NPT		
G7 SAE 12 - 1 1/16" - 12 UN	SAE 12 - 1 1/16" - 12 UN	SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF
G8 SAE 16 - 1 5/16" - 12 UN	SAE 16 - 1 5/16" - 12 UN		
G9 SAE 20 - 1 5/8" - 12 UN	SAE 12 - 1 1/16" - 12 UN		

Aux connection - see previous table

0 Not machined | **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

Execution

P01 MP Filtri standard
Pxx Customized

FILTER ELEMENT

Element series and size

MR100 Configuration example: **MR100** | **1** | **A10** | **A** | **P01**

Element length

1 | **2** | **3** | **4** | **5** |

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

Seals

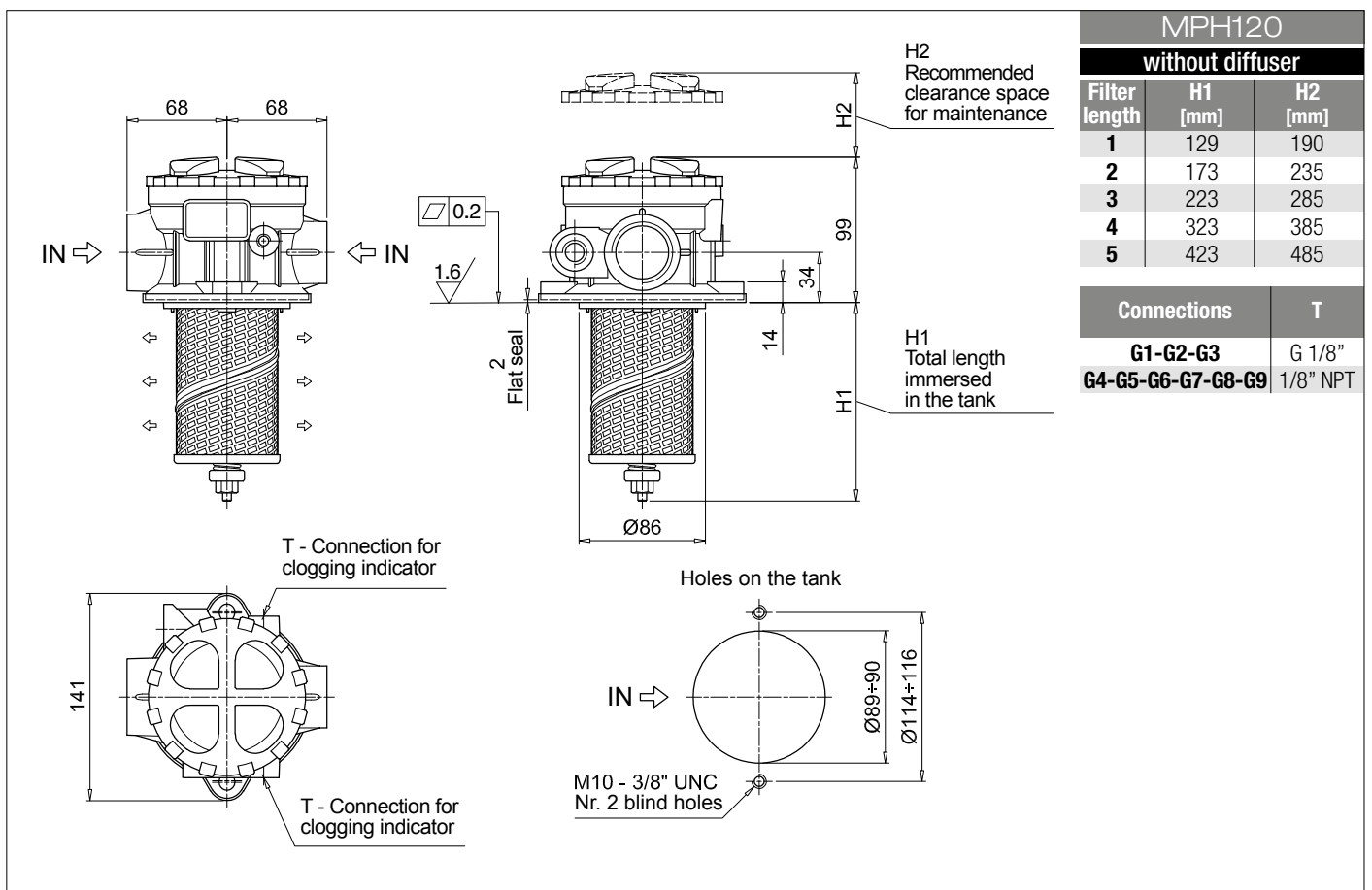
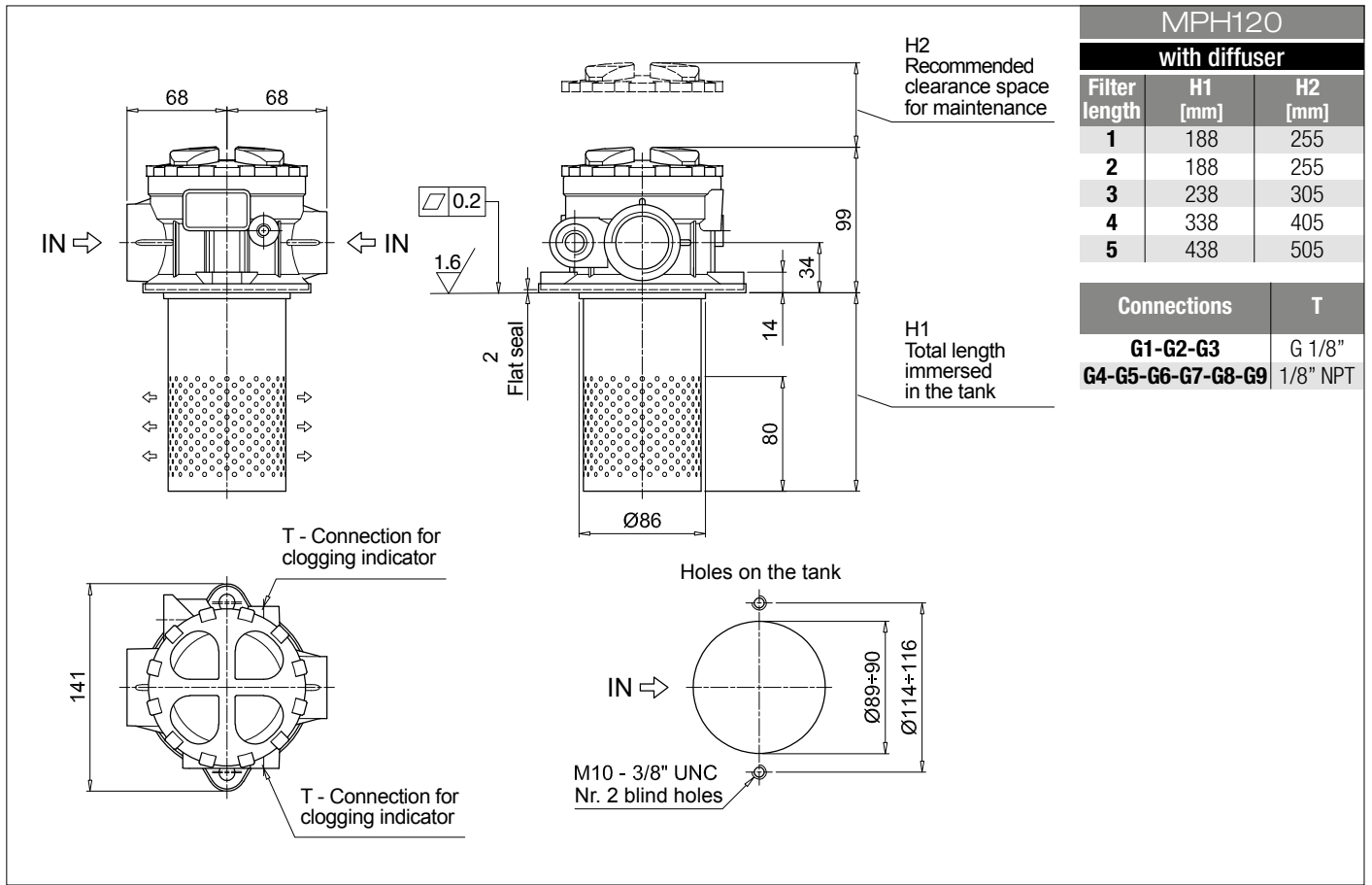
A NBR
V FPM

Execution

P01 MP Filtri standard
Pxx Customized

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		
Additional features	page		
DPT Dipstick	249		



Designation & Ordering code

COMPLETE FILTER

Series and size **MPH250** Configuration example: **MPH250** | **1** | **C** | **D** | **S** | **A** | **G1** | **A10** | **P01**

Length: **1** | **2** | **3** | **4**

By-pass valve: **S** Without bypass | **C** 1.75 bar | **E** 2.5 bar

Diffuser and magnetic filter: **D** With diffuser, with magnetic filter | **F** With diffuser, without magnetic filter | **O** Without diffuser, with magnetic filter | **E** Without diffuser, without magnetic filter

Air breather: **S** Without air breather

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
A NBR	•	•	•
V FPM	•	•	•
W NBR head anodized filter element compatible with fluids HFA-HFB-HFC	•	•	
Z FPM head anodized	•	•	

Main Connections	Rear connections
G1 G 1 1/2"	-
G2 G 1 1/2"	G 1 1/4"
G4 1 1/2" NPT	-
G5 1 1/2" NPT	1 1/4" NPT
G7 SAE 24 - 1 7/8" - 12 UN	-
G8 SAE 24 - 1 7/8" - 12 UN	SAE 20 - 1 5/8" - 12 UN
F1 1 1/2" SAE 3000 psi/M	-
F2 1 1/2" SAE 3000 psi/M	1 1/4" SAE 3000 psi/M
F3 1 1/2" SAE 3000 psi/UNC	-
F4 1 1/2" SAE 3000 psi/UNC	1 1/4" 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

Execution	
P01	MP Filtri standard
Pxx	Customized

FILTER ELEMENT

Element series and size **MR250** Configuration example: **MR250** | **1** | **A10** | **A** | **P01**

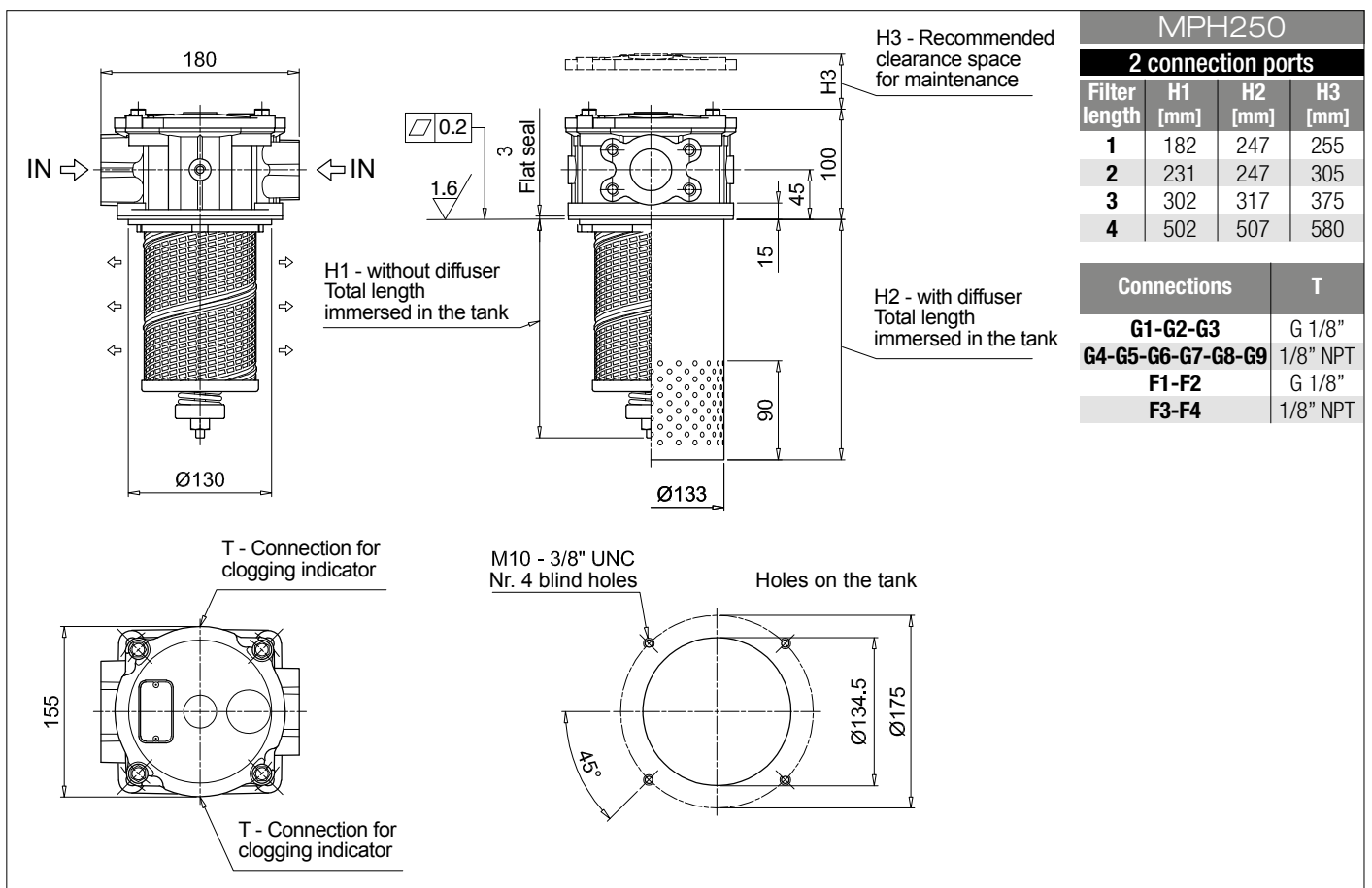
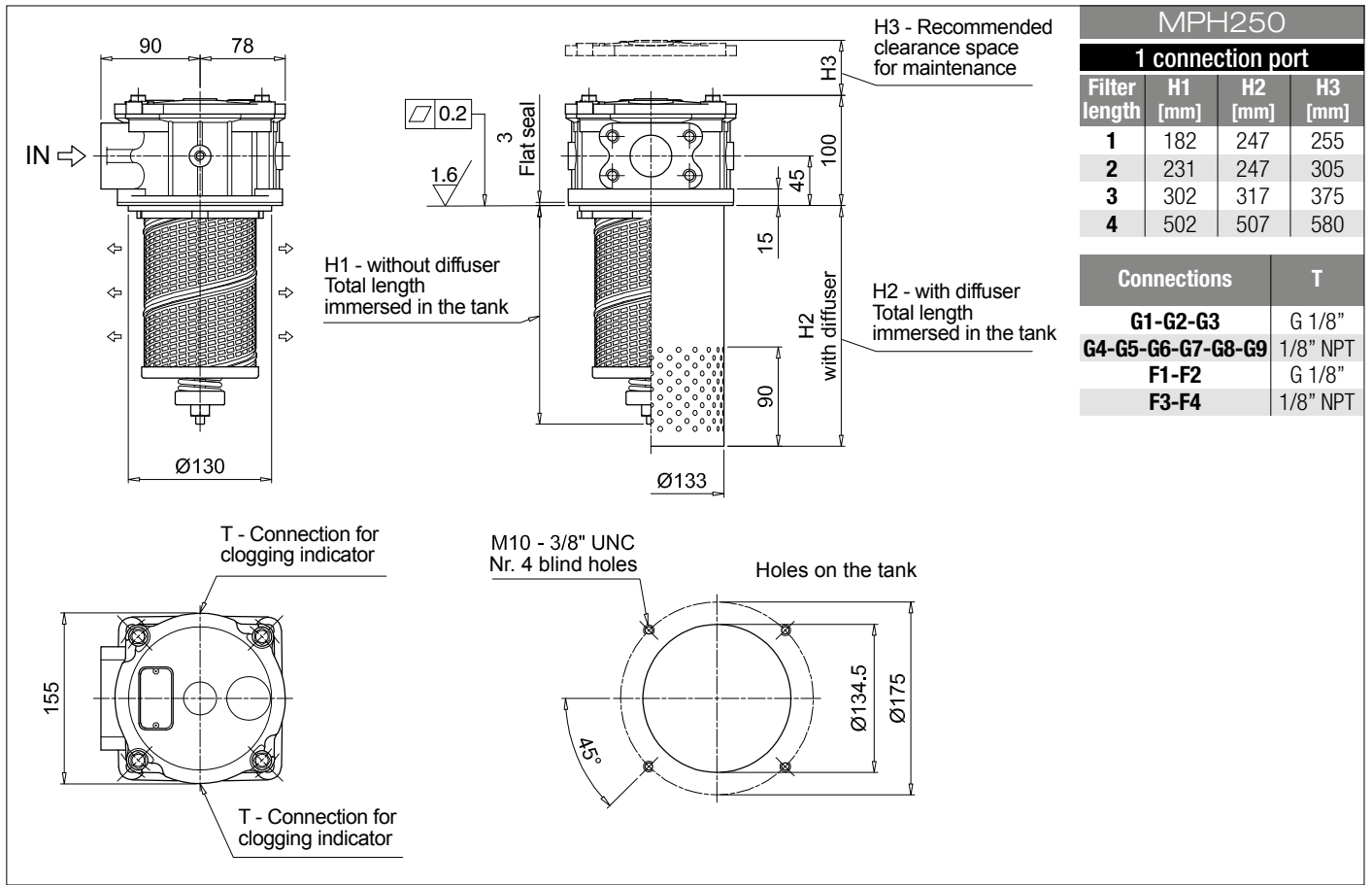
Element length: **1** | **2** | **3** | **4**

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

Seals	Execution
A NBR	P01 MP Filtri standard
V FPM	Pxx Customized

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		



Designation & Ordering code

COMPLETE FILTER

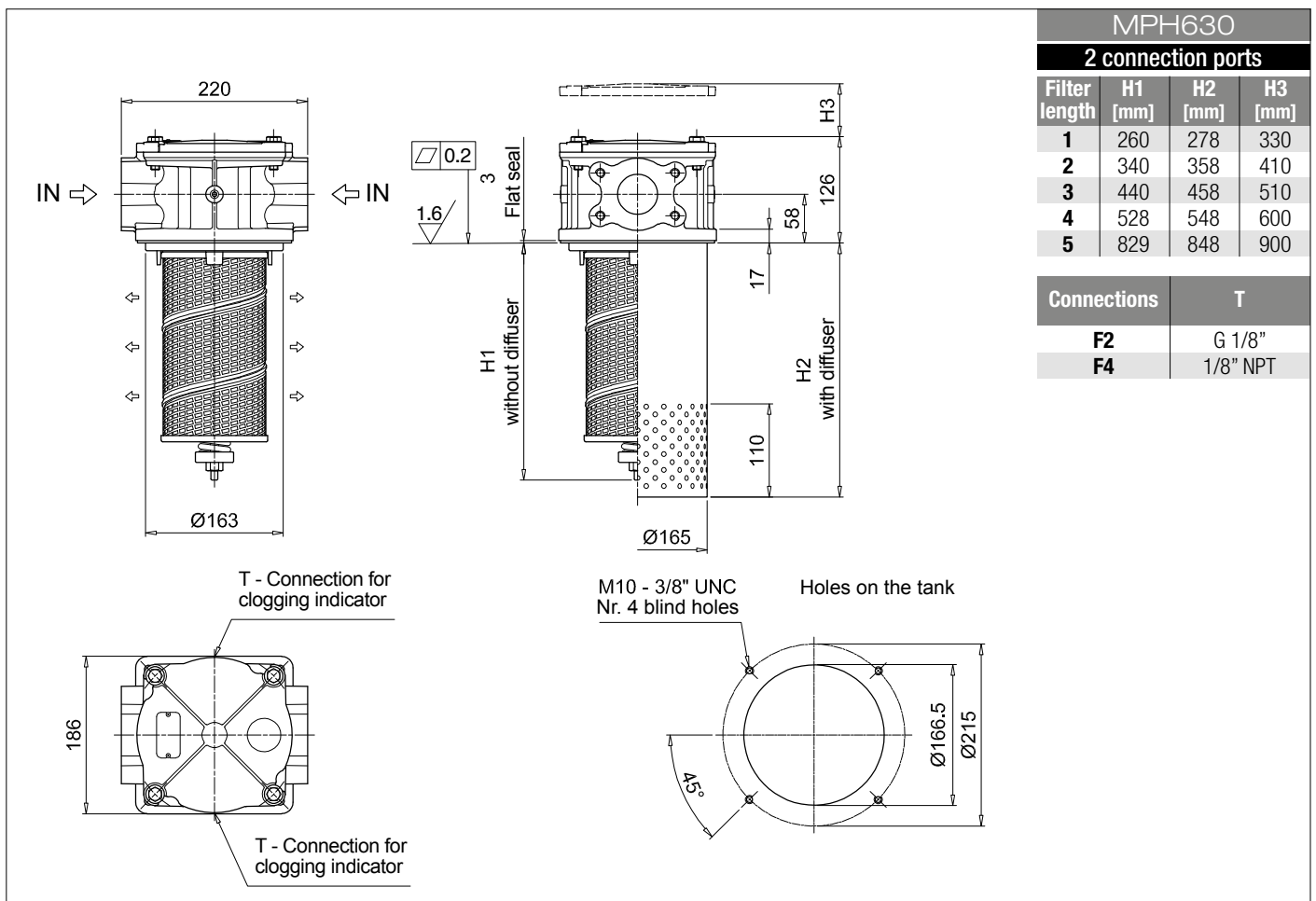
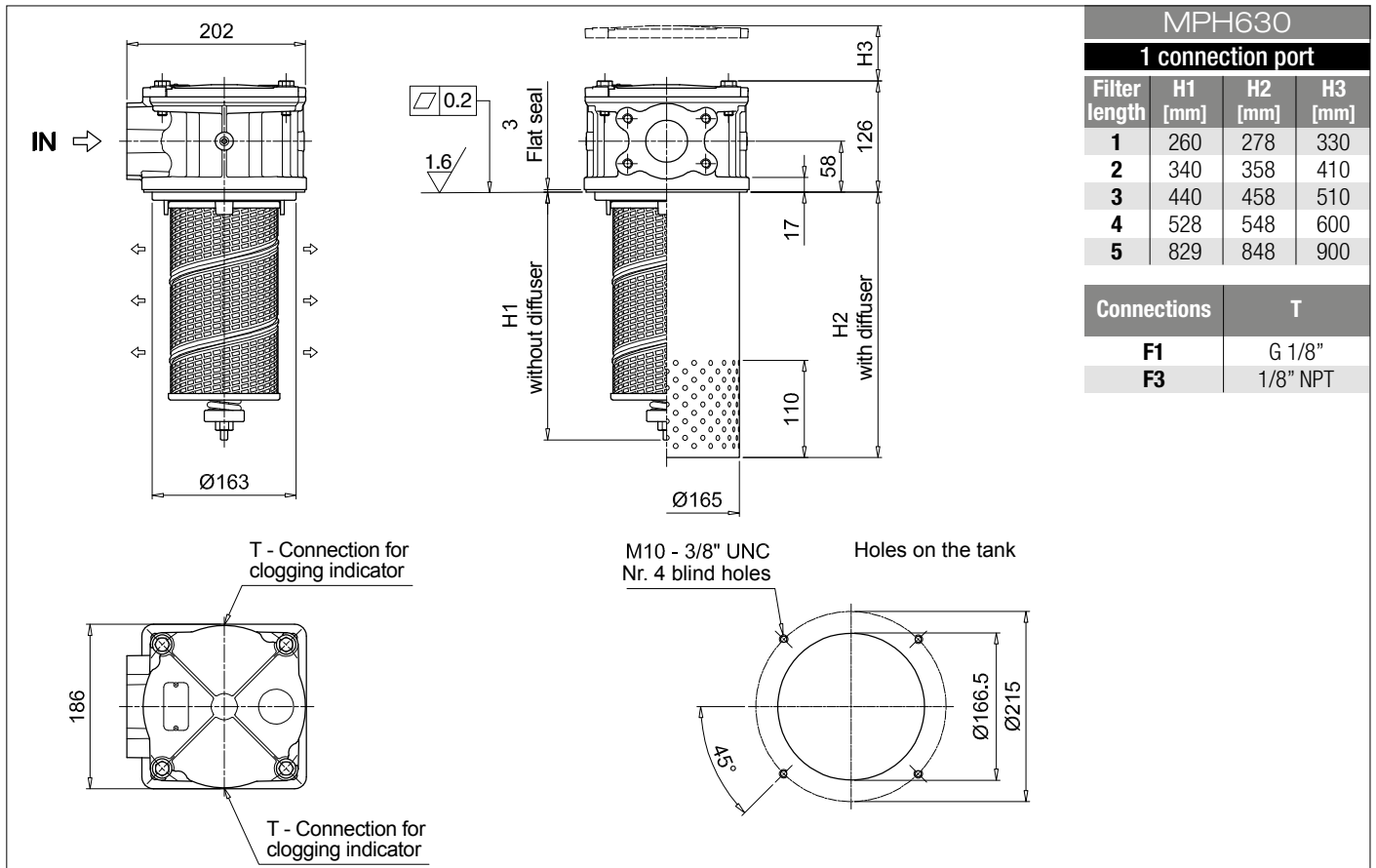
Series and size	Configuration example: MPH630 1 S E S W F1 M25 P01									
MPH630										
Length	1 2 3 4 5									
Bypass valve	S Without bypass C 1.75 bar E 2.5 bar									
Diffuser and magnetic filter	D With diffuser, with magnetic filter F With diffuser, without magnetic filter O Without diffuser, with magnetic filter E Without diffuser, without magnetic filter									
Air breather	S Without air breather									
Seals and treatments	Filtration rating									
	Axx	Mxx	Pxx							
A NBR	•	•	•							
V FPM	•	•	•							
W NBR head anodized	•	•		filter element compatible with fluids HFA-HFB-HFC						
Z FPM head anodized	•	•								
Main Connections	Rear connections									
F1 2 1/2" SAE 3000 psi/M	-									
F2 2 1/2" SAE 3000 psi/M	2" SAE 3000 psi/M									
F3 2 1/2" SAE 3000 psi/UNC	-									
F4 2 1/2" SAE 3000 psi/UNC	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									
	Execution									
	P01 MP Filtri standard									
	Pxx Customized									

FILTER ELEMENT

Element series and size	Configuration example: MR630 1 M25 A P01			
MR630				
Element length	1 2 3 4 5			
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			
	Seals		Execution	
	A NBR		P01 MP Filtri standard	
	V FPM		Pxx Customized	

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		



Designation & Ordering code

COMPLETE FILTER

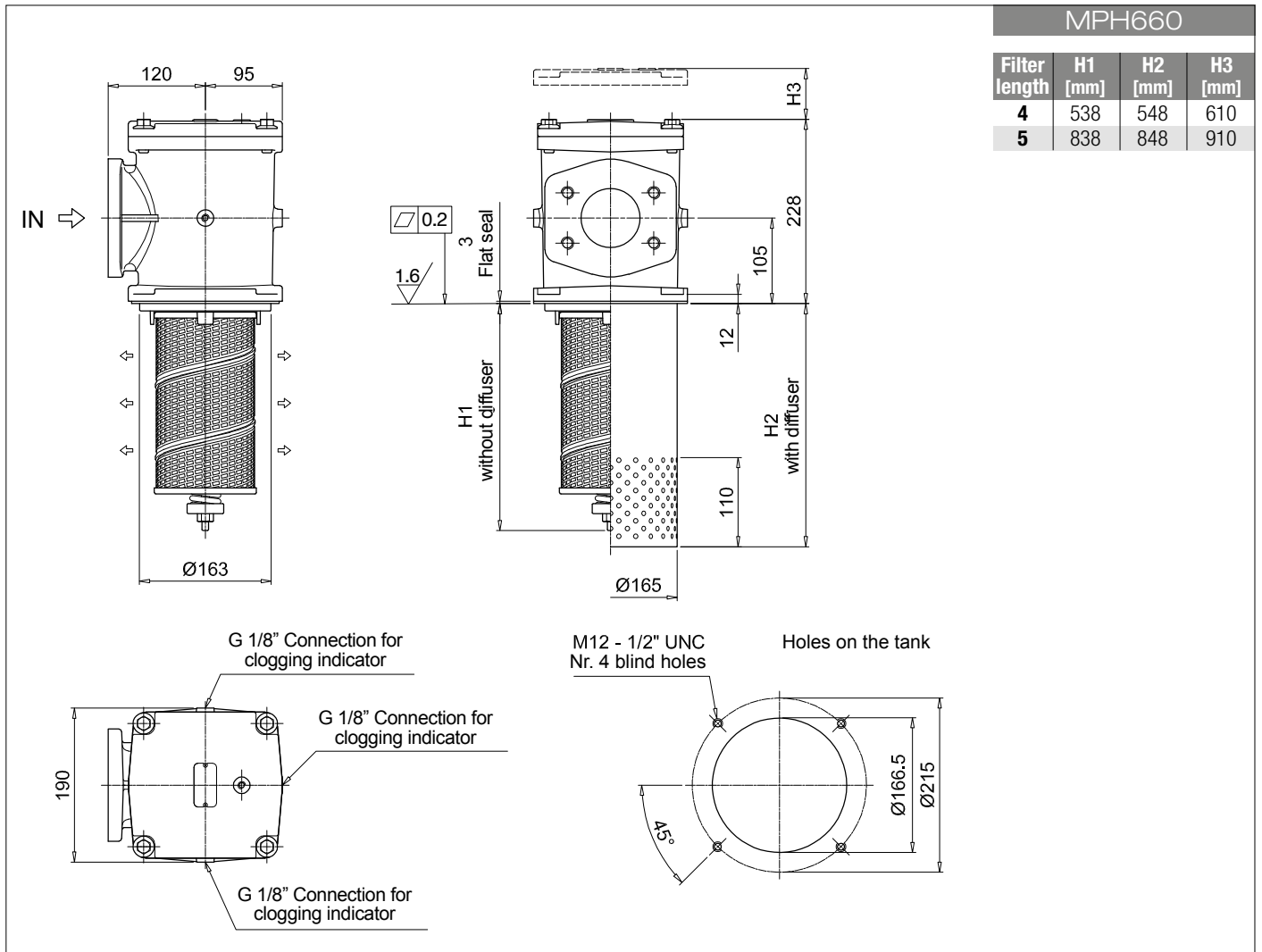
Series and size	Configuration example: MPH660 4 C D S A F2 A10 P01																			
MPH660																				
Length	4 5																			
Bypass valve	S Without bypass C 1.75 bar E 2.5 bar																			
Diffuser and magnetic filter	D With diffuser, with magnetic filter F With diffuser, without magnetic filter O Without diffuser, with magnetic filter E Without diffuser, without magnetic filter																			
Air breather	S Without air breather																			
Seals and treatments	Filtration rating																			
	Axx	Mxx	Pxx																	
A NBR	•	•	•																	
V FPM	•	•	•																	
W NBR head anodized	•	•		filter element compatible with fluids HFA-HFB-HFC																
Z FPM head anodized	•	•																		
Main Connections	F1 3" SAE 3000 psi/M F2 4" SAE 3000 psi/M																			
Filtration rating (filter media)	<table border="0"> <tr> <td>A03 Inorganic microfiber 3 µm</td> <td>M25 Wire mesh 25 µm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 µm</td> <td>M60 Wire mesh 60 µm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 µm</td> <td>M90 Wire mesh 90 µm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 µm</td> <td>P10 Resin impregnated paper 10 µm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 µm</td> <td>P25 Resin impregnated paper 25 µm</td> </tr> </table>										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
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																			
								Execution	P01 MP Filtri standard Pxx Customized											

FILTER ELEMENT

Element series and size	Configuration example: MR630 5 M25 A P01														
MR630															
Element length	4 5														
Filtration rating (filter media)	<table border="0"> <tr> <td>A03 Inorganic microfiber 3 µm</td> <td>M25 Wire mesh 25 µm</td> </tr> <tr> <td>A06 Inorganic microfiber 6 µm</td> <td>M60 Wire mesh 60 µm</td> </tr> <tr> <td>A10 Inorganic microfiber 10 µm</td> <td>M90 Wire mesh 90 µm</td> </tr> <tr> <td>A16 Inorganic microfiber 16 µm</td> <td>P10 Resin impregnated paper 10 µm</td> </tr> <tr> <td>A25 Inorganic microfiber 25 µm</td> <td>P25 Resin impregnated paper 25 µm</td> </tr> </table>					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
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														
			Seals	Execution											
			A NBR	P01 MP Filtri standard											
			V FPM	Pxx Customized											

ACCESSORIES

Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		



Designation & Ordering code

COMPLETE FILTER

Series and size **MPH850** Configuration example: **MPH850** | **1** | **C** | **D** | **S** | **A** | **F1** | **A10** | **P01**

Length **1** | **2** | **3** | **4**

Bypass valve **S** Without bypass | **C** 1.75 bar

Diffuser and magnetic filter
D With diffuser, with magnetic filter
F With diffuser, without magnetic filter
O Without diffuser, with magnetic filter
E Without diffuser, without magnetic filter

Air breather **S** Without air breather

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
A NBR	•	•	•
V FPM	•	•	•
W NBR head anodized	•	•	
Z FPM head anodized	•	•	

Main Connections | Rear connections

Main Connections	Rear connections
F1 UNI 2223 DN 100 PN 10/16	3" SAE 3000 psi/M
F2 UNI 2223 DN 100 PN 10/16	3" SAE 3000 psi/UNC
F5 Not machined	3" SAE 3000 psi/M
F6 Not machined	3" SAE 3000 psi/UNC
F7 4" SAE 3000 psi/M	3" SAE 3000 psi/M
F8 4" SAE 3000 psi/UNC	3" 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

Execution
P01 MP Filtri standard
Pxx Customized

FILTER ELEMENT

Element series and size **MR850** Configuration example: **MR850** | **1** | **A10** | **A** | **P01**

Element length **1** | **2** | **3** | **4**

Filtration rating (filter media)

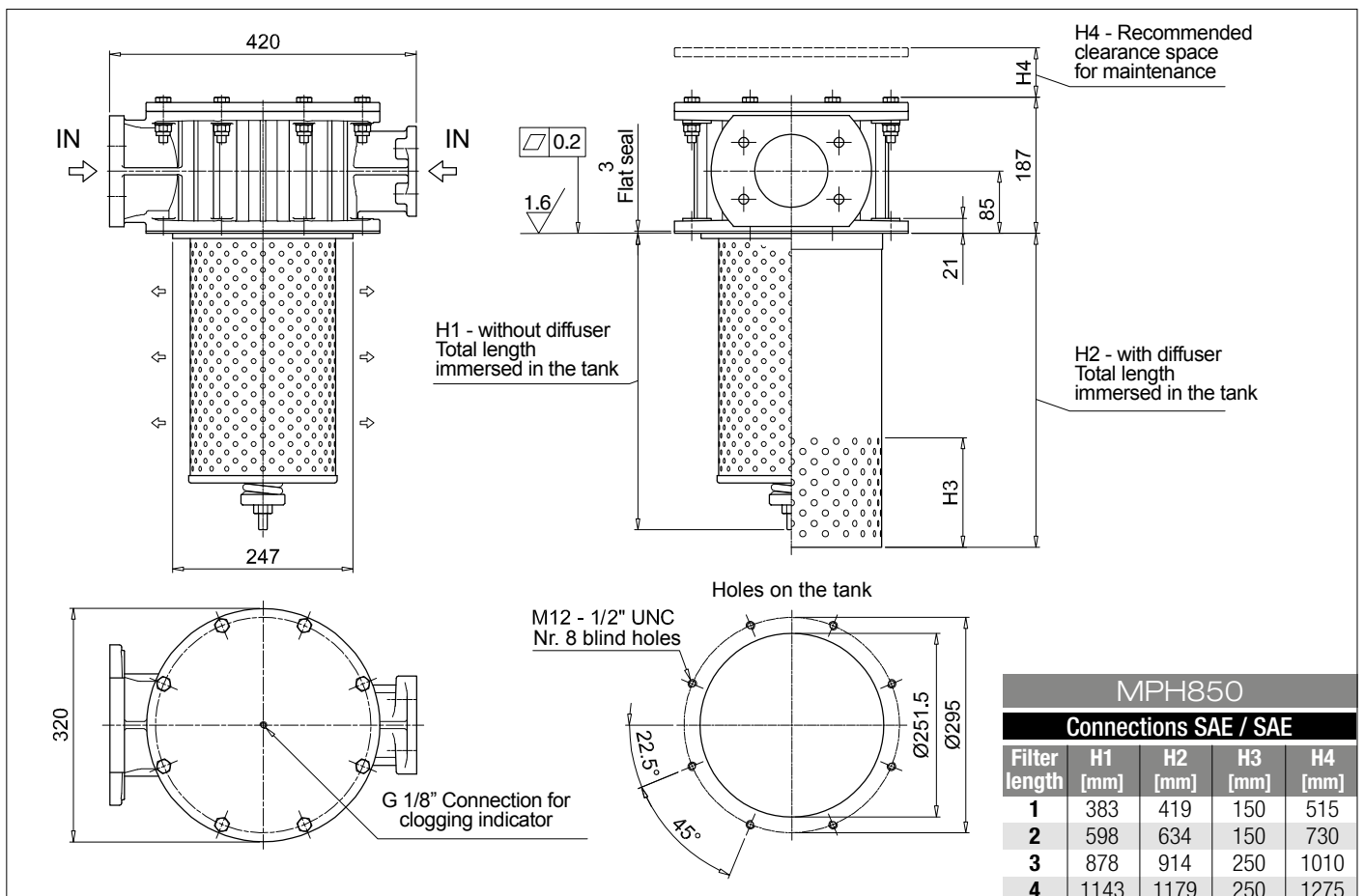
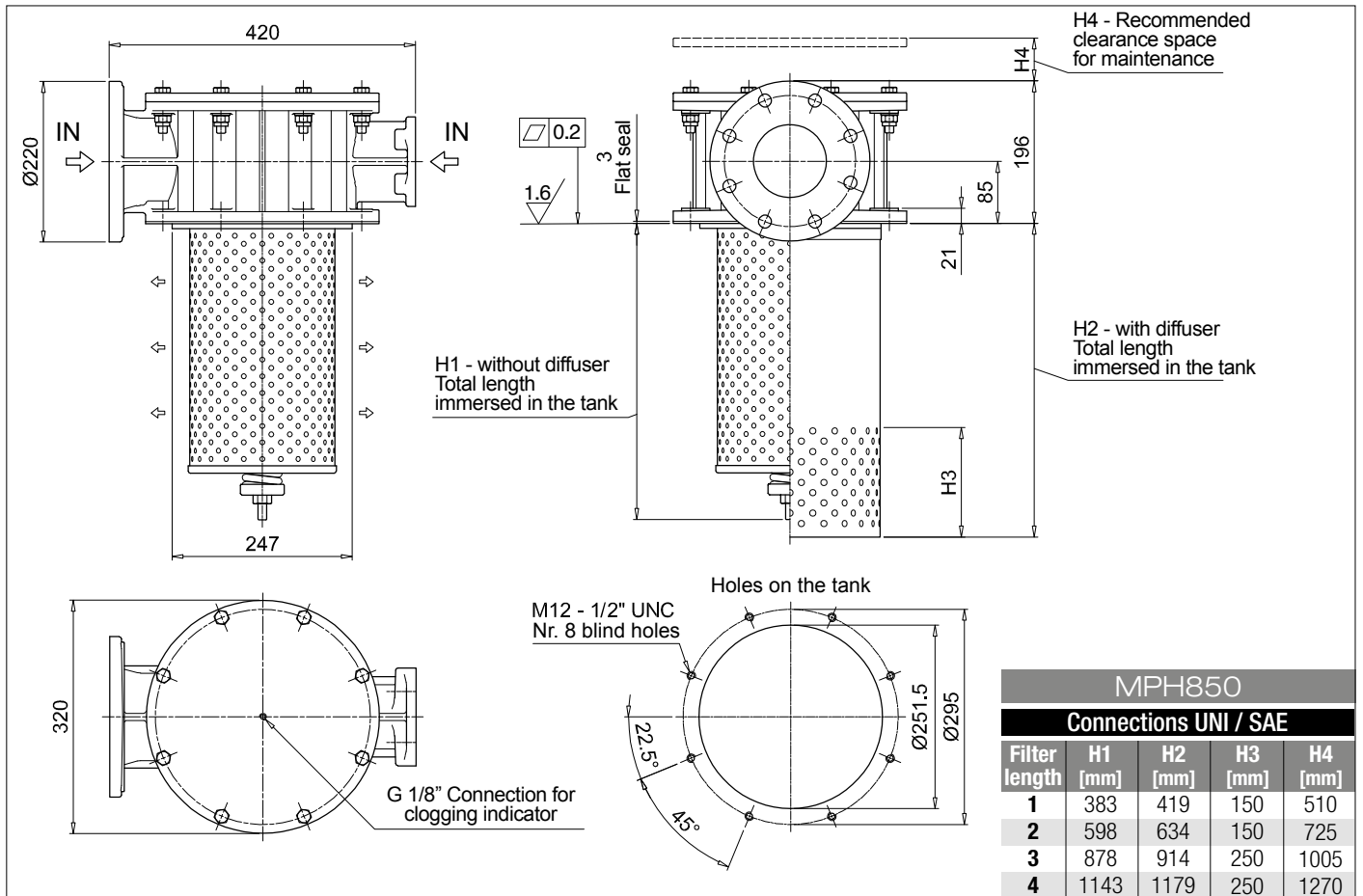
A03 Inorganic microfiber 3 µm	M25 Wire mesh 25 µm
A06 Inorganic microfiber 6 µm	M60 Wire mesh 60 µm
A10 Inorganic microfiber 10 µm	M90 Wire mesh 90 µm
A16 Inorganic microfiber 16 µm	P10 Resin impregnated paper 10 µm
A25 Inorganic microfiber 25 µm	P25 Resin impregnated paper 25 µm

Seals
A NBR
V FPM

Execution
P01 MP Filtri standard
Pxx Customized

ACCESSORIES

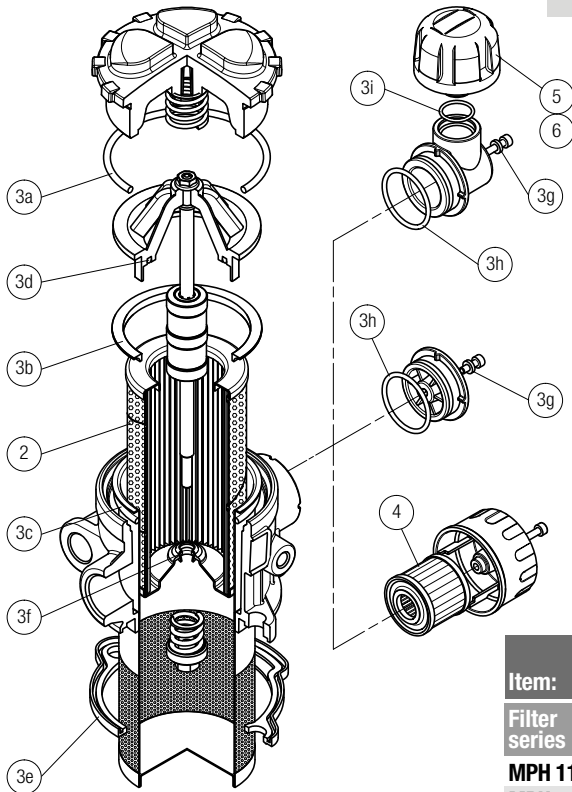
Indicators	page		page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator	239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator	239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator	239-240
BVQ Visual pressure indicator with manual reset	241		



MPH SPARE PARTS

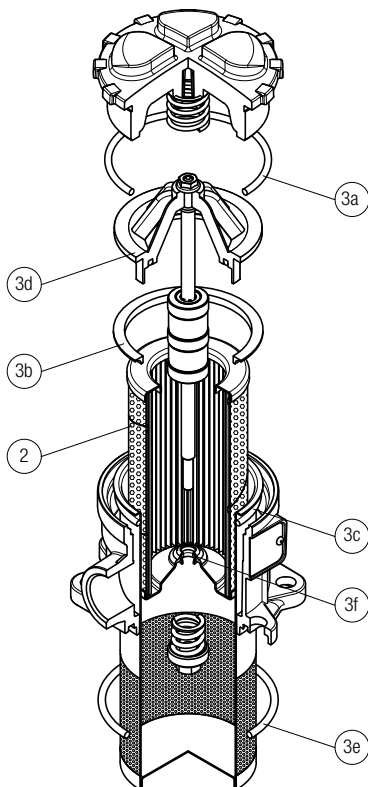
Order number for spare parts

MPH 110 - 114



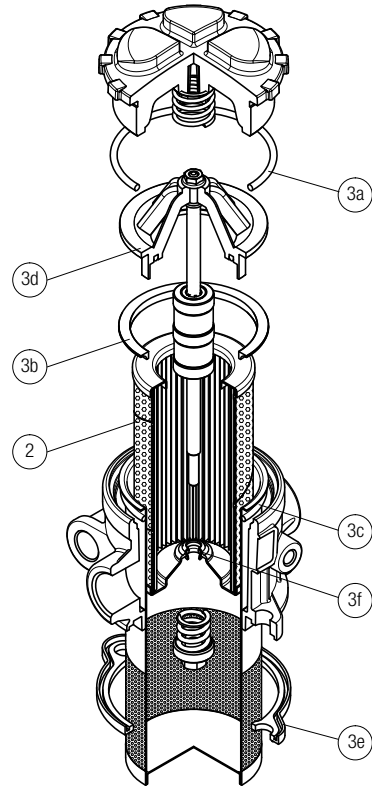
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.		Q.ty: 1 pc.	Q.ty: 1 pc.		Q.ty: 1 pc.
Filter series	Filter element	Seal Kit code number		Air breather filter element - version:			
		NBR	FPM	C	D	P	
MPH 110	See order table	02050565	02050566	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01	
MPH 114	See order table	02050582	02050583				

MPH 116



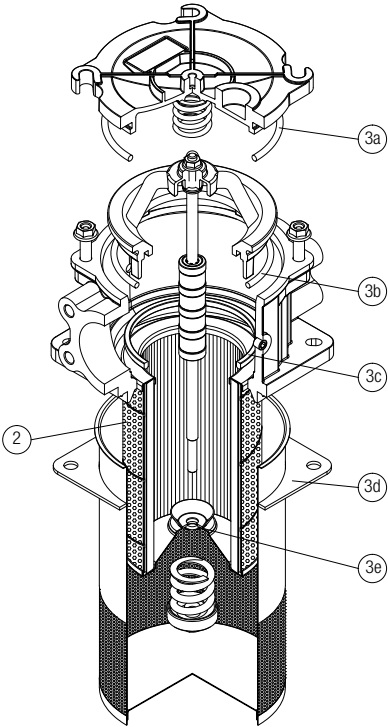
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPH 116	See order table	02050741	02050742

MPH 120



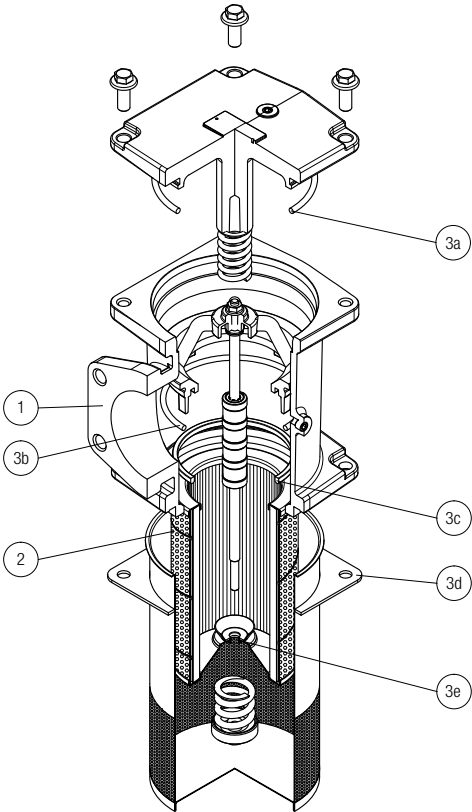
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPH 120	See order table	02050567	02050568

MPH 250 - 630



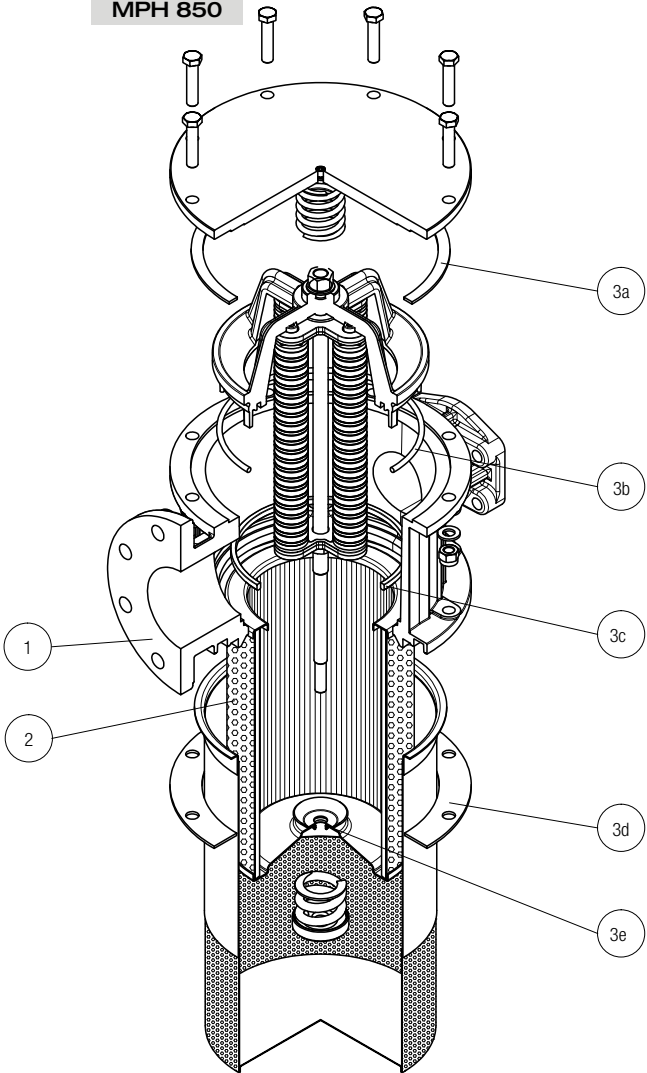
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
MPH 250	MPH 630	NBR	FPM
	2	3 (3a ÷ 3e)	
	See order table	02050151	02050152
		02050153	02050154

MPH 660



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
MPH 660	MPH 850	NBR	FPM
	2	3 (3a ÷ 3e)	
	See order table	02050153	02050154
		02050155	02050156

MPH 850



MPI series

Maximum working pressure up to 1 MPa (10 bar) - Flow rate up to 3500 l/min



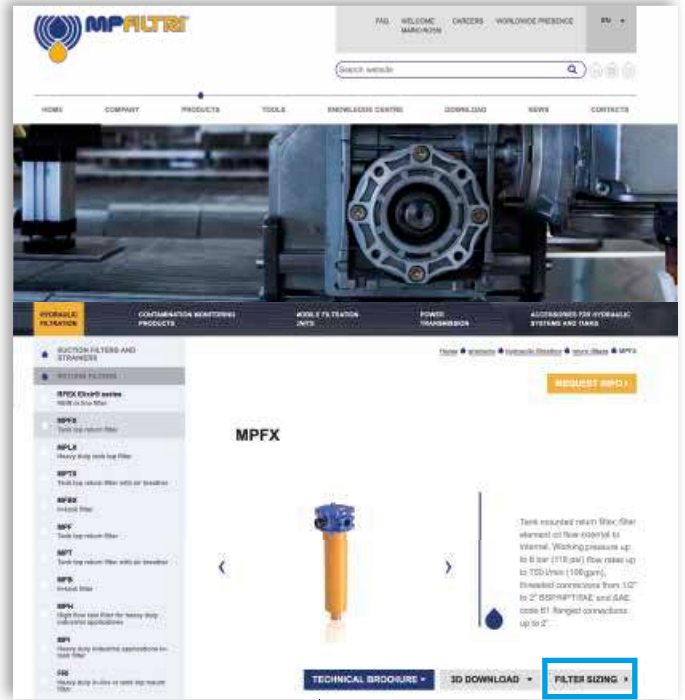
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

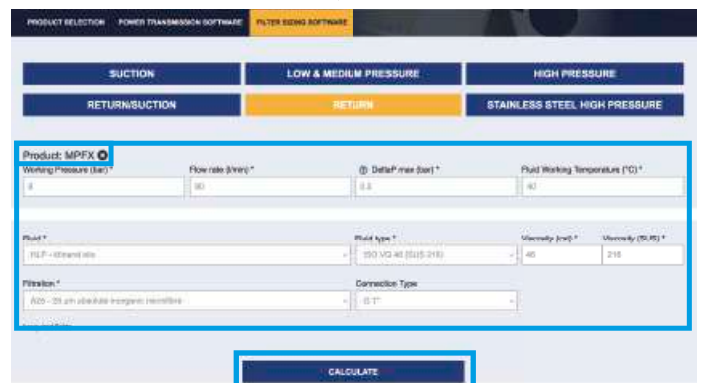
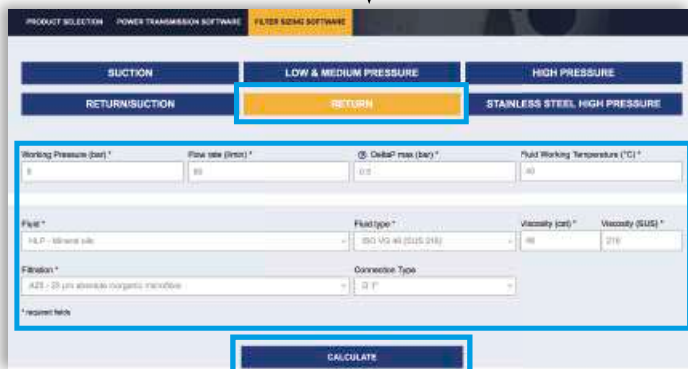
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

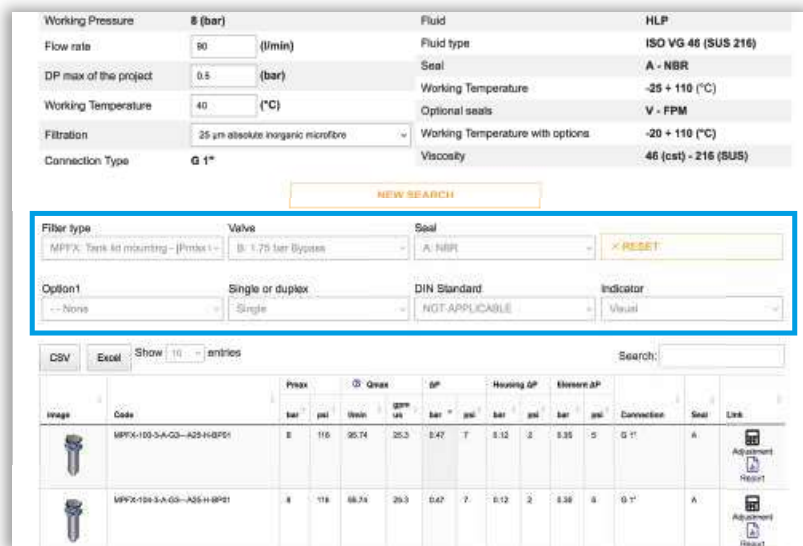
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	Qmax us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPFX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPFX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF



A new browser window displays the pdf

see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

Description

Technical data

Return filter

Maximum working pressure up to 1 MPa (10 bar)

Flow rate up to 3500 l/min

MPI is a range of return filter kits for protection of the reservoir against the system contamination.

They are directly integrated in the reservoir in immersed or semi-immersed position to save space into the tank.

The use of the diffuser is recommended, to place the filter output always immersed into the fluid to avoid aeration or foam generation into the reservoir.

The filtration from inside to outside allows a cleaner filter element replacement, the dirty remains into the filter element.

Available features:

- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve, to relieve excessive pressure drop across the filter media
- Magnetic filter, to hold the ferrous particles
- Oil dipstick, to easily check the level of the fluid into the reservoir (separate item)
- Diffuser, to reduce the risk of aeration, foaming and noise

Common applications:

Heavy duty industrial equipment

Filter housing materials

- Insert assembly
Polyamide, GF reinforced: MPI 100
Aluminium: MPI 250-630-850

- Diffuser: Tinned Steel

- Valve: Steel

Bypass valve

- Opening pressure 175 kPa (1.75 bar) $\pm 10\%$
- Opening pressure 250 kPa (2.5 bar) $\pm 10\%$, except for MPI 850

Δp element type

- Microfibre filter elements - series MR: 10 bar
- Fluid flow through the filter element from IN to OUT

Seals

- Standard NBR series A
- Optional FPM series V

Temperature

From -25 °C to +110 °C

Note

MPI filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]					Volumes [dm ³]						
	Length	1	2	3	4	5	Length	1	2	3	4	5
MPI 100		0.90	1.00	1.20	1.50	1.80		0.90	0.90	1.20	1.60	1.80
MPI 250		2.20	2.50	2.90	4.30	-		3.50	3.50	4.50	7.00	-
MPI 630		3.40	3.90	4.30	5.40	6.60		5.80	7.40	9.50	11.40	13.50
MPI 850		15.20	18.20	21.20	25.20	-		8.80	12.20	16.70	20.80	-

FILTER ASSEMBLY SIZING Flow rates [l/min]

Filters series	Length	A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MPI 100	1	26	29	72	79	107	282	164	190
	2	43	46	112	114	161	318	164	190
	3	64	72	132	156	178	324	219	251
	4	90	99	184	198	216	324	266	302
	5	117	128	201	219	244	324	282	318
MPI 250	1	93	102	210	251	315	1093	339	383
	2	124	151	327	412	421	1122	460	514
	3	189	221	418	445	500	1137	544	616
	4	261	304	592	670	766	1166	832	923
MPI 630	1	160	200	369	423	518	1894	565	632
	2	240	257	571	611	1045	1929	1137	1285
	3	330	374	745	788	1308	1938	1416	1577
	4	374	403	887	1010	1348	1956	1448	1612
	5	625	698	1210	1257	1723	2121	1839	1929
MPI 850	1	775	1041	1246	1568	2242	3311	2371	2625
	2	1176	1522	1682	1747	2449	3378	2684	2886
	3	1490	1914	1995	2014	3035	3405	3144	3220
	4	1668	2088	2305	2363	3169	3517	3272	3378

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.

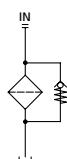
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

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 symbol

Filter series	Style 1 connection
MPI 100	•
MPI 250	•
MPI 630	•
MPI 850	•



MPI MPI100 - MPI250 - MPI630 - MPI850

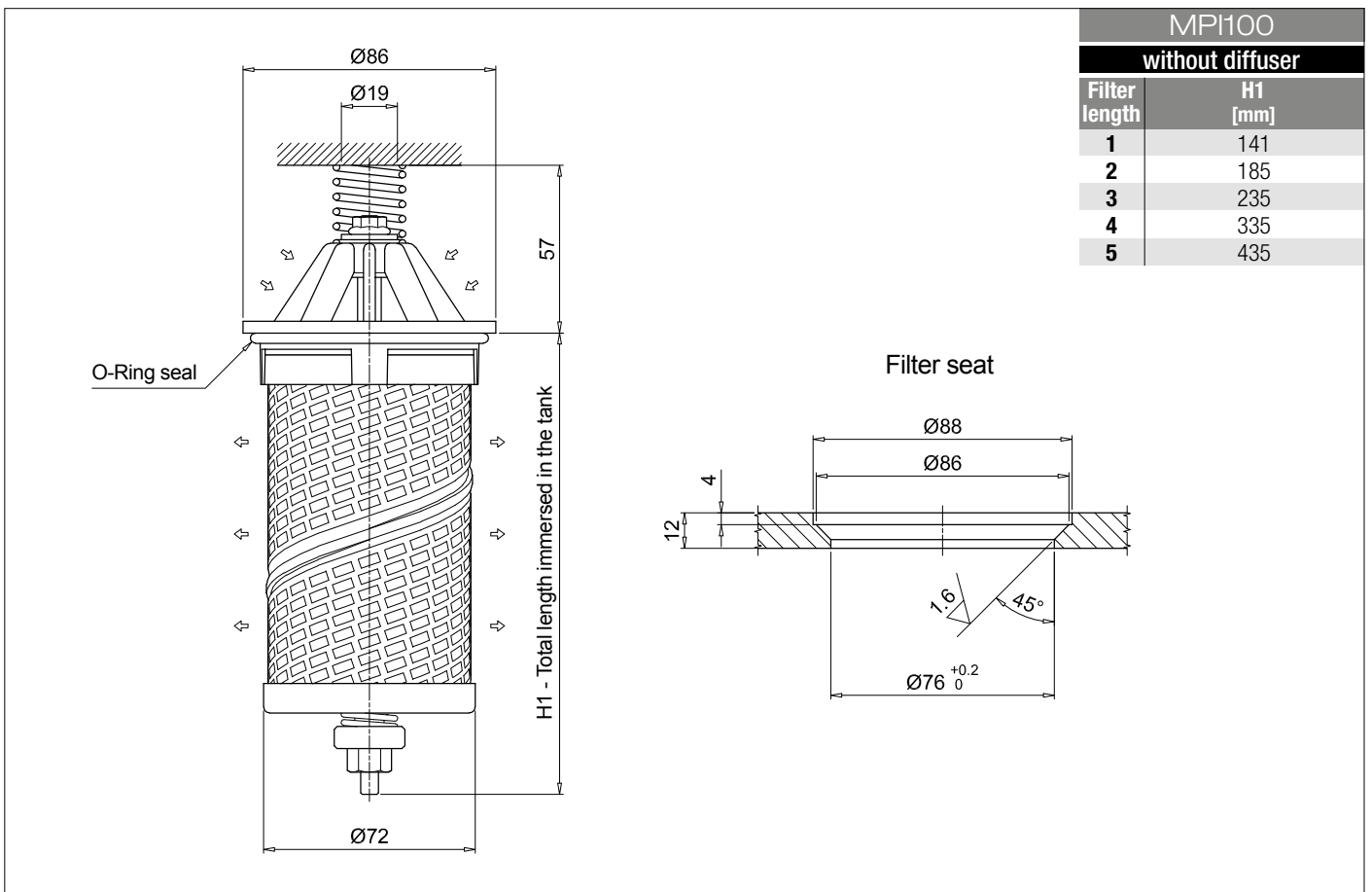
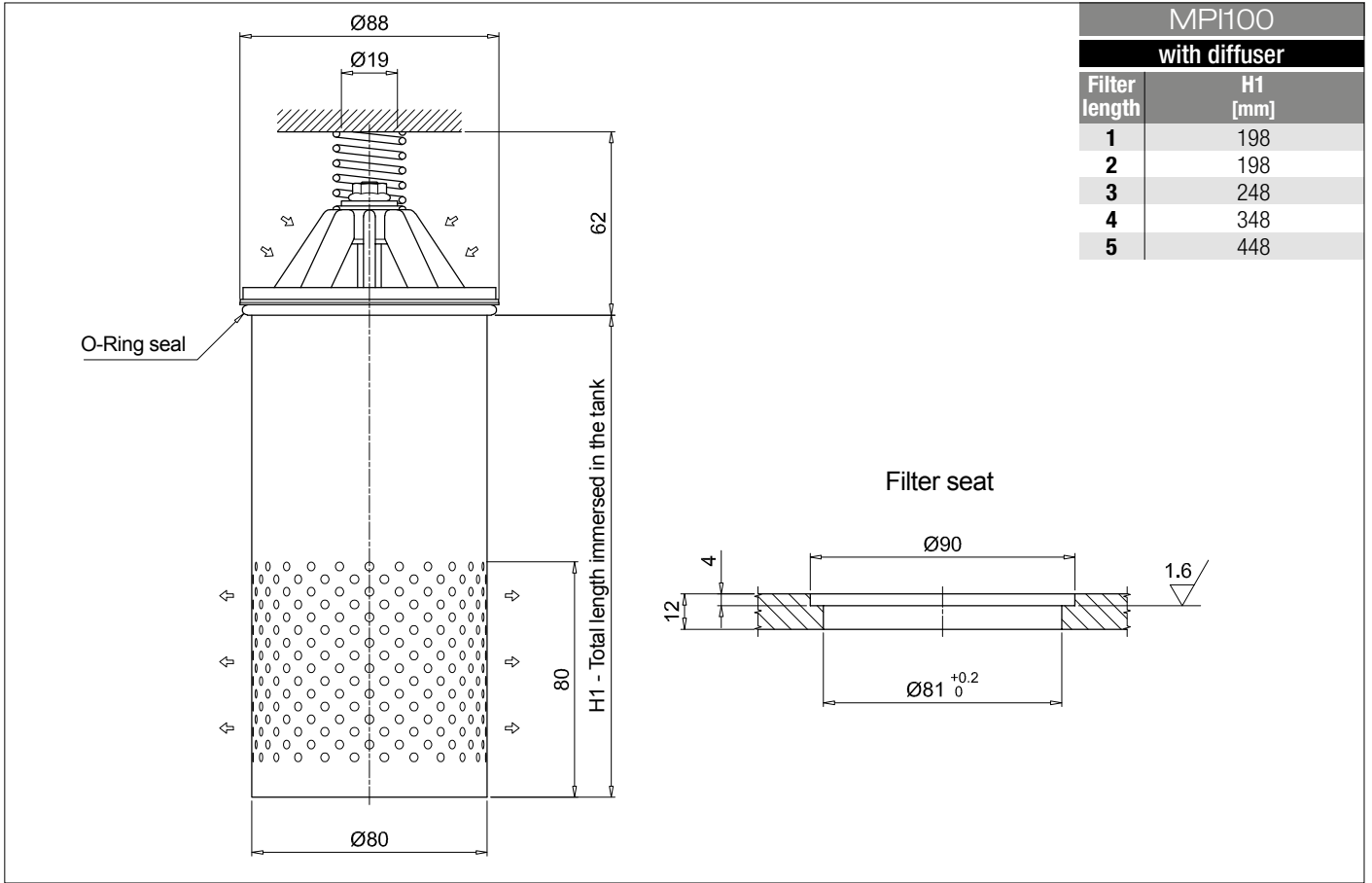
Designation & Ordering code

COMPLETE FILTER

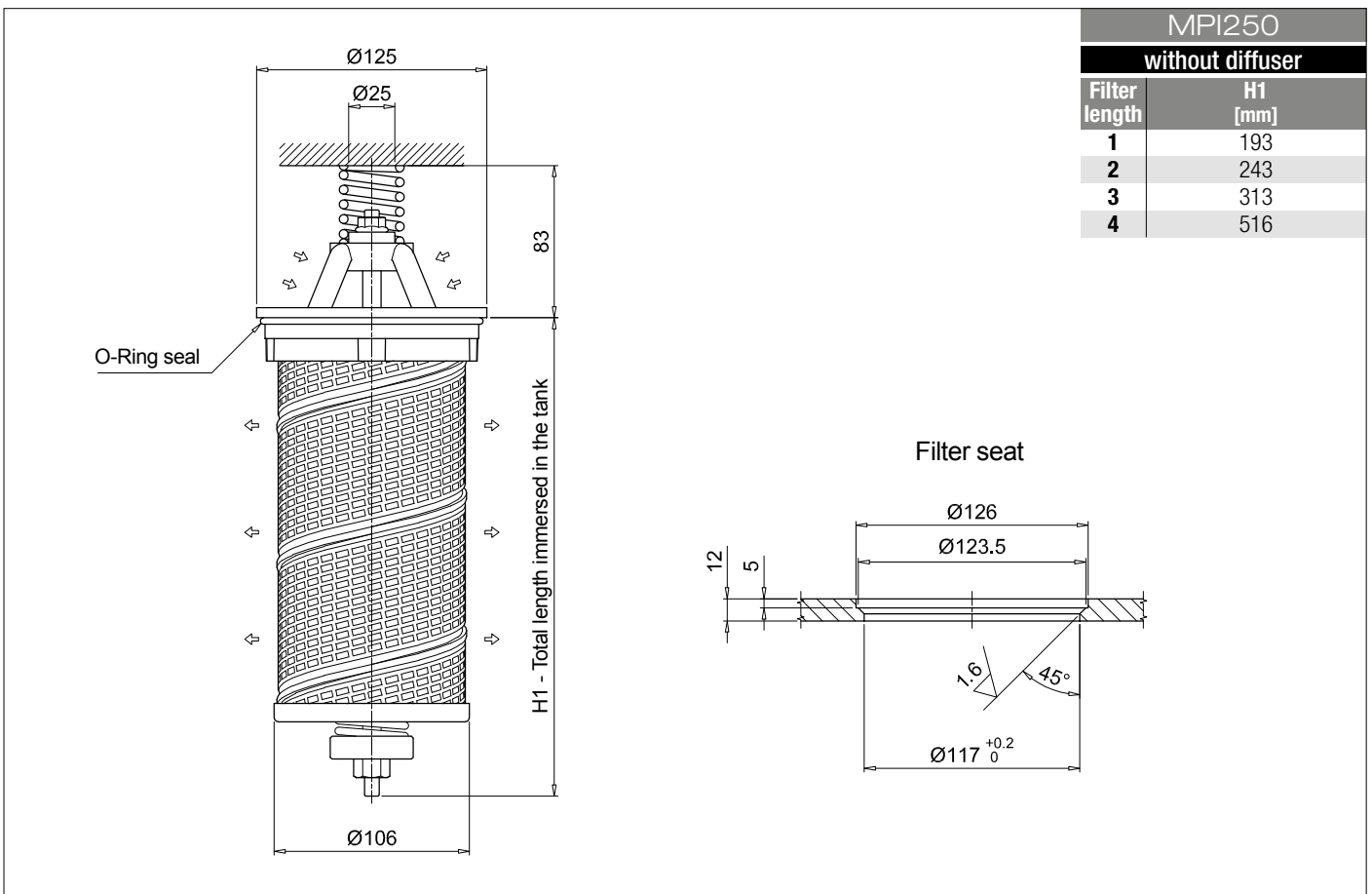
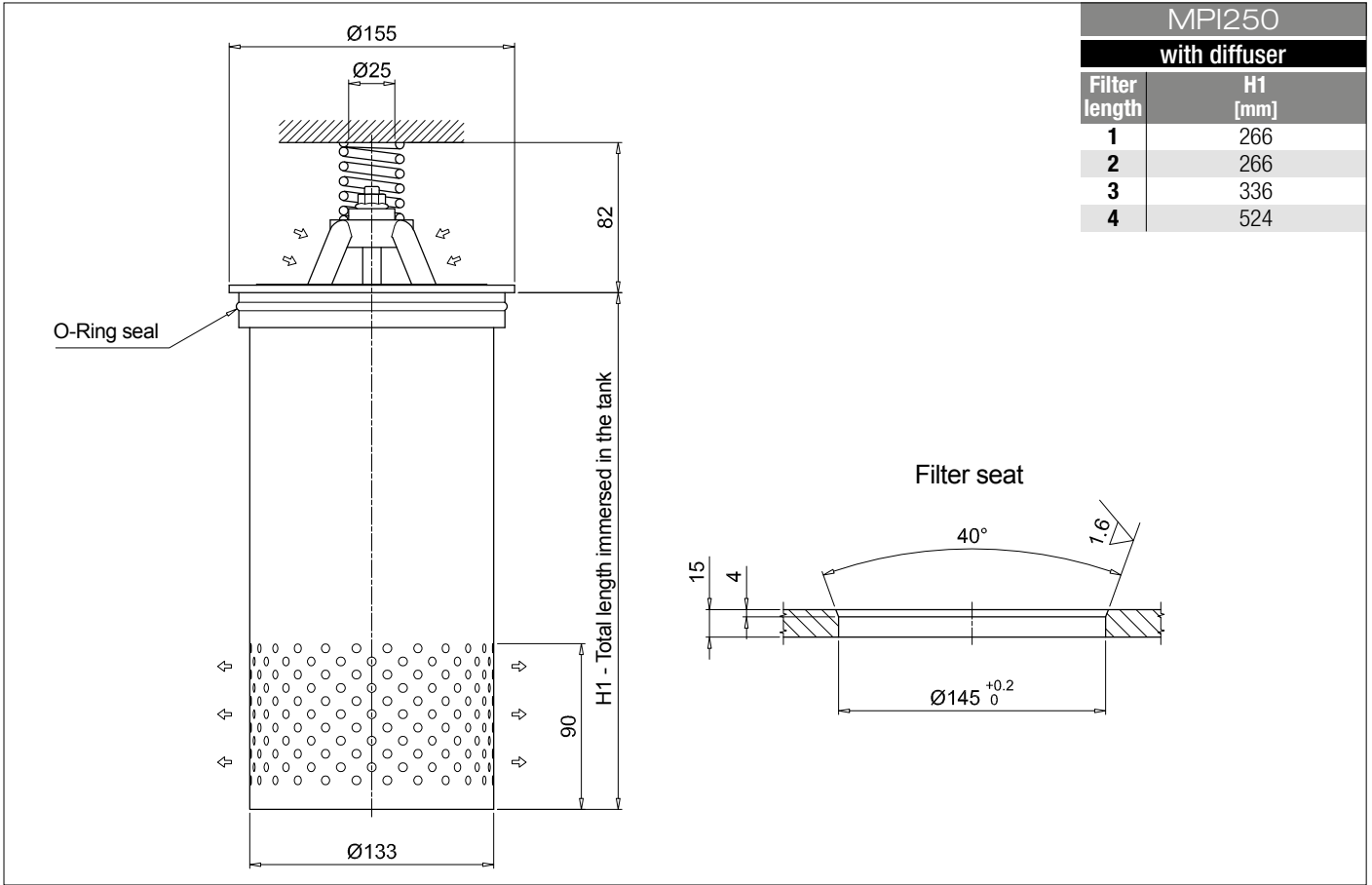
Series and size					Configuration example 1: MPI100 1 C D A A10 P01						
MPI100					Configuration example 2: MPI630 5 E D Z M25 P01						
MPI250											
MPI630											
MPI850											
Length					MPI100	MPI250	MPI630	MPI850			
1		•	•	•	•						
2		•	•	•	•						
3		•	•	•	•						
4		•	•	•	•						
5		•	•	•	•						
Bypass valve					MPI100	MPI250	MPI630	MPI850			
S	Without	•	•	•	•						
C	1.75 bar	•	•	•	•						
E	2.5 bar	•	•	•	•						
Diffuser and magnetic filter											
D	With diffuser, with magnetic filter										
F	With diffuser, without magnetic filter										
O	Without diffuser, with magnetic filter										
E	Without diffuser, without magnetic filter										
Seals and treatments					Filtration rating						
					Axx	Mxx	Pxx				
A	NBR				•	•	•				
V	FPM				•	•	•				
W	NBR	head anodized	filter element compatible		•	•					
Z	FPM	head anodized	with fluids HFA-HFB-HFC		•	•					
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						
					Execution						
					P01 MP Filtri standard						
					Pxx Customized						

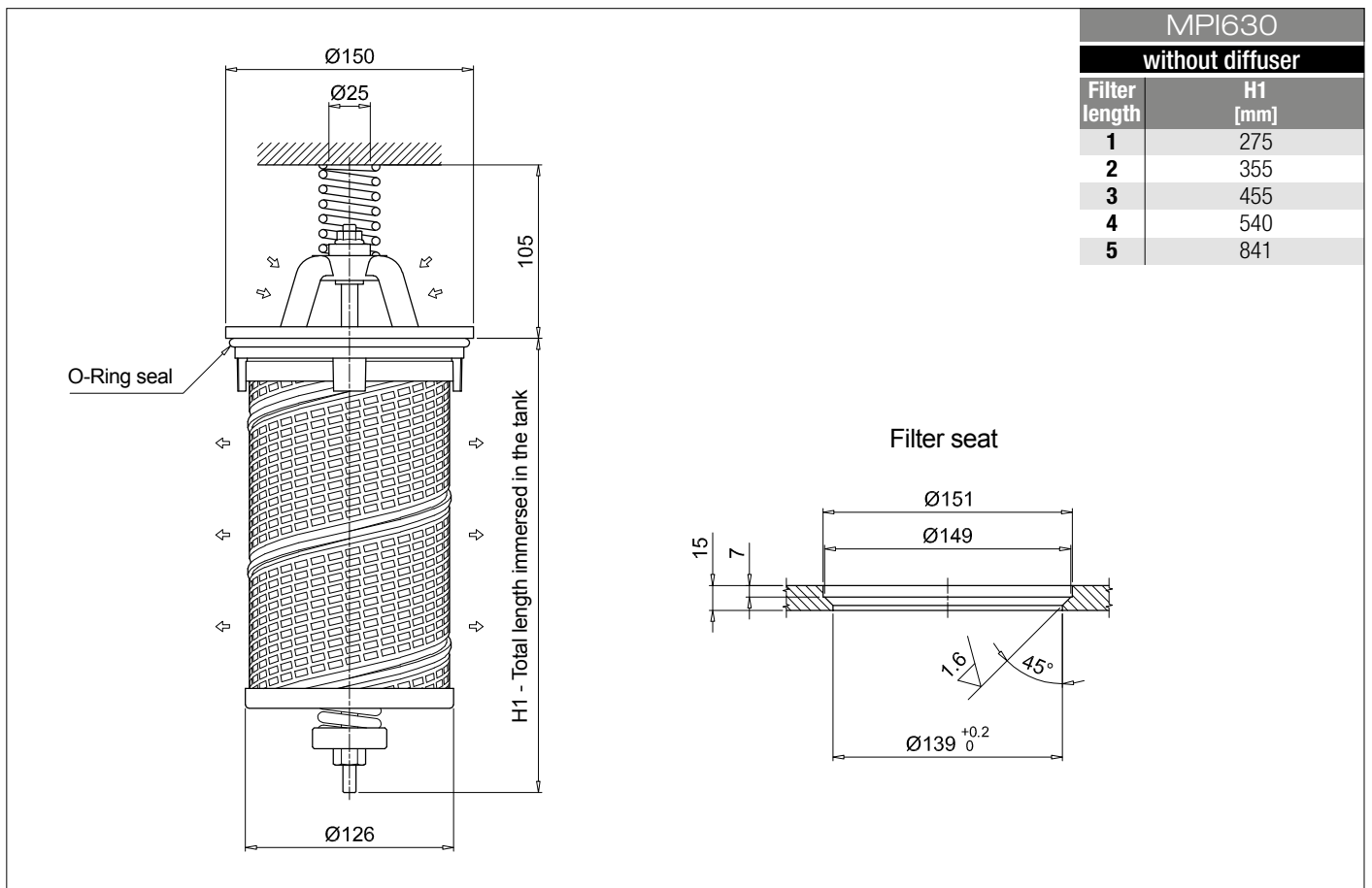
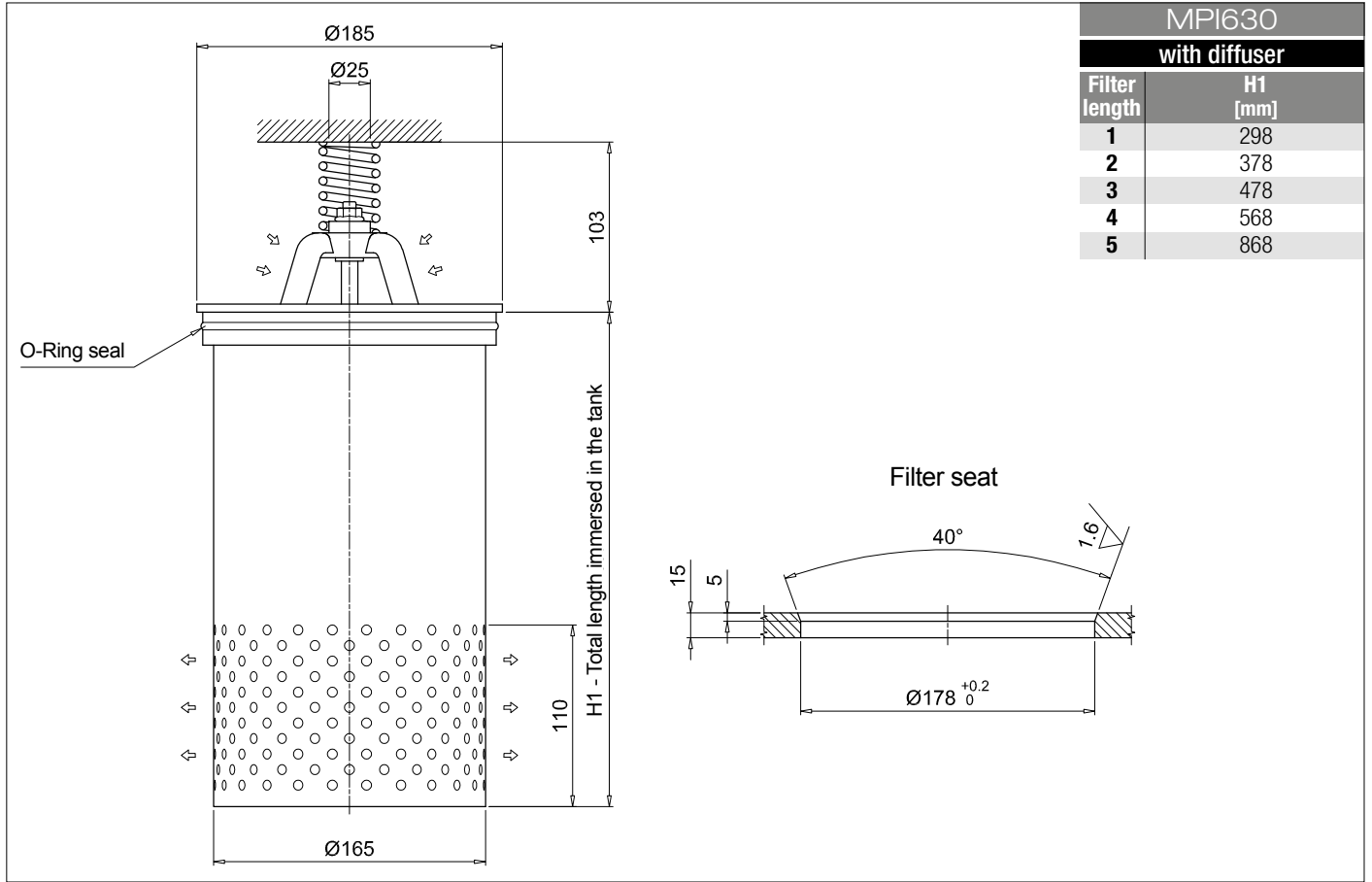
FILTER ELEMENT

Element series and size					Configuration example 1: MR100 1 A10 A P01					
MR100					Configuration example 2: MR630 5 M25 V P01					
MR250										
MR630										
MR850										
Element length					Size 100	Size 250	Size 630	Size 850		
1		•	•	•	•					
2		•	•	•	•					
3		•	•	•	•					
4		•	•	•	•					
5		•	•	•	•					
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					
					Seals		Execution			
					A NBR		P01 MP Filtri standard			
					V FPM		Pxx Customized			



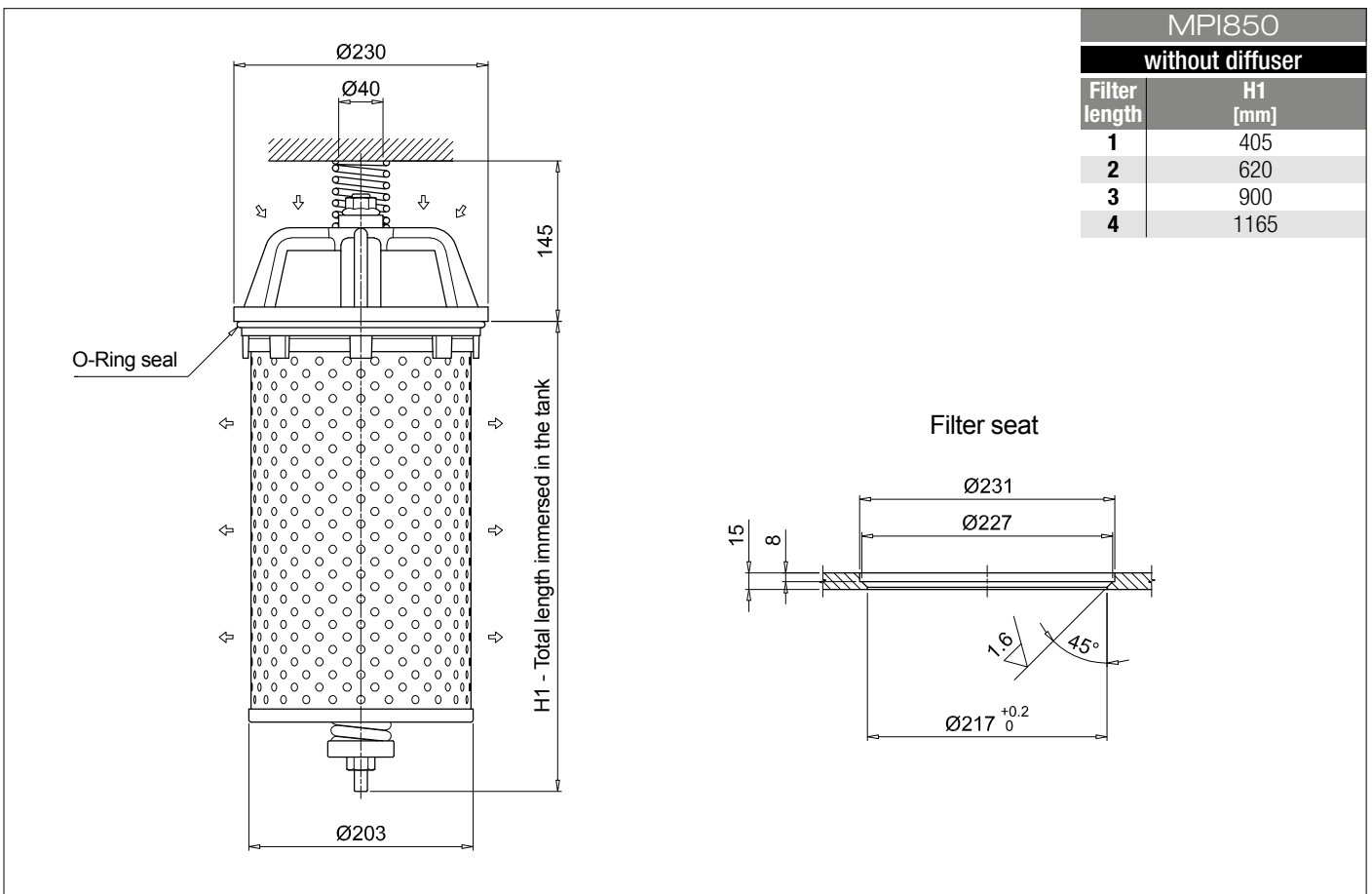
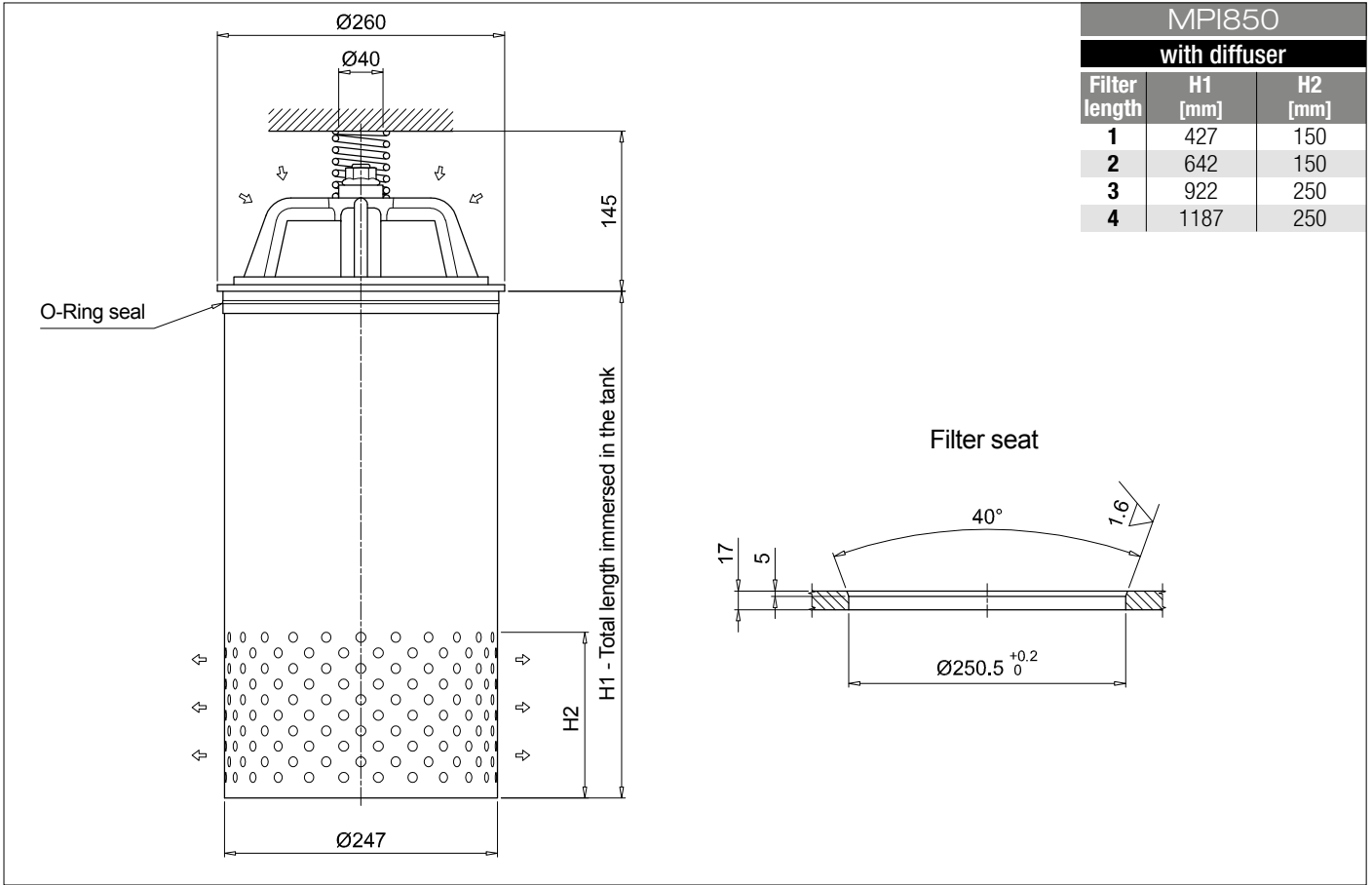
Dimensions





MPI MPI100 - MPI250 - MPI630 - MPI850

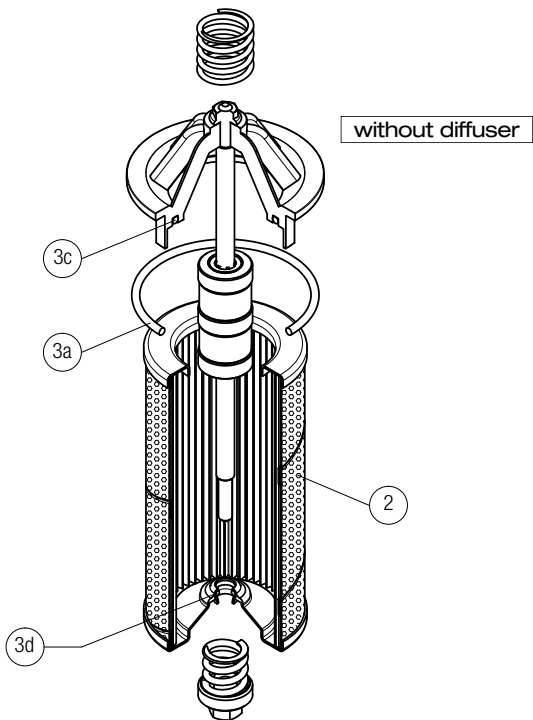
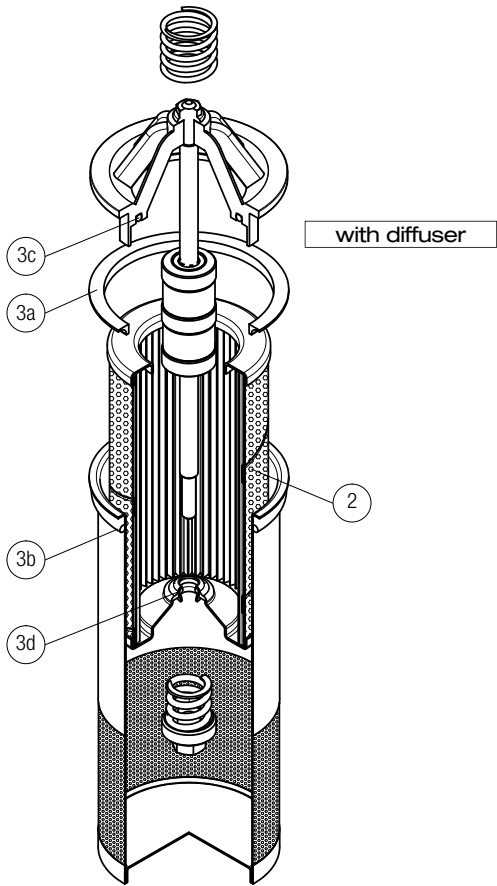
Dimensions



MPI SPARE PARTS

Order number for spare parts

MPI 100



Q.ty: 1 pc.

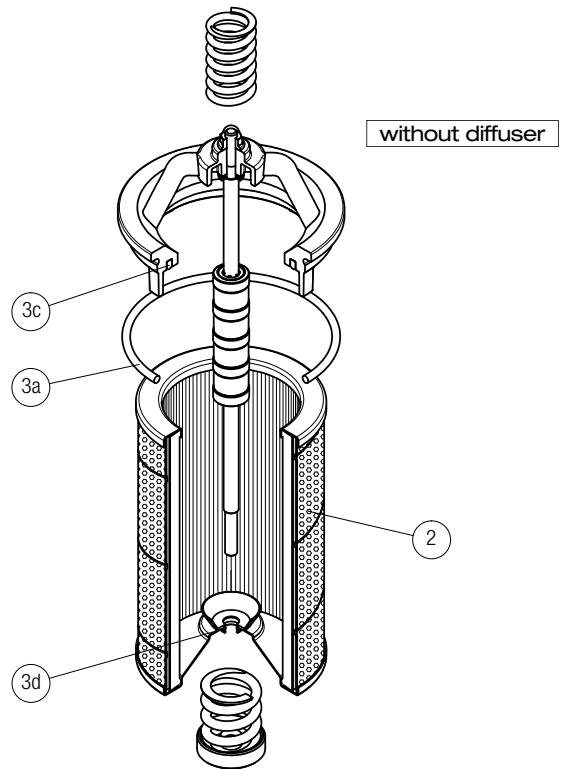
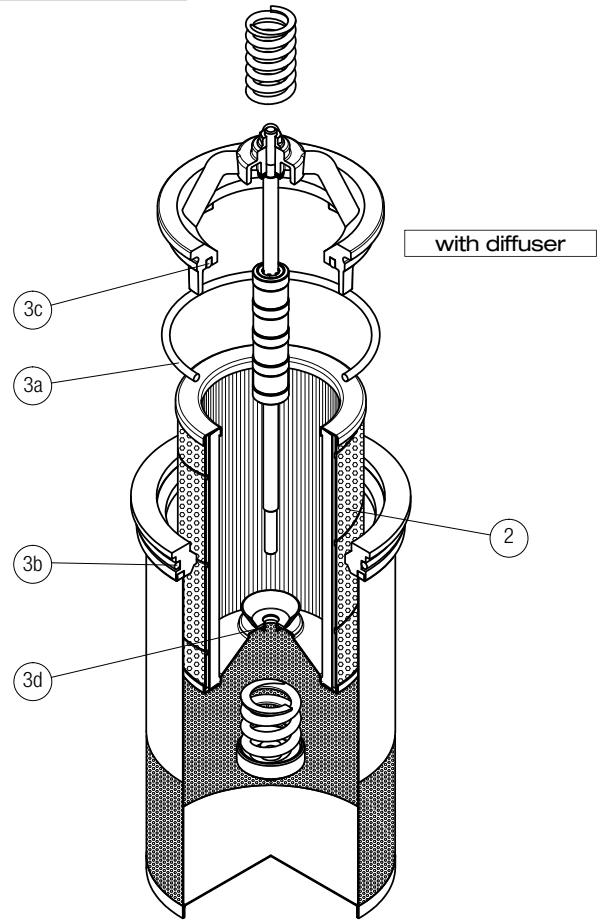
2

Q.ty: 1 pc.

3 (3a ÷ 3d)

Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPI 100	See order table	02050145	02050146

MPI 250 - 630



Q.ty: 1 pc.

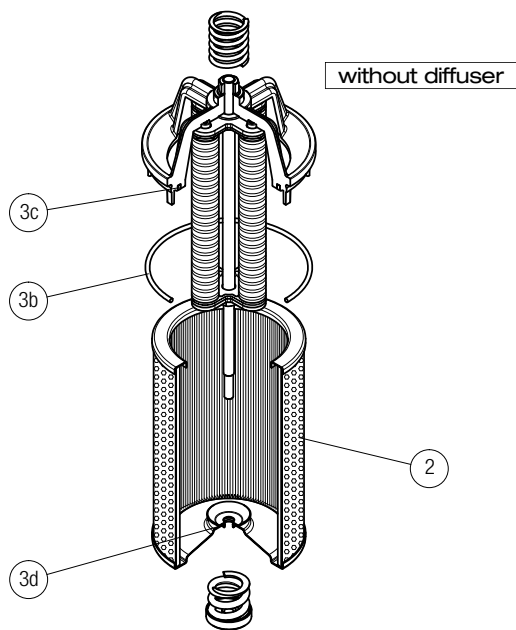
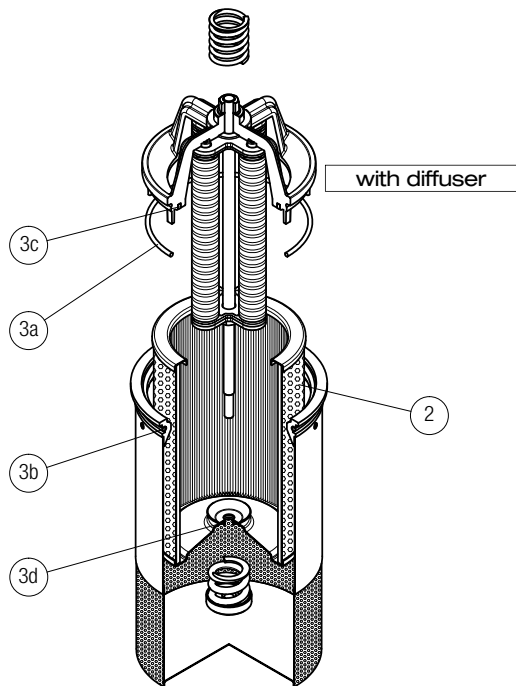
2

Q.ty: 1 pc.

3 (3a ÷ 3d)

Filter series	Filter element	Seal Kit code number	
		NBR	FPM
MPI 250	See order table	02050147	02050148
MPI 630		02050112	02050113

MPI 850



Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3d)
Filter series	Filter element	Seal Kit code number NBR FPM
MPI 850	See order table	02050114 02050115

FRI series

Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 2500 l/min



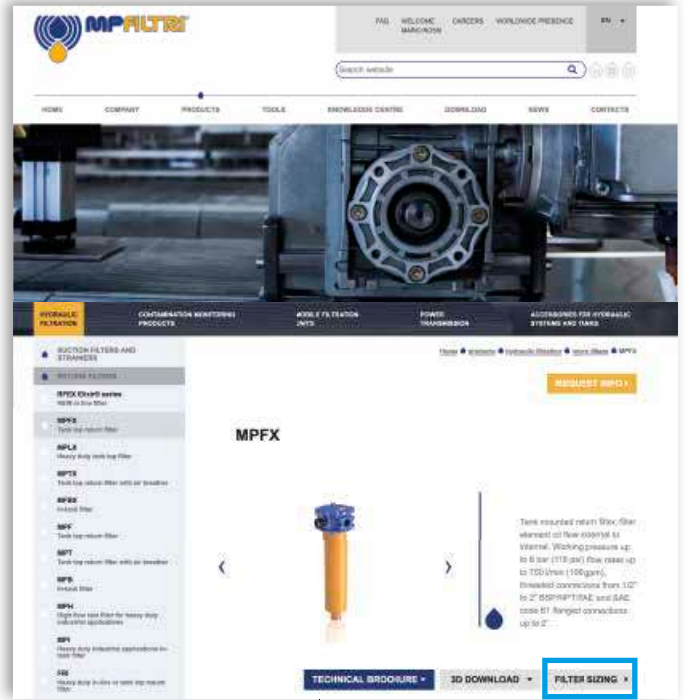
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

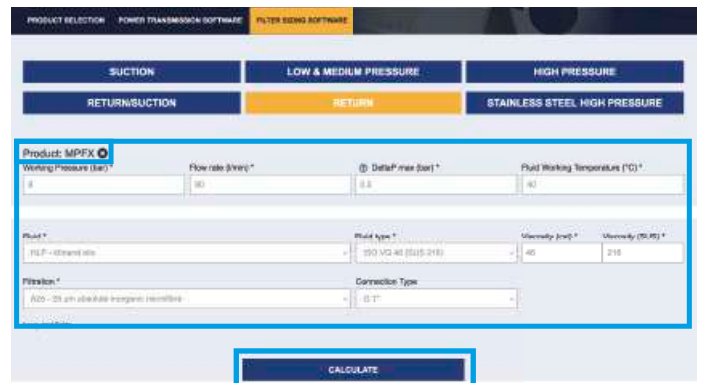
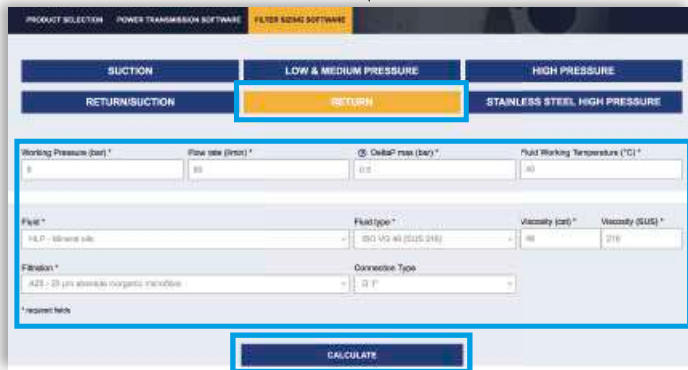
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

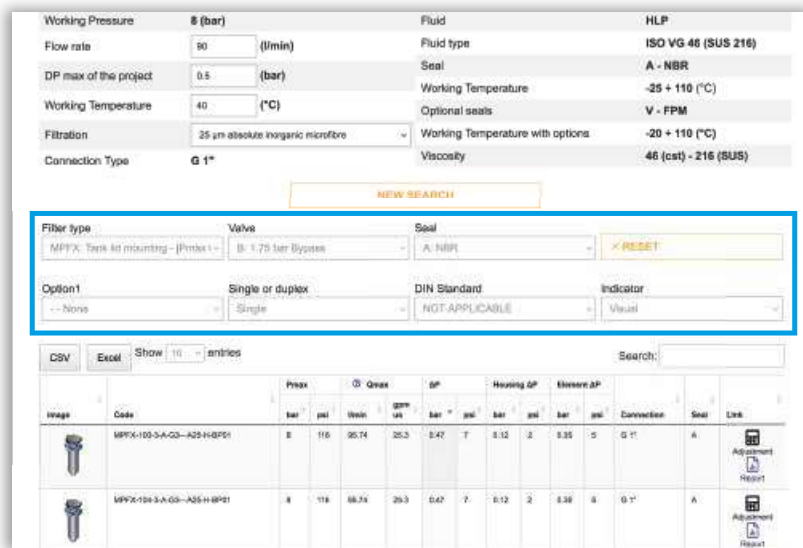
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	Qmax us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPTX-103-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPTX-104-3-A-Q3-A25-H-BPST	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF



A new browser window displays the pdf

see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

Description

Technical data

Return filter

Maximum working pressure up to 2 MPa (20 bar)
Flow rate up to 2500 l/min

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

They could be directly fixed to the reservoir in immersed or semi-immersed position or connected to the lines of the system through the hydraulic fittings.

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 1/2" and flanged connections up to 3 1/2", for a maximum flow rate of 1500 l/min
- Double input connections, to connect several return lines or drains
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve, to relieve excessive pressure drop across the filter media
- Visual, electrical and electronic differential clogging indicators

Common applications:

Heavy duty industrial equipment

Filter housing materials

- Filter body
 - Aluminium: FRI 255
 - Anodized Aluminium: FRI 025-040-100-250-630
 - Phosphatized Steel: FRI 850
- Cover
 - Polyamide, GF reinforced: FRI 255
 - Anodized Aluminium: FRI 025-040-100-250-630-850
- Valve: Polyamide, GF reinforced - Steel

Bypass valve

Opening pressure 240 kPa (2.4 bar) ±10%

Δp element type

- Microfibre filter elements - series N: 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

FRI filters are provided for vertical mounting



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]		Volumes [dm ³]	
	Length	1	Length	1
FRI 025		1.0		0.28
FRI 040		2.0		0.70
FRI 100		3.8		1.09
FRI 250		6.3		2.60
FRI 255		4.2		3.20
FRI 630		13.8		7.05
FRI 850		48.0		21.50

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
FRI 025	1	6	10	17	19	43	122	43	47
FRI 040	1	19	23	43	45	94	155	94	102
FRI 100	1	32	34	89	92	187	260	187	206
FRI 250	1	144	179	271	300	448	645	448	490
FRI 255	1	144	179	271	300	448	645	448	490
FRI 630	1	242	279	508	577	834	1446	834	911
FRI 850	1	440	541	971	1143	1705	2528	1705	1880

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

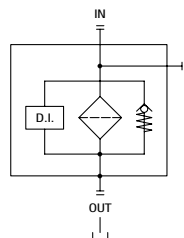
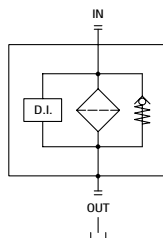
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

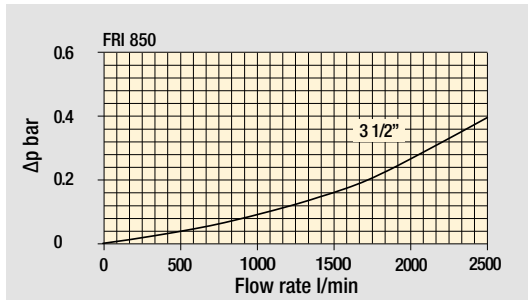
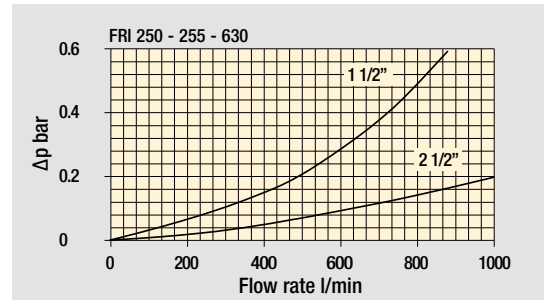
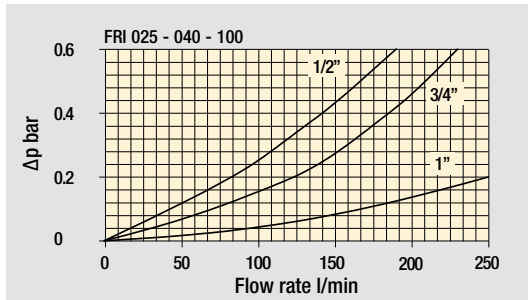
Hydraulic symbols

Filter series	Style 1 connection + Diff. indic.	Style 2 connections + Diff. indic.
FRI 025		•
FRI 040		•
FRI 100		•
FRI 250		•
FRI 255	•	
FRI 630		•
FRI 850	•	

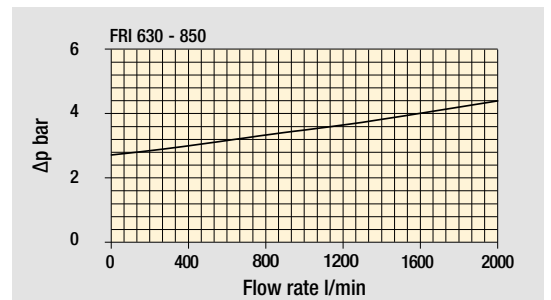
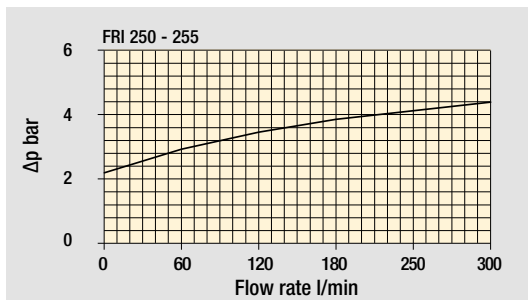
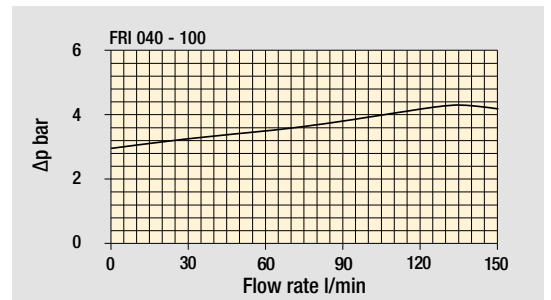
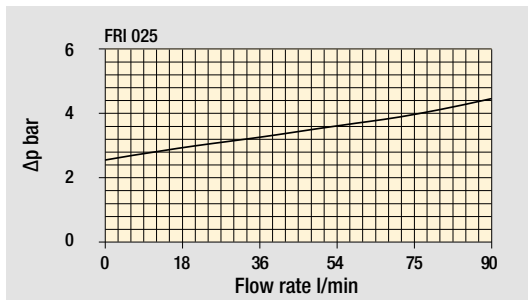


Pressure drop

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.

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1: FRI025 B A G1 A25 N P01						
FRI025	Configuration example 2: FRI040 S W G2 M25 N P01						
FRI040							
Bypass valve							
B With bypass							
S Without bypass							
Seals and treatments	Filtration rating						
A NBR	Axx	Mxx	Pxx				
V FPM	•	•	•				
W NBR head anodized	•	•					
Z FPM head anodized	•	•					
	filter element compatible with fluids HFA-HFB-HFC						
Connections for FRI025	Connections for FRI040						
G1 G 1/2"	G 3/4"						
G2 1/2" NPT	3/4" NPT						
G3 SAE 8 - 3/4" - 16 UNF	SAE 12 - 1 1/16" - 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	Execution		
				N 10 bar	P01 MP Filtri standard		
					Pxx Customized		

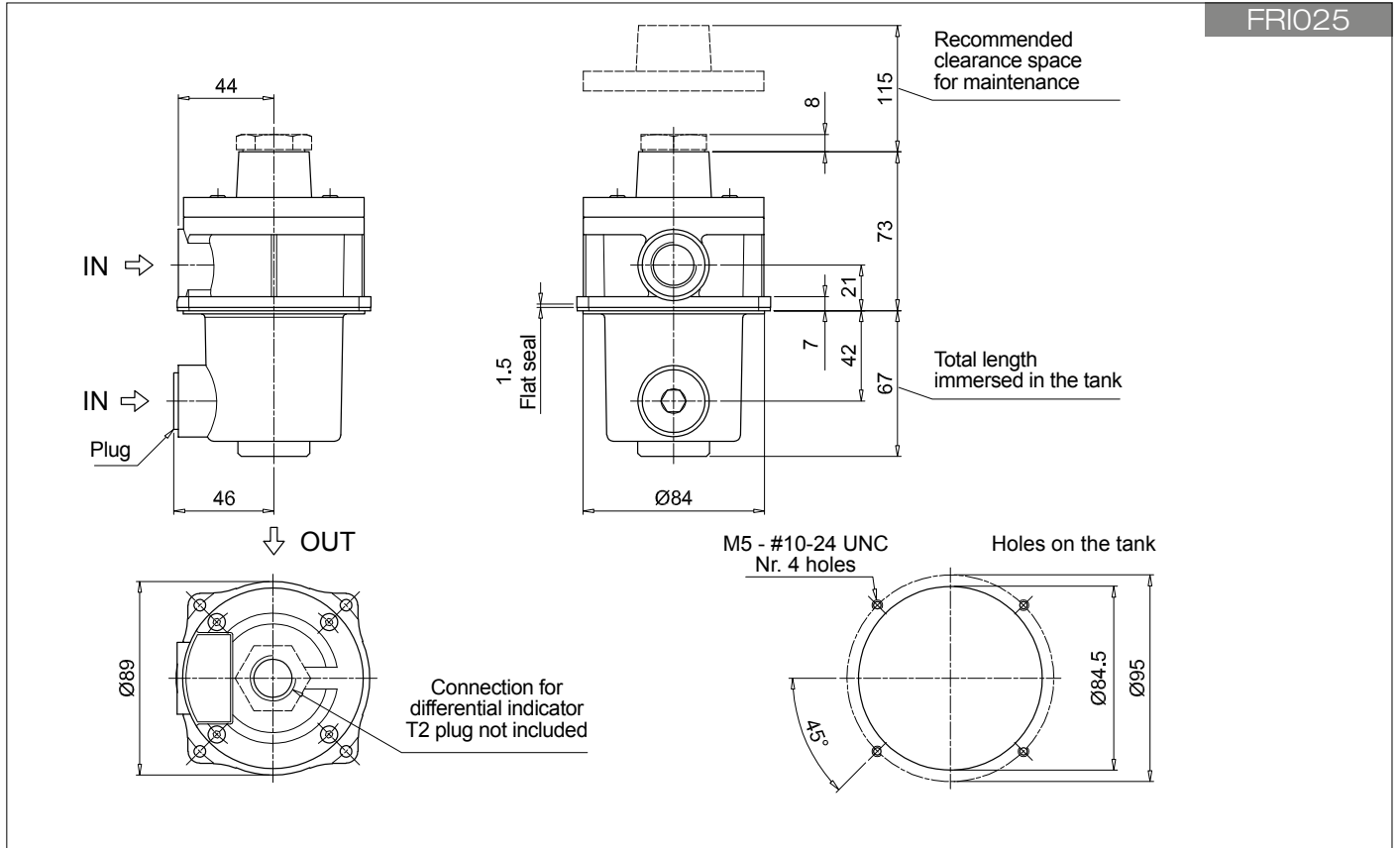
FILTER ELEMENT

Element series and size	Configuration example 1: CU025 A25 N P01			
CU025	Configuration example 2: CU040 M25 W P01			
CU040				
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
Seals and treatments	Filtration rating			
N NBR	Axx	Mxx	Pxx	
V FPM	•	•	•	
W NBR	•	•		
Z FPM	•	•		
	filter element compatible with fluids HFA-HFB-HFC			
				Execution
				P01 MP Filtri standard
				Pxx Customized

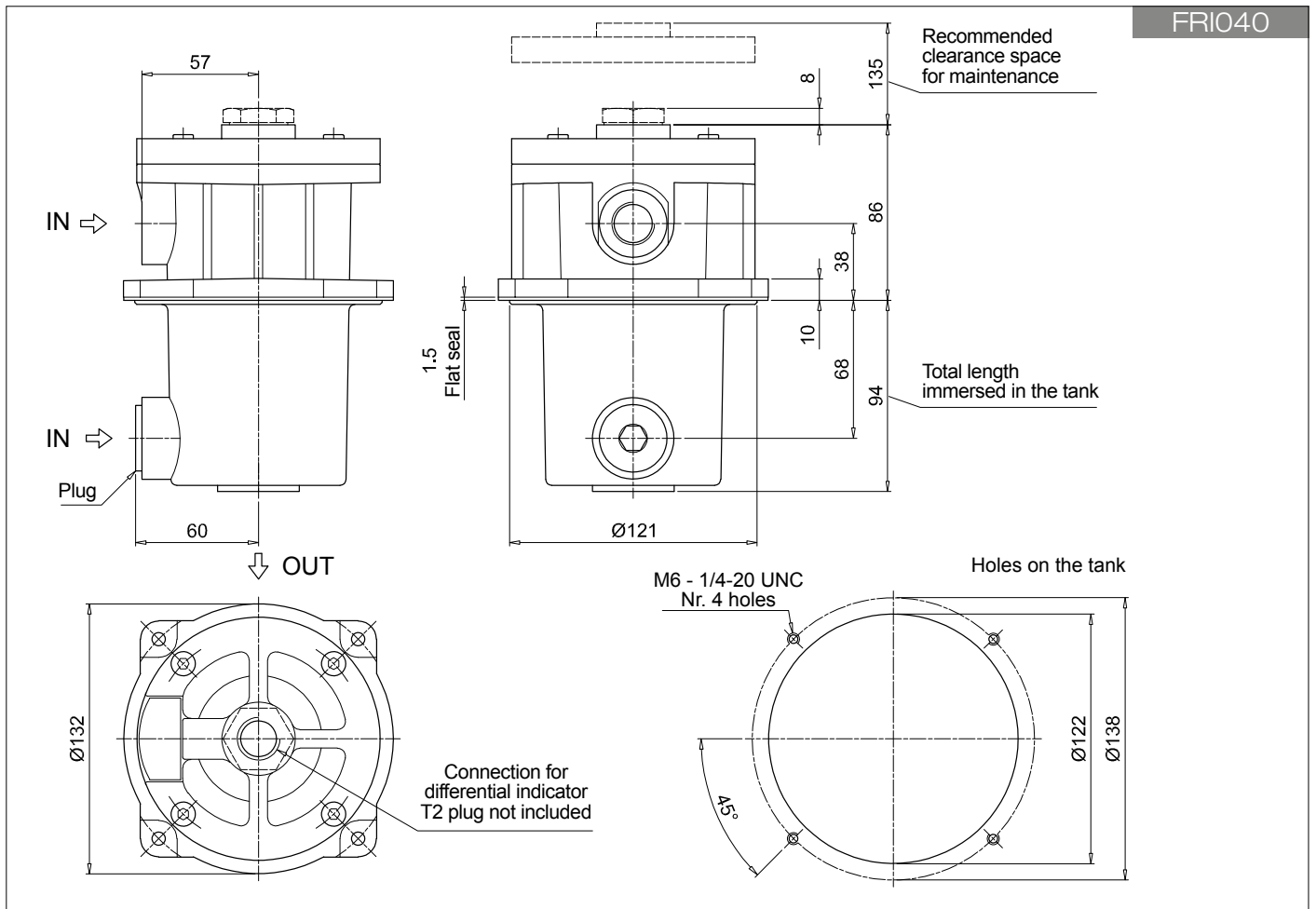
ACCESSORIES

Indicators	page		page
DEA Electrical differential indicator	242	DTA Electronic differential indicator	245
DEM Electrical differential indicator	242-243	DVA Visual differential indicator	245
DLA Electrical / visual differential indicator	243-244	DVM Visual differential indicator	245
DLE Electrical / visual differential indicator	244		
Additional features	page		
T2 Plug	246		

FRI025



FRI040



FRI FRI100 - FRI250 - FRI630

Designation & Ordering code

COMPLETE FILTER

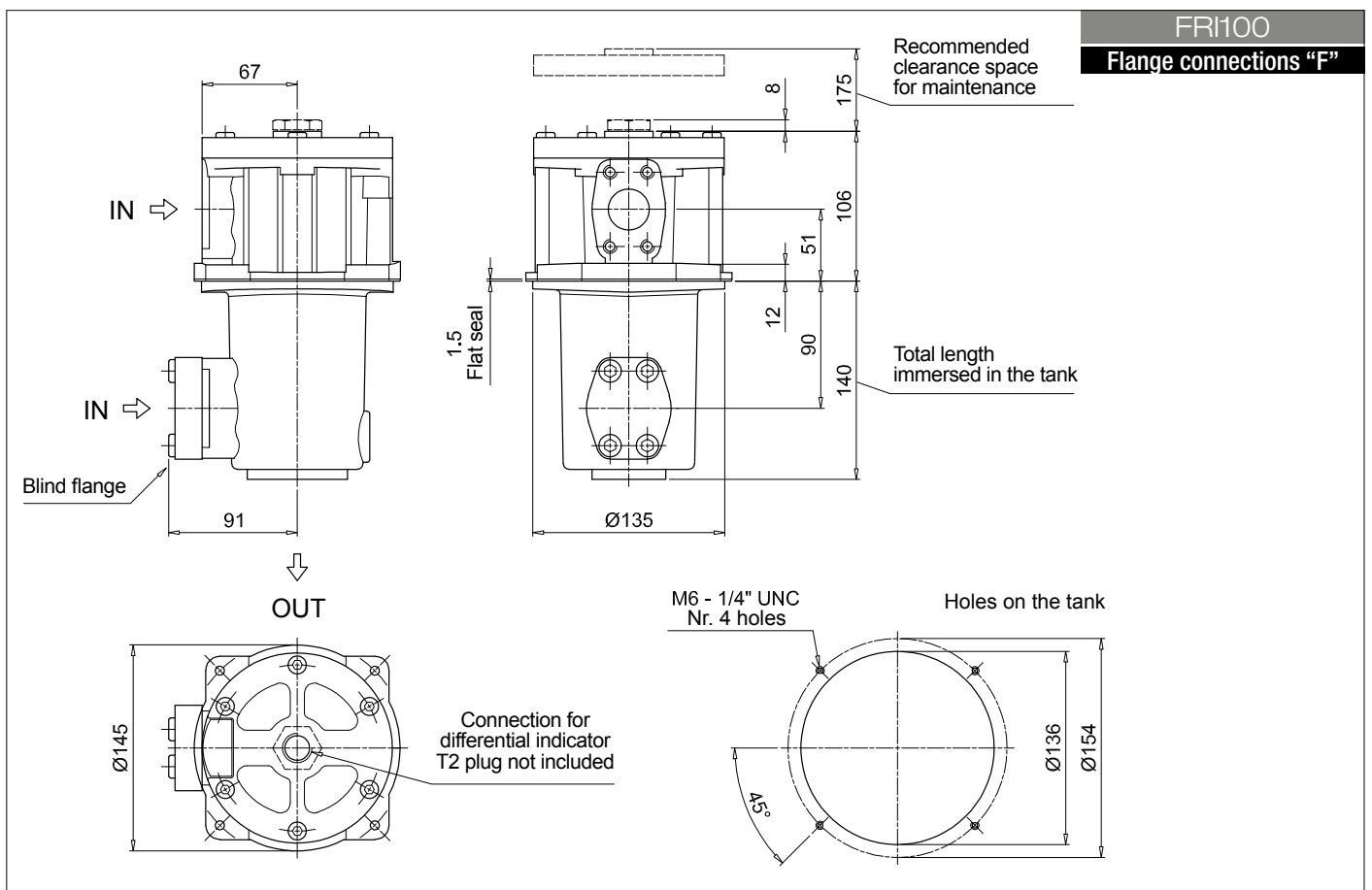
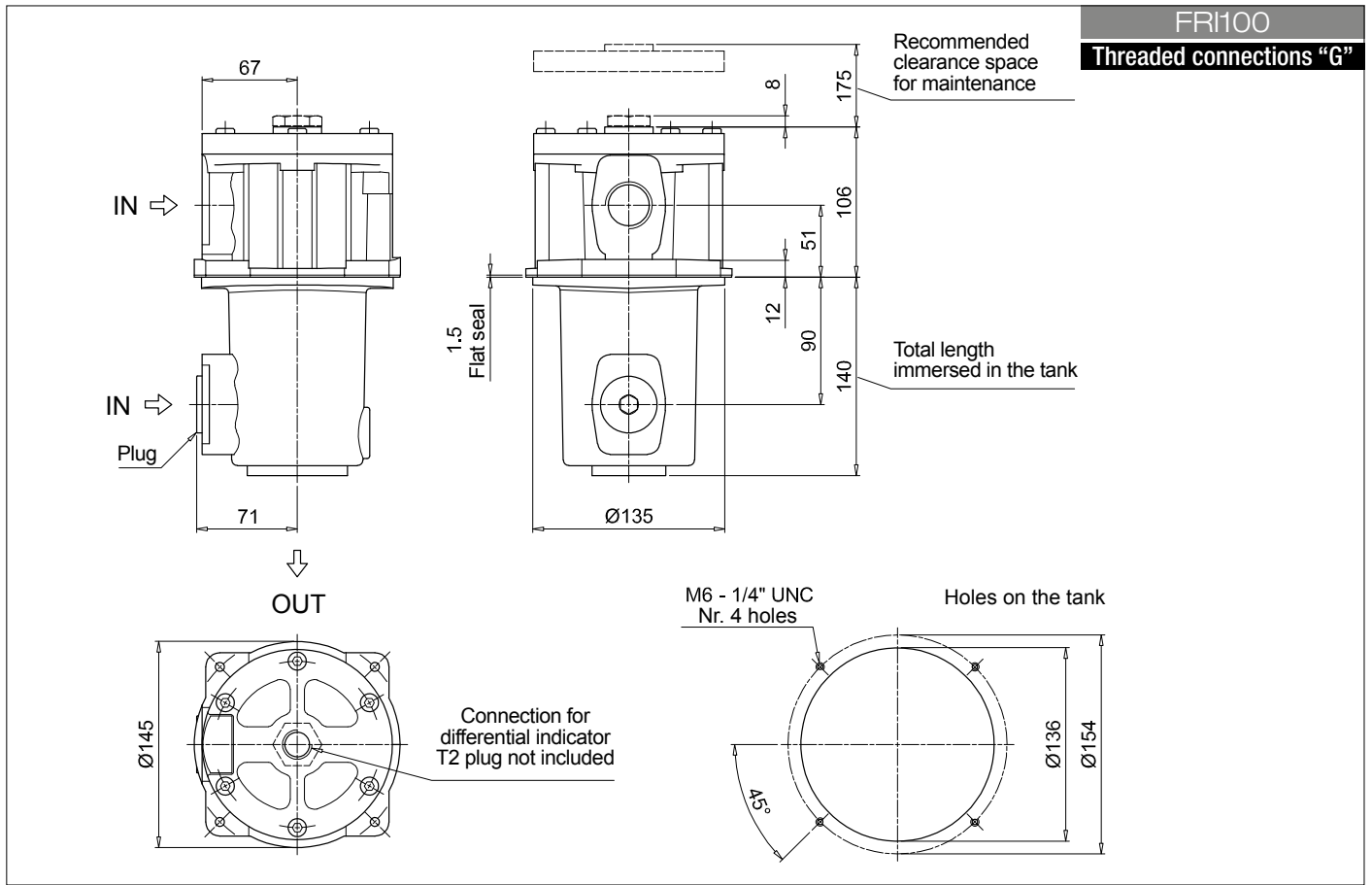
Series and size	Configuration example 1: FRI100 B A G1 A25 N P01						
FRI100	Configuration example 2: FRI630 S W F2 M25 N P01						
FRI250							
FRI630							
Bypass valve							
B	With bypass						
S	Without bypass						
Seals and treatments							
		Filtration rating					
A	NBR	Axx	Mxx	Pxx			
V	FPM						
W	NBR head anodized				filter element compatible with fluids HFA-HFB-HFC		
Z	FPM head anodized						
Connections for FRI100		Connections for FRI250		Connections for FRI630			
G1	G 1"	G 1 1/2"	G 1 1/2"	G 2 1/2"			
G2	1" NPT	1 1/2" NPT	1 1/2" NPT	2 1/2" NPT			
G3	SAE 16 - 1 5/16" - 12 UN	SAE 24 - 1 7/8" - 12 UN	SAE 24 - 1 7/8" - 12 UN	SAE 32 - 2 1/2" - 12 UN			
F1	1" SAE 3000 psi/M	1 1/2" SAE 3000 psi/M	1 1/2" SAE 3000 psi/M	2 1/2" SAE 3000 psi/M			
F2	1" SAE 3000 psi/UNC	1 1/2" SAE 3000 psi/UNC	1 1/2" SAE 3000 psi/UNC	2 1/2" SAE 3000 psi/UNC			
Filtration rating (filter media)							
A03	Inorganic microfiber	3 µm	M25	Wire mesh	25 µm	Element Δp	Execution
A06	Inorganic microfiber	6 µm	M60	Wire mesh	60 µm	N	P01 MP Filtri standard
A10	Inorganic microfiber	10 µm	M90	Wire mesh	90 µm	10 bar	Pxx Customized
A16	Inorganic microfiber	16 µm	P10	Resin impregnated paper	10 µm		
A25	Inorganic microfiber	25 µm	P25	Resin impregnated paper	25 µm		

FILTER ELEMENT

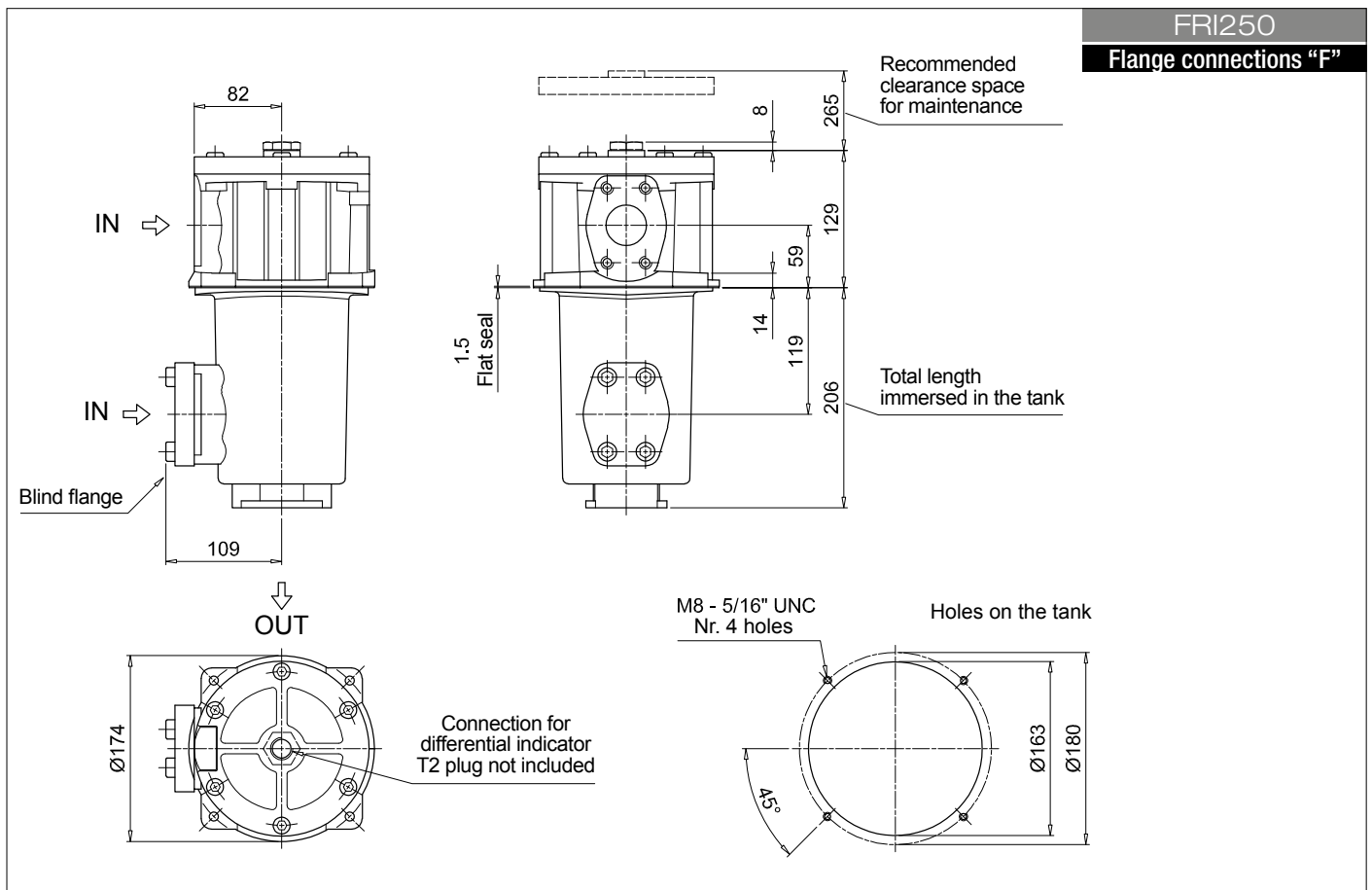
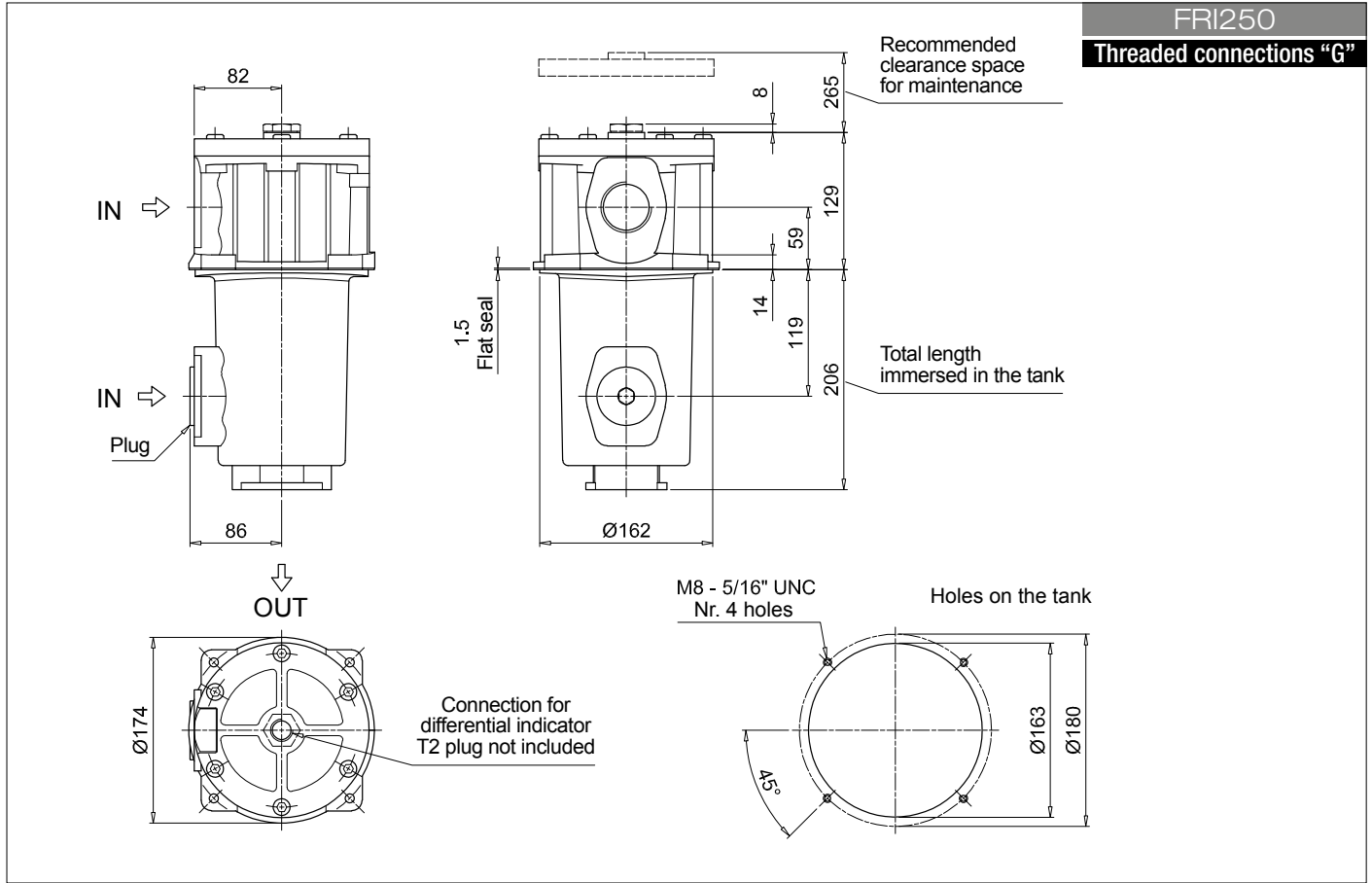
Element series and size	Configuration example 1: CU100 A25 N P01			
CU100	Configuration example 2: CU630 M25 W P01			
CU250				
CU630				
Filtration rating (filter media)				
A03	Inorganic microfiber	3 µm	M25	Wire mesh 25 µm
A06	Inorganic microfiber	6 µm	M60	Wire mesh 60 µm
A10	Inorganic microfiber	10 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
Seals and treatments				
		Filtration rating		
N	NBR	Axx	Mxx	Pxx
V	FPM			
W	NBR			
Z	FPM			
				filter element compatible with fluids HFA-HFB-HFC
Execution				
P01 MP Filtri standard				
Pxx Customized				

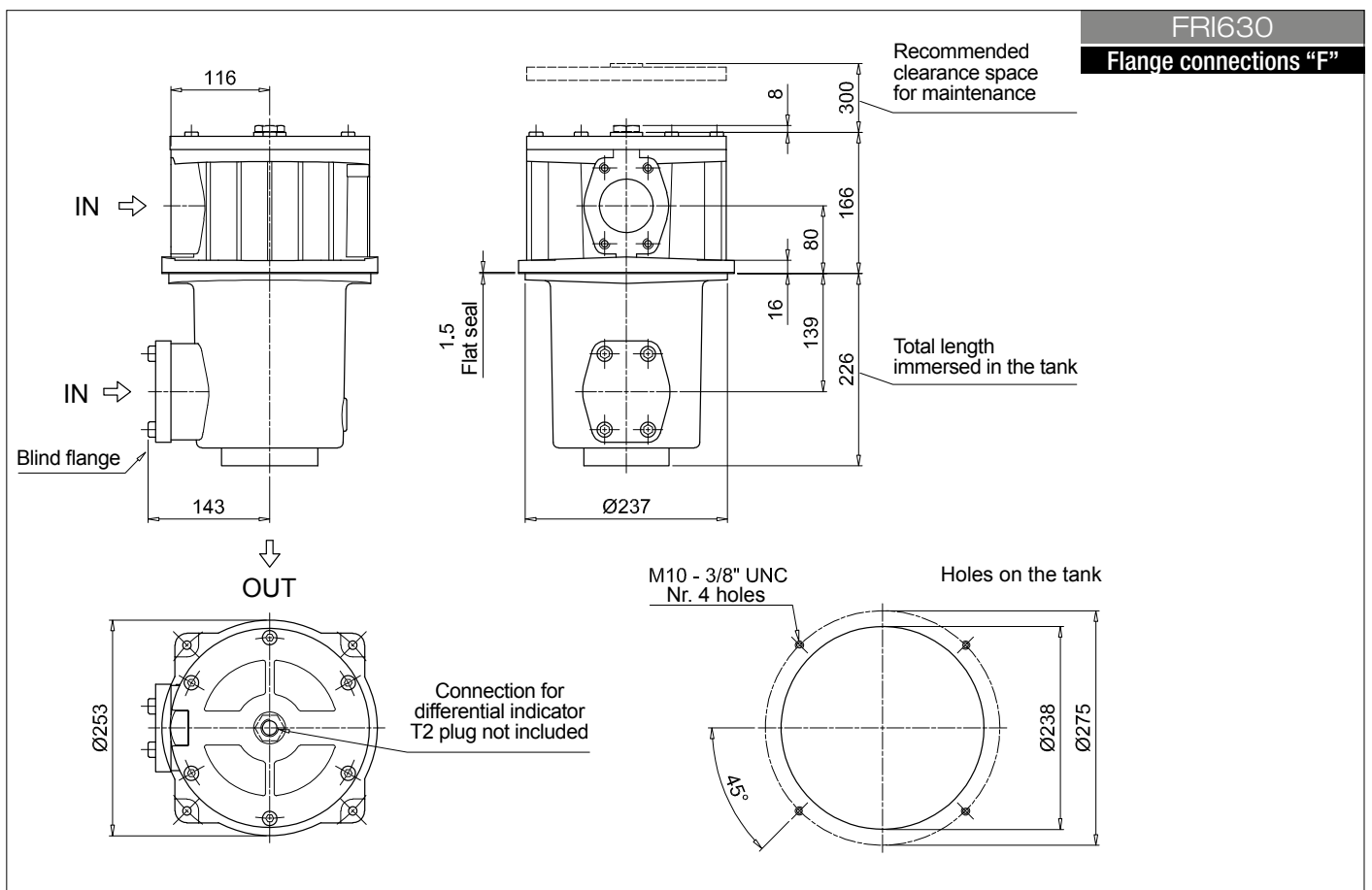
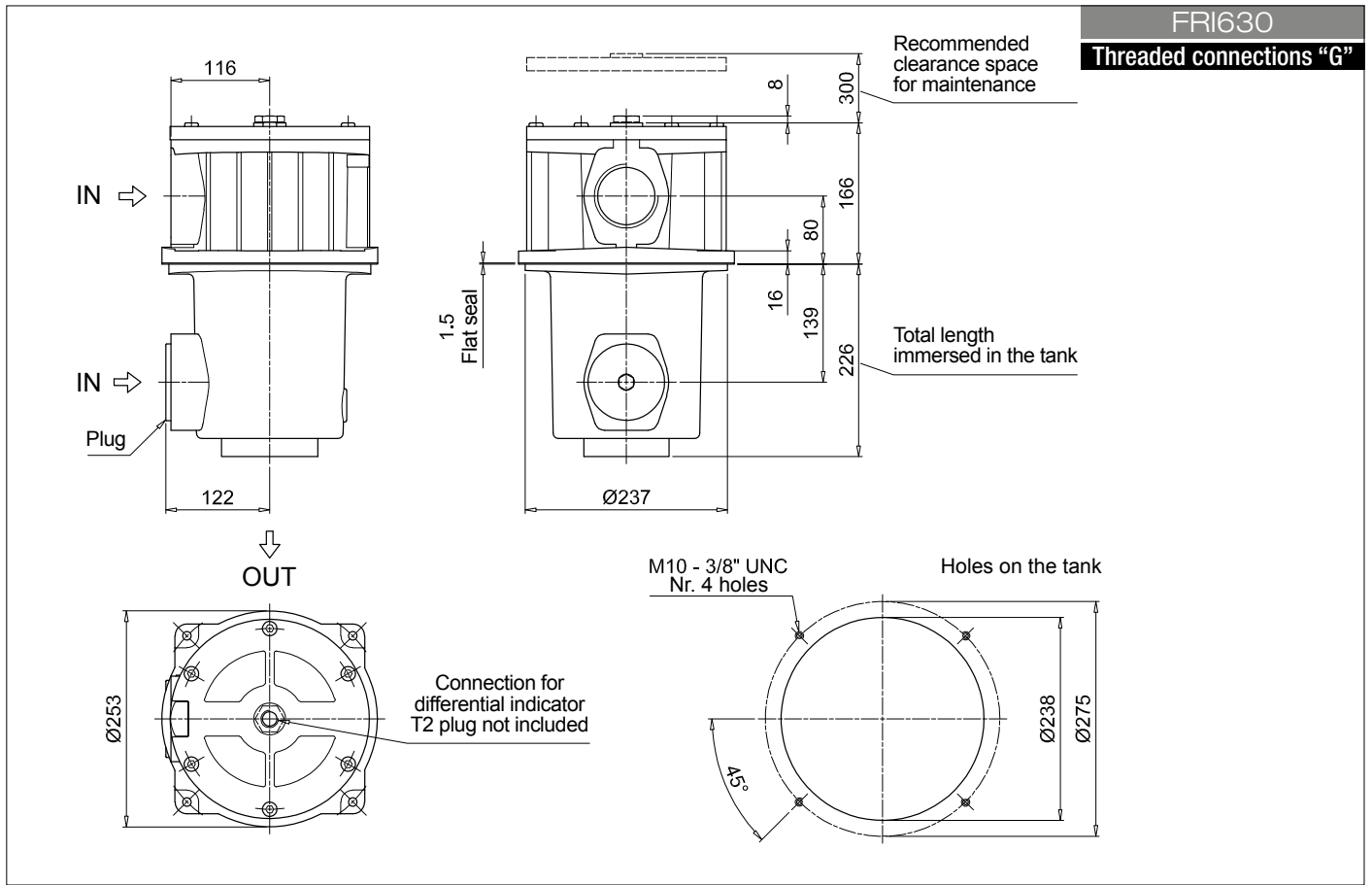
ACCESSORIES

Indicators	page		page
DEA Electrical differential indicator	242	DTA Electronic differential indicator	245
DEM Electrical differential indicator	242-243	DVA Visual differential indicator	245
DLA Electrical / visual differential indicator	243-244	DVM Visual differential indicator	245
DLE Electrical / visual differential indicator	244		
Additional features		page	
T2 Plug	246		



Dimensions





FRI FRI255 - FRI850

Designation & Ordering code

COMPLETE FILTER

Series and size	Configuration example 1: FRI255 S W F2 M25 N P01						
FRI255	Configuration example 2: FRI850 B A F1 A25 N P01						
FRI850							
Bypass valve							
B With bypass							
S Without bypass							
Seals and treatments	Filtration rating						
A NBR	Axx	Mxx	Pxx				
V FPM	•	•	•				
W NBR head anodized	•	•		filter element compatible with fluids HFA-HFB-HFC			
Z FPM head anodized	•	•					
Connections for FRI255	Connections for FRI850						
G1 G 1 1/2"				F1 3 1/2" SAE 3000 psi/M			
G2 1 1/2" NPT				F2 3 1/2" SAE 3000 psi/UNC			
G3 SAE 24 - 1 7/8" - 12 UN							
G4 G 1 1/4"							
G5 1 1/4" NPT							
G6 SAE 20 - 1 5/8" - 12 UN							
F1 1 1/2" SAE 3000 psi/M							
F2 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	Execution		
				N 10 bar	P01 MP Filtri standard		
					Pxx Customized		

FILTER ELEMENT

Element series and size	Configuration example 1: CU250 M25 W P01						
CU250	Configuration example 2: CU850 A25 N P01						
CU850							
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			
Seals and treatments	Filtration rating						
N NBR	Axx	Mxx	Pxx				
V FPM	•	•	•				
W NBR	•	•		filter element compatible with fluids HFA-HFB-HFC			
Z FPM	•	•					
				Execution			
				P01 MP Filtri standard			
				Pxx Customized			

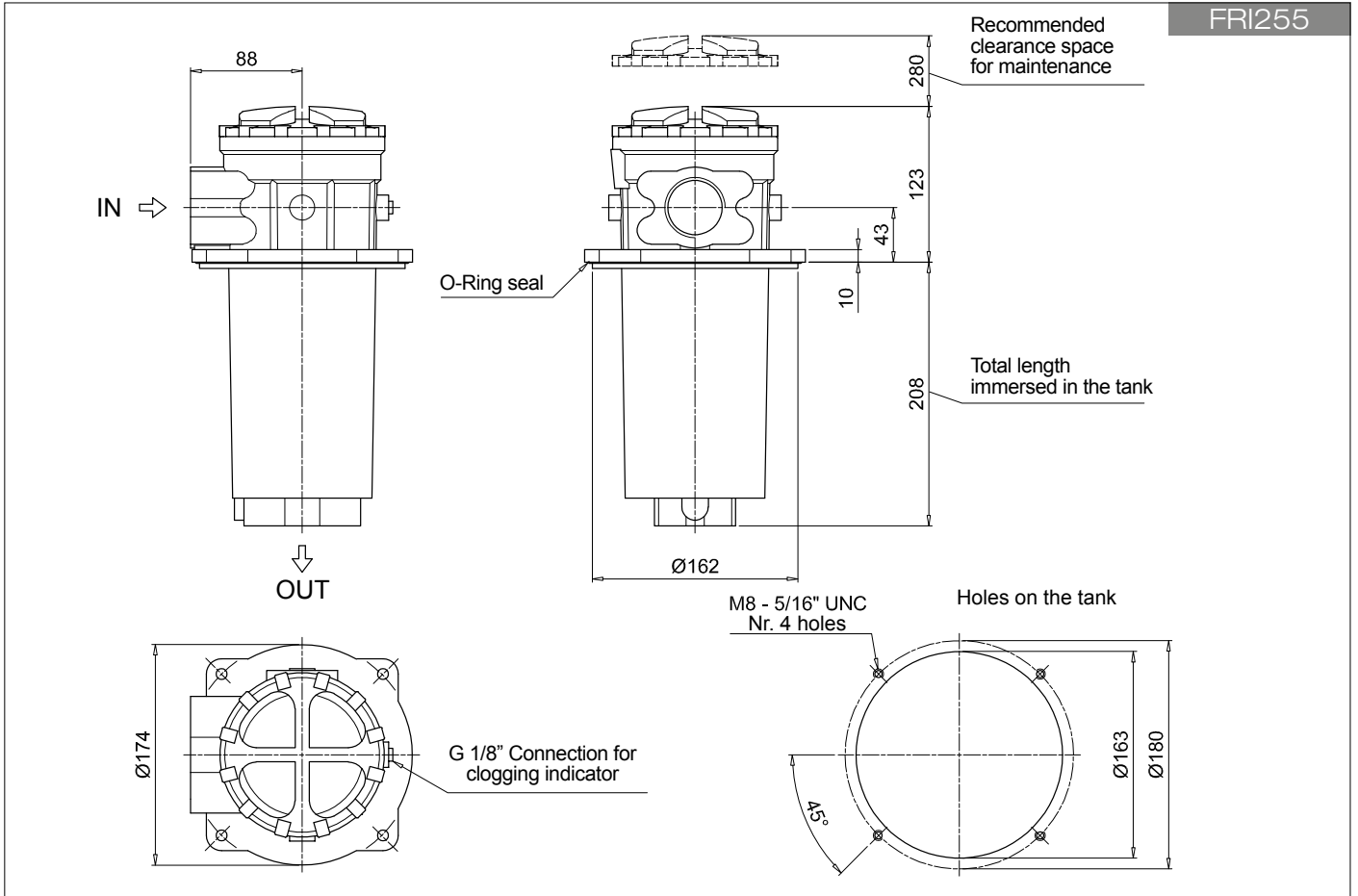
FRI255 ACCESSORIES

Indicators	page			page
BVA Axial pressure gauge	240	BEA Electrical pressure indicator		239
BVR Radial pressure gauge	240	BEM Electrical pressure indicator		239
BVP Visual pressure indicator with automatic reset	241	BLA Electrical / visual pressure indicator		239-240
BVQ Visual pressure indicator with manual reset	241			

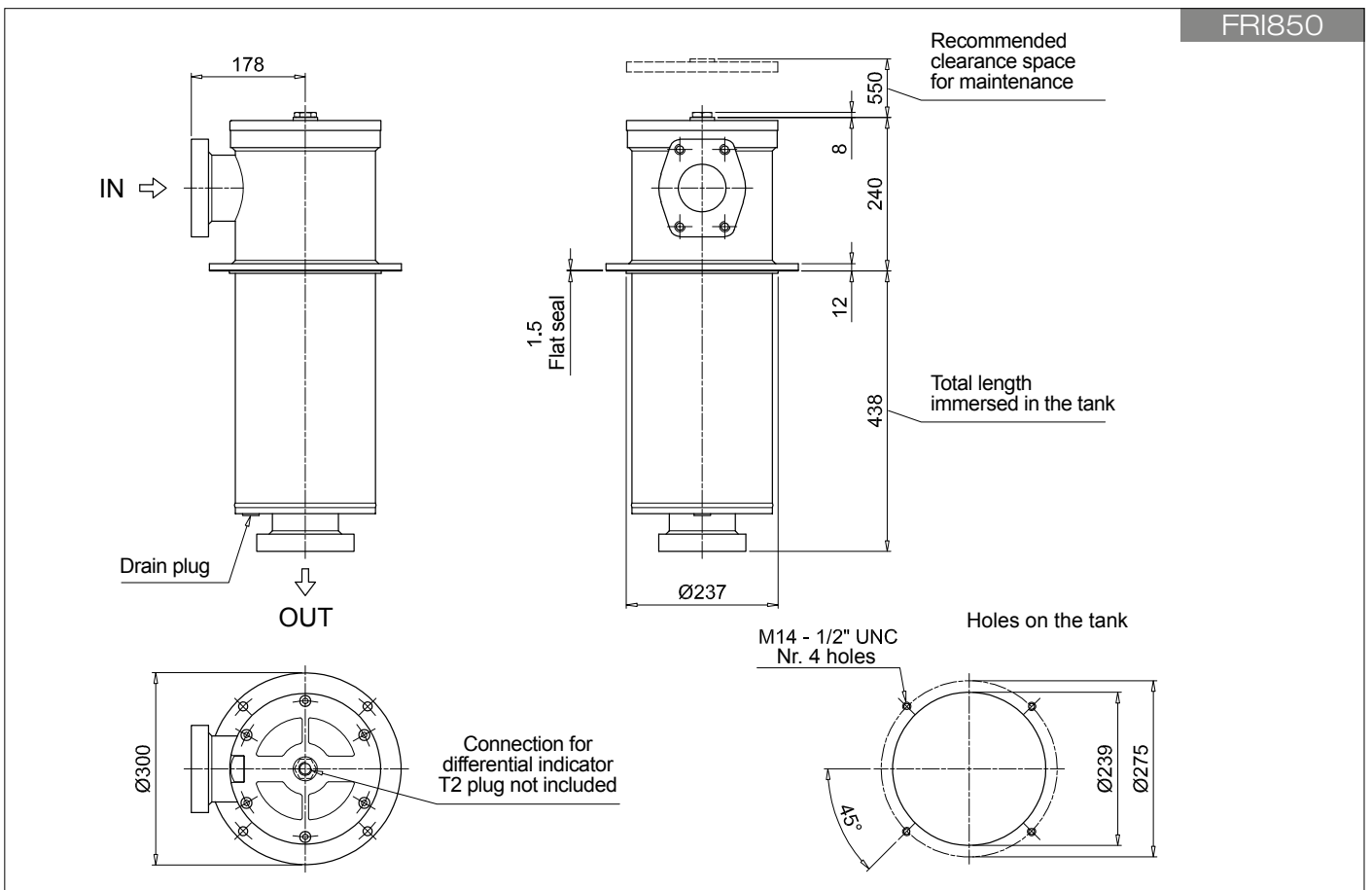
FRI850 ACCESSORIES

Indicators	page			page
DEA Electrical differential indicator	242	DTA Electronic differential indicator		245
DEM Electrical differential indicator	242-243	DVA Visual differential indicator		245
DLA Electrical / visual differential indicator	243-244	DVM Visual differential indicator		245
DLE Electrical / visual differential indicator	244			
Additional features	page			
T2 Plug	246			

FRI255



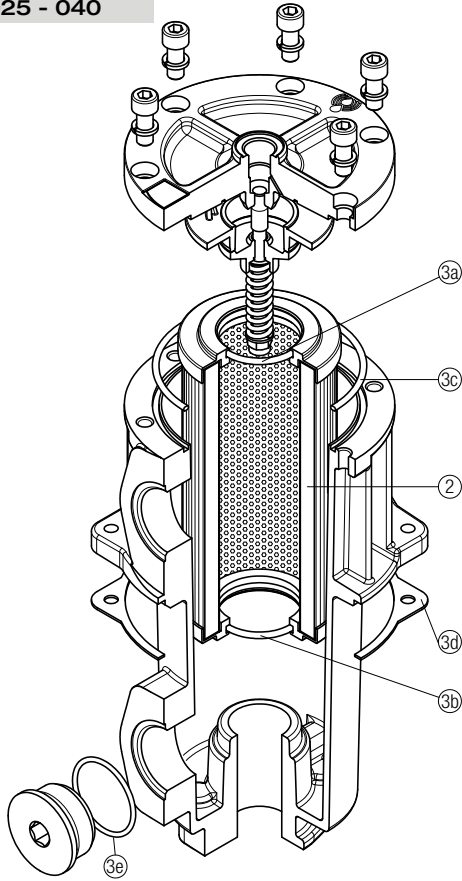
FRI850



FRI SPARE PARTS

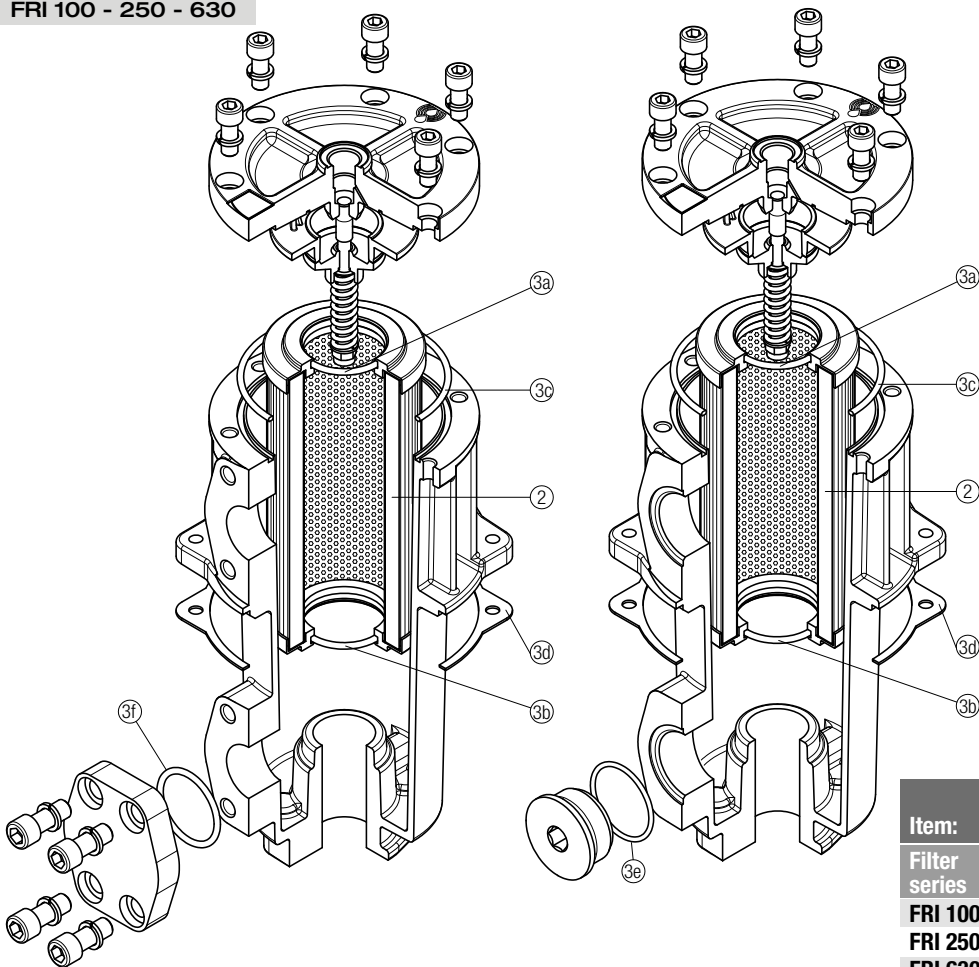
Order number for spare parts

FRI 025 - 040



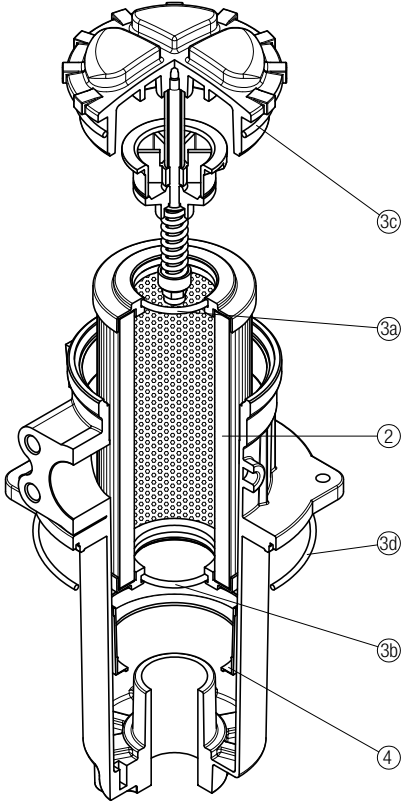
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
	2	3 (3a ÷ 3e)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
FRI 025	See order table	02050213	02050220
FRI 040		02050214	02050221

FRI 100 - 250 - 630



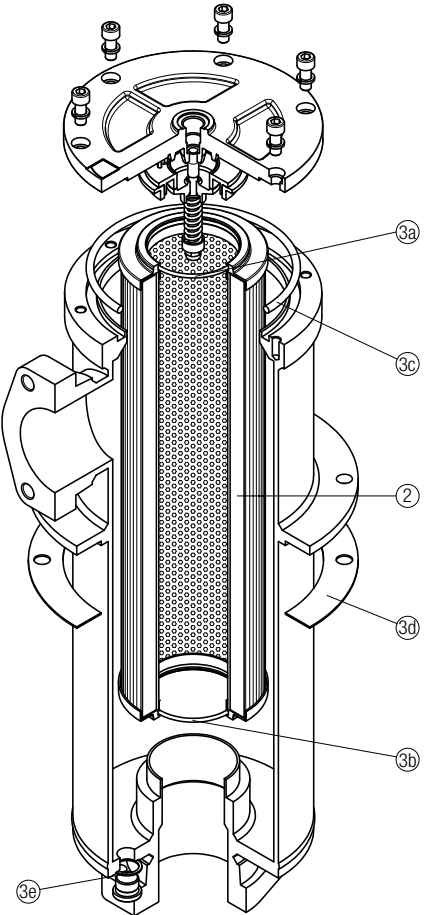
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
	2	3 (3a ÷ 3f)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
FRI 100	See order table	02050215	02050222
FRI 250		02050216	02050223
FRI 630		02050217	02050224

FRI 255



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.		Q.ty: 1 pc.
Filter series	Filter element	Seal Kit code number		Contamination retainer binder
FRI 255	See order table	NBR	FPM	
	2	3 (3a ÷ 3d)		4
		02050013	02050014	01060301

FRI 850



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
FRI 850	See order table	NBR	FPM
	2	3 (3a ÷ 3e)	
		02050218	02050225

RF2 series

Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 615 l/min



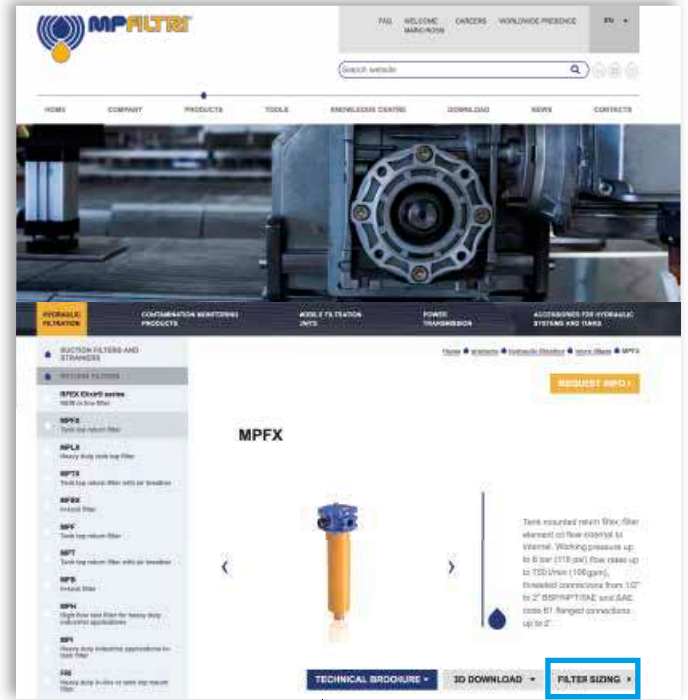
TYPICAL FILTER SIZING Selection Software

Step 1

Select "FILTER SIZING SOFTWARE" after login

OR

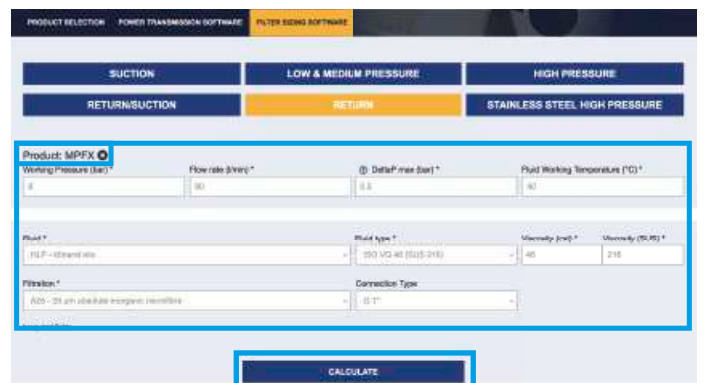
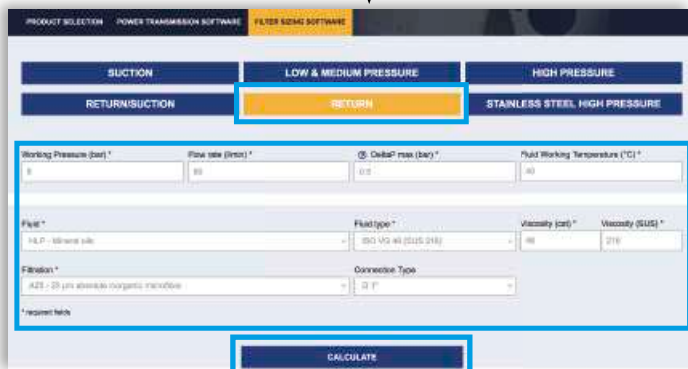
Select "FILTER SIZING" after login from a product page



Choose the type of filter family.
Enter the main data for sizing the filter
then push CALCULATE.

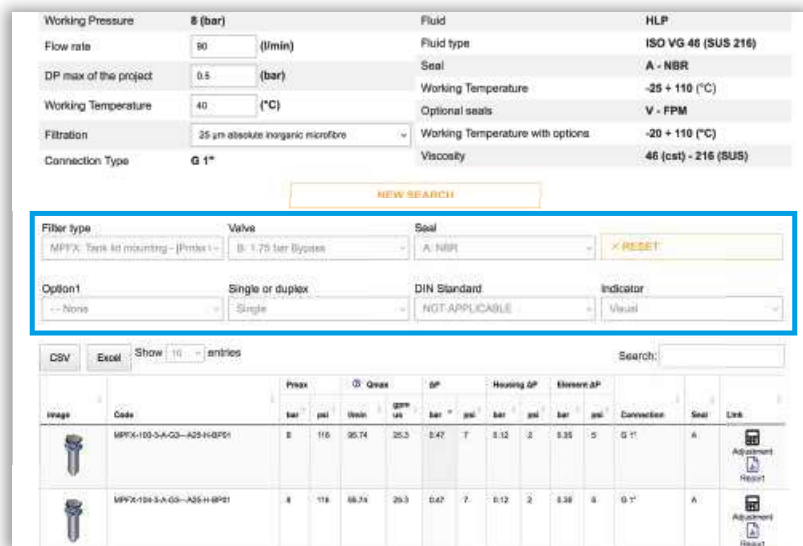
Step 2

Enter the main data for sizing the filter
then push CALCULATE.



Step 3

Select the desired options to choose the appropriate filter type for the application.



Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	psi	Qmax l/min	gpm us	ΔP bar	psi	Housing ΔP bar	psi	Element ΔP bar	psi	Connection	Seal	Link
	MPFX-103-3-A-Q3-A25-H-BPFI	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report
	MPFX-104-3-A-Q3-A25-H-BPFI	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	Adjustment Report

Step 5

It is possible to change the filter modifying every parameter.



A SAVE YOUR FILTER'S REPORT



B MANUAL EDIT

SAVE IN YOUR ARCHIVE
typing your reference data and then SAVE AS PDF

A new browser window displays the pdf



see **A**

Close the report window



By clicking your WELCOME button, the SHOW REPORTS is displayed: select it to see your filters list.

Description

Technical data

Return filter

Maximum working pressure up to 2 MPa (20 bar)
Flow rate up to 615 l/min

RF2250 and RF2350 are ranges of return filters for side tank mounting with integrated shut-off valve for protection of the reservoir against the system contamination.

They are placed below the minimum oil level, directly connected to the return line of the system.

The shut-off valve closes automatically when the cover is removed, allowing the filter element replacement without the fluid drop.

Available features:

- Female threaded connections up to 1" and flanged connections up to 1 1/2", for a maximum flow rate of 350 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media
- Magnetic filter, to hold the ferrous particles
- Visual, electrical and electronic clogging indicators

Common applications:

- Compact mobile machines
- Compact industrial equipment

Filter housing materials

- Filter body: Aluminium
- Cover: Polyamide, GF reinforced
- Valve: Polyamide, GF reinforced - Steel
- Anti-Emptying valve: Steel

Bypass valve

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

Δp element type

- Microfibre filter elements - series CU: 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

RF2 250-350 filters mounting, see the drawings on page 235 and following



Weights [kg] and volumes [dm³]

Filter series	Weights [kg]		Volumes [dm ³]	
	Length	1	Length	1
RF2 250		2.6		2.0
RF2 350		2.8		2.0

Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
RF2 250	1	148	184	278	307	447	615	447	485
RF2 350	1	148	184	278	307	447	615	447	485

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

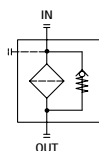
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

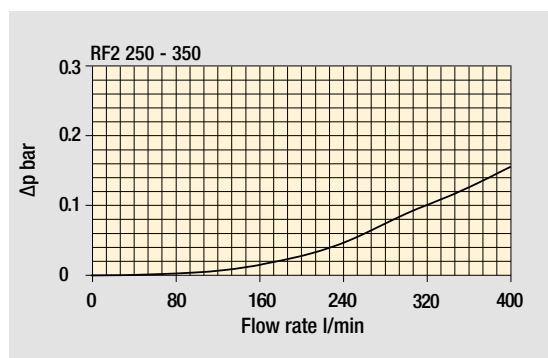
Filter series	Style B - E
RF2 250	•
RF2 350	•

Hydraulic symbols

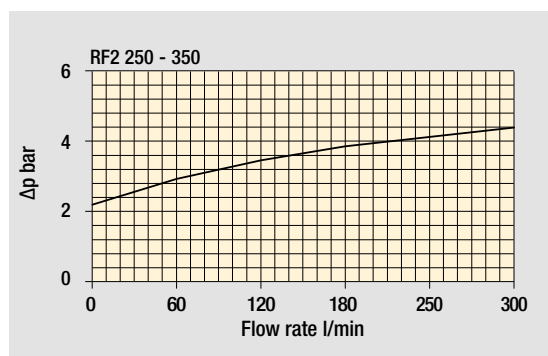


Pressure drop

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.

RF2 RF2250 - RF2350

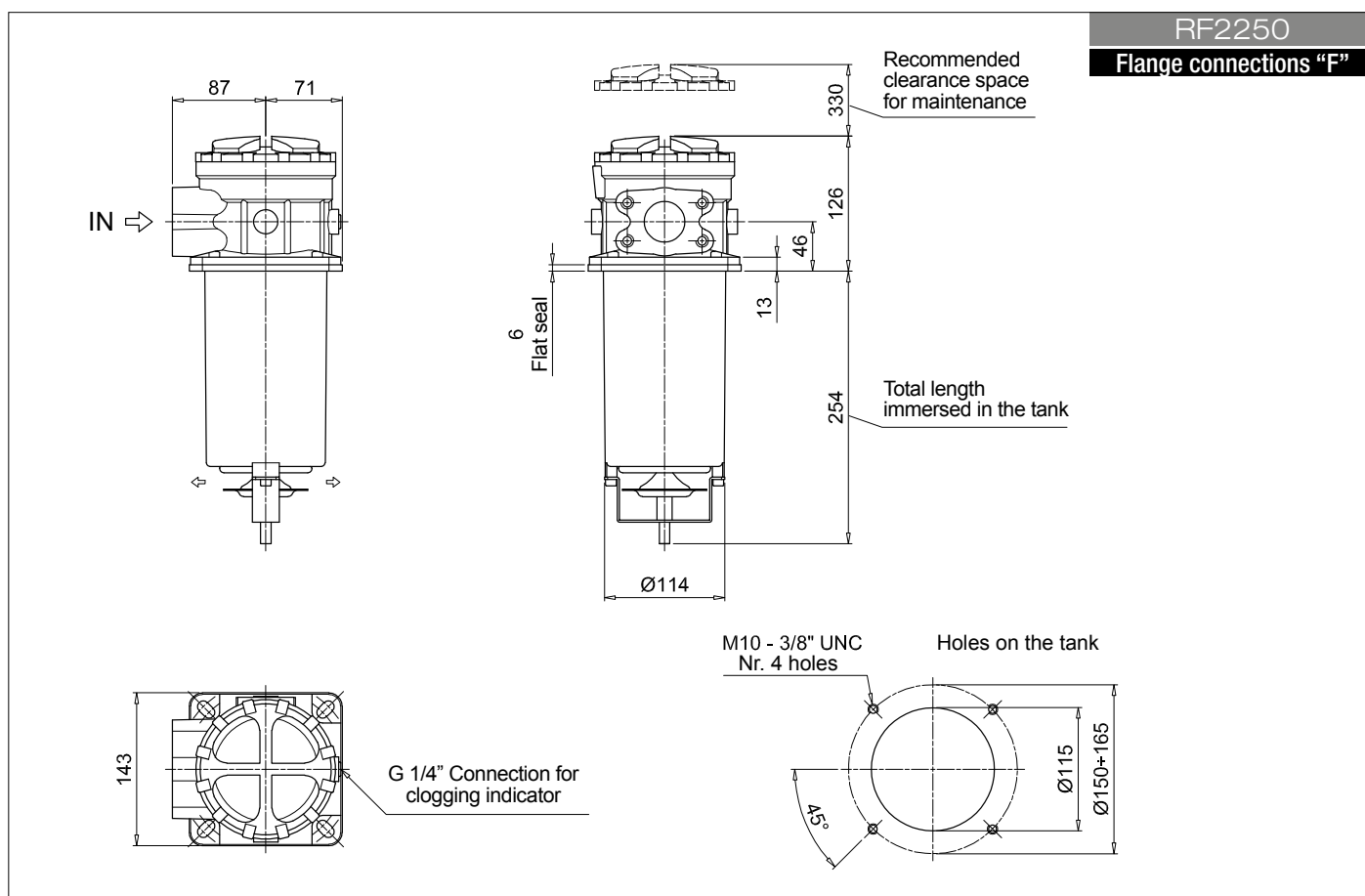
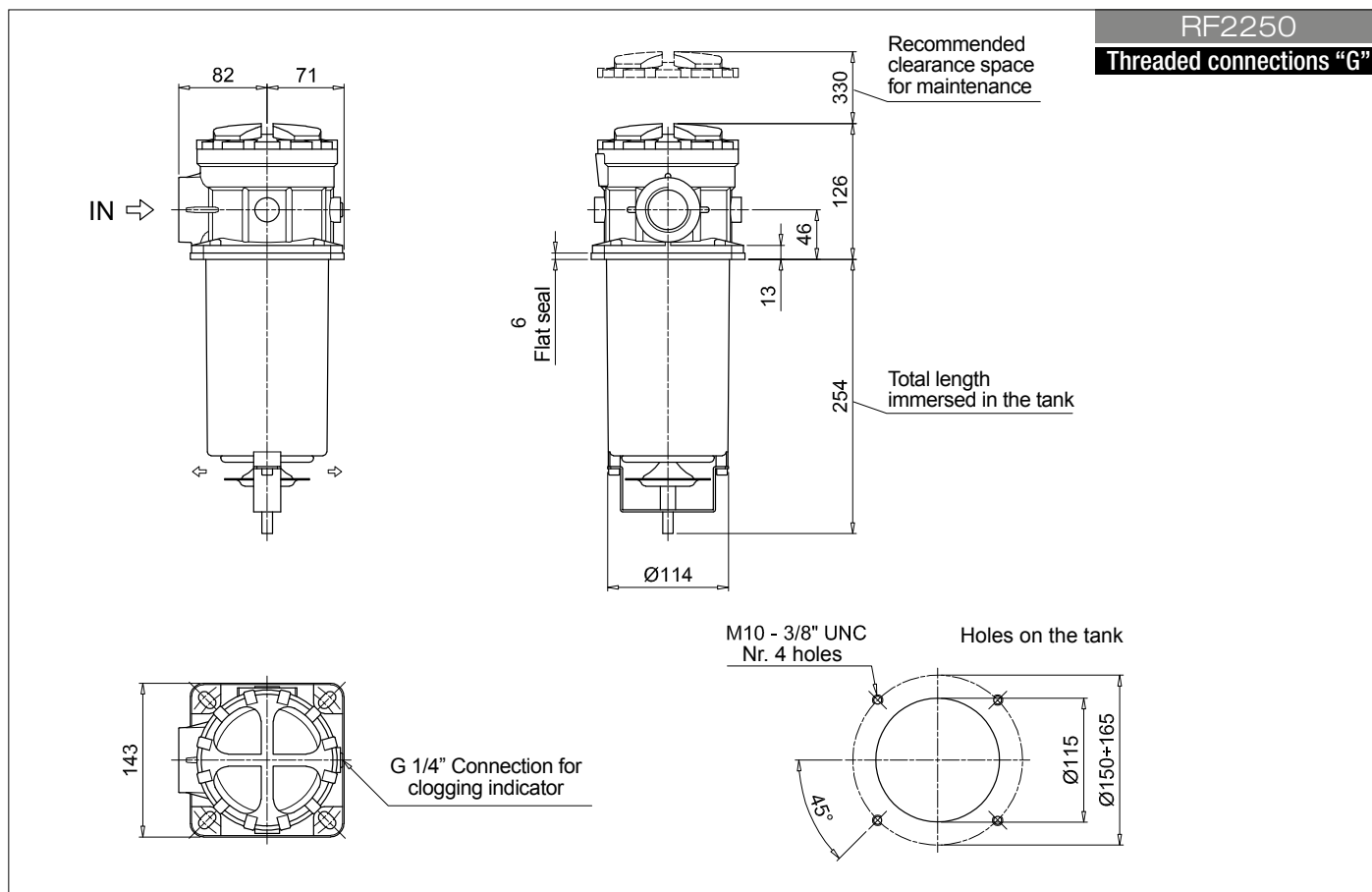
Designation & Ordering code

COMPLETE FILTER

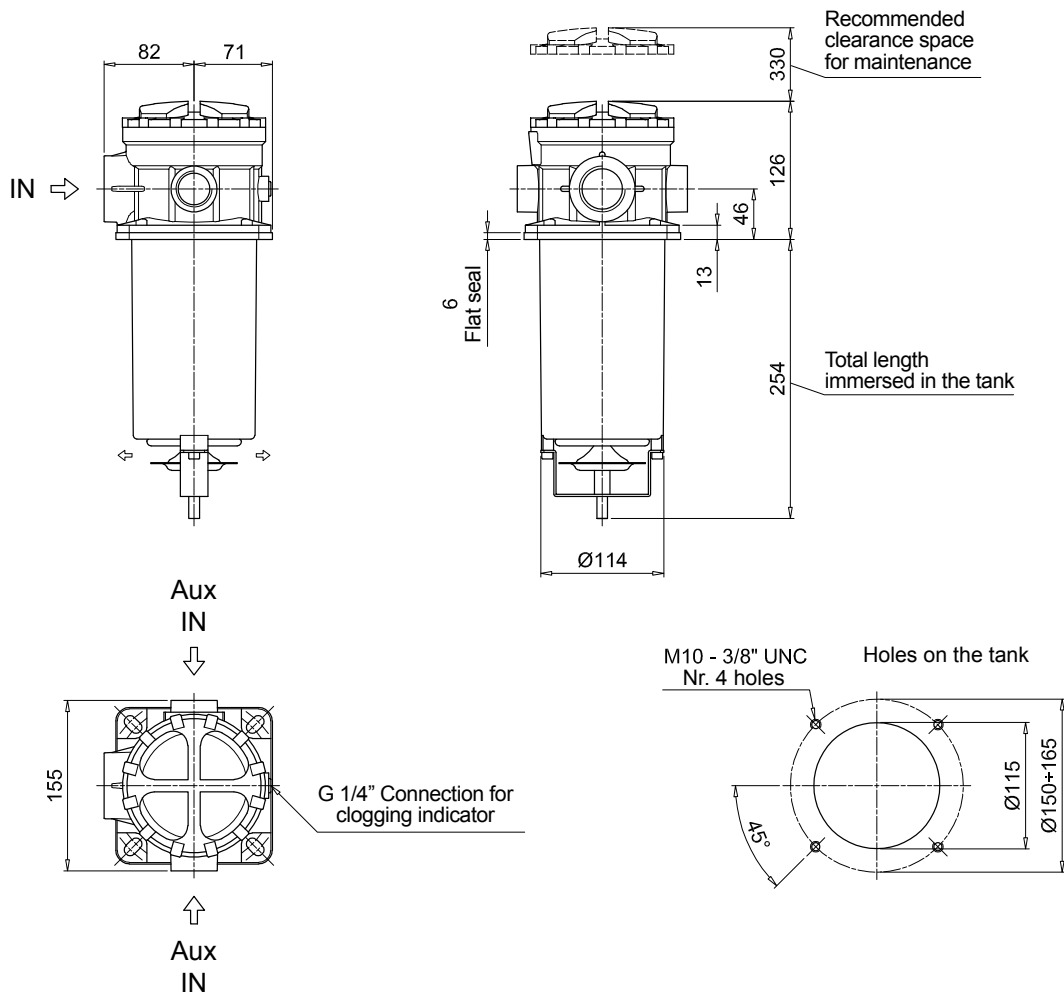
Series and size				Configuration example 1: RF2250 W F2 E M25 P01					
RF2250				Configuration example 2: RF2350 A G1 B A25 P01					
RF2350									
				Filtration rating					
Seals and treatments				Axx	Mxx	Pxx			
A	NBR			•	•	•			
V	FPM			•	•	•			
W	NBR compatible with fluids HFA-HFB-HFC			•	•				
Z	FPM compatible with fluids HFA-HFB-HFC			•	•				
Connections				Aux (only RF2350)		Mxx	Pxx		
G1	G 1 1/2"			G 1"		•	•		
G2	1 1/2" NPT			-		•			
G3	SAE 24 - 1 7/8" - 12 UN			SAE 16 - 1 5/16" - 12 UN		•	•		
G4	G 1 1/4"			-		•			
G5	1 1/4" NPT			-		•			
G6	SAE 20 - 1 5/8" - 12 UN			-		•			
G7	G 1"			-		•			
G8	1" NPT			-		•			
G9	SAE 16 - 1 5/16" - 12 UN			-		•			
F1	1 1/2" SAE 3000 psi/M			-		•			
F2	1 1/2" SAE 3000 psi/UNC			-		•			
Bypass valve									
B	1.75 bar								
E	3 bar								
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			
				Execution					
				P01 MP Filtri standard					
				Pxx Customized					

FILTER ELEMENT

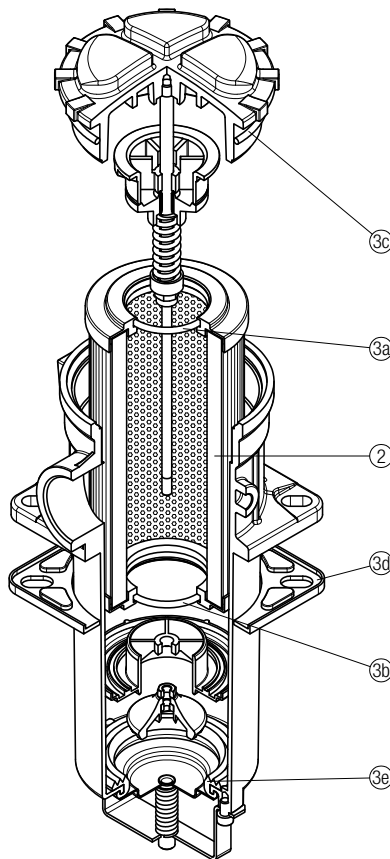
Element series and size				Configuration example 1: CU250 M25 W P01					
CU250				Configuration example 2: CU250 A25 N P01					
Filtration rating (filter media)									
A03	Inorganic microfiber	3 µm		M25	Wire mesh	25 µm			
A06	Inorganic microfiber	6 µm		M60	Wire mesh	60 µm			
A10	Inorganic microfiber	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			
Seals and treatments				Filtration rating					
				Axx	Mxx	Pxx			
N	NBR			•	•	•			
V	FPM			•	•	•			
W	NBR head anodized	filter element compatible with fluids HFA-HFB-HFC		•	•				
Z	FPM head anodized	filter element compatible with fluids HFA-HFB-HFC		•	•				
				Execution					
				P01 MP Filtri standard					
				Pxx Customized					



RF2350



RF2 250 - 350



Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3e)
Filter series	Filter element	Seal Kit code number NBR FPM
RF2 250	See order table	02050586 02050587
RF2 350		

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