

# Фильтры обратного потока

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## RFEX series

Maximum working pressure up to 1.6 MPa (16 bar) - Flow rate up to 260 l/min



THE X CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.  
 Quality and efficiency are fundamental for MP Filtri:  
 this exclusive new filter element possesses polygon shape geometry and specific seal  
 that ensures only original spare parts can be used - ensuring correct operation and  
 higher system reliability.

## RFEX series

with **MYCLEAN** FEX Filter Element



- **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 RFEX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1

# RFEX GENERAL INFORMATION

## Description

## Technical data

### Return filter

**Maximum working pressure up to 1.6 MPa (16 bar)**  
**Flow rate up to 260 l/min**

RFEX is a range of return filters for protection of the reservoir against the system contamination. They are mounted in line to limit aeration or foam generation into the reservoir.

#### Available features:

- Female threaded connections up to 1 1/4" and SAE connections up to 1 5/8", for a maximum flow rate of 260 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
- Visual, electrical, axial and radial pressure gauges
- MYclean interface connection for the filter element, 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
- Bypass valve: Polyamide - Steel
- Bowl: Polyamide

### Bypass valve

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

### $\Delta p$ element type

- Microfibre filter elements - series N: 8 bar
- Fluid flow through the filter element from OUT to IN

### Seals

Standard NBR series A

### Temperature

From -25 °C to +110 °C

### Note

RFEX filters are provided for vertical mounting

## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Weights [kg]	Volumes [dm <sup>3</sup> ]
<b>RFEX 060</b>	1.00	0.60
<b>RFEX 080</b>	1.15	0.80
<b>RFEX 110</b>	1.90	1.60
<b>RFEX 160</b>	2.10	2.00

## Hydraulic symbols

Filter series	Style S	Style B
<b>RFEX 060</b>	•	•
<b>RFEX 080</b>	•	•
<b>RFEX 110</b>	•	•
<b>RFEX 160</b>	•	•

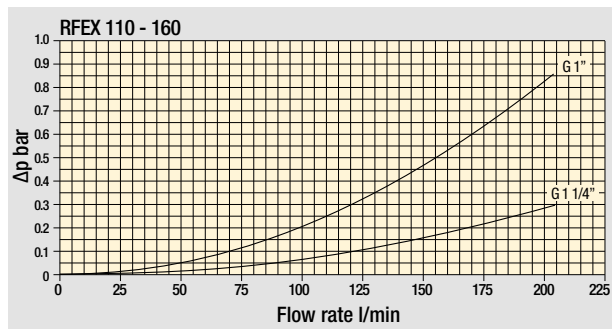
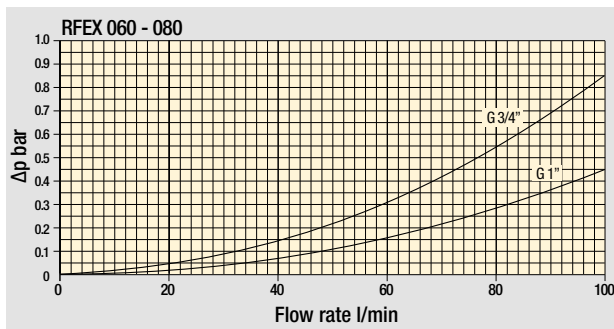
Flow rates [l/min]

Filter element design - N Series							
Filter series	A10	A16	A25	M60	M90	P10	P25
<b>RFX 060</b>	60	61	64	87	89	62	77
<b>RFX 080</b>	69	70	75	91	92	79	93

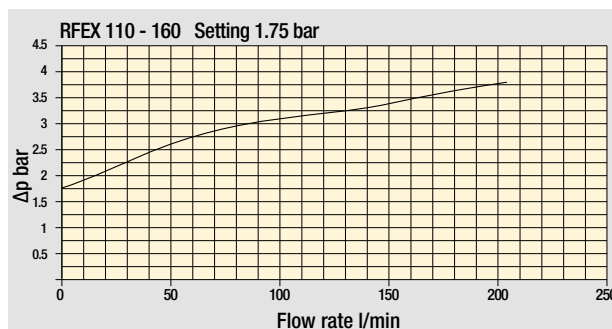
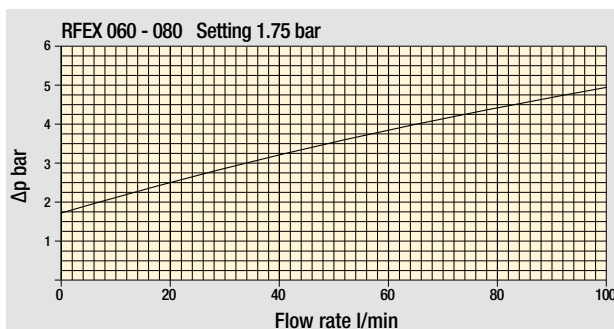
Filter series	A10	A16	A25	M60	M90	P10	P25
<b>RFX 110</b>	141	153	172	250	252	186	196
<b>RFX 160</b>	166	168	191	255	256	207	215

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



Pressure drop

Filter housings  
 $\Delta p$  pressure drop





Bypass valve  
pressure drop

The curves are plotted using mineral oil with density of  $0.86 \text{ kg/dm}^3$  in compliance with ISO 3968.  
 $\Delta p$  varies proportionally with density.



# RFEX RFEX060 - RFEX080

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example: <b>RFEX060</b> <b>B</b> <b>A</b> <b>A</b> <b>6</b> <b>A10</b> <b>N</b> <b>P01</b>							
<b>RFEX060</b> Filter featuring  Filter Element								
<b>RFEX080</b> Filter featuring  Filter Element								
<b>Bypass valve</b>								
<b>S</b> Without bypass								
<b>B</b> 1.75 bar								
<b>Seals and treatments</b>								
<b>A</b> NBR								
<b>Connections</b>								
<b>A</b> G 3/4"								
<b>B</b> G 1"								
<b>C</b> 3/4" NPT								
<b>D</b> 1" NPT								
<b>E</b> SAE 12 - 1 1/16" - 12 UN								
<b>F</b> SAE 16 - 1 5/16" - 12 UN								
<b>Connection for clogging indicator</b>								
<b>6</b> With plugged connections								
<b>Filtration rating</b>								
<b>A10</b> Inorganic microfiber 10 µm								
<b>A16</b> Inorganic microfiber 16 µm								
<b>A25</b> Inorganic microfiber 25 µm								
<b>M60</b> Wire mesh 60 µm								
<b>M90</b> Wire mesh 90 µm								
<b>P10</b> Resin impregnated paper 10 µm								
<b>P25</b> Resin impregnated paper 25 µm								
<b>Element Δp</b>								
<b>N</b> 8 bar								
<b>Execution</b>								
<b>P01</b> MP Filtri standard								
<b>Pxx</b> Customized								

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example: <b>FEX060</b> <b>A10</b> <b>A</b> <b>N</b> <b>P01</b>				
<b>FEX060</b> Filter Element with  feature					
<b>FEX080</b> Filter Element with  feature					
<b>Filtration rating</b>					
<b>A10</b> Inorganic microfiber 10 µm					
<b>A16</b> Inorganic microfiber 16 µm					
<b>A25</b> Inorganic microfiber 25 µm					
<b>M60</b> Wire mesh 60 µm					
<b>M90</b> Wire mesh 90 µm					
<b>P10</b> Resin impregnated paper 10 µm					
<b>P25</b> Resin impregnated paper 25 µm					
<b>Seals and treatments</b>					
<b>A</b> NBR					
<b>Element Δp</b>					
<b>N</b> 8 bar					
<b>Execution</b>					
<b>P01</b> MP Filtri standard					
<b>Pxx</b> Customized					

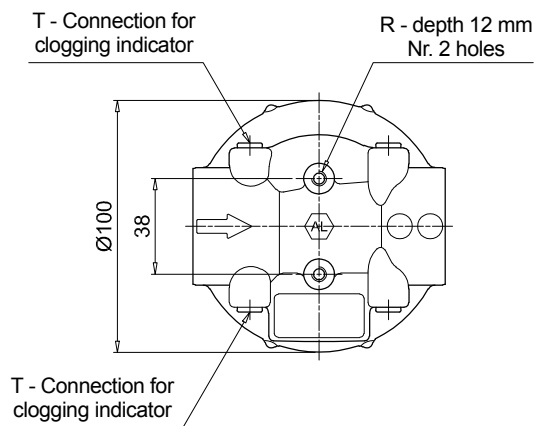
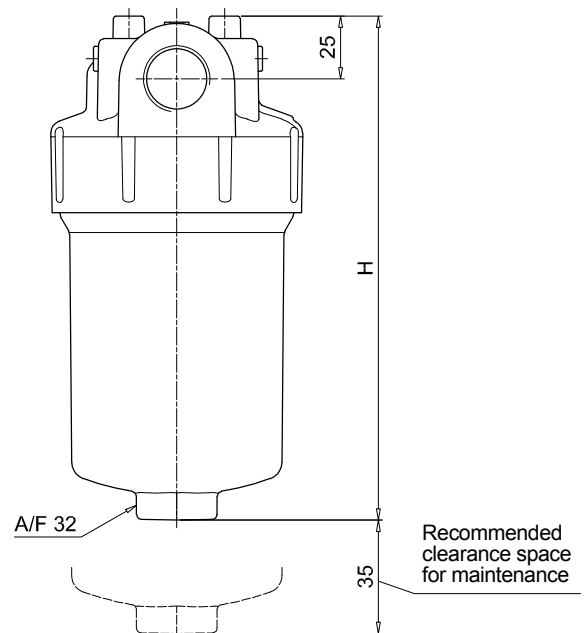
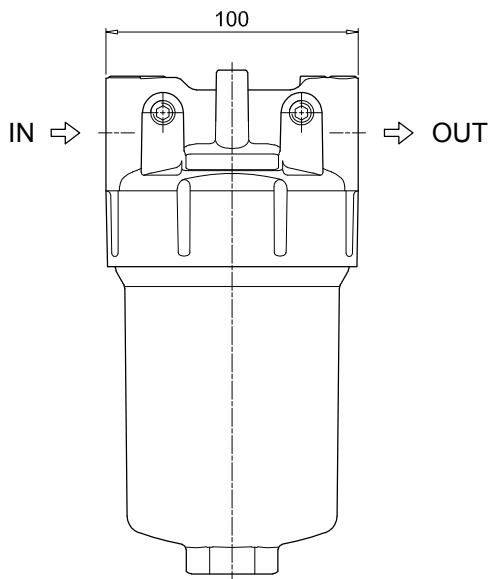
### CLOGGING INDICATORS

See page 720-721

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

Filter size	H [mm]
<b>060</b>	202
<b>080</b>	265

Connections	T	R
<b>A</b>	G 1/8"	M6
<b>B</b>	G 1/8"	M6
<b>C</b>	1/8" NPT	1/4" UNC
<b>D</b>	1/8" NPT	1/4" UNC
<b>E</b>	1/8" NPT	1/4" UNC
<b>F</b>	1/8" NPT	1/4" UNC




# RFEX RFEX110 - RFEX160

## Designation & Ordering code

### COMPLETE FILTER

Series and size Configuration example: **RFEX110** **B** **A** **A** **6** **A10** **N** **P01**

**RFEX110** Filter featuring  Filter Element

**RFEX160** Filter featuring  Filter Element

#### Bypass valve

**S** Without bypass

**B** 1.75 bar

#### Seals and treatments

**A** NBR

#### Connections

**A** G 1"

**B** G 1 1/4"

**C** 1" NPT

**D** 1 1/4" NPT

**E** SAE 16 - 1 5/16" - 12 UN

**F** SAE 20 - 1 5/8" - 12 UN

#### Connection for clogging indicator

**6** With plugged connections

#### Filtration rating

**A10** Inorganic microfiber 10 µm

**A16** Inorganic microfiber 16 µm

**A25** Inorganic microfiber 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** 8 bar

#### Execution


**P01** MP Filtri standard


**Pxx** Customized

### FILTER ELEMENT

#### Element series and size

Configuration example: **FEX110** **A10** **A** **N** **P01**

**FEX110** Filter Element with  feature

**FEX160** Filter Element with  feature

#### Filtration rating

**A10** Inorganic microfiber 10 µm

**A16** Inorganic microfiber 16 µm

**A25** Inorganic microfiber 25 µm

**M60** Wire mesh 60 µm

**M90** Wire mesh 90 µm

**P10** Resin impregnated paper 10 µm

**P25** Resin impregnated paper 25 µm

#### Seals and treatments

**A** NBR

#### Element Δp

**N** 8 bar

#### Execution

**P01** MP Filtri standard

**Pxx** Customized

### CLOGGING INDICATORS

See page 720-721

**BEA** Electrical pressure indicator

**BEM** Electrical pressure indicator

**BLA** Electrical / visual pressure indicator

**BVA** Axial pressure gauge

**BVR** Radial pressure gauge

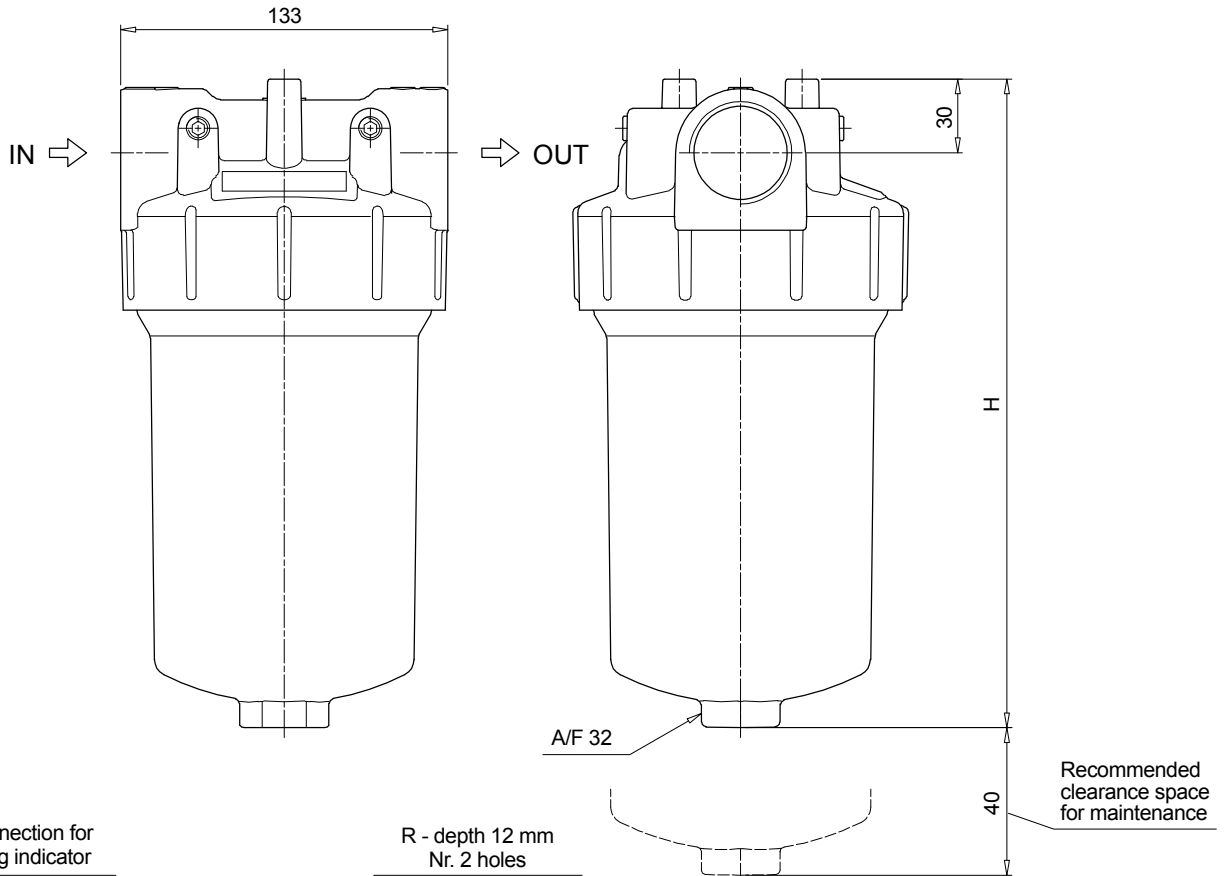
**BVP** Visual pressure indicator with automatic reset

**BVQ** Visual pressure indicator with manual reset

Filter size	H [mm]	
<b>110</b>	266	
<b>160</b>	315	

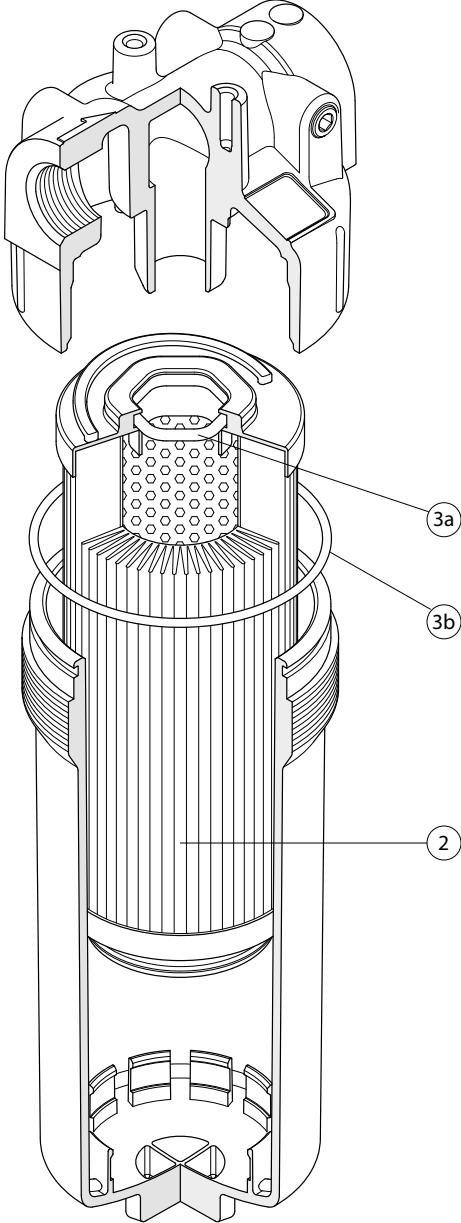
  

Connections	T	R
<b>A</b>	G 1/8"	M8
<b>B</b>	G 1/8"	M8
<b>C</b>	1/8" NPT	5/16" UNC
<b>D</b>	1/8" NPT	5/16" UNC
<b>E</b>	1/8" NPT	5/16" UNC
<b>F</b>	1/8" NPT	5/16" UNC



# RFEX SPARE PARTS

Order number for spare parts



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.
	<b>2</b>	<b>3</b> (3a ÷ 3b)
Filter series	Filter element	Seal Kit code number NBR
<b>RFEX 060-080</b>	See order table	02050771
<b>RFEX 110-160</b>		02050772

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example	T2	H
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Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-



THE **X** CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.  
Quality and efficiency are fundamental for MP Filtri:  
this exclusive new filter element possesses polygon shape geometry and specific seal  
that ensures only original spare parts can be used - ensuring correct operation and  
higher system reliability.

MPFX series

with **MYCLEAN** MFX Filter Element



- **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 are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1



TOGETHER WITH **MYCLEAN**, AS OPTION, MPFX SERIES CAN BE PROVIDED WITH

**zerospark**<sup>®</sup>  
THE ANTI-STATIC FILTERS

THE **Z** CONCEPT FOR OUR FILTERS



Zerospark<sup>®</sup> is a specialist solution designed to solve the problem of electrostatic discharge inside hydraulic filters. Caused by the electrical charge build-up due to the passage of oil through the filters, this can result in damage to filter elements, oils and circuit components. It can even cause fire hazards in environments where flammable materials are present.

# MPFX series

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



# MPFX GENERAL INFORMATION

## 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 900 l/min
- Multiple connections, to connect several return lines or drains
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve integrated into the filter element, to relieve excessive pressure drop across the filter media
- 2, 3 or 4 fixing holes for installation, to suit a variety of reservoir surfaces
- O-ring or Flat Seal to suit a variety of reservoir surfaces
- Oil dipstick, to easily check the level of the fluid into the reservoir (sold as separate item)
- Extension tube, to be used in deep reservoirs (sold as separate item)
- Diffuser, to reduce the risk of aeration, foaming and noise (sold as separate item)
- Filler plug, to fill cleaned fluid into the tank without an additional connection
- Visual, electrical and electronic clogging indicators
- MYclean interface connection, to protect the product against non-original spare parts
- External protective wrap, to optimize the flow through the element and to save the element efficiency against non-proper handling

### Common applications:

- Light Industrial equipment
- Mobile application

### Filter housing materials

- Head: Aluminium

- Cover

Polyamide: MPFX 030-100-104-110

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

- Bowl: Polyamide

### Bypass valve

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

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

### $\Delta p$ 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 [dm<sup>3</sup>]

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

# GENERAL INFORMATION MPFX

Flow rates [l/min]

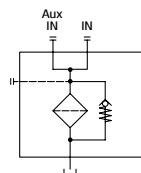
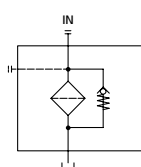
Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MPFX 030</b>	<b>1</b>	7	10	24	29	47	84	60	66
<b>MPFX 100-104-110</b>	<b>1</b>	18	20	53	56	65	153	87	96
	<b>2</b>	28	38	65	75	95	158	111	123
	<b>3</b>	48	55	125	135	169	289	224	251
	<b>4</b>	79	89	180	185	198	306	264	289
<b>MPFX 181-182-184</b>	<b>1</b>	127	148	235	243	278	441	285	299
	<b>2</b>	231	262	358	382	388	472	404	412
<b>MPFX 191-192-194</b>	<b>2</b>	261	305	489	528	546	696	583	598
<b>MPFX 400</b>	<b>1</b>	150	171	294	304	350	585	370	390
	<b>2</b>	237	252	454	462	589	868	619	645
	<b>3</b>	248	288	553	609	621	885	680	703
<b>MPFX 410</b>	<b>1</b>	146	167	277	285	325	512	341	357
	<b>2</b>	226	239	396	402	485	644	503	519
	<b>3</b>	236	269	462	497	505	653	539	553
<b>MPFX 450-451</b>	<b>1</b>	150	171	294	304	350	585	370	390
	<b>2</b>	237	252	454	462	589	868	619	645
	<b>3</b>	248	288	553	609	621	885	680	703
<b>MPFX 750</b>	<b>1</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

Hydraulic symbols

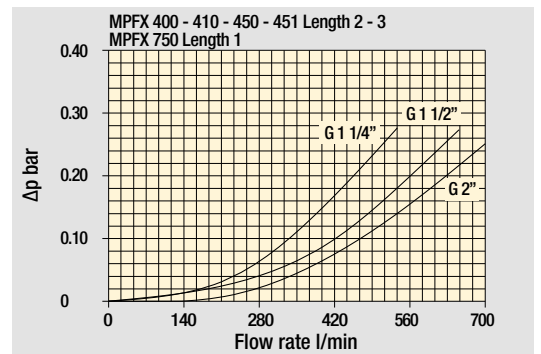
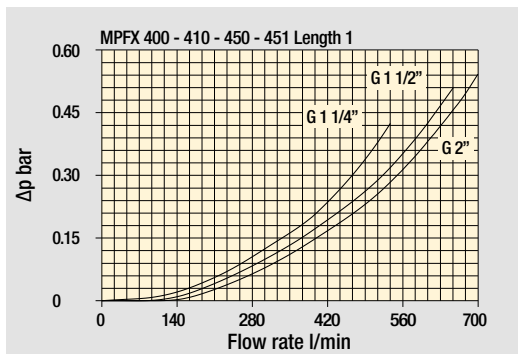
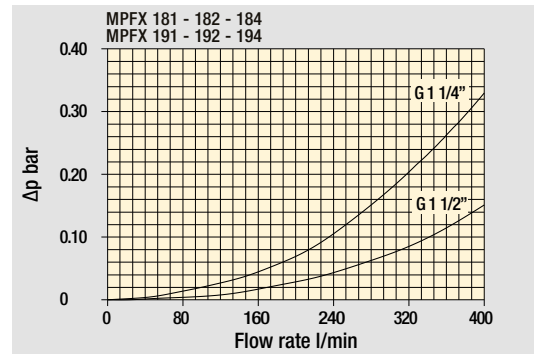
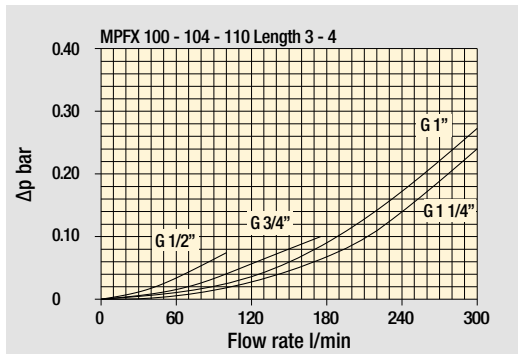
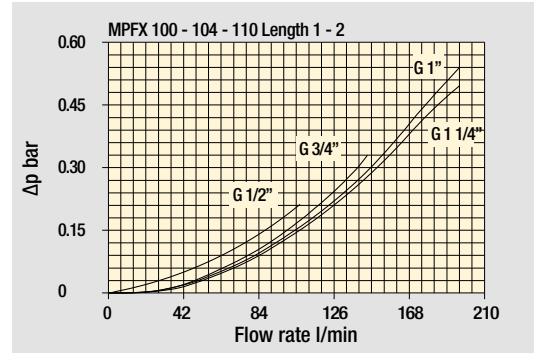
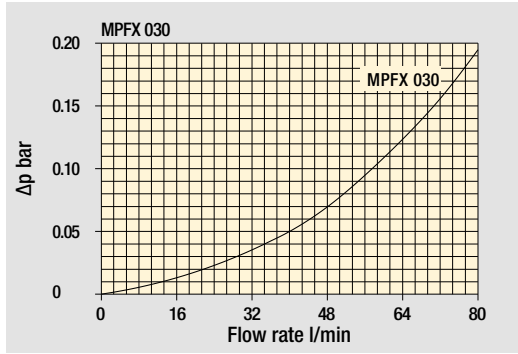
Filter series	Style 1 connection	Style 2 connections
<b>MPFX 030</b>	•	-
<b>MPFX 100</b>	•	-
<b>MPFX 104</b>	•	-
<b>MPFX 110</b>	-	•
<b>MPFX 181</b>	•	-
<b>MPFX 182</b>	-	•
<b>MPFX 184</b>	•	•
<b>MPFX 191</b>	•	-
<b>MPFX 192</b>	•	-
<b>MPFX 194</b>	•	•
<b>MPFX 400</b>	•	-
<b>MPFX 410</b>	-	•
<b>MPFX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



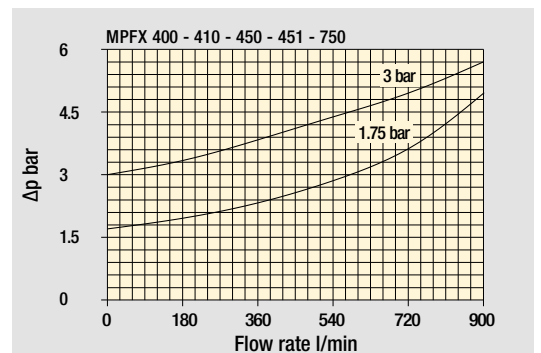
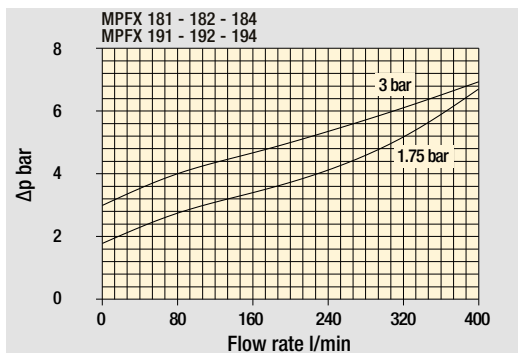
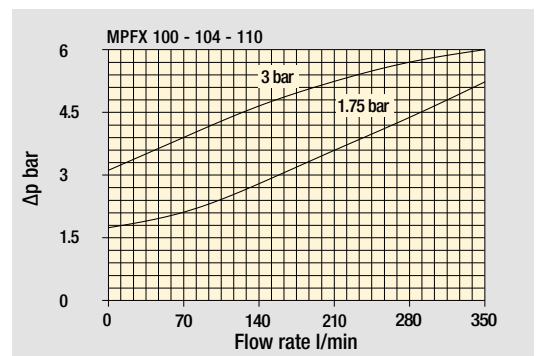
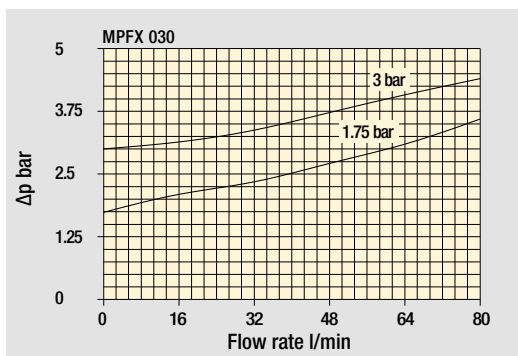
# MPFX GENERAL INFORMATION

## Pressure drop

### Filter housings $\Delta p$ pressure drop



### Bypass valve pressure drop

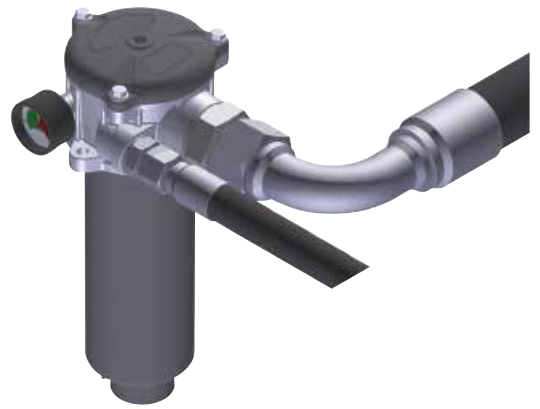


The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

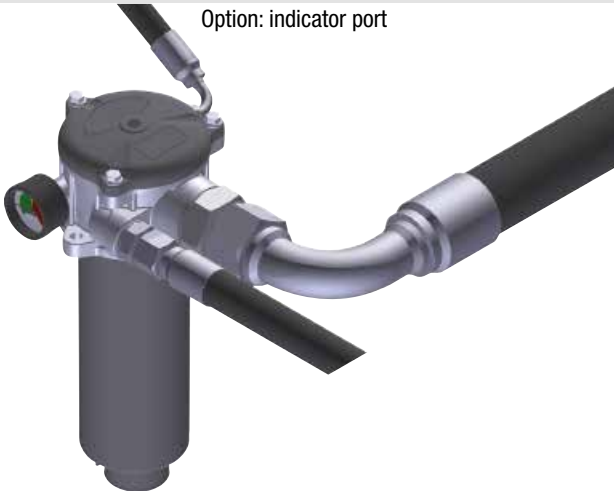
Standard - Single IN port



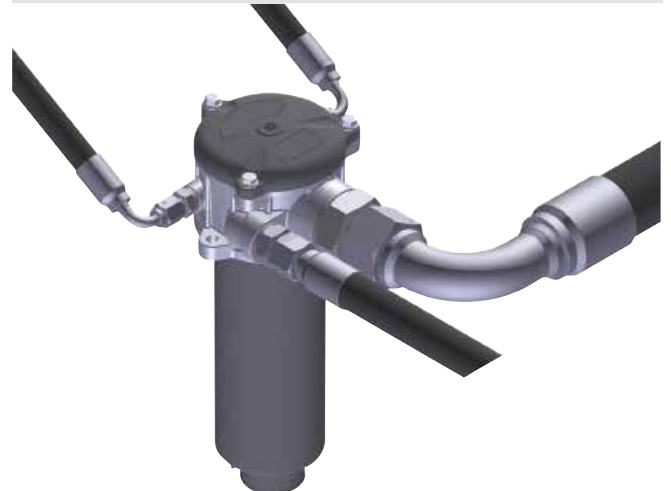
Double IN port  
Option: double indicator port



Double IN port - Drain port  
Option: indicator port



Double IN port - Double drain port



# MPFX MPFX030

## Designation & Ordering code

### COMPLETE FILTER

**Series and size**  
**MPFX030** Filter featuring **MY CLEAN** Filter Element

Configuration example 1: **MPFX030** | **1** | **V** | **G1** | **M25** | **N** | **B** | **P01**  
 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 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
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

**Bypass valve**  
**E** 3 bar  
**B** 1.75 bar

**Executions**  
 Base **zerespark\***  
**P01** **Z01\*** MP Filtri standard  
**Pxx** **Zxx\*** Customized

\* Not for Mxx filter media

### FILTER ELEMENT

**Element series and size**  
**MFXX030** Filter Element with **MY CLEAN** feature

Configuration example 1: **MFXX030** | **1** | **M25** | **N** | **V** | **P01**  
 Configuration example 2: **MFXX030** | **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		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

**Seals**  
**B** NBR  
**V** FPM

**Bypass valve**  
**E** 3 bar  
**-** 1.75 bar

**Executions**  
 Base **zerespark\***  
**P01** **Z01\*** MP Filtri standard  
**Pxx** **Zxx\*** Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

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

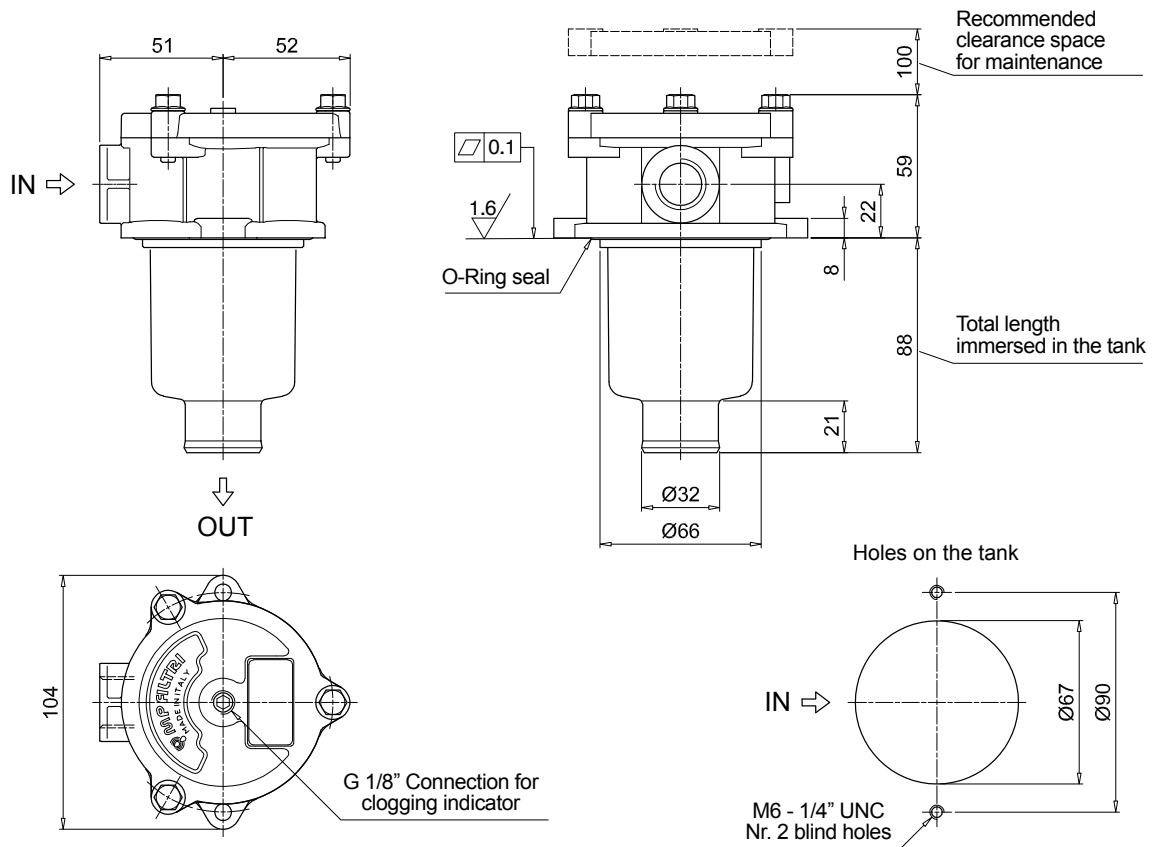
- BEA** Electrical pressure indicator
- BEM** Electrical pressure indicator
- BLA** Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

- TE** Extension tube
- T5** Filler plug M30x1.5

MPFX030



# MPFX MPFX100 - MPFX104

## Designation & Ordering code

### COMPLETE FILTER

**Series and size**  
**MPFX100 | MPFX104** Filter featuring **MYCLEAN** Filter Element

Configuration example 1: **MPFX100** **2** **W** **G3** **A06** **H** **B** **P01**  
 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
<b>G1</b> G 1/2"	•	•	<b>G7</b> SAE 8 - 3/4" - 16 UNF	•	•
<b>G2</b> G 3/4"	•	•	<b>G8</b> SAE 12 - 1 1/16" - 12 UN	•	•
<b>G3</b> G 1"	•	•	<b>G9</b> SAE 16 - 1 5/16" - 12 UN	•	•
<b>G4</b> 1/2" NPT	•	•			
<b>G5</b> 3/4" NPT	•	•			
<b>G6</b> 1" NPT	•	•			

**Filtration rating (filter media)**

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

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

**Executions**

Base	zérospark*	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### FILTER ELEMENT

**Element series and size**  
**MPFX100** Filter Element with **MYCLEAN** feature

Configuration example 1: **MPFX100** **2** **A06** **H** **B** **P01**  
 Configuration example 2: **MPFX100** **4** **P10** **N** **B** **E** **P01**

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

**Filtration rating (filter media)**

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

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

**Seals**

<b>B</b> NBR
<b>V</b> FPM

**Bypass valve**

<b>E</b> 3 bar
- 1.75 bar

**Executions**

Base	zérospark*	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

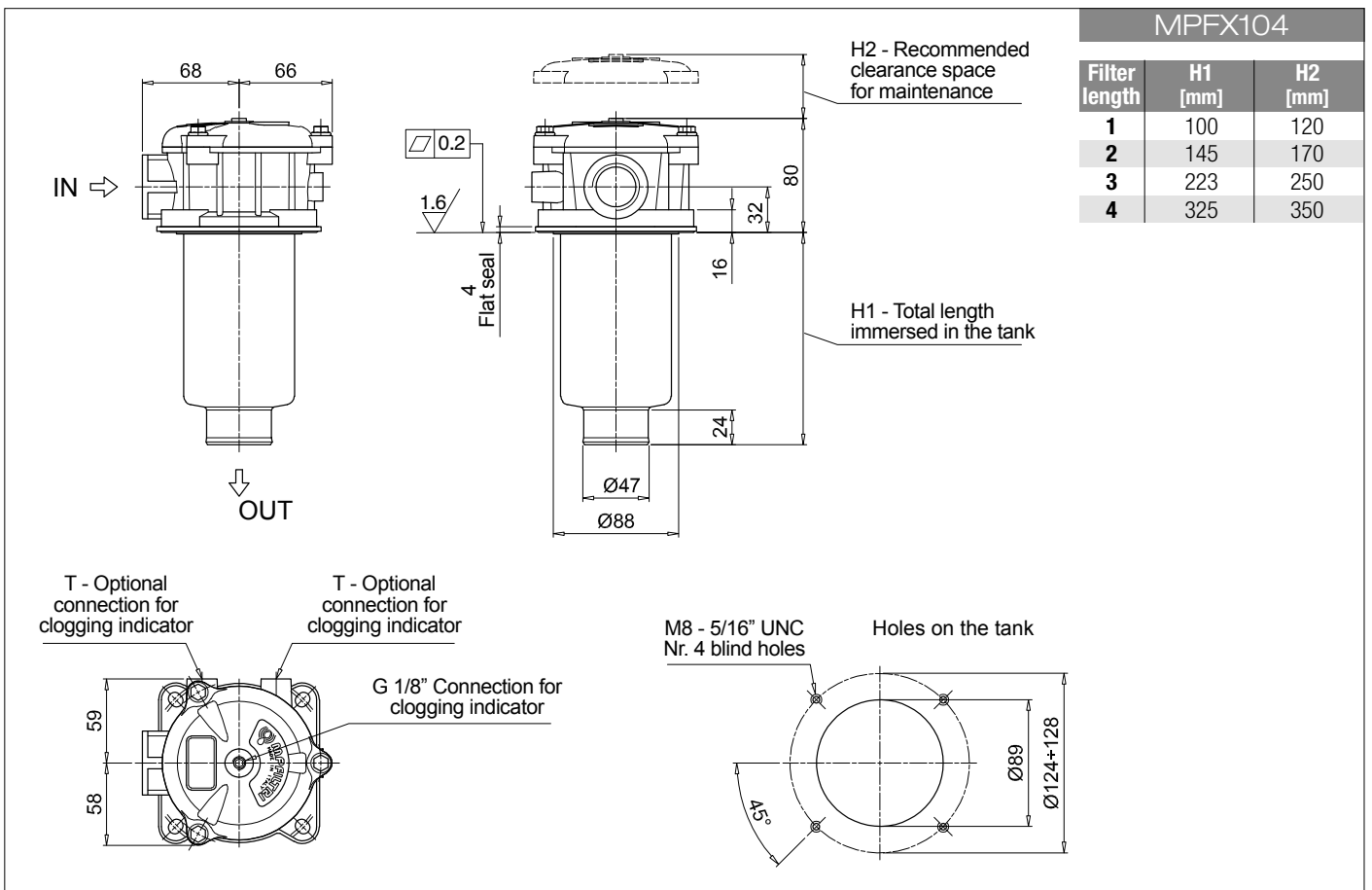
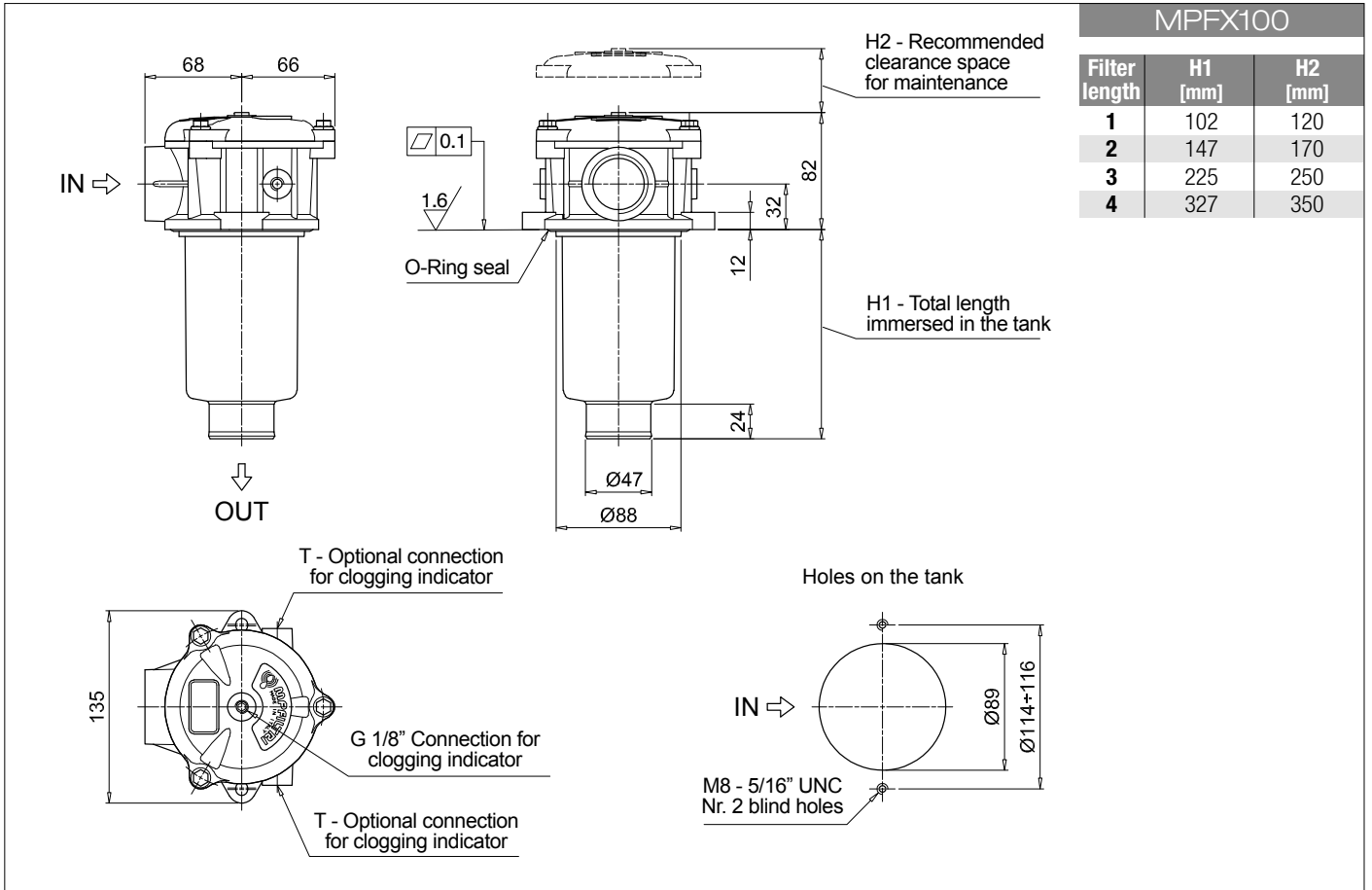
\* Not for Mxx filter media

### CLOGGING INDICATORS

<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator	See page 720-721
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator	
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator	
<b>BVQ</b> Visual pressure indicator with manual reset		

### ADDITIONAL FEATURES

<b>TE</b> Extension tube	<b>T5</b> Filler plug M30x1.5	See page 268
<b>DFS</b> Diffuser with fast lock connection	<b>DPT</b> Dipstick	



# MPFX MPFX110

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>			Configuration example 1: <b>MPFX110</b>   <b>3</b>   <b>Z</b>   <b>G4</b>   <b>2</b>   <b>M25</b>   <b>H</b>   <b>B</b>   <b>P01</b>												
<b>MPFX110</b> Filter featuring <b>MY CLEAN</b> Filter Element			Configuration example 2: <b>MPFX110</b>   <b>4</b>   <b>A</b>   <b>G8</b>   <b>1</b>   <b>P10</b>   <b>N</b>   <b>E</b>   <b>P01</b>												
<b>Length</b>			<b>1</b>   <b>2</b>   <b>3</b>   <b>4</b>												
<b>Seals and treatments</b>			<table border="0"> <tr> <td><b>A</b> NBR</td> <td><b>W</b> NBR head anodized</td> </tr> <tr> <td><b>V</b> FPM</td> <td><b>Z</b> FPM head anodized</td> </tr> </table>									<b>A</b> NBR	<b>W</b> NBR head anodized	<b>V</b> FPM	<b>Z</b> FPM head anodized
<b>A</b> NBR	<b>W</b> NBR head anodized														
<b>V</b> FPM	<b>Z</b> FPM head anodized														
<b>Main Connections</b>	<b>Aux size 1</b>	<b>Aux size 2</b>	<b>Main Connections</b>	<b>Aux size 1</b>	<b>Aux size 2</b>										
<b>G1</b> G 1/2"	G 3/8"	G 1/2"	<b>G7</b> SAE 8 - 3/4" - 16 UNF	SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF										
<b>G2</b> G 3/4"			<b>G8</b> SAE 12 - 1 1/16" - 12 UN												
<b>G3</b> G 1"	3/8" NPT	1/2" NPT	<b>G9</b> SAE 16 - 1 5/16" - 12 UN	G 3/8"	G 1/2"										
<b>G4</b> 1/2" NPT			<b>G10</b> G 1 1/4"												
<b>G5</b> 3/4" NPT			<b>G11</b> 1 1/4" NPT												
<b>G6</b> 1" NPT			<b>G12</b> SAE 20 - 1 5/8" - 12 UN	SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF										
<b>Aux connection - see previous table</b>															
<b>1</b> Aux size 1									<b>2</b> Aux size 2						
<b>Filtration rating (filter media)</b>															
<b>A03</b> Inorganic microfiber 3 µm									<b>M25</b> Wire mesh 25 µm						
<b>A06</b> Inorganic microfiber 6 µm									<b>M60</b> Wire mesh 60 µm						
<b>A10</b> Inorganic microfiber 10 µm									<b>M90</b> Wire mesh 90 µm						
<b>A16</b> Inorganic microfiber 16 µm									<b>P10</b> Resin impregnated paper 10 µm						
<b>A25</b> Inorganic microfiber 25 µm									<b>P25</b> Resin impregnated paper 25 µm						

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Bypass valve	Executions		
	Base	zereospark*	
<b>E</b> 3 bar	<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>B</b> 1.75 bar	<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>			Configuration example 1: <b>MFx100</b>   <b>3</b>   <b>M25</b>   <b>H</b>   <b>V</b>   <b>P01</b>								
<b>MFx100</b> Filter Element with <b>MY CLEAN</b> feature			Configuration example 2: <b>MFx100</b>   <b>4</b>   <b>P10</b>   <b>N</b>   <b>B</b>   <b>E</b>   <b>P01</b>								
<b>Element length</b>			<b>1</b>   <b>2</b>   <b>3</b>   <b>4</b>								
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm									<b>M25</b> Wire mesh 25 µm		
<b>A06</b> Inorganic microfiber 6 µm									<b>M60</b> Wire mesh 60 µm		
<b>A10</b> Inorganic microfiber 10 µm									<b>M90</b> Wire mesh 90 µm		
<b>A16</b> Inorganic microfiber 16 µm									<b>P10</b> Resin impregnated paper 10 µm		
<b>A25</b> Inorganic microfiber 25 µm									<b>P25</b> Resin impregnated paper 25 µm		

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Seals	Bypass valve	Executions		
		Base	zereospark*	
<b>B</b> NBR	<b>E</b> 3 bar	<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>V</b> FPM	- 1.75 bar	<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

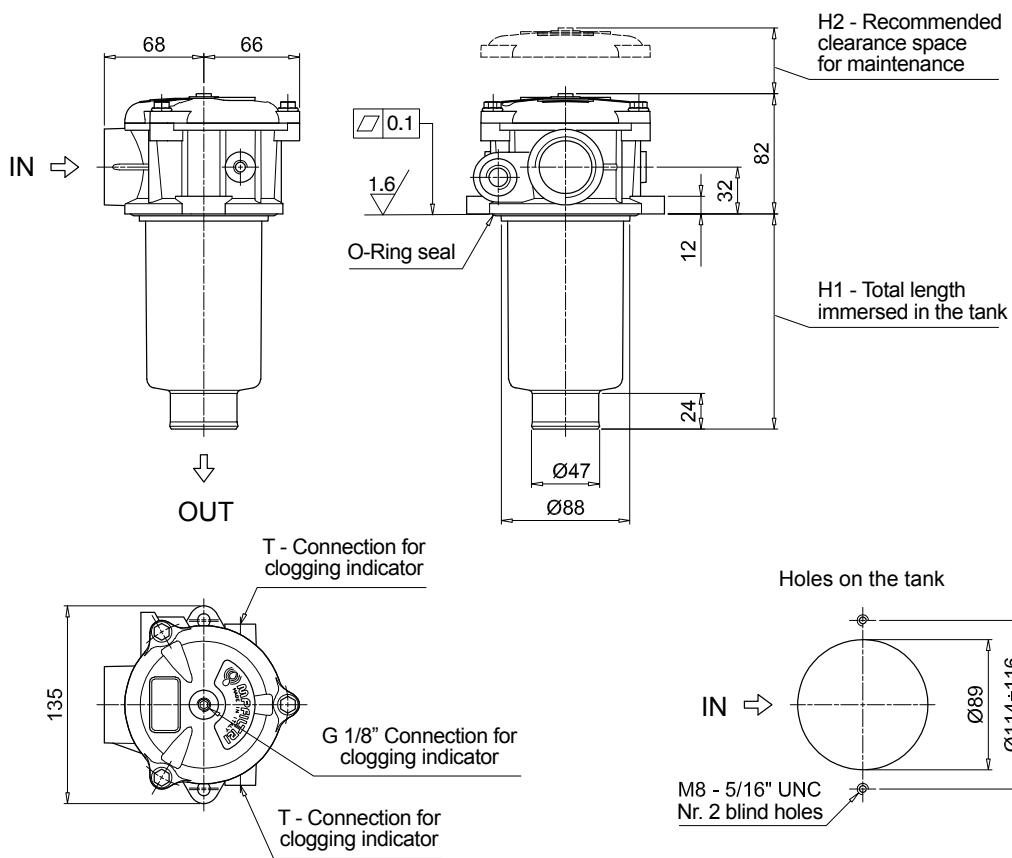
<b>TE</b> Extension tube
<b>DFS</b> Diffuser with fast lock connection

<b>T5</b> Filler plug M30x1.5
<b>DPT</b> Dipstick

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

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



# MPFX MPFX181 - MPFX191

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>			Configuration example 1: <b>MPFX181</b>   1   A   G1   A25   H   E   P01								
<b>MPFX181 MPFX191</b> Filter featuring <b>MYCLEAN</b> Filter Element			Configuration example 2: <b>MPFX191</b>   2   V   G2   P10   N   B   P01								
<b>Length</b>			Size 181			Size 191					
1			•			-					
2			•			•					
<b>Seals and treatments</b>			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								
<b>Connections</b>			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								
<b>Filtration rating (filter media)</b>			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								
<b>Element Δp</b>			Filter media			Bypass valve			Executions		
N 10 bar			Axx Mxx Pxx			E 3 bar			Base <b>zerospark*</b>		
H 10 bar			• - -			B 1.75 bar			P01 Z01* MP Filtri standard		
									Pxx Zxx* Customized		

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>			Configuration example 1: <b>MFX180</b>   1   A25   H   B   E   P01								
<b>MFX180</b> Filter Element with <b>MYCLEAN</b> feature			Configuration example 2: <b>MFX180</b>   2   P10   N   V   P01								
<b>Element length</b>			1			2					
<b>Filtration rating (filter media)</b>			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								
<b>Element Δp</b>			Filter media			Seals			Bypass valve		
N 10 bar			Axx Mxx Pxx			B NBR			E 3 bar		
H 10 bar			• - -			V FPM			- 1.75 bar		
									Executions		
									Base <b>zerospark*</b>		
									P01 Z01* MP Filtri standard		
									Pxx Zxx* Customized		

\* Not for Mxx filter media

### CLOGGING INDICATORS

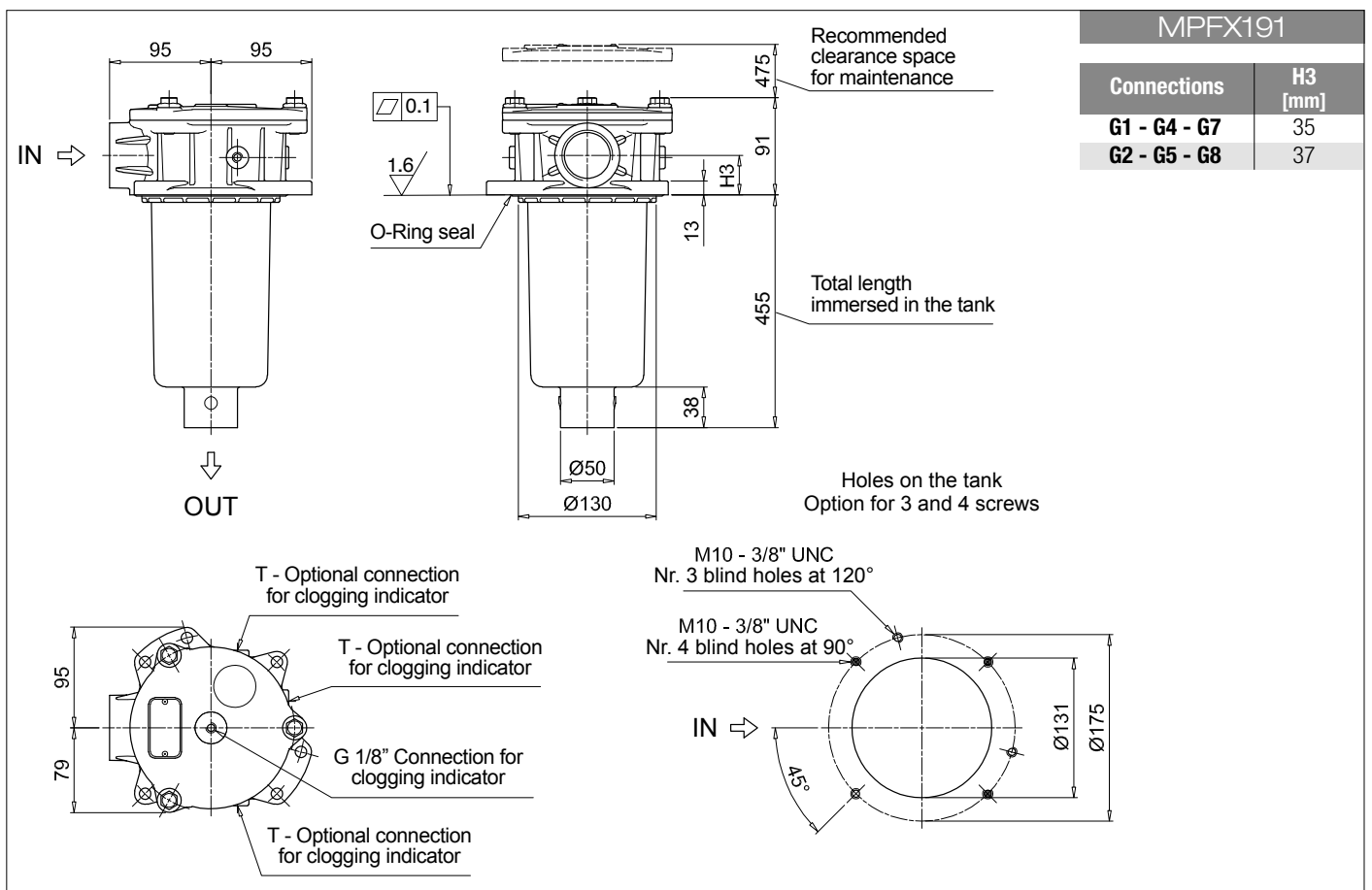
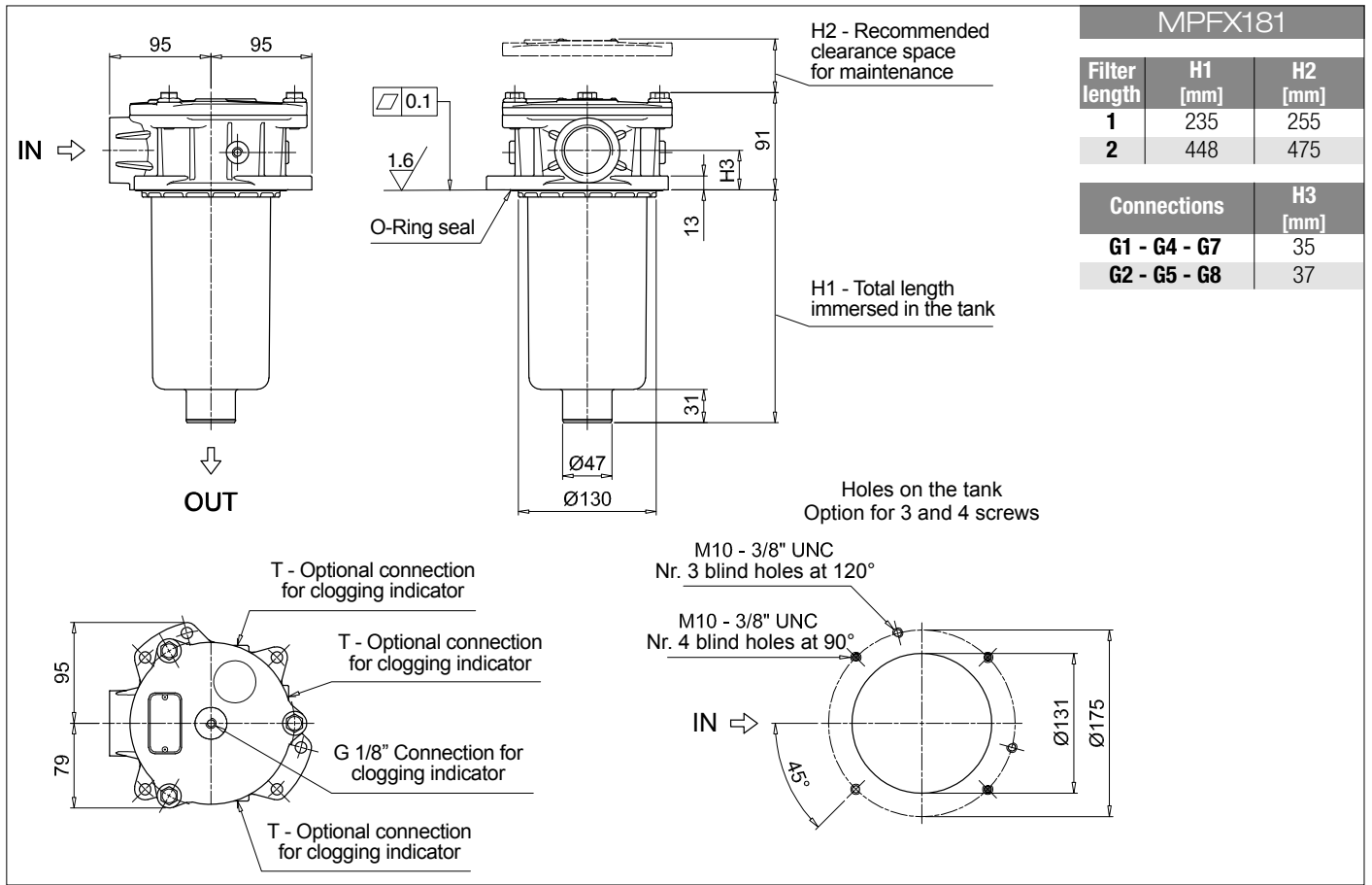
See page 720-721

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

### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube
<b>T5</b> Filler plug M30x1.5



# MPFX MPFX182 - MPFX192

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1:	MPFX182	1	A	G1	1	A25	H	E	P01
<b>MPFX182   MPFX192</b> Filter featuring <b>MYCLEAN</b> Filter Element	Configuration example 2:	MPFX192	2	V	G4	2	P10	N	B	P01

Length	Size 182	Size 192
1	•	-
2	•	•

Seals and treatments	
<b>A</b> NBR	<b>B</b> NBR flat seal on head
<b>V</b> FPM	<b>D</b> FPM flat seal on head
<b>W</b> NBR head anodized	<b>L</b> NBR head anodized, flat seal on head
<b>Z</b> FPM head anodized	<b>M</b> FPM head anodized, flat seal on head

Main Connections	Aux size 1	Aux size 2
<b>G1</b> G 1 1/4"	G 1/2"	G 3/4"
<b>G4</b> 1 1/4" NPT	1/2" NPT	3/4" NPT
<b>G7</b> 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	
<b>1</b> Aux size 1	<b>2</b> Aux size 2

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Bypass valve	Executions	
	Base	zérospark <sup>®</sup>
<b>E</b> 3 bar	<b>P01</b>	<b>Z01</b> * MP Filtri standard
<b>B</b> 1.75 bar	<b>Pxx</b>	<b>Zxx</b> * Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1:	MFX180	1	A25	H	B	E	P01
<b>MFX180</b> Filter Element with <b>MYCLEAN</b> feature	Configuration example 2:	MFX180	2	P10	N	V		P01

Element length	
<b>1</b>	<b>2</b>

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Seals	Bypass valve	Executions	
		Base	zérospark <sup>®</sup>
<b>B</b> NBR	<b>E</b> 3 bar	<b>P01</b>	<b>Z01</b> * MP Filtri standard
<b>V</b> FPM	- 1.75 bar	<b>Pxx</b>	<b>Zxx</b> * Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

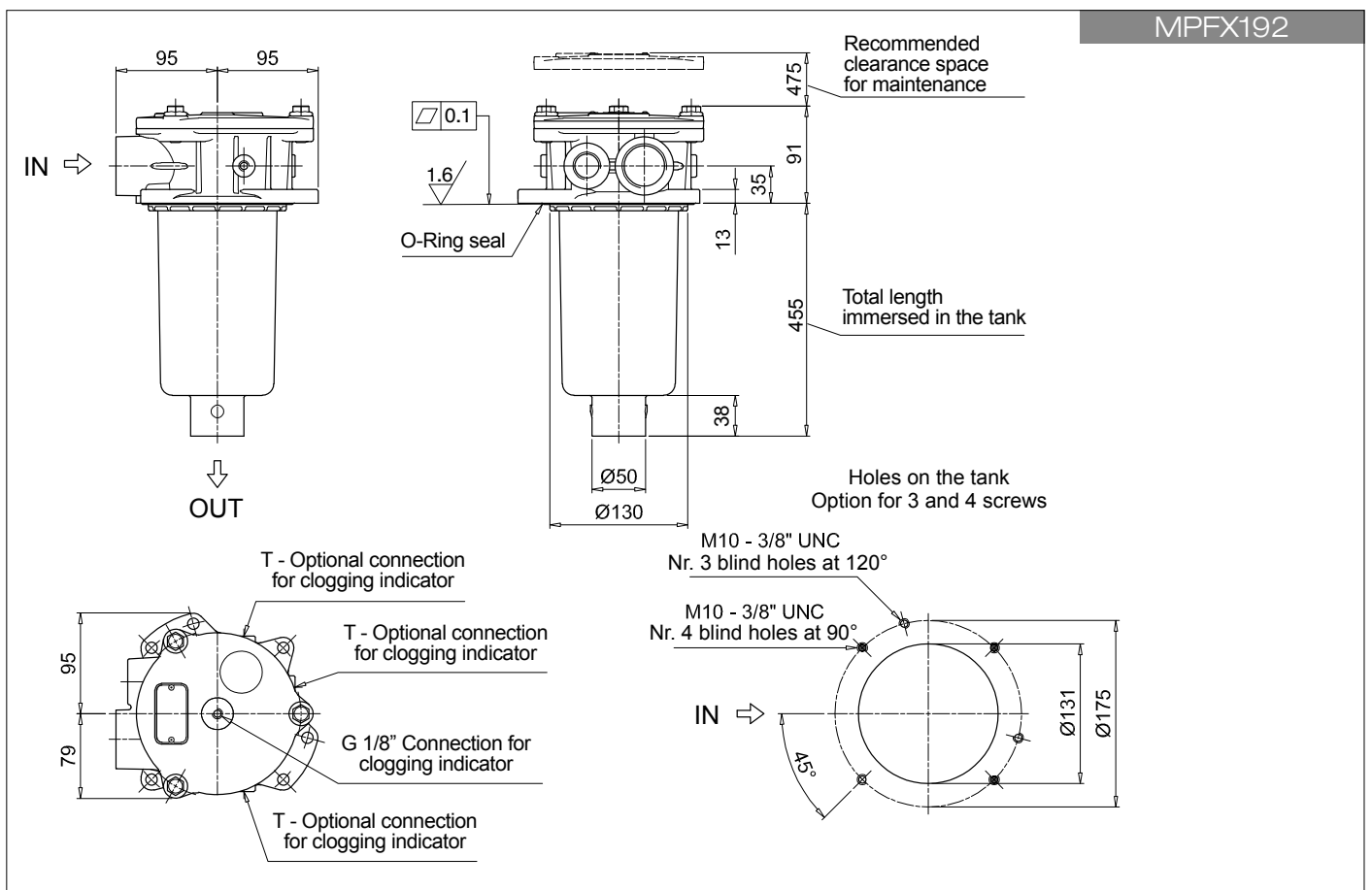
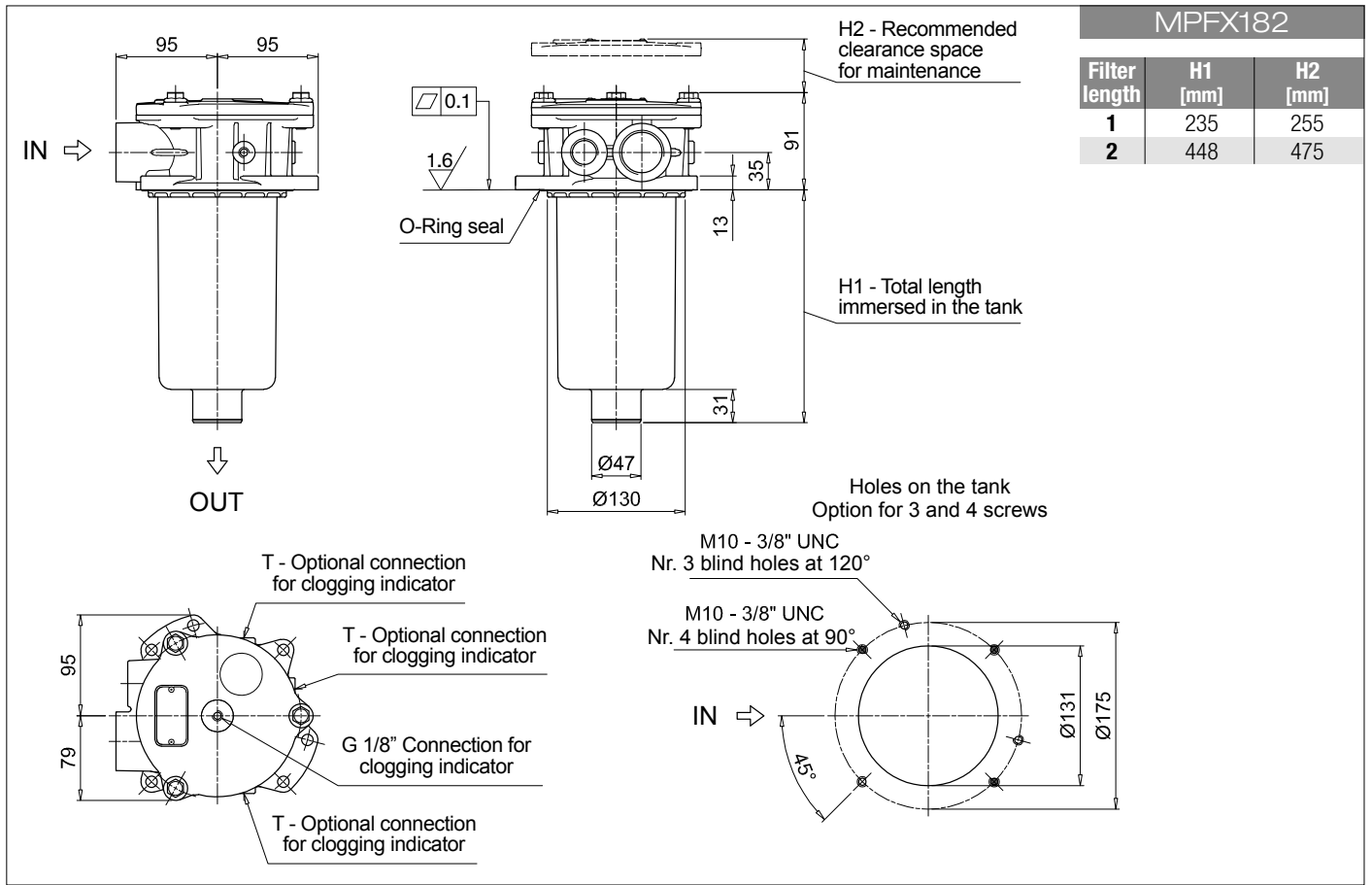
<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube
<b>T5</b> Filler plug M30x1.5



# MPFX MPFX184 - MPFX194

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>			Configuration example 1: <b>MPFX184</b>   1   A   G1   A25   H   E   P01								
<b>MPFX184   MPFX194</b> Filter featuring <b>MYCLEAN</b> Filter Element			Configuration example 2: <b>MPFX194</b>   2   V   F3   P10   N   B   P01								
<b>Length</b>		<b>Size 184</b>	<b>Size 194</b>								
1		•	-								
2		•	•								
<b>Seals and treatments</b>											
<b>A</b> NBR	<b>W</b> NBR	head anodized									
<b>V</b> FPM	<b>Z</b> FPM	head anodized									
<b>Main Connections</b>		<b>Rear connections</b>		<b>Main Connections</b>		<b>Rear connections</b>					
<b>G1</b> G 1 1/4"	-		<b>G13</b> G 1 1/2"	-							
<b>G2</b> G 1 1/4"	G 1 1/4"		<b>G14</b> G 1 1/2"	G 1 1/4"							
<b>G4</b> 1 1/4" NPT	-		<b>G15</b> 1 1/2" NPT	-							
<b>G5</b> 1 1/4" NPT	1 1/4" NPT		<b>G16</b> 1 1/2" NPT	1 1/4" NPT							
<b>G7</b> SAE 20 - 1 5/8" - 12 UN	-		<b>F1</b> 1 1/2" SAE 3000 psi/M	-							
<b>G8</b> SAE 20 - 1 5/8" - 12 UN	SAE 20 - 1 5/8" - 12 UN		<b>F2</b> 1 1/2" SAE 3000 psi/UNC	-							
<b>G10</b> SAE 24 - 1 7/8" - 12 UN	-		<b>F3</b> 1 1/2" SAE 3000 psi/M	1 1/2" SAE 3000 psi/M							
<b>G11</b> SAE 24 - 1 7/8" - 12 UN	SAE 20 - 1 5/8" - 12 UN		<b>F4</b> 1 1/2" SAE 3000 psi/UNC	1 1/2" SAE 3000 psi/UNC							
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm			<b>M25</b> Wire mesh 25 µm								
<b>A06</b> Inorganic microfiber 6 µm			<b>M60</b> Wire mesh 60 µm								
<b>A10</b> Inorganic microfiber 10 µm			<b>M90</b> Wire mesh 90 µm								
<b>A16</b> Inorganic microfiber 16 µm			<b>P10</b> Resin impregnated paper 10 µm								
<b>A25</b> Inorganic microfiber 25 µm			<b>P25</b> Resin impregnated paper 25 µm								

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Bypass valve	Executions	
	Base	zerospark*
<b>E</b> 3 bar	<b>P01</b>	<b>Z01*</b> MP Filtri standard
<b>B</b> 1.75 bar	<b>Pxx</b>	<b>Zxx*</b> Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>			Configuration example 1: <b>MFx180</b>   1   A25   H   B   E   P01								
<b>MFx180</b> Filter Element with <b>MYCLEAN</b> feature			Configuration example 2: <b>MFx180</b>   2   P10   N   V   P01								
<b>Element length</b>		<b>1</b>	<b>2</b>								
1		•	•								
2		•	•								
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm			<b>M25</b> Wire mesh 25 µm								
<b>A06</b> Inorganic microfiber 6 µm			<b>M60</b> Wire mesh 60 µm								
<b>A10</b> Inorganic microfiber 10 µm			<b>M90</b> Wire mesh 90 µm								
<b>A16</b> Inorganic microfiber 16 µm			<b>P10</b> Resin impregnated paper 10 µm								
<b>A25</b> Inorganic microfiber 25 µm			<b>P25</b> Resin impregnated paper 25 µm								

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Seals	Bypass valve	Executions	
		Base	zerospark*
<b>B</b> NBR	<b>E</b> 3 bar	<b>P01</b>	<b>Z01*</b> MP Filtri standard
<b>V</b> FPM	- 1.75 bar	<b>Pxx</b>	<b>Zxx*</b> Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

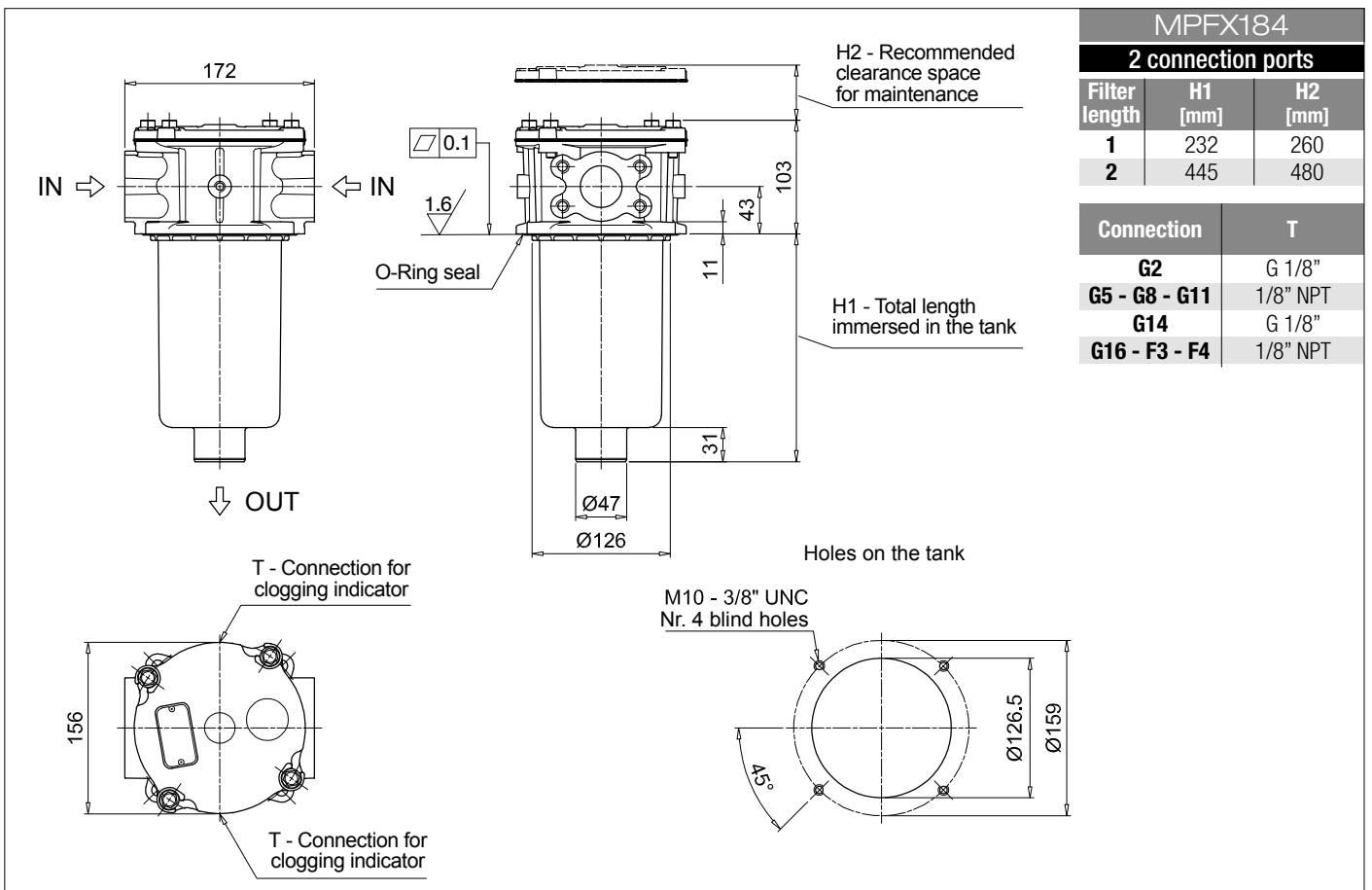
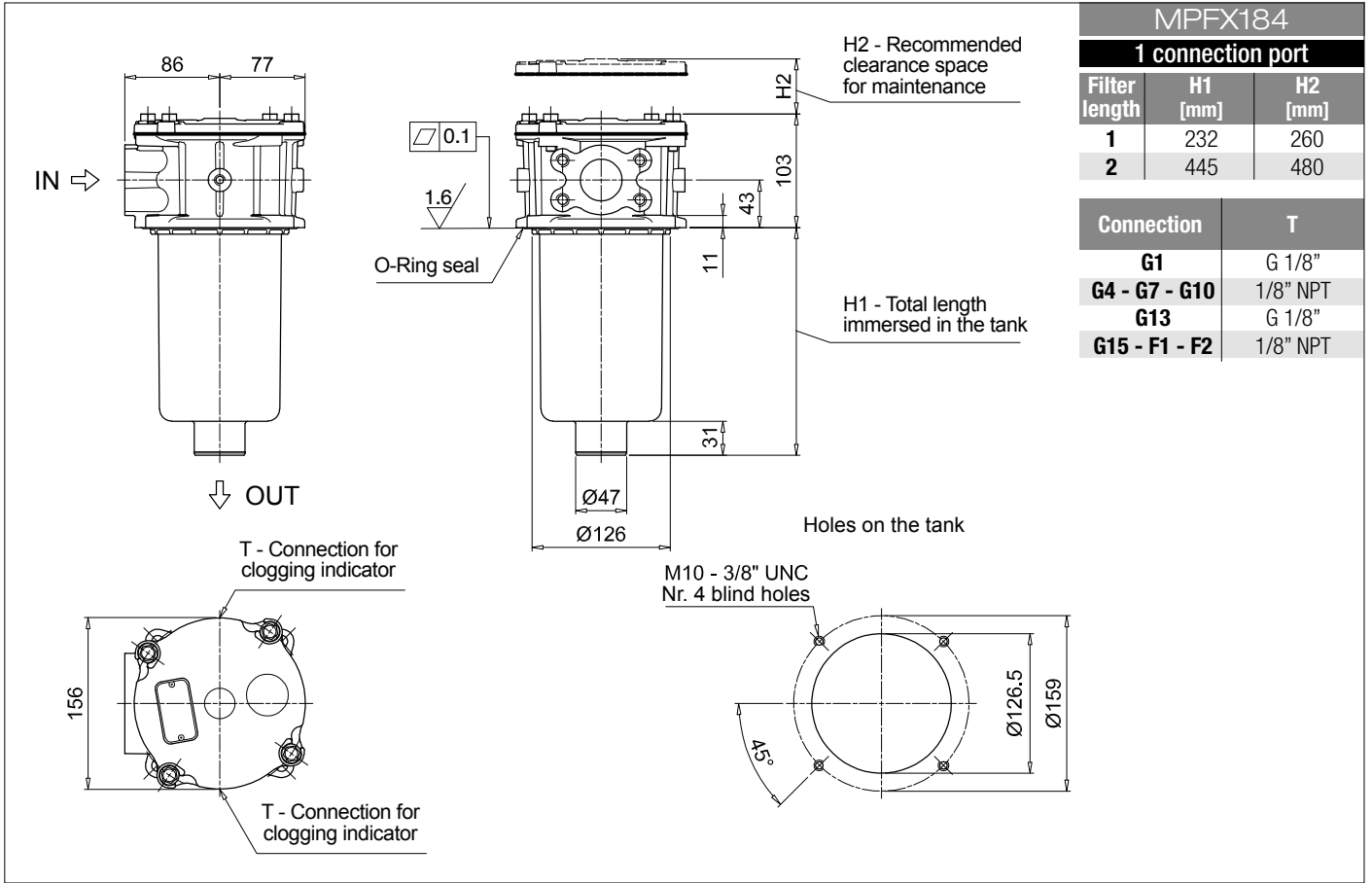
<b>BVA</b> Axial pressure gauge	
<b>BVR</b> Radial pressure gauge	
<b>BVP</b> Visual pressure indicator with automatic reset	
<b>BVQ</b> Visual pressure indicator with manual reset	

<b>BEA</b> Electrical pressure indicator	
<b>BEM</b> Electrical pressure indicator	
<b>BLA</b> Electrical / visual pressure indicator	

### ADDITIONAL FEATURES

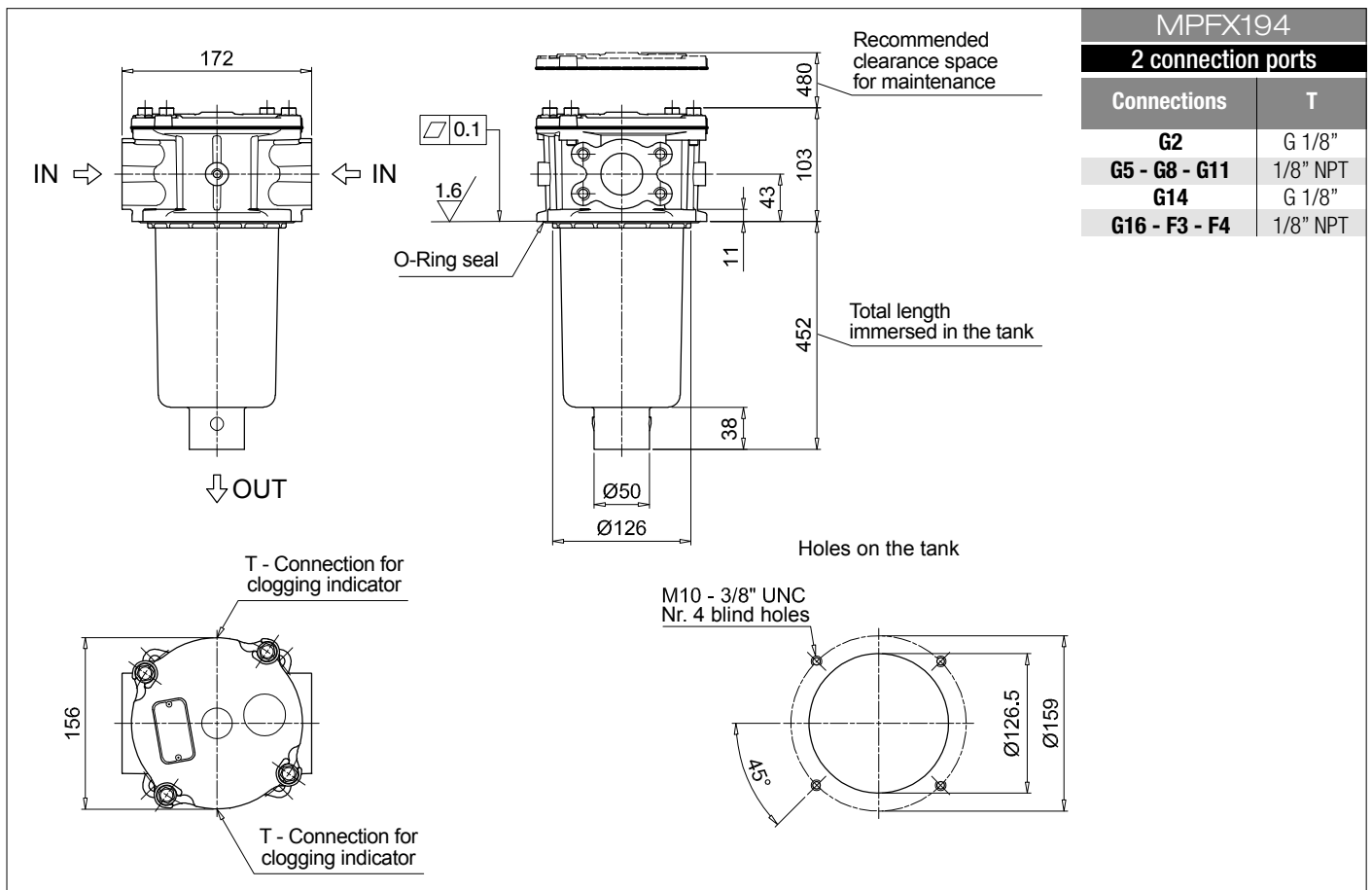
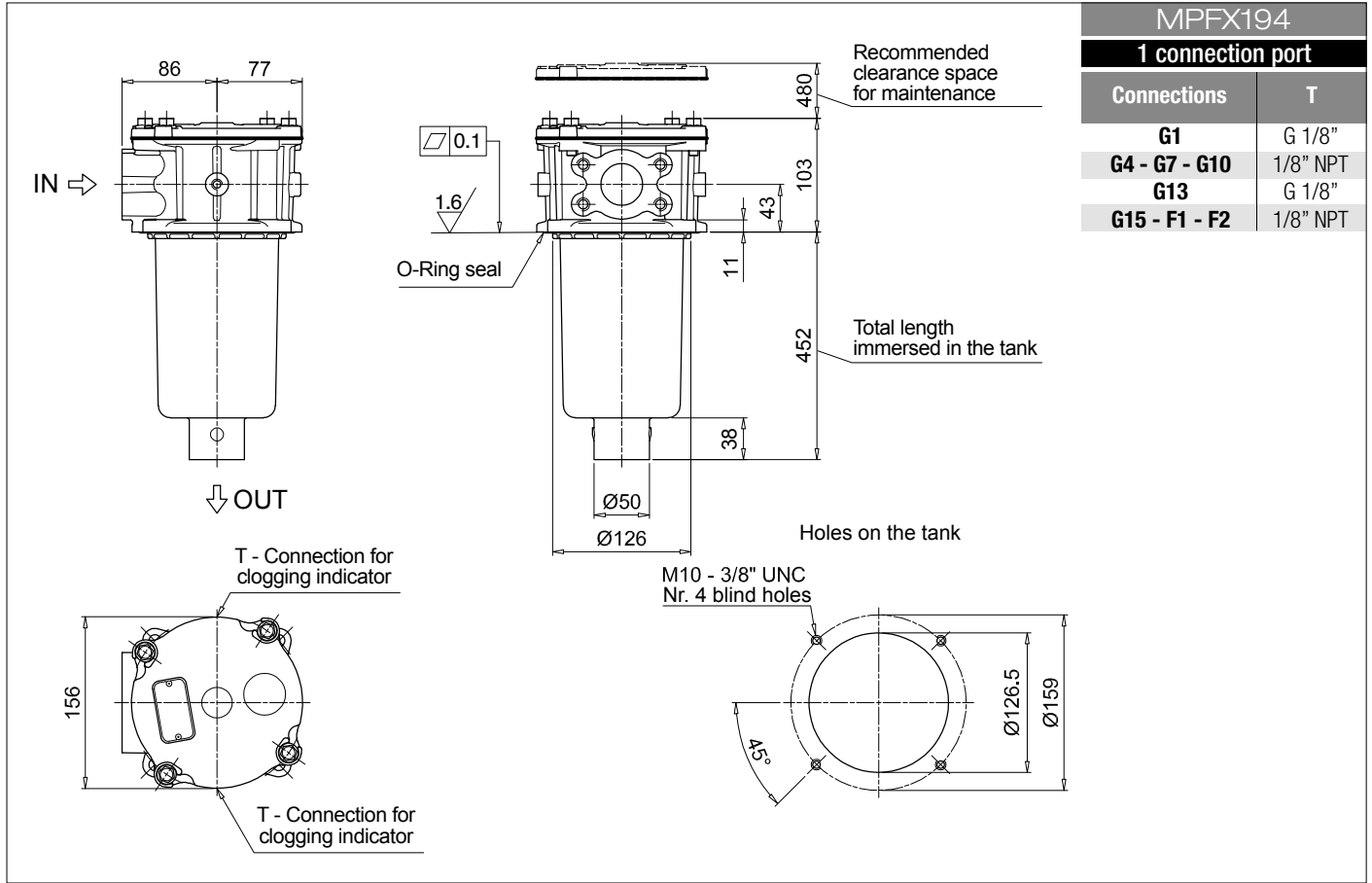
See page 268

<b>TE</b> Extension tube	
<b>T5</b> Filler plug M30x1.5	



# MPFX MPFX184 - MPFX194

## Dimensions



# MPFX MPFX400

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b> <b>MPFX400</b> Filter featuring <b>MYCLEAN</b> Filter Element	Configuration example 1: <b>MPFX400</b>   <b>1</b>   <b>A</b>   <b>G9</b>   <b>A25</b>   <b>H</b>   <b>B</b>   <b>P01</b>
	Configuration example 2: <b>MPFX400</b>   <b>2</b>   <b>V</b>   <b>G4</b>   <b>P10</b>   <b>N</b>   <b>E</b>   <b>P01</b>
<b>Length</b> <b>1</b>   <b>2</b>   <b>3</b>	
<b>Seals and treatments</b> <b>A</b> NBR <b>V</b> FPM <b>W</b> NBR head anodized <b>Z</b> FPM head anodized	
<b>Connections</b> <b>G1</b> G 1 1/4" <b>G6</b> 2" NPT <b>G2</b> G 1 1/2" <b>G7</b> SAE 20 - 1 5/8" - 12 UN <b>G3</b> G 2" <b>G8</b> SAE 24 - 1 7/8" - 12 UN <b>G4</b> 1 1/4" NPT <b>G9</b> SAE 32 - 2 1/2" - 12 UN <b>G5</b> 1 1/2" NPT	
<b>Filtration rating (filter media)</b> <b>A03</b> Inorganic microfiber 3 µm <b>M25</b> Wire mesh 25 µm <b>A06</b> Inorganic microfiber 6 µm <b>M60</b> Wire mesh 60 µm <b>A10</b> Inorganic microfiber 10 µm <b>M90</b> Wire mesh 90 µm <b>A16</b> Inorganic microfiber 16 µm <b>P10</b> Resin impregnated paper 10 µm <b>A25</b> Inorganic microfiber 25 µm <b>P25</b> Resin impregnated paper 25 µm	
<b>Element Δp</b> <b>N</b> 10 bar <b>H</b> 10 bar	<b>Filter media</b> Axx   Mxx   Pxx N 10 bar      -      •      • H 10 bar      •      -      -
	<b>Bypass valve</b> <b>E</b> 3 bar <b>B</b> 1.75 bar
	<b>Executions</b> <b>Base</b>   <b>zereospark</b> <sup>+</sup> <b>P01</b> <b>Z01*</b> MP Filtri standard <b>Pxx</b> <b>Zxx*</b> Customized <small>* Not for Mxx filter media</small>

### FILTER ELEMENT

<b>Element series and size</b> <b>MFx400</b> Filter Element with <b>MYCLEAN</b> feature	Configuration example 1: <b>MFx400</b>   <b>1</b>   <b>A25</b>   <b>H</b>   <b>B</b>   <b>P01</b>
	Configuration example 2: <b>MFx400</b>   <b>2</b>   <b>P10</b>   <b>N</b>   <b>V</b>   <b>E</b>   <b>P01</b>
<b>Element length</b> <b>1</b>   <b>2</b>   <b>3</b>	
<b>Filtration rating (filter media)</b> <b>A03</b> Inorganic microfiber 3 µm <b>M25</b> Wire mesh 25 µm <b>A06</b> Inorganic microfiber 6 µm <b>M60</b> Wire mesh 60 µm <b>A10</b> Inorganic microfiber 10 µm <b>M90</b> Wire mesh 90 µm <b>A16</b> Inorganic microfiber 16 µm <b>P10</b> Resin impregnated paper 10 µm <b>A25</b> Inorganic microfiber 25 µm <b>P25</b> Resin impregnated paper 25 µm	
<b>Element Δp</b> <b>N</b> 10 bar <b>H</b> 10 bar	<b>Filter media</b> Axx   Mxx   Pxx N 10 bar      -      •      • H 10 bar      •      -      -
	<b>Seals</b> <b>B</b> NBR <b>V</b> FPM
	<b>Bypass valve</b> <b>E</b> 3 bar - 1.75 bar
	<b>Executions</b> <b>Base</b>   <b>zereospark</b> <sup>+</sup> <b>P01</b> <b>Z01</b> MP Filtri standard <b>Pxx</b> <b>Zxx*</b> Customized <small>* Not for Mxx filter media</small>

### CLOGGING INDICATORS

See page 720-721

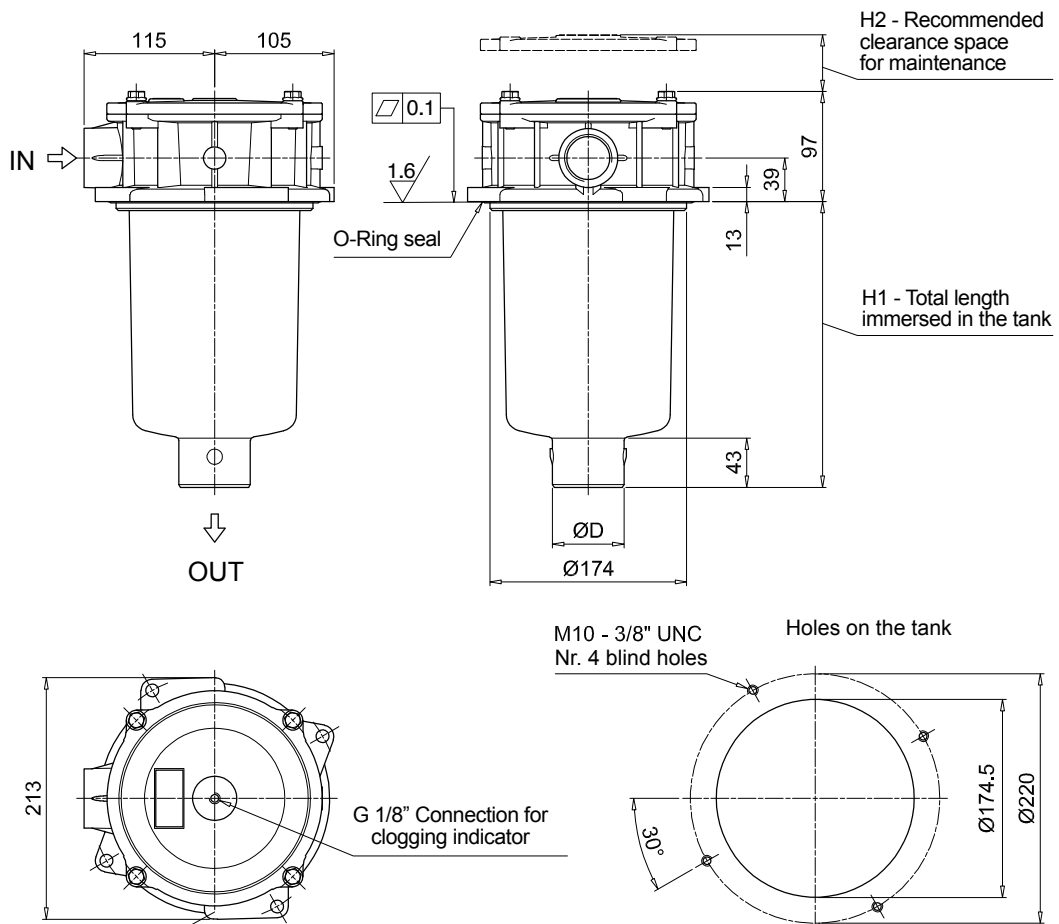
<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator
<b>BVQ</b> Visual pressure indicator with manual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

### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube
<b>T5</b> Filler plug M30x1.5

MPFX400			
Filter length	H1 [mm]	H2 [mm]	D [mm]
<b>1</b>	187	210	50
<b>2</b>	252	270	63
<b>3</b>	300	315	63



# MPFX MPFX410

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1: <b>MPFX410</b>   <b>1</b>   <b>V</b>   <b>G4</b>   <b>1</b>   <b>P10</b>   <b>N</b>   <b>E</b>   <b>P01</b>
<b>MPFX410</b> Filter featuring <b>MY CLEAN</b> Filter Element	Configuration example 2: <b>MPFX410</b>   <b>1</b>   <b>A</b>   <b>G1</b>   <b>1</b>   <b>A25</b>   <b>H</b>   <b>B</b>   <b>P01</b>
<b>Length</b>	<b>1</b>   <b>2</b>   <b>3</b>
<b>Seals and treatments</b>	
<b>A</b> NBR	
<b>V</b> FPM	
<b>W</b> NBR head anodized	
<b>Z</b> FPM head anodized	
<b>Main Connections</b>	<b>Aux size 1</b>
<b>G1</b> G 1 1/4"	G 1"
<b>G4</b> 1 1/4" NPT	1" NPT
<b>G7</b> SAE 20 - 1 5/8" - 12 UN	SAE 16 - 1 5/16" - 12 UN
<b>Aux connection</b> - see previous table	
<b>1</b> Aux size 1	
<b>Filtration rating (filter media)</b>	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Bypass valve	Executions	
	Base	zereospark*
<b>E</b> 3 bar	<b>P01</b>	<b>Z01*</b> MP Filtri standard
<b>B</b> 1.75 bar	<b>Pxx</b>	<b>Zxx*</b> Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1: <b>MFX400</b>   <b>1</b>   <b>P10</b>   <b>N</b>   <b>V</b>   <b>E</b>   <b>P01</b>
<b>MFX400</b> Filter Element with <b>MY CLEAN</b> feature	Configuration example 2: <b>MFX400</b>   <b>1</b>   <b>A25</b>   <b>H</b>   <b>B</b>   <b>P01</b>
<b>Element length</b>	<b>1</b>   <b>2</b>   <b>3</b>
<b>Filtration rating (filter media)</b>	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Seals	Bypass valve	Executions	
		Base	zereospark*
<b>B</b> NBR	<b>E</b> 3 bar	<b>P01</b>	<b>Z01*</b> MP Filtri standard
<b>V</b> FPM	- 1.75 bar	<b>Pxx</b>	<b>Zxx*</b> Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

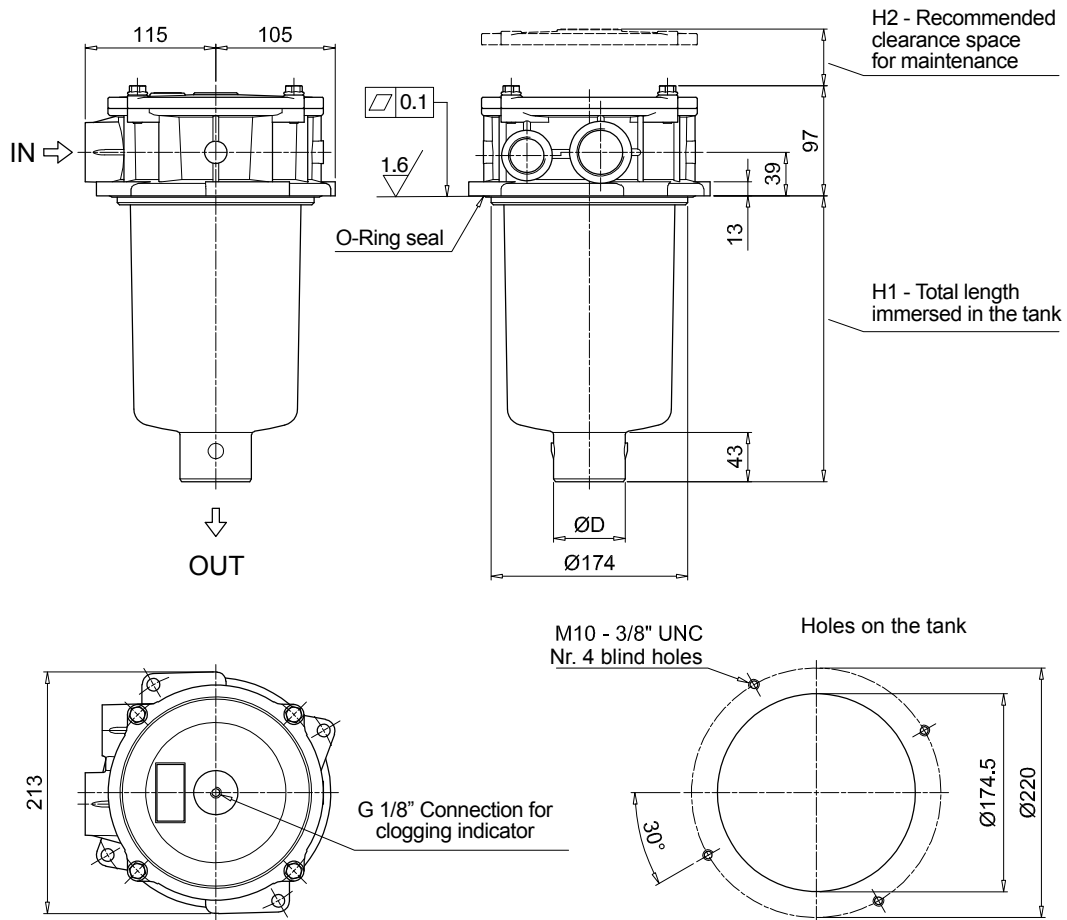
<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube
<b>T5</b> Filler plug M30x1.5

MPFX410			
Filter length	H1 [mm]	H2 [mm]	D [mm]
<b>1</b>	187	210	50
<b>2</b>	252	270	63
<b>3</b>	300	315	63



# MPFX MPFX450 - MPFX451 - MPFX750

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>		Configuration example 1: <b>MPFX450</b>   1   A   G1   A25   H   B   P01	
<b>MPFX450   MPFX451   MPFX750</b>		Configuration example 2: <b>MPFX750</b>   1   V   F2   P10   N   E   P01	
Filter featuring <b>MYCLEAN</b> Filter Element			
<b>Length</b>	<b>MPFX 450</b>   <b>MPFX 451</b>   <b>MPFX 750</b>		
1	•   •   •		
2	•   •   -		
3	•   •   -		
<b>Seals and treatments</b>			
<b>A</b> NBR	<b>W</b> NBR head anodized		
<b>V</b> FPM	<b>Z</b> FPM head anodized		
<b>Connections</b>		<b>Aux (only size 451)</b>	
<b>G1</b> G 2"	G 3/4"		
<b>G4</b> 2" NPT	3/4" NPT		
<b>G7</b> SAE 32 - 2 1/2" - 12 UN	SAE 12 - 1 1/16" - 12 UN		
<b>F1</b> 2" SAE 3000 psi/M	G 3/4"		
<b>F2</b> 2" SAE 3000 psi/UNC	3/4" NPT		
<b>Filtration rating (filter media)</b>			
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm		
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm		
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm		
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm		
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm		
<b>Element Δp</b>		<b>Filter media</b>	
<b>N</b> 10 bar	Axx   Mxx   Pxx	-   •   •	
<b>H</b> 10 bar		•   -   -	
		<b>Bypass valve</b>	
		<b>E</b> 3 bar	
		<b>B</b> 1.75 bar	
		<b>Executions</b>	
		<b>Base</b> <b>zereospark*</b>	
		<b>P01</b> <b>Z01*</b> MP Filtri standard	
		<b>Pxx</b> <b>Zxx*</b> Customized	

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>		Configuration example 1: <b>MFx400</b>   1   A25   H   B   P01	
<b>MFx400   MFx750</b>		Configuration example 2: <b>MFx750</b>   1   P10   N   V   E   P01	
Filter Element with <b>MYCLEAN</b> feature			
<b>Element length</b>	<b>MPFX 450</b>   <b>MPFX 451</b>   <b>MPFX 750</b>		
1	•   •   •		
2	•   •   -		
3	•   •   -		
<b>Filtration rating (filter media)</b>			
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm		
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm		
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm		
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm		
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm		
<b>Element Δp</b>		<b>Filter media</b>	
<b>N</b> 10 bar	Axx   Mxx   Pxx	-   •   •	
<b>H</b> 10 bar		•   -   -	
		<b>Seals</b>	
		<b>B</b> NBR	
		<b>V</b> FPM	
		<b>Bypass valve</b>	
		<b>E</b> 3 bar	
		<b>-</b> 1.75 bar	
		<b>Executions</b>	
		<b>Base</b> <b>zereospark*</b>	
		<b>P01</b> <b>Z01*</b> MP Filtri standard	
		<b>Pxx</b> <b>Zxx*</b> Customized	

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

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

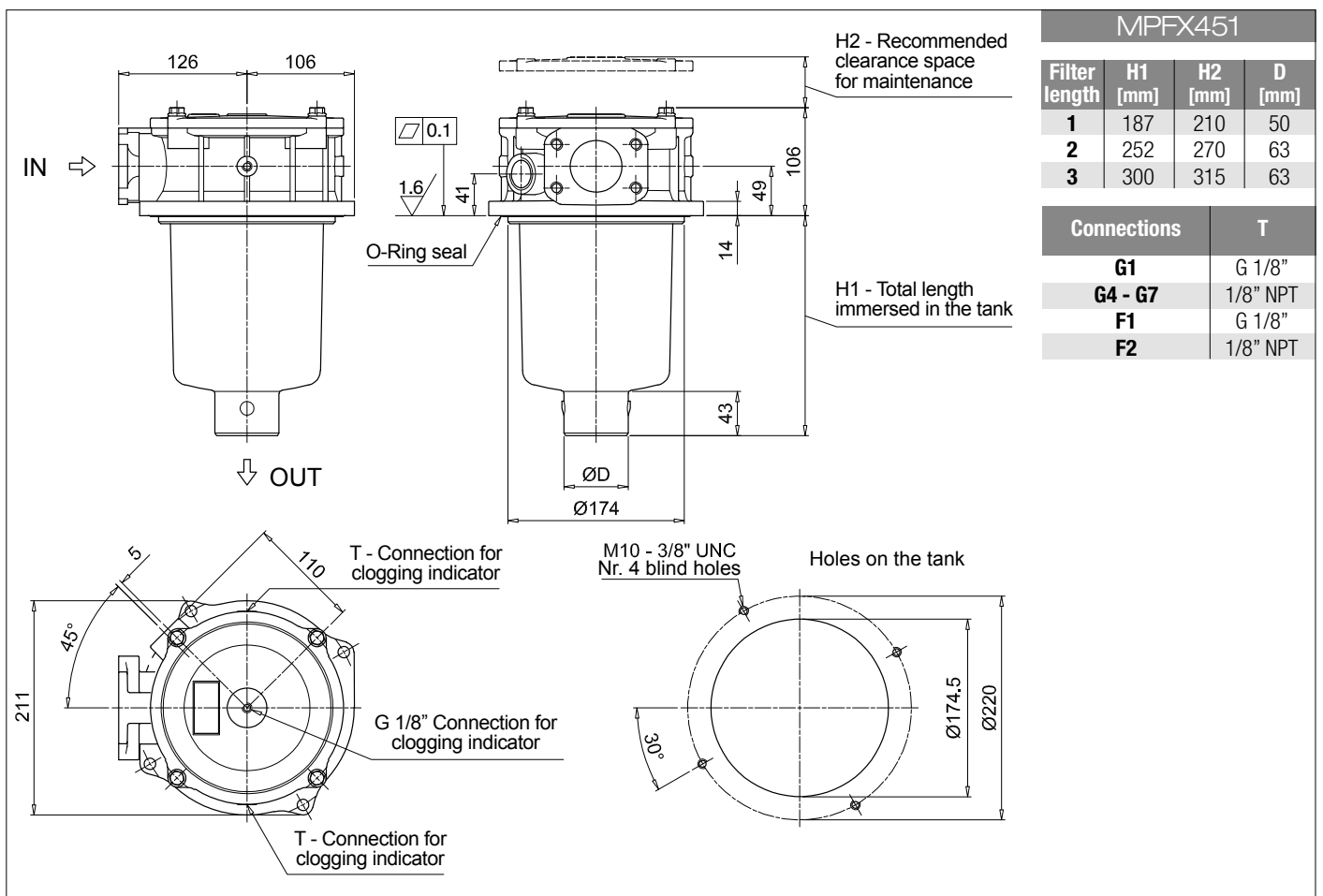
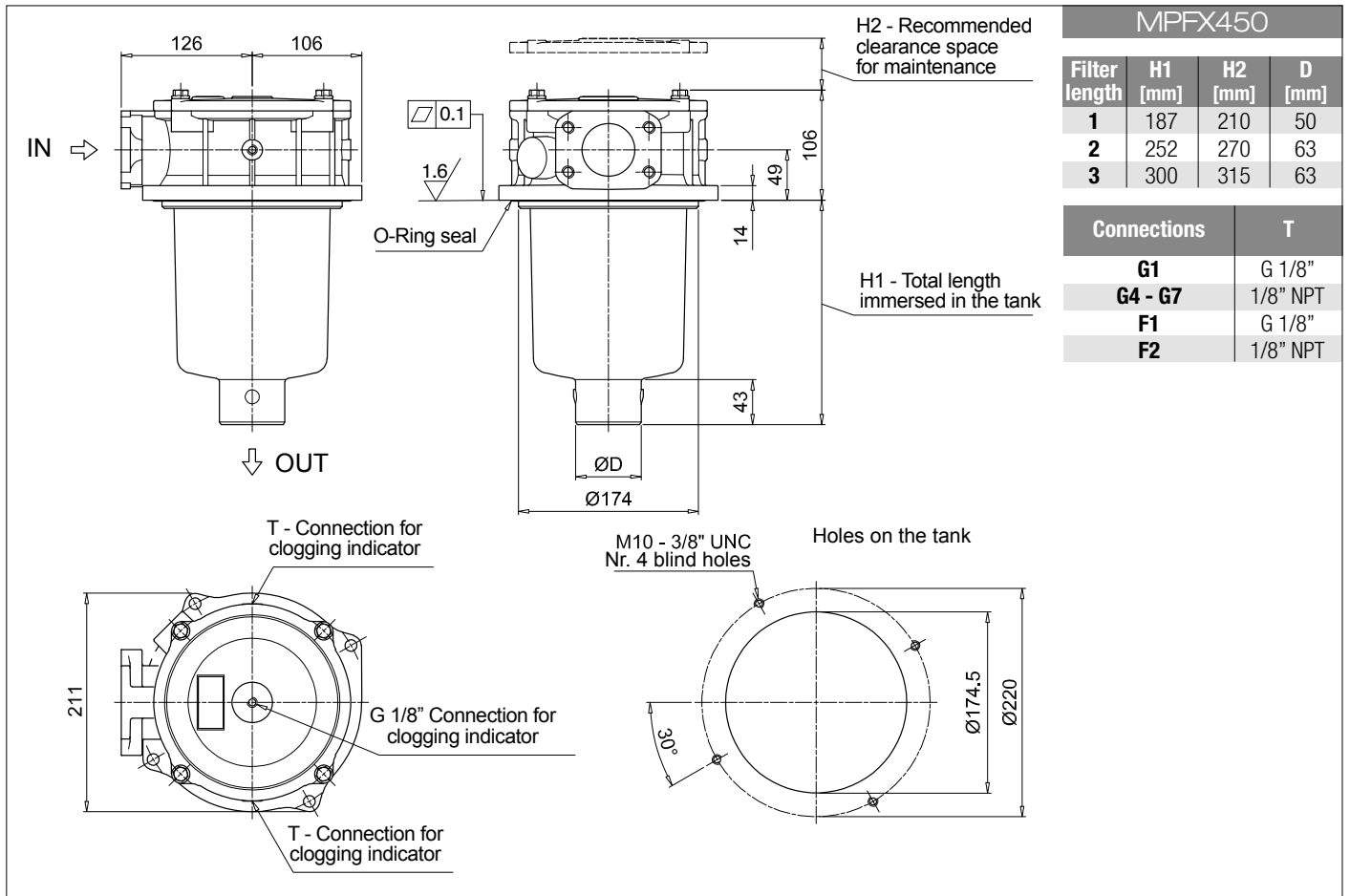
### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube	<b>T5</b> Filler plug M30x1.5
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# MPFX450 - MPFX451 - MPFX750 MPFX

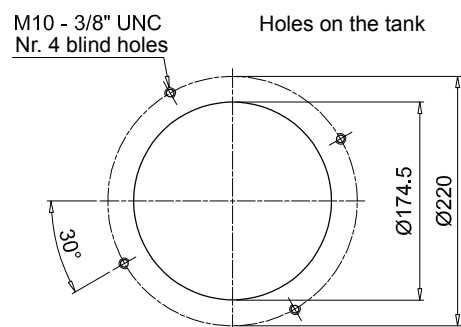
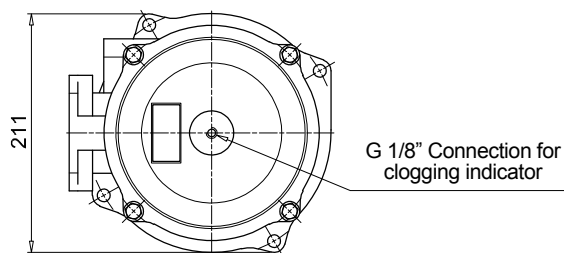
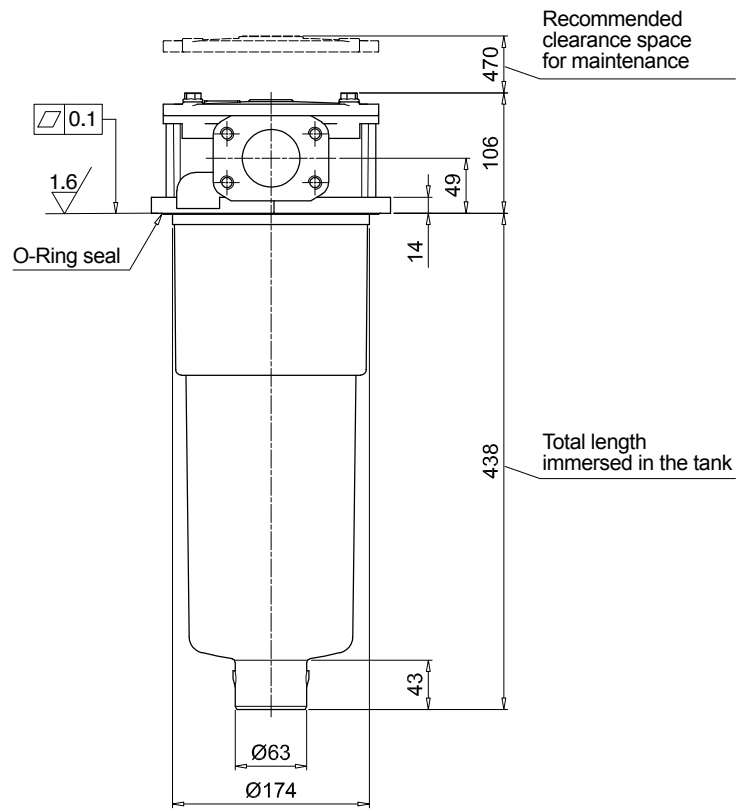
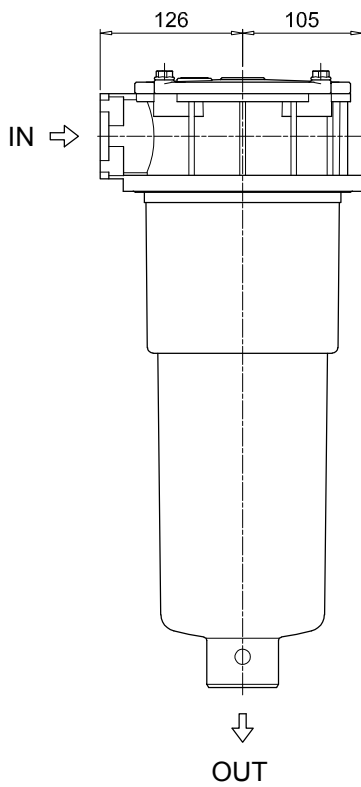
## Dimensions



# MPFX MPFX450 - MPFX451 - MPFX750

## Dimensions

MPFX750



**MPFX 100**

**MPFX 181**

O-RING SEAL			
	Q.ty: 1 pc.	Q.ty: 1 pc.	
Item:	<b>2</b>	<b>3</b> (3a ÷ 3d)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
<b>MPFX 030</b>	See order table	02050675	02050676
<b>MPFX 100-110</b>		02050677	02050678
<b>MPFX 181-182</b>		02050681	02050682
<b>MPFX 184</b>		02050685	02050686
<b>MPFX 191-192</b>		02050683	02050684
<b>MPFX 194</b>		02050687	02050688
<b>MPFX 400-410</b>		02050695	02050696
<b>MPFX 450-451</b>		02050697	02050698
<b>MPFX 750</b>		02050699	02050700

**MPFX 104**

**MPFX 181**

FLAT SEAL			
	Q.ty: 1 pc.	Q.ty: 1 pc.	
Item:	<b>2</b>	<b>3</b> (3a ÷ 3d)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
<b>MPFX 104</b>	See order table	02050679	02050680
<b>MPFX 181-182</b>		02050691	02050692
<b>MPFX 191-192</b>		02050691	02050692

# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

Series	Length	H [mm]	Seals	Execution
<b>DPT</b>	<b>15</b>	<b>134</b>	<b>A</b> NBR	<b>P01</b> MP Filtri standard
	<b>20</b>	<b>184</b>	<b>V</b> FPM	<b>Pxx</b> Customized
	<b>25</b>	<b>234</b>		
	<b>30</b>	<b>284</b>		
	<b>35</b>	<b>334</b>		

**Materials**

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

**Technical data**

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

**Fastening**

- M8** Fastening with screws  $\varnothing D = M8$
- M10** Fastening with screws  $\varnothing D = M10$

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

**Technical data**

Tightening torque: 15 N·m

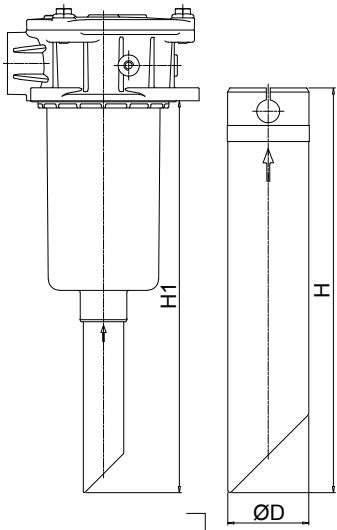
O-Ring 3106

M30x1.5

A/F

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

## POLYAMIDE EXTENSION TUBE



H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

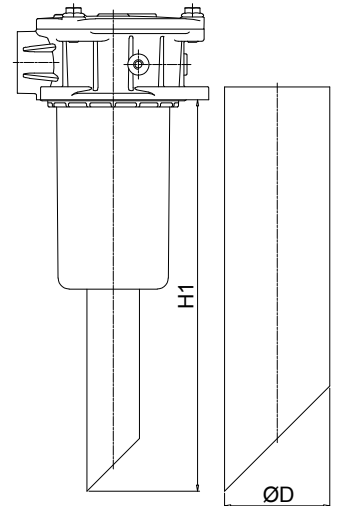
Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
<b>250</b>	<b>250</b>	250	•	-
<b>300</b>	<b>300</b>	300	•	•
<b>350</b>	<b>350</b>	350	•	-
<b>400</b>	<b>400</b>	400	•	•
<b>450</b>	<b>450</b>	450	•	-
<b>500</b>	<b>500</b>	500	•	•
<b>600</b>	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material **A** Polyamide

COMPATIBILITY TABLE																				
Filter series	Filter size			Filter length	Tube length															
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600			
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-		
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-		
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-		
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-		
				2	-	-	•	-	-	-	-	623	673	723	773	823	873	923	-	
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020		
					2	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752
	750	1	-	-	-	-	•	-	-	411	-	511	-	611	-	711	811			
		3	-	-	-	-	-	•	-	459	-	559	-	659	-	759	859			
MPT	110	114	116	120	1	-	•	-	-	-	278	328	378	428	478	528	578	-		
					2	-	•	-	-	-	-	-	342	392	442	492	542	592	642	-
					3	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-		
					2	-	•	-	-	-	-	-	320	370	420	470	520	570	620	-
					3	-	-	•	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	•	-	-	273	323	373	423	473	523	573	-		
					2	-	-	•	-	-	-	-	318	368	418	468	518	568	618	-
					3	-	-	-	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-

## STEEL EXTENSION TUBE



H1

ØD

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

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

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

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example 

T2	H
----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-



THE **X** CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.  
Quality and efficiency are fundamental for MP Filtri:  
this exclusive new filter element possesses polygon shape geometry and specific seal  
that ensures only original spare parts can be used - ensuring correct operation and  
higher system reliability.

MPLXseries

with **MYCLEAN** MLX Filter Element



- **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 MPLX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1

# MPLX series

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



# MPLX GENERAL INFORMATION

## Description

### 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
- MYclean interface connection for the filter element, to protect the product against non-original spare parts

### Common applications:

- Heavy duty industrial equipment
- Heavy duty mobile equipment

## Technical data

### Filter housing materials

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

### Bypass valve

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

### $\Delta p$ 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 [dm<sup>3</sup>]

Filter series	Weights [kg]		Volumes [dm <sup>3</sup> ]	
	Length	2	Length	2
<b>MPLX 250</b>		8.95		2.90
<b>MPLX 660</b>		20.20		11.00

# GENERAL INFORMATION MPLX

Flow rates [l/min]

Filter series	Length	Filter element design - N Series						
		A03	A06	A10	A16	A25	M25 M60 M90	P10 P25
<b>MPLX 250</b>	<b>2</b>	157	155	281	312	325	583	392
<b>MPLX 660</b>	<b>2</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

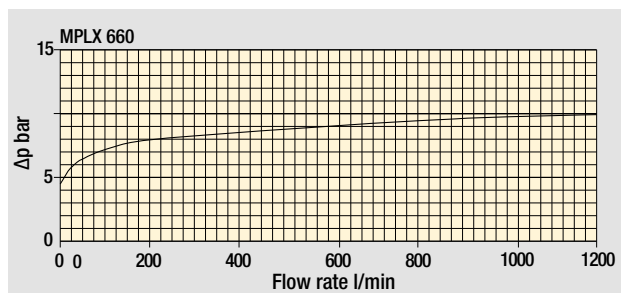
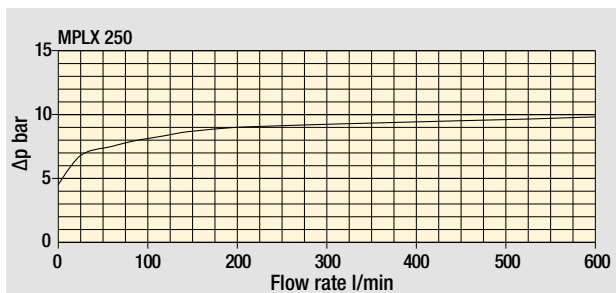
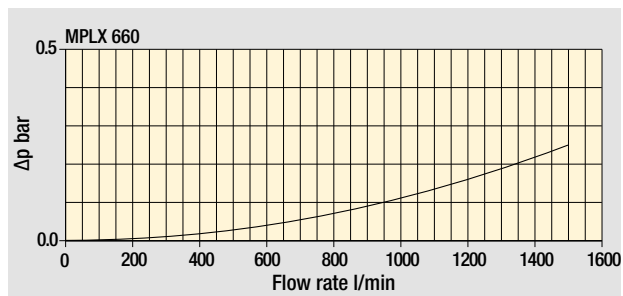
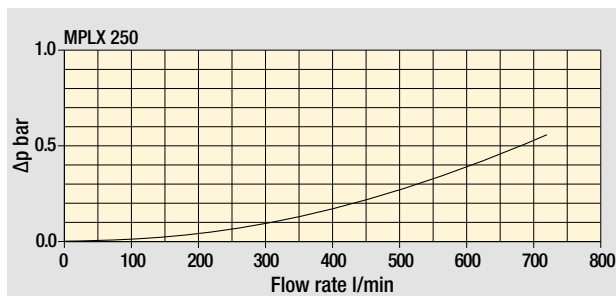
Hydraulic symbols

Filter series	Style 1 connection + Diff. indic.
<b>MPLX 250</b>	•
<b>MPLX 660</b>	•

Pressure drop

Filter housings  
 $\Delta p$  pressure drop




Bypass valve  
pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.


# MPLX MPLX250 - MPLX660

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1: <b>MPLX250</b>		<b>2</b>	<b>D</b>	<b>S</b>	<b>V</b>	<b>A</b>	<b>6</b>	<b>M25</b>	<b>P01</b>
<b>MPLX250   MPLX660</b> Filter featuring  Filter Element	Configuration example 2: <b>MPLX660</b>		<b>2</b>	<b>D</b>	<b>D</b>	<b>A</b>	<b>B</b>	<b>6</b>	<b>A10</b>	<b>P01</b>
<b>Length</b>	2									
<b>By-pass valve</b>	D 4.5 bar									
<b>Diffuser</b>	S Without diffuser D With standard diffuser									
<b>Seals and treatments</b>	A NBR V FPM									
<b>Connections</b>	<b>MPLX250</b>	<b>MPLX660</b>								
<b>A</b>	2" SAE 3000 psi/M	3" SAE 3000 psi/M								
<b>B</b>	2" SAE 3000 psi/UNC	3" SAE 3000 psi/UNC								
<b>Connection for differential pressure indicator</b>	6 With plugged connection									
<b>Filtration rating (filter media)</b>										
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm									
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm									
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm									
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm									
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm									
<b>Execution</b>										
<b>P01</b> MP Filtri standard										
<b>Pxx</b> Customized										

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1: <b>MLX250</b>		<b>2</b>	<b>M25</b>	<b>V</b>	<b>P01</b>
<b>MLX250   MLX660</b> Filter Element with  feature	Configuration example 2: <b>MLX660</b>		<b>2</b>	<b>A10</b>	<b>A</b>	<b>P01</b>
<b>Element length</b>	2					
<b>Filtration rating (filter media)</b>						
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm					
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm					
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm					
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm					
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm					
<b>Seals and treatments</b>						
A NBR						
V FPM						
<b>Execution</b>						
<b>P01</b> MP Filtri standard						
<b>Pxx</b> Customized						

### CLOGGING INDICATORS

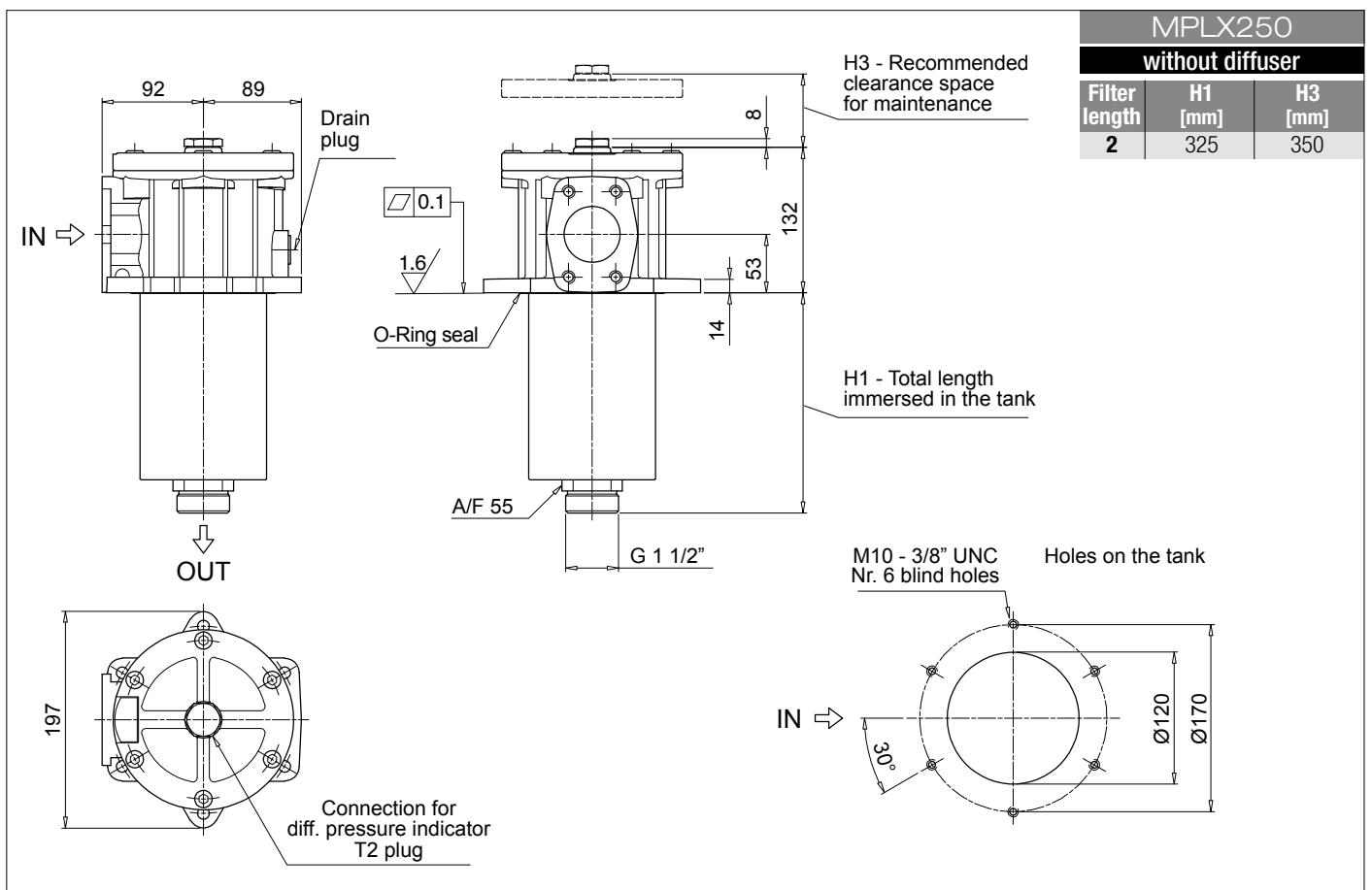
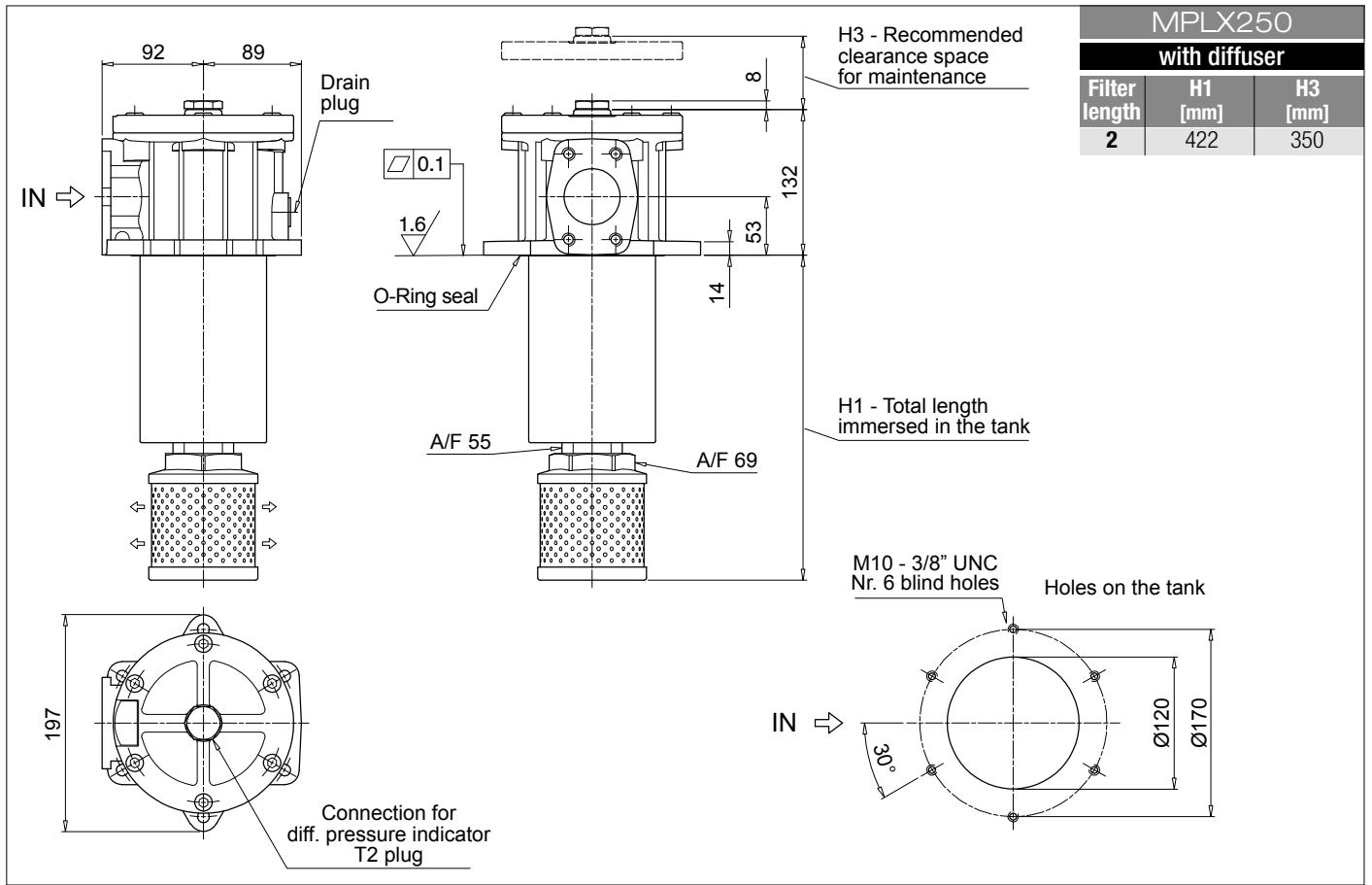
See page 720-721

<b>DEA</b> Electrical differential pressure indicator	<b>DLE</b> Electrical / visual differential pressure indicator
<b>DEM</b> Electrical differential pressure indicator	<b>DTA</b> Electronic differential pressure indicator
<b>DEU</b> Electrical differential pressure indicator	<b>DVA</b> Visual differential pressure indicator
<b>DLA</b> Electrical / visual differential pressure indicator	<b>DVM</b> Visual differential pressure indicator

### PLUGS

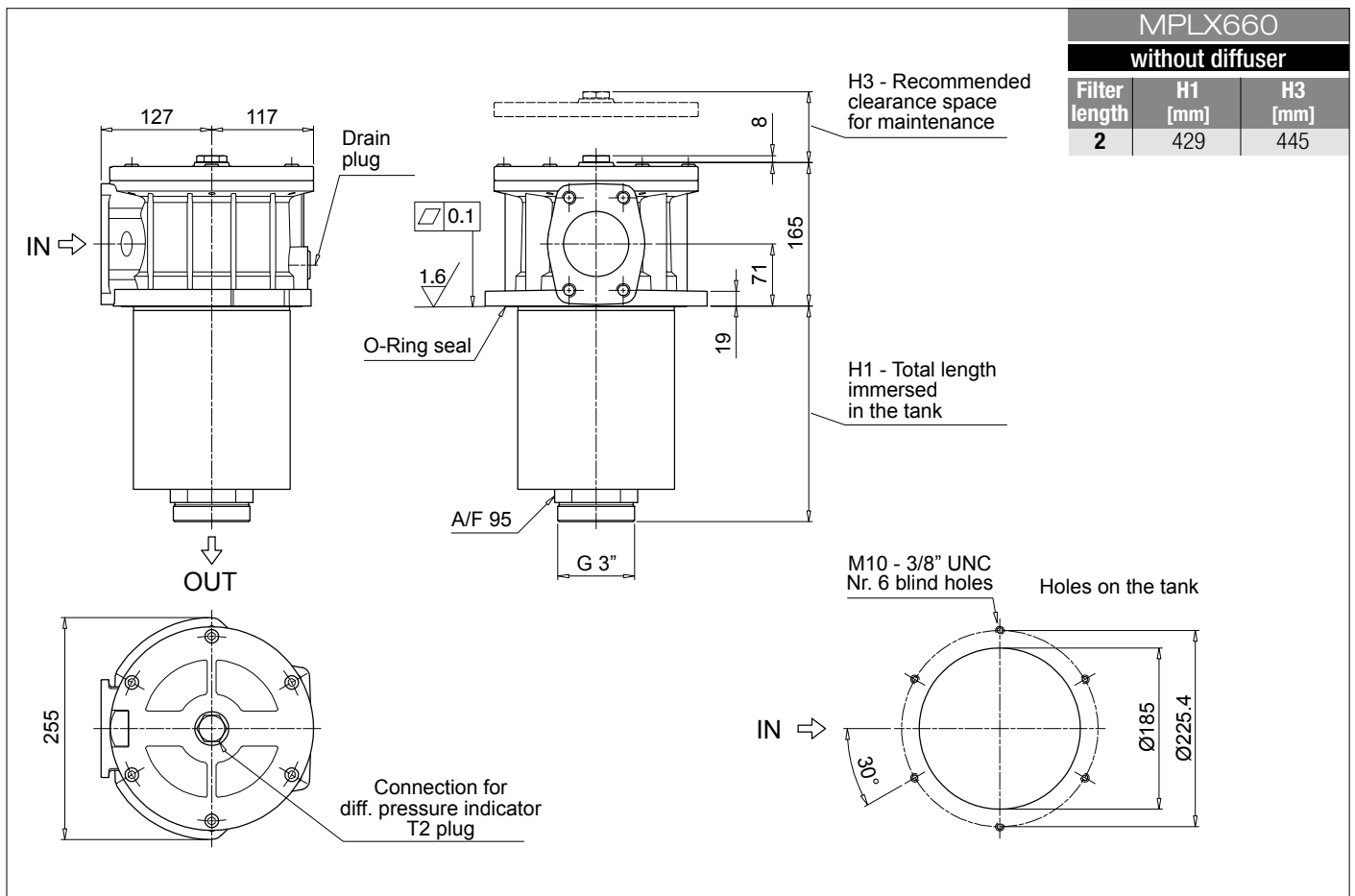
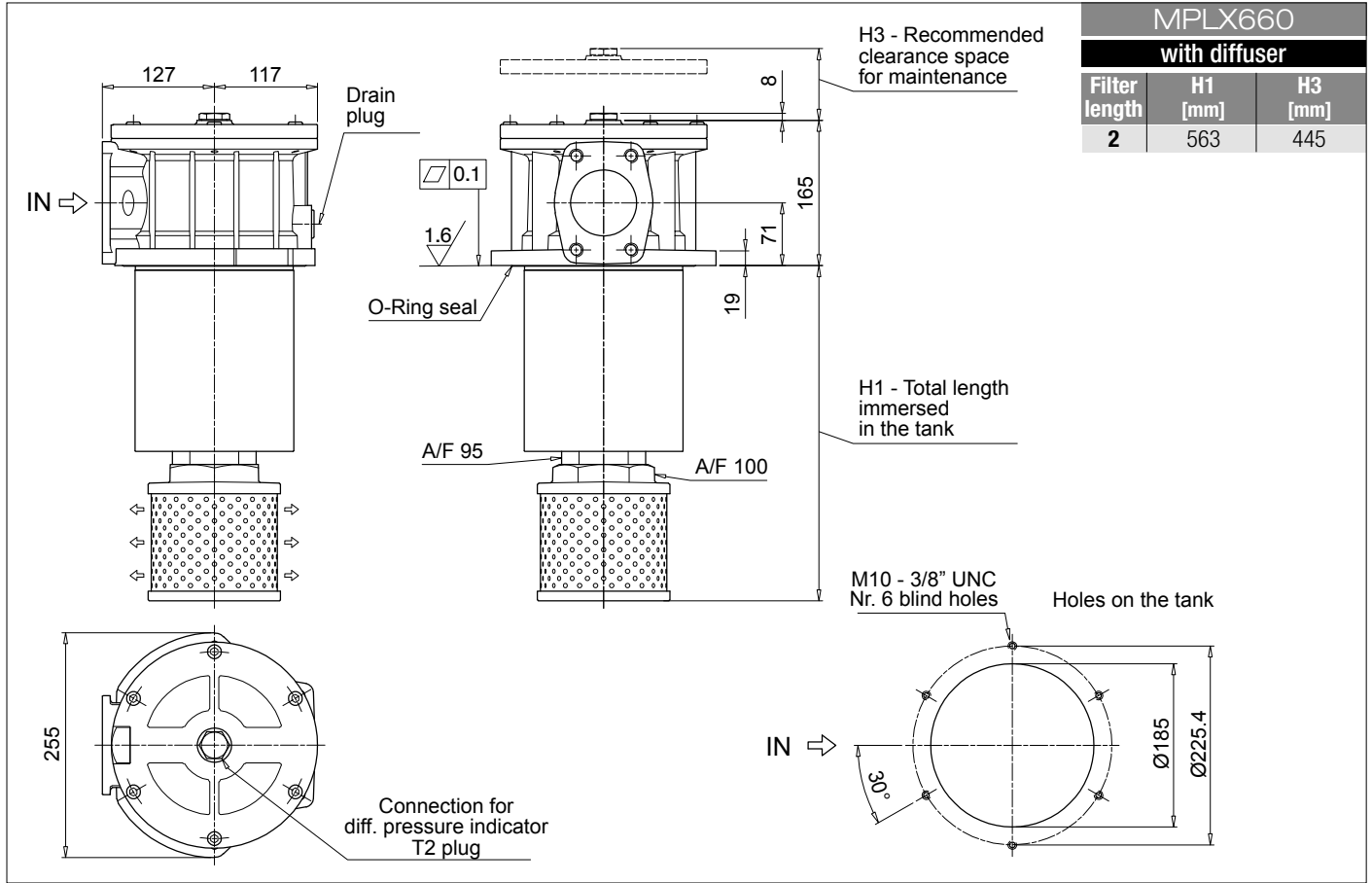
See page 747

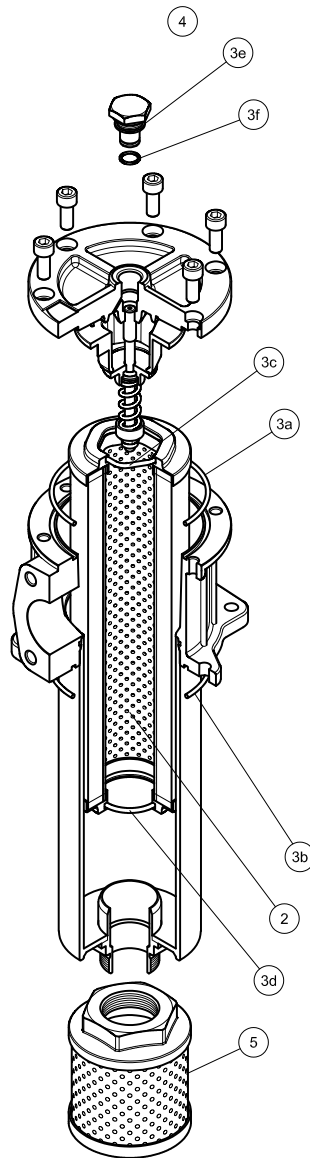
<b>T2</b> Plug
----------------



# 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	
<b>MPLX 250</b>	See order table	02050745	02050746	T2H	T2V	STD 100 C 115 P01
<b>MPLX 660</b>		02050747	02050748			STD 150 E 155 P01

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

Type	BE	BL	BV
<b>A</b> Standard type	•	•	<b>A</b> Axial connection pressure gauge
<b>M</b> With wired electrical connection	•	-	<b>R</b> Radial connection pressure gauge
<b>T</b> With thermal switch	•	-	<b>P</b> Visual indicator with automatic reset
			<b>Q</b> Visual indicator with manual reset

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
<b>14</b> 1.4 bar	-	-	-	•	-
<b>15</b> 1.5 bar	•	-	•	-	•
<b>20</b> 2.0 bar	•	•	•	-	•
<b>25</b> 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVA-BVR	BVP-BVQ
<b>H</b> HNBR	•	•	-	•

Thermostat	BEA-BEM	BET	BLA
<b>A</b> Without thermostat	•	-	•
<b>F</b> With thermostat	-	•	-

Electrical connections	BEA	BEM	BET	BL
<b>10</b> Connection AMP Superseal series 1,5	-	-	•	-
<b>30</b> Connection Deutsch DT-04-2-P	-	-	•	-
<b>41</b> Connection via four-core cable	-	•	-	-
<b>50</b> Connection EN 175301-803	•	-	-	-
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
<b>53</b> Connection EN 175301-803, transparent base with lamps 230 Vac	-	-	-	•
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	BEA	BEM-BET	BL	BV
Without	•	•	•	•
<b>EX</b> ATEX certification	•	-	-	-
<b>UL</b> UL certification	•	-	-	-

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example	T2	H
-----------------------	----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-



THE X CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.  
Quality and efficiency are fundamental for MP Filtri:  
this exclusive new filter element possesses polygon shape geometry and specific seal  
that ensures only original spare parts can be used - ensuring correct operation and  
higher system reliability.

MPTX series

with MYCLEAN MFX Filter Element



- **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 MPTX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1



TOGETHER WITH MYCLEAN, AS OPTION, MPTX SERIES CAN BE PROVIDED WITH

**zerospark®**  
THE ANTI-STATIC FILTERS

THE Z CONCEPT FOR OUR FILTERS



Zerospark® is a specialist solution designed to solve the problem of electrostatic discharge inside hydraulic filters. Caused by the electrical charge build-up due to the passage of oil through the filters, this can result in damage to filter elements, oils and circuit components. It can even cause fire hazards in environments where flammable materials are present.

# MPTX series

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



# MPTX GENERAL INFORMATION

## 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: Polyamide
- Bowl: Polyamide

### Bypass valve

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

### $\Delta p$ 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 [dm<sup>3</sup>]

Filter series	Weights [kg]					Volumes [dm <sup>3</sup> ]				
	Length	1	2	3	4	Length	1	2	3	4
<b>MPTX 025</b>		0.41	0.45	0.50	-		0.24	0.35	0.42	-
<b>MPTX 027</b>		0.44	0.48	0.55	-		0.24	0.35	0.42	-
<b>MPTX 110</b>		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74
<b>MPTX 114</b>		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
<b>MPTX 116</b>		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
<b>MPTX 120</b>		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74

# GENERAL INFORMATION MPTX

Flow rates [l/min]

Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MPTX 025-027</b>	<b>1</b>	7	10	23	28	42	59	51	54
	<b>2</b>	17	20	45	48	56	72	64	67
	<b>3</b>	21	24	50	55	59	76	74	75
<b>MPTX 110-120 114-116</b>	<b>1</b>	18	20	53	56	65	153	87	96
	<b>2</b>	28	38	65	75	95	158	111	123
	<b>3</b>	48	55	125	135	169	289	224	251
	<b>4</b>	79	89	180	185	198	306	264	289

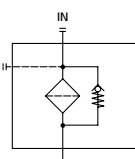
Maximum flow rate for a complete return filter with a pressure drop  $\Delta p = 0.5$  bar.

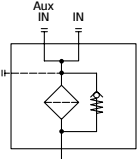
The reference fluid has a kinematic viscosity of  $30 \text{ mm}^2/\text{s}$  (cSt) and a density of  $0.86 \text{ kg}/\text{dm}^3$ .

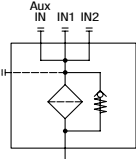
Hydraulic symbols

Filter series	Style 1 connection	Style 2 connections	Style 3 connections
<b>MPTX 025</b>	•	-	-
<b>MPTX 027</b>	•	-	-
<b>MPTX 110</b>	-	•	-
<b>MPTX 114</b>	•	-	-
<b>MPTX 116</b>	•	-	-
<b>MPTX 120</b>	-	-	•



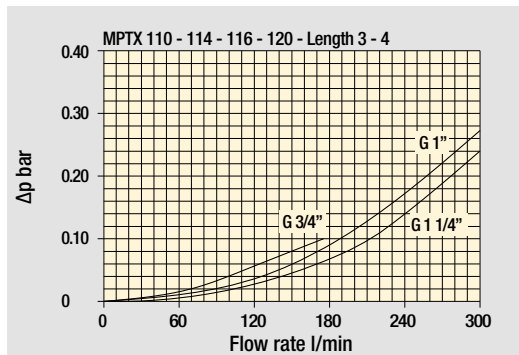
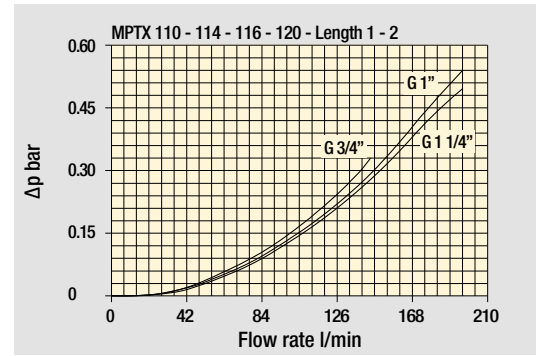
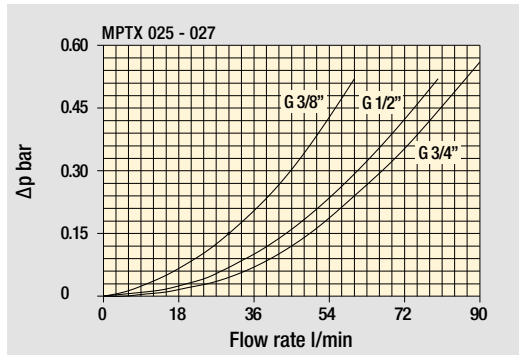




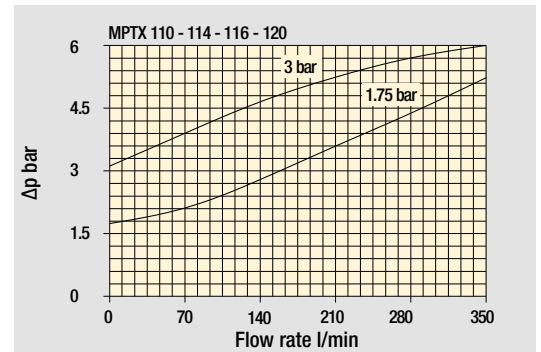
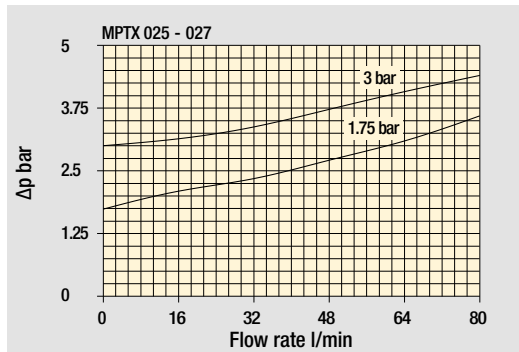
# MPTX GENERAL INFORMATION

## Pressure drop

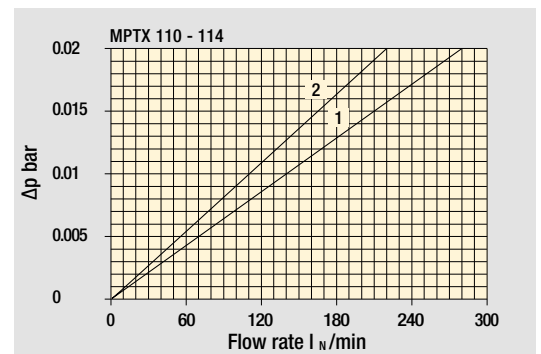
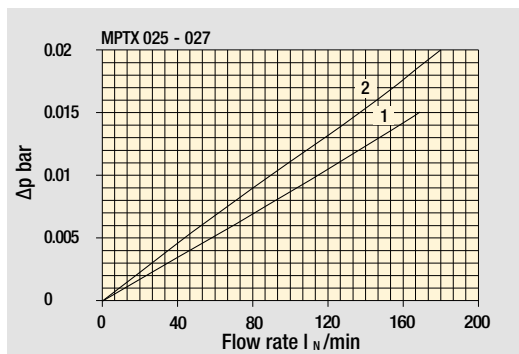
### Filter housings $\Delta p$ pressure drop



### Bypass valve pressure drop



### Air breather pressure drop







- 1  C With air breather 10  $\mu$ m
- 2  D With anti-splash and SAP50 10  $\mu$ m

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  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

<b>Series and size</b>	Configuration example 1: <b>MPTX025</b>	<b>1</b>	<b>S</b>	<b>A</b>	<b>G3</b>	<b>A10</b>	<b>E</b>	<b>P01</b>
<b>MPTX025   MPTX027</b> Filter featuring <b>MYCLEAN</b> Filter Element	Configuration example 2: <b>MPTX027</b>	<b>3</b>	<b>C</b>	<b>W</b>	<b>G6</b>	<b>A03</b>	<b>B</b>	<b>P01</b>
<b>Length</b>								
<b>1</b>   <b>2</b>   <b>3</b>								
<b>Air breather</b>								
<b>S</b> Without air breather								
<b>C</b> With air breather 10 µm								
<b>D</b> With anti-splash and air breather SAP050 10 µm								
<b>P</b> With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar								
<b>Seals and treatments</b>	Filtration rating							
	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>					
<b>A</b> NBR	•	•	•					
<b>V</b> FPM	•	•	•					
<b>W</b> NBR head anodized	•	•	-					
<b>Z</b> FPM head anodized	•	•	-					
<b>Connections</b>								
<b>G1</b> G 3/8"	<b>G6</b> 3/4" NPT							
<b>G2</b> G 1/2"	<b>G7</b> SAE 6 - 9/16" - 18 UNF							
<b>G3</b> G 3/4"	<b>G8</b> SAE 8 - 3/4" - 16 UNF							
<b>G4</b> 3/8" NPT	<b>G9</b> SAE 12 - 1 1/16" - 12 UN							
<b>G5</b> 1/2" NPT								
<b>Filtration rating (filter media)</b>								
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm							
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm							
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm							
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm							
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm							
<b>Bypass valve</b>								
<b>E</b> 3 bar								
<b>B</b> 1.75 bar								
<b>Executions</b>								
<b>Base</b>	<b>P01</b>	<b>zereospark*</b>	<b>Z01*</b>	<b>MP Filtri standard</b>				
	<b>Pxx</b>	<b>Zxx*</b>		<b>Customized</b>				

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 2: <b>MFx020</b>	<b>1</b>	<b>A10</b>	<b>H</b>	<b>B</b>	<b>E</b>	<b>P01</b>
<b>MFx020</b> Filter Element with <b>MYCLEAN</b> feature	Configuration example 1: <b>MFx020</b>	<b>3</b>	<b>A03</b>	<b>N</b>	<b>B</b>		<b>P01</b>
<b>Element length</b>							
<b>1</b>   <b>2</b>   <b>3</b>							
<b>Filtration rating (filter media)</b>							
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm						
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm						
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm						
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm						
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm						
<b>Element Δp</b>	Filter media						
	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>				
<b>N</b> 10 bar	-	•	•				
<b>H</b> 10 bar	•	-	-				
<b>Seals</b>							
<b>B</b> NBR							
<b>V</b> FPM							
<b>Bypass valve</b>							
<b>E</b> 3 bar							
<b>-</b> 1.75 bar							
<b>Executions</b>							
<b>Base</b>	<b>P01</b>	<b>zereospark*</b>	<b>Z01*</b>	<b>MP Filtri standard</b>			
	<b>Pxx</b>	<b>Zxx*</b>		<b>Customized</b>			

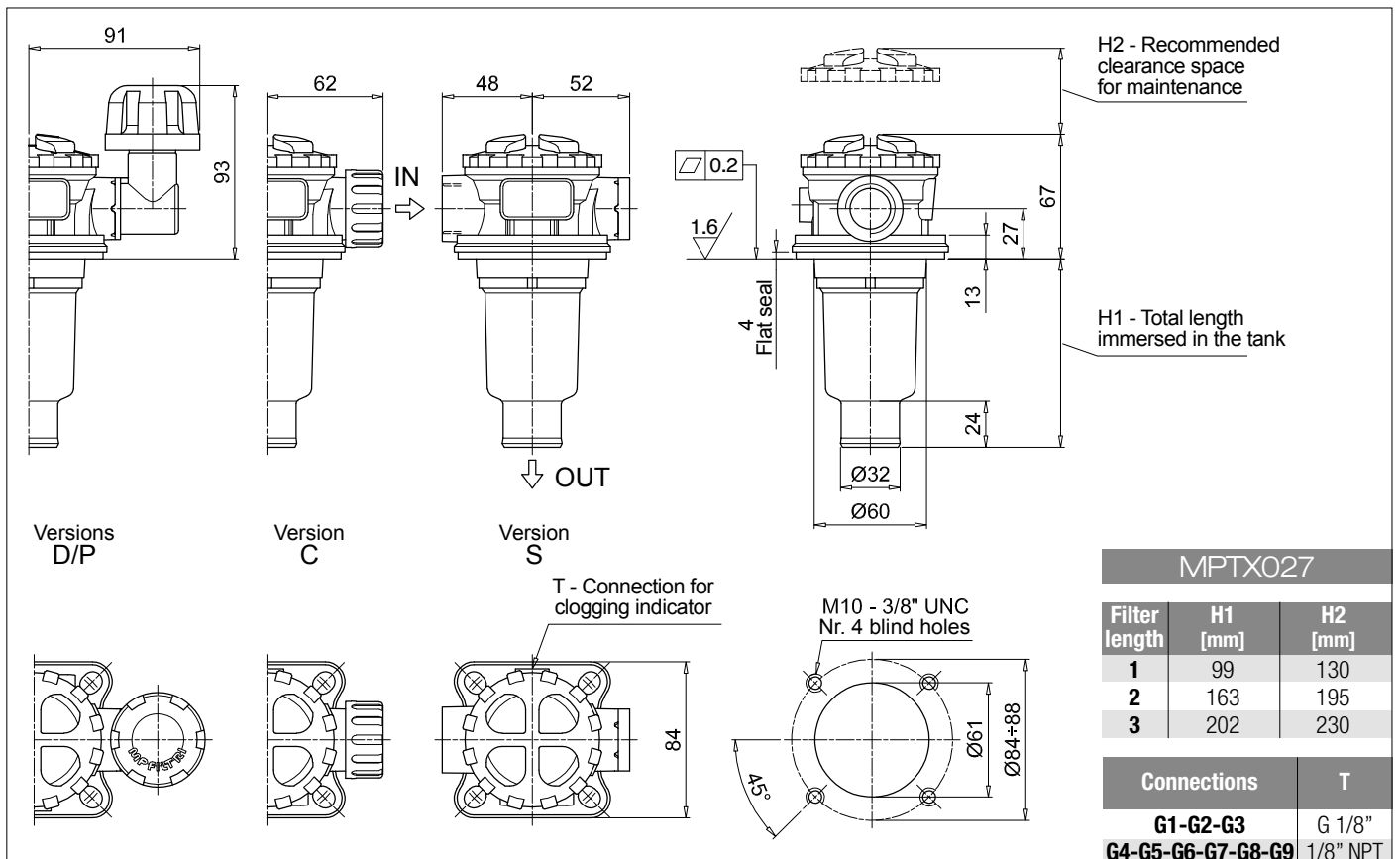
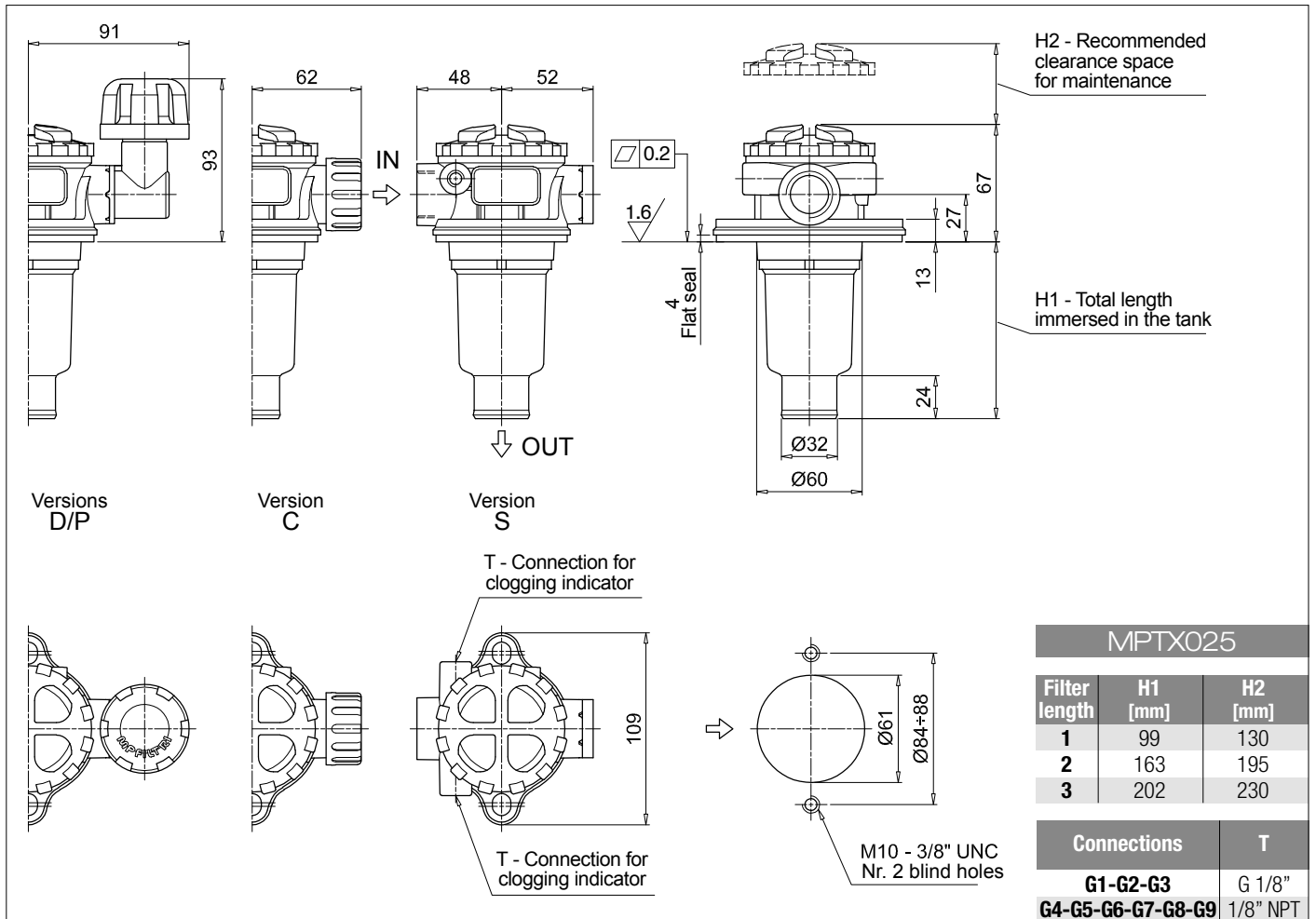
\* Not for Mxx filter media

### CLOGGING INDICATORS

<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator	See page 720-721
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator	
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator	
<b>BVQ</b> Visual pressure indicator with manual reset		

### ADDITIONAL FEATURES

<b>TE</b> Extension tube	See page 268
<b>DPT</b> Dipstick	



# MPTX MPTX110

## Designation & Ordering code

### COMPLETE FILTER

**Series and size** Configuration example 1: **MPTX110** | 1 | S | A | G1 | 0 | A06 | E | P01  
**MPTX110** Filter featuring **MYCLEAN** Filter Element 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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

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

**Aux connection** - see previous table  
**0** Not machined | **1** Aux size 1 | **2** Aux size 2

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

**Bypass valve**  
**E** 3 bar  
**B** 1.75 bar

Executions		
<b>Base</b>	<b>zérospark*</b>	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### FILTER ELEMENT

**Element series and size** Configuration example 1: **MFx100** | 1 | A06 | H | B | E | P01  
**MFx100** Filter Element with **MYCLEAN** feature Configuration example 2: **MFx100** | 3 | M25 | N | V | P01

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

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

**Seals**  
**B** NBR  
**V** FPM

**Bypass valve**  
**E** 3 bar  
**-** 1.75 bar

Executions		
<b>Base</b>	<b>zérospark*</b>	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

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

### ADDITIONAL FEATURES

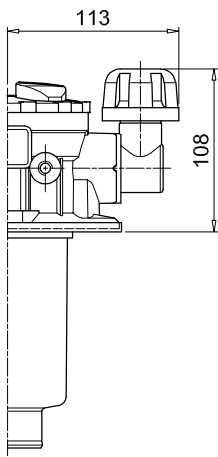
See page 268

<b>TE</b> Extension tube	<b>DPT</b> Dipstick
<b>DFS</b> Diffuser with fast lock connection	

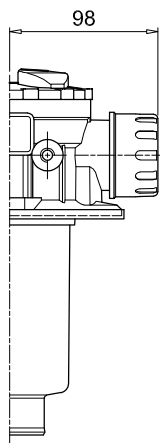
MPTX110		
Filter length	H1 [mm]	H2 [mm]
1	99	120
2	144	170
3	222	250
4	324	350

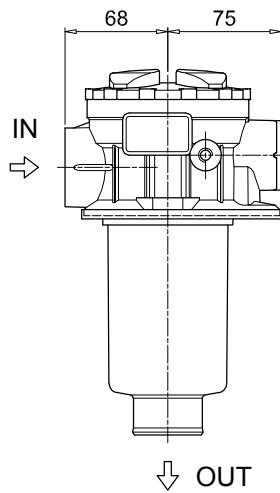
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



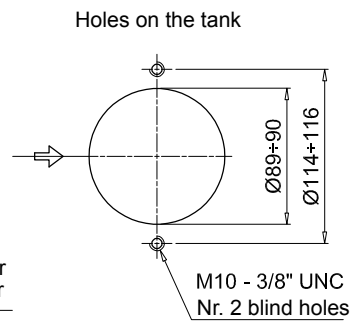
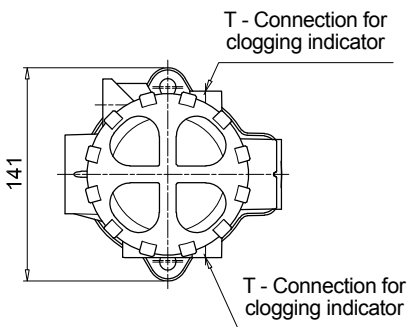
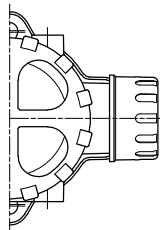
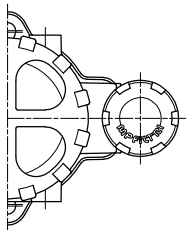
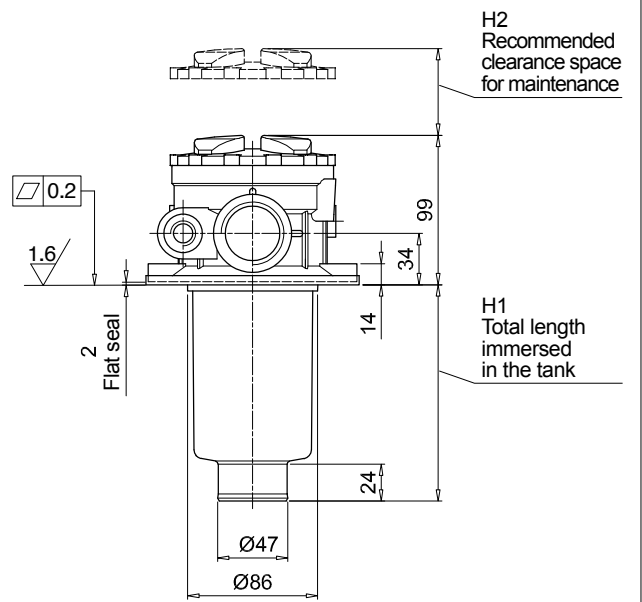
Versions D/P



Version C



Version S



# MPTX MPTX114

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1: <b>MPTX114</b>	<b>4</b>	<b>S</b>	<b>A</b>	<b>G3</b>	<b>A10</b>	<b>E</b>	<b>P01</b>
<b>MPTX114</b> Filter featuring <b>MYCLEAN</b> Filter Element	Configuration example 2: <b>MPTX114</b>	<b>3</b>	<b>C</b>	<b>W</b>	<b>G6</b>	<b>A03</b>	<b>B</b>	<b>P01</b>

**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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

**Connections**

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

**Filtration rating (filter media)**

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

**Bypass valve**  
**E** 3 bar  
**B** 1.75 bar

**Executions**

Base	zerospark*	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 2: <b>MFX100</b>	<b>4</b>	<b>A10</b>	<b>H</b>	<b>B</b>	<b>E</b>	<b>P01</b>
<b>MFX100</b> Filter Element with <b>MYCLEAN</b> feature	Configuration example 1: <b>MFX100</b>	<b>3</b>	<b>A03</b>	<b>N</b>	<b>B</b>		<b>P01</b>

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

**Filtration rating (filter media)**

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

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

**Seals**  
**B** NBR  
**V** FPM

**Bypass valve**  
**E** 3 bar  
**-** 1.75 bar

**Executions**

Base	zerospark*	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator	See page 720-721
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator	
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator	
<b>BVQ</b> Visual pressure indicator with manual reset		

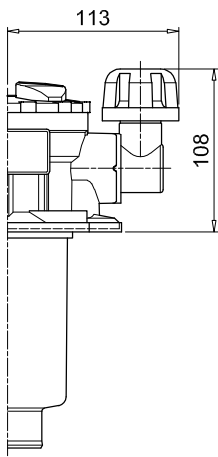
### ADDITIONAL FEATURES

<b>TE</b> Extension tube	<b>DPT</b> Dipstick	See page 268
<b>DFS</b> Diffuser with fast lock connection		

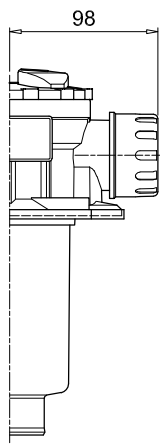
### MPTX114

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

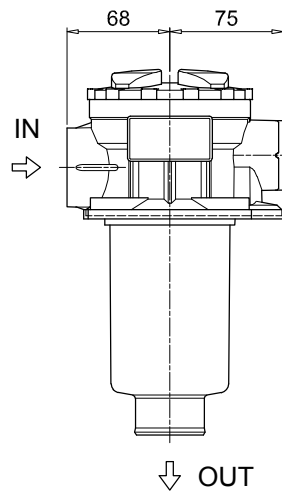
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



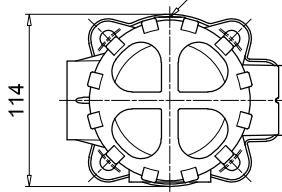
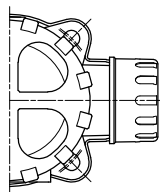
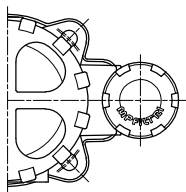
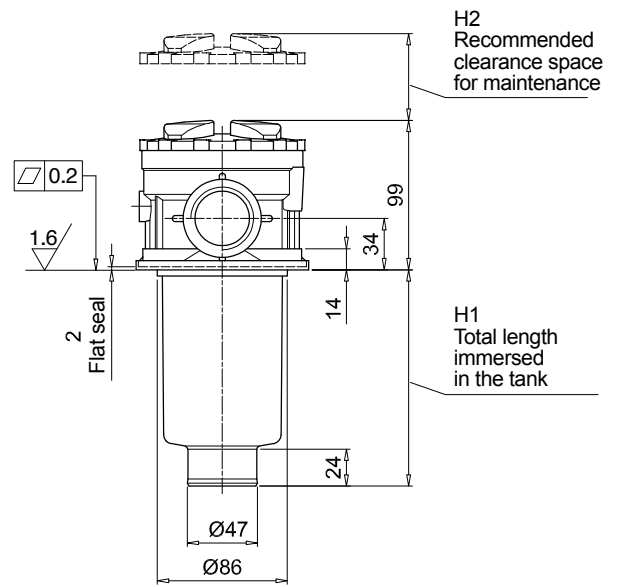
Versions D/P



Version C

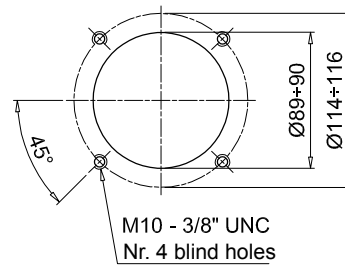


Version S



T - Connection for clogging indicator

Holes on the tank



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

# MPTX MPTX116

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1: <b>MPTX116</b>   1   S   A   G1   M90   E   P01																				
<b>MPTX116</b> Filter featuring <b>MY CLEAN</b> Filter Element	Configuration example 2: <b>MPTX116</b>   2   S   Z   G9   A03   B   P01																				
<b>Length</b>	1   2   3   4																				
<b>Air breather</b>	S Without air breather																				
<b>Seals and treatments</b>	<table border="1"> <thead> <tr> <th></th> <th>Axx</th> <th>Mxx</th> <th>Pxx</th> </tr> </thead> <tbody> <tr> <td>A NBR</td> <td>•</td> <td>•</td> <td>•</td> </tr> <tr> <td>V FPM</td> <td>•</td> <td>•</td> <td>•</td> </tr> <tr> <td>W NBR head anodized</td> <td>•</td> <td>•</td> <td>-</td> </tr> <tr> <td>Z FPM head anodized</td> <td>•</td> <td>•</td> <td>-</td> </tr> </tbody> </table> <p>Flat seal on the head on request</p>		Axx	Mxx	Pxx	A NBR	•	•	•	V FPM	•	•	•	W NBR head anodized	•	•	-	Z FPM head anodized	•	•	-
	Axx	Mxx	Pxx																		
A NBR	•	•	•																		
V FPM	•	•	•																		
W NBR head anodized	•	•	-																		
Z FPM head anodized	•	•	-																		
<b>Connections</b>	<table border="1"> <tr> <td><b>G1</b> G 3/4"</td> <td><b>G6</b> 1 1/4" NPT</td> </tr> <tr> <td><b>G2</b> G 1"</td> <td><b>G7</b> SAE 12 - 1 1/16" - 12 UN</td> </tr> <tr> <td><b>G3</b> G 1 1/4"</td> <td><b>G8</b> SAE 16 - 1 5/16" - 12 UN</td> </tr> <tr> <td><b>G4</b> 3/4" NPT</td> <td><b>G9</b> SAE 20 - 1 5/8" - 12 UN</td> </tr> <tr> <td><b>G5</b> 1" NPT</td> <td></td> </tr> </table>	<b>G1</b> G 3/4"	<b>G6</b> 1 1/4" NPT	<b>G2</b> G 1"	<b>G7</b> SAE 12 - 1 1/16" - 12 UN	<b>G3</b> G 1 1/4"	<b>G8</b> SAE 16 - 1 5/16" - 12 UN	<b>G4</b> 3/4" NPT	<b>G9</b> SAE 20 - 1 5/8" - 12 UN	<b>G5</b> 1" NPT											
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<b>G2</b> G 1"	<b>G7</b> SAE 12 - 1 1/16" - 12 UN																				
<b>G3</b> G 1 1/4"	<b>G8</b> SAE 16 - 1 5/16" - 12 UN																				
<b>G4</b> 3/4" NPT	<b>G9</b> SAE 20 - 1 5/8" - 12 UN																				
<b>G5</b> 1" NPT																					
<b>Filtration rating (filter media)</b>	<table border="1"> <tr> <td><b>A03</b> Inorganic microfiber 3 µm</td> <td><b>M25</b> Wire mesh 25 µm</td> </tr> <tr> <td><b>A06</b> Inorganic microfiber 6 µm</td> <td><b>M60</b> Wire mesh 60 µm</td> </tr> <tr> <td><b>A10</b> Inorganic microfiber 10 µm</td> <td><b>M90</b> Wire mesh 90 µm</td> </tr> <tr> <td><b>A16</b> Inorganic microfiber 16 µm</td> <td><b>P10</b> Resin impregnated paper 10 µm</td> </tr> <tr> <td><b>A25</b> Inorganic microfiber 25 µm</td> <td><b>P25</b> Resin impregnated paper 25 µm</td> </tr> </table>	<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm	<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm	<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm	<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm	<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm										
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<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm																				
<b>Bypass valve</b>	<table border="1"> <tr> <td><b>E</b> 3 bar</td> <td><b>B</b> 1.75 bar</td> </tr> </table>	<b>E</b> 3 bar	<b>B</b> 1.75 bar																		
<b>E</b> 3 bar	<b>B</b> 1.75 bar																				
<b>Executions</b>	<table border="1"> <tr> <td><b>Base</b></td> <td><b>zérospark*</b></td> <td></td> </tr> <tr> <td><b>P01</b></td> <td><b>Z01*</b></td> <td>MP Filtri standard</td> </tr> <tr> <td><b>Pxx</b></td> <td><b>Zxx*</b></td> <td>Customized</td> </tr> </table> <p>* Not for Mxx filter media</p>	<b>Base</b>	<b>zérospark*</b>		<b>P01</b>	<b>Z01*</b>	MP Filtri standard	<b>Pxx</b>	<b>Zxx*</b>	Customized											
<b>Base</b>	<b>zérospark*</b>																				
<b>P01</b>	<b>Z01*</b>	MP Filtri standard																			
<b>Pxx</b>	<b>Zxx*</b>	Customized																			

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 2: <b>MFx100</b>   1   M90   N   B   E   P01												
<b>MFx100</b> Filter Element with <b>MY CLEAN</b> feature	Configuration example 1: <b>MFx100</b>   2   A03   H   V   P01												
<b>Element length</b>	1   2   3   4												
<b>Filtration rating (filter media)</b>	<table border="1"> <tr> <td><b>A03</b> Inorganic microfiber 3 µm</td> <td><b>M25</b> Wire mesh 25 µm</td> </tr> <tr> <td><b>A06</b> Inorganic microfiber 6 µm</td> <td><b>M60</b> Wire mesh 60 µm</td> </tr> <tr> <td><b>A10</b> Inorganic microfiber 10 µm</td> <td><b>M90</b> Wire mesh 90 µm</td> </tr> <tr> <td><b>A16</b> Inorganic microfiber 16 µm</td> <td><b>P10</b> Resin impregnated paper 10 µm</td> </tr> <tr> <td><b>A25</b> Inorganic microfiber 25 µm</td> <td><b>P25</b> Resin impregnated paper 25 µm</td> </tr> </table>	<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm	<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm	<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm	<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm	<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm		
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm												
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm												
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm												
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm												
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm												
<b>Element Δp</b>	<table border="1"> <thead> <tr> <th></th> <th>Axx</th> <th>Mxx</th> <th>Pxx</th> </tr> </thead> <tbody> <tr> <td><b>N</b> 10 bar</td> <td>-</td> <td>•</td> <td>•</td> </tr> <tr> <td><b>H</b> 10 bar</td> <td>•</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		Axx	Mxx	Pxx	<b>N</b> 10 bar	-	•	•	<b>H</b> 10 bar	•	-	-
	Axx	Mxx	Pxx										
<b>N</b> 10 bar	-	•	•										
<b>H</b> 10 bar	•	-	-										
<b>Seals</b>	<table border="1"> <tr> <td><b>B</b> NBR</td> <td><b>V</b> FPM</td> </tr> </table>	<b>B</b> NBR	<b>V</b> FPM										
<b>B</b> NBR	<b>V</b> FPM												
<b>Bypass valve</b>	<table border="1"> <tr> <td><b>E</b> 3 bar</td> <td>- 1.75 bar</td> </tr> </table>	<b>E</b> 3 bar	- 1.75 bar										
<b>E</b> 3 bar	- 1.75 bar												
<b>Executions</b>	<table border="1"> <tr> <td><b>Base</b></td> <td><b>zérospark*</b></td> <td></td> </tr> <tr> <td><b>P01</b></td> <td><b>Z01*</b></td> <td>MP Filtri standard</td> </tr> <tr> <td><b>Pxx</b></td> <td><b>Zxx*</b></td> <td>Customized</td> </tr> </table> <p>* Not for Mxx filter media</p>	<b>Base</b>	<b>zérospark*</b>		<b>P01</b>	<b>Z01*</b>	MP Filtri standard	<b>Pxx</b>	<b>Zxx*</b>	Customized			
<b>Base</b>	<b>zérospark*</b>												
<b>P01</b>	<b>Z01*</b>	MP Filtri standard											
<b>Pxx</b>	<b>Zxx*</b>	Customized											

### CLOGGING INDICATORS

See page 720-721

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

### ADDITIONAL FEATURES

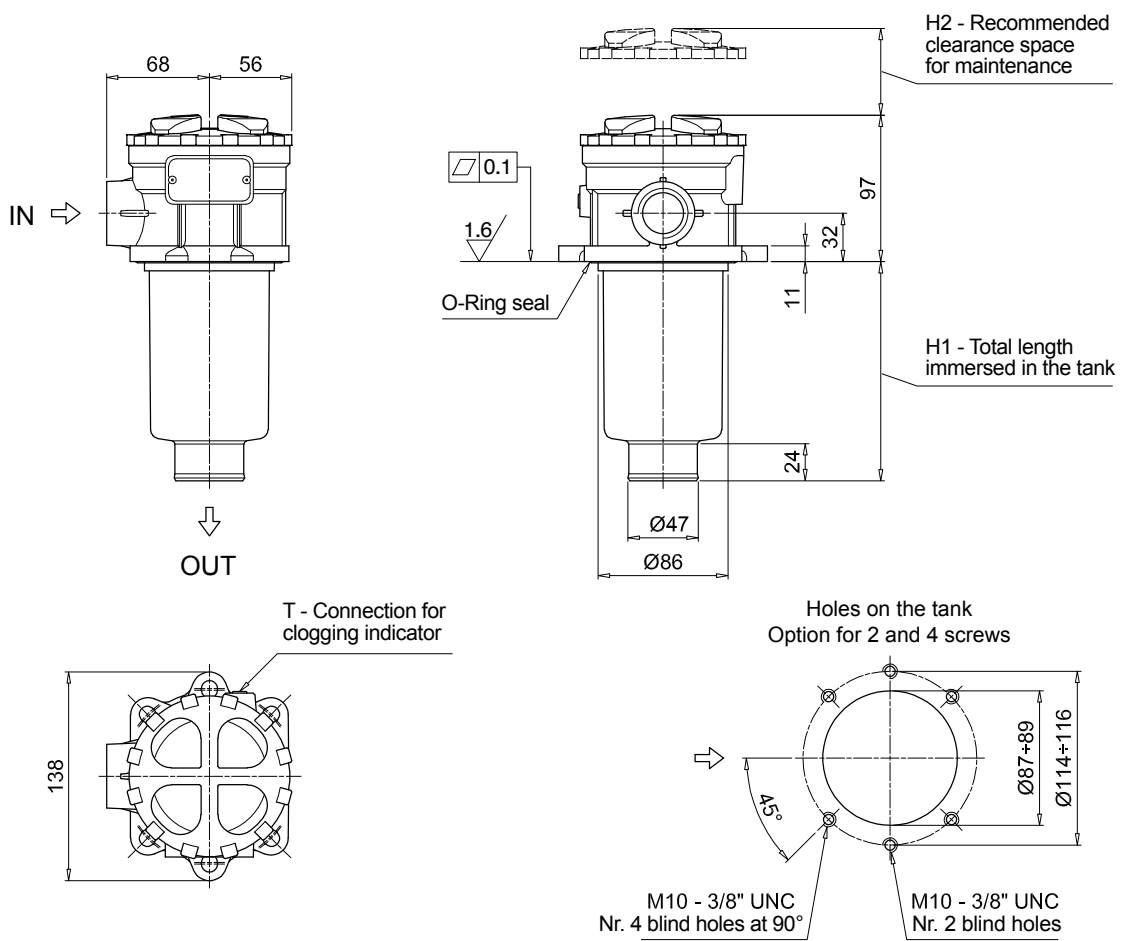
See page 268

<b>TE</b> Extension tube	<b>DPT</b> Dipstick
<b>DFS</b> Diffuser with fast lock connection	

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

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



# MPTX MPTX120

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1:	MPTX120	1	A	G1	0	A06	E	P01
<b>MPTX120</b> Filter featuring <b>MY CLEAN</b> Filter Element	Configuration example 2:	MPTX120	3	V	G4	1	M25	B	P01

<b>Length</b>	1	2	3	4
---------------	---	---	---	---

Seals and treatments	Filtration rating		
	Axx	Mxx	Pxx
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

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

<b>Aux connection</b> - see previous table	0 Not machined	1 Aux size 1	2 Aux size 2
--	----------------	--------------	--------------

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

<b>Bypass valve</b>
<b>E</b> 3 bar
<b>B</b> 1.75 bar

Executions		
Base	zérospark*	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1:	MFx100	1	A06	H	B	E	P01
<b>MFx100</b> Filter Element with <b>MY CLEAN</b> feature	Configuration example 2:	MFx100	3	M25	N	V		P01

<b>Element length</b>	1	2	3	4
-----------------------	---	---	---	---

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

<b>Seals</b>	<b>Bypass valve</b>
<b>B</b> NBR	<b>E</b> 3 bar
<b>V</b> FPM	- 1.75 bar

Executions		
Base	zérospark*	
<b>P01</b>	<b>Z01*</b>	MP Filtri standard
<b>Pxx</b>	<b>Zxx*</b>	Customized

\* Not for Mxx filter media

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

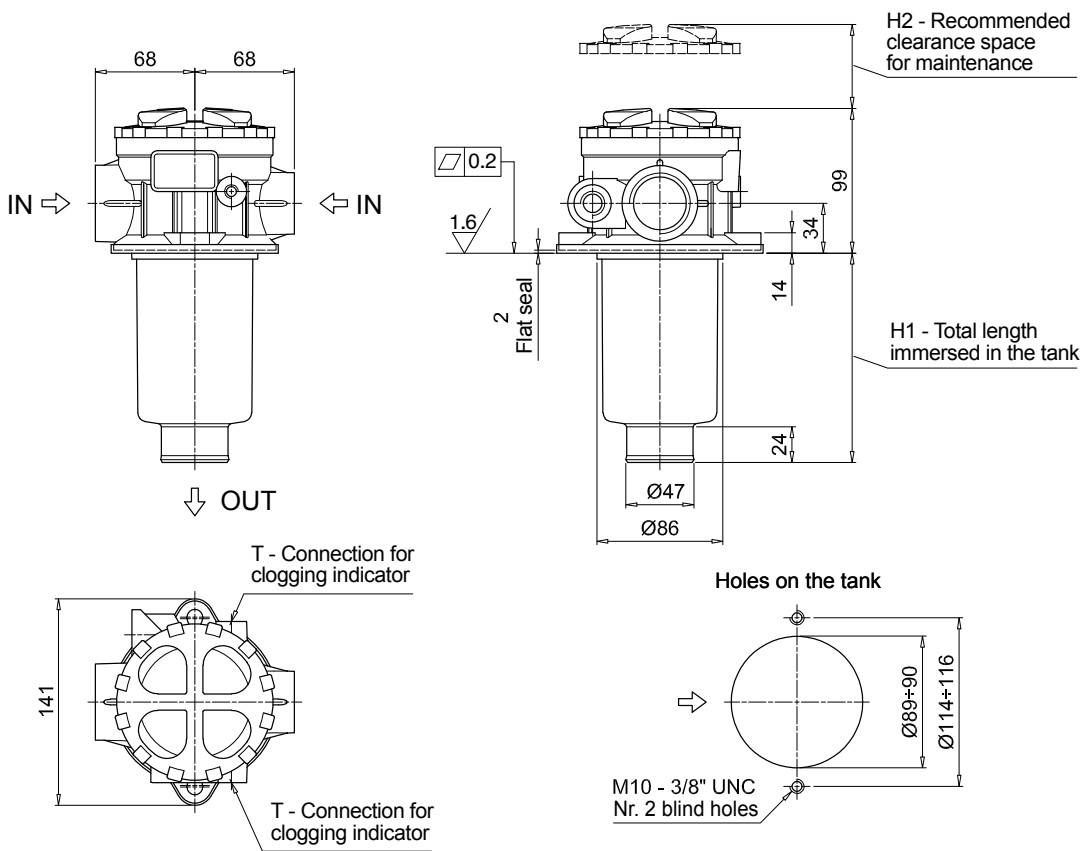
<b>TE</b> Extension tube
<b>DFS</b> Diffuser with fast lock connection

<b>DPT</b> Dipstick
---------------------

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

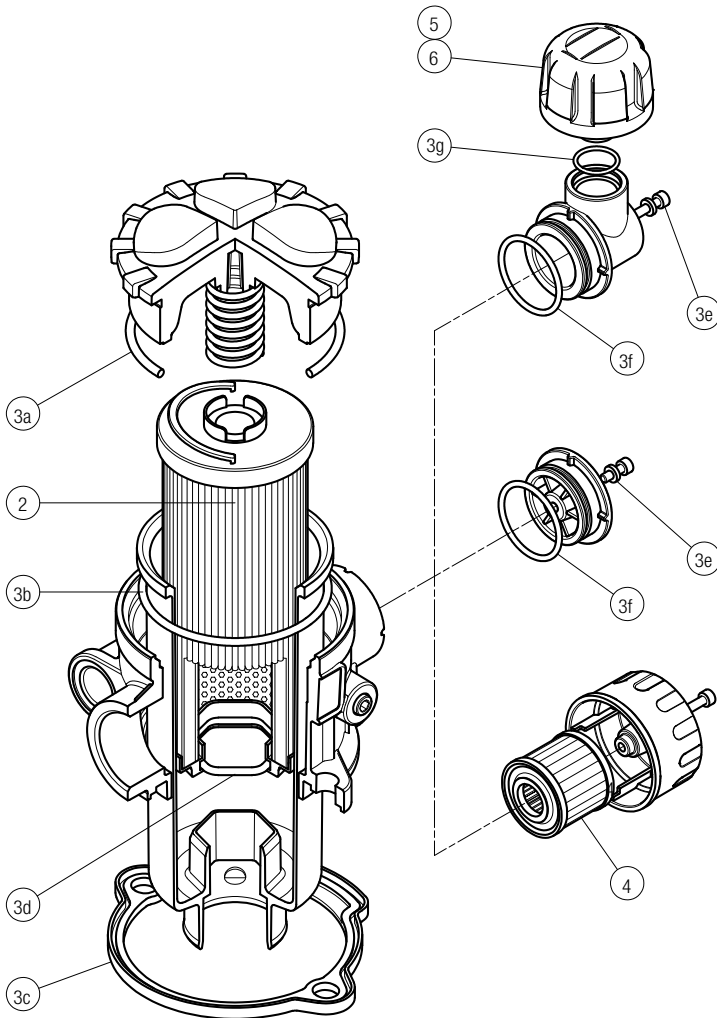
Connections	T
<b>G1-G2-G3</b>	G 1/8"
<b>G4-G5-G6-G7-G8-G9</b>	1/8" NPT



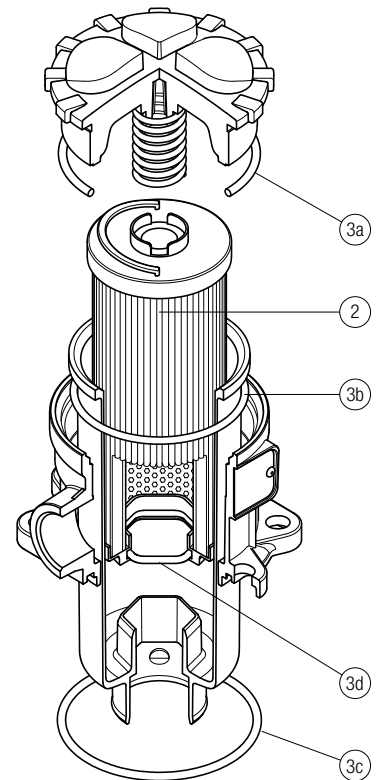
# MPTX SPARE PARTS

Order number for spare parts

MPTX 025 - 027 - 110



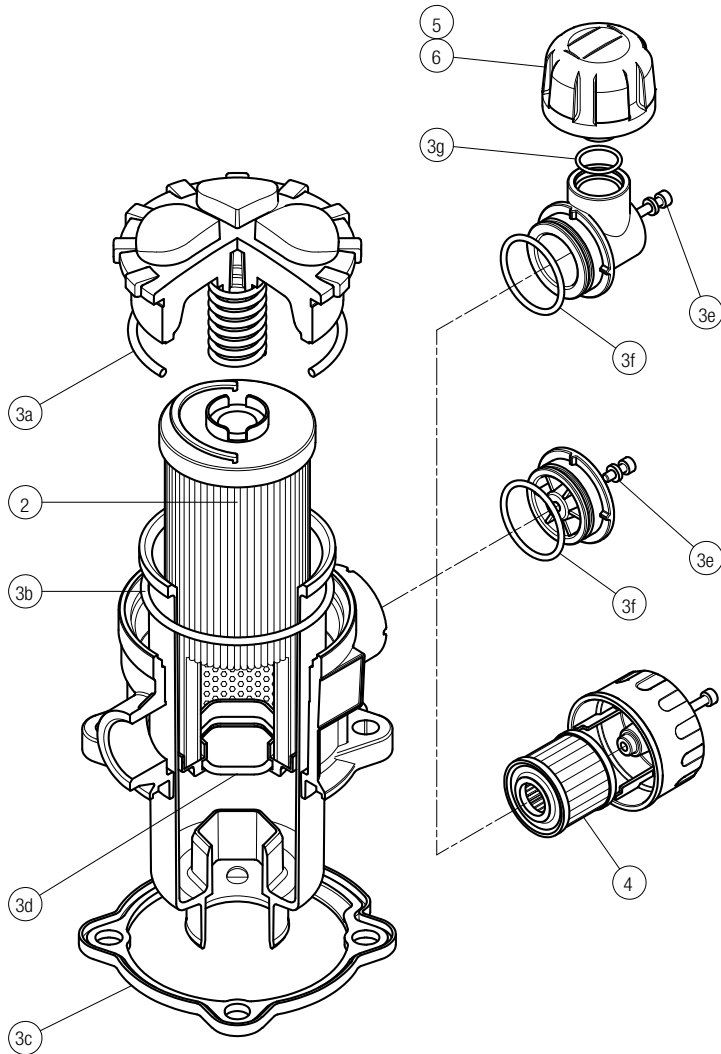
MPTX 116



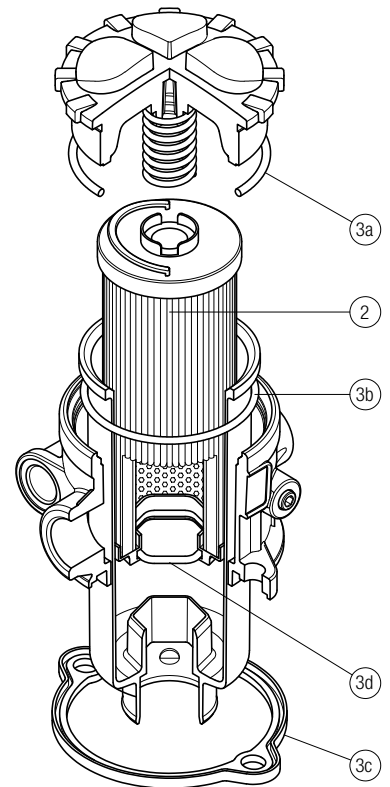
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number NBR	FPM	Air breather filter element - version:		
				C	D	P
MPTX 025	See order table	02050701	02050702	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01
MPTX 027		02050703	02050704	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
<b>MPTX 114</b>	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
<b>MPTX 120</b>	See order table	02050711	02050712

# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

Series	Length	H [mm]	Seals	Execution
<b>DPT</b>	<b>15</b>	<b>134</b>	<b>A</b> NBR	<b>P01</b> MP Filtri standard
	<b>20</b>	<b>184</b>	<b>V</b> FPM	<b>Pxx</b> Customized
	<b>25</b>	<b>234</b>		
	<b>30</b>	<b>284</b>		
	<b>35</b>	<b>334</b>		

**Materials**

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

**Technical data**

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

**Fastening**

- M8** Fastening with screws  $\varnothing D = M8$
- M10** Fastening with screws  $\varnothing D = M10$

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

**Technical data**

Tightening torque: 15 N·m

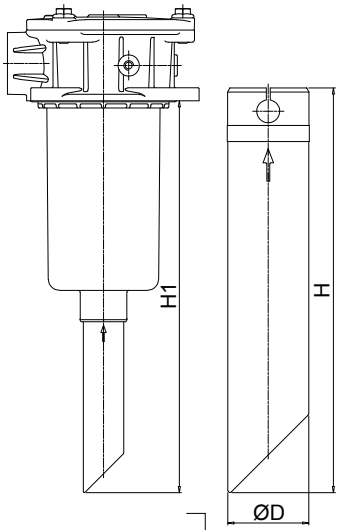
O-Ring 3106

M30x1.5

A/F

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

## POLYAMIDE EXTENSION TUBE



H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

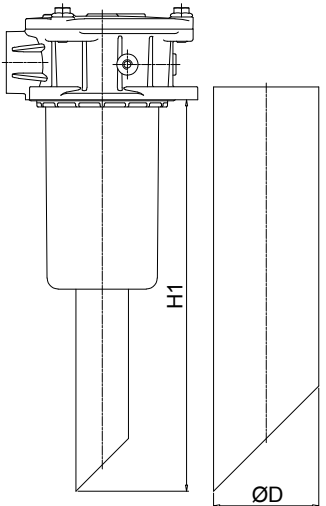
Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
<b>250</b>	<b>250</b>	250	•	-
<b>300</b>	<b>300</b>	300	•	•
<b>350</b>	<b>350</b>	350	•	-
<b>400</b>	<b>400</b>	400	•	•
<b>450</b>	<b>450</b>	450	•	-
<b>500</b>	<b>500</b>	500	•	•
<b>600</b>	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material **A** Polyamide

COMPATIBILITY TABLE																					
Filter series	Filter size			Filter length	Tube length																
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600				
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-			
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-			
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-		
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-	
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-	
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-			
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-		
				3	-	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-	
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-	
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-			
				2	-	-	•	-	-	-	-	623	673	723	773	823	873	923	-		
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020			
					2	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752	
	3	-	-	-	-	-	•	-	-	411	-	511	-	611	-	711	811				
	4	-	-	-	-	-	-	•	-	459	-	559	-	659	-	759	859				
MPT	110	114	116	120	1	-	-	-	-	•	597	-	697	-	797	-	897	997			
					2	-	-	-	-	-	-	-	278	328	378	428	478	528	578	-	
					3	-	-	-	-	-	-	-	-	342	392	442	492	542	592	642	-
					4	-	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-			
					2	-	-	•	-	-	-	-	320	370	420	470	520	570	620	-	
					3	-	-	-	•	-	-	-	396	446	496	546	596	646	696	-	
					4	-	-	-	-	•	-	-	498	548	598	648	698	748	798	-	
MPTX	110	114	116	120	1	-	-	•	-	-	273	323	373	423	473	523	573	-			
					2	-	-	-	•	-	-	-	318	368	418	468	518	568	618	-	
					3	-	-	-	-	•	-	-	396	446	496	546	596	646	696	-	
					4	-	-	-	-	-	•	-	498	548	598	648	698	748	798	-	

## STEEL EXTENSION TUBE



H1

ØD

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

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

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

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example	T2	H
-----------------------	----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-



THE **X** CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean.  
Quality and efficiency are fundamental for MP Filtri:  
this exclusive new filter element possesses polygon shape geometry and specific seal  
that ensures only original spare parts can be used - ensuring correct operation and  
higher system reliability.

MFBX series

with **MYCLEAN** MFX Filter Element



- **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 MFBX are protected by:

- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1

TOGETHER WITH **MYCLEAN**, AS OPTION, MFBX SERIES CAN BE PROVIDED WITH

**zerospark**<sup>®</sup>  
THE ANTI-STATIC FILTERS

THE **Z** CONCEPT FOR OUR FILTERS



Zerospark<sup>®</sup> is a specialist solution designed to solve the problem of electrostatic discharge inside hydraulic filters. Caused by the electrical charge build-up due to the passage of oil through the filters, this can result in damage to filter elements, oils and circuit components. It can even cause fire hazards in environments where flammable materials are present.

# MFBX series

BOWL ASSEMBLY

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



# MFBX GENERAL INFORMATION

## Description

## Technical data

### 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  
Polyamide: MFBX 020-030-100  
Aluminium: MFBX 180-190

- Bowl: Polyamide

#### Filter element materials

- Caps: Polyamide
- Spring: Spring steel

#### Bypass valve

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

#### $\Delta p$ 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 [dm<sup>3</sup>]

Filter series	Weights [kg]					Volumes [dm <sup>3</sup> ]				
	Length	1	2	3	4	Length	1	2	3	4
<b>MFBX 020</b>		0.25	0.35	0.40	-		0.10	0.15	0.20	-
<b>MFBX 030</b>		0.25	-	-	-		0.15	-	-	-
<b>MFBX 100</b>		0.50	0.60	0.75	0.95		0.35	0.50	0.80	1.10
<b>MFBX 180</b>		1.60	2.40	-	-		1.50	2.90	-	-
<b>MFBX 190</b>		-	2.40	-	-		-	3.00	-	-

Flow rates [l/min]

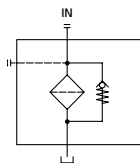
Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MFBX 020</b>	<b>1</b>	7	10	23	28	42	59	51	54
	<b>2</b>	17	20	45	48	56	72	64	67
	<b>3</b>	21	24	50	55	59	76	74	75
<b>MFBX 030</b>	<b>1</b>	7	10	24	29	47	84	60	66
<b>MFBX 100</b>	<b>1</b>	18	20	53	56	65	153	87	96
	<b>2</b>	28	38	65	75	95	158	111	123
	<b>3</b>	48	55	125	135	169	289	224	251
	<b>4</b>	79	89	180	185	198	306	264	289
<b>MFBX 180</b>	<b>1</b>	127	148	235	243	278	441	285	299
	<b>2</b>	231	262	358	382	388	472	404	412
<b>MFBX 190</b>	<b>2</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

Hydraulic symbols

Filter series	Style 1 connection
<b>MFBX 020</b>	•
<b>MFBX 030</b>	•
<b>MFBX 100</b>	•
<b>MFBX 180</b>	•
<b>MFBX 190</b>	•



# MFBX MFBX020 - MFBX030 - MFBX100 - MFBX180 - MFBX190

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b> MFBX020   MFBX100   MFBX190 MFBX030   MFBX180	Filter featuring <b>MYCLEAN</b> Filter Element	Configuration example 1: MFBX100 1 A 2 A10 H E P01	Configuration example 2: MFBX180 2 V 1 M25 N B P01
--	---	--	--

Length	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190
1	•	•	•	•	-
2	•	-	•	•	•
3	•	-	•	-	-
4	-	-	•	-	-

Seals
A NBR
V FPM

Version	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190
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		Filter media		
		Axx	Mxx	Pxx
N 10 bar		-	•	•
H 10 bar		•	-	-

Bypass valve	Executions	
	Base	zerospark*
E 3 bar	P01	Z01* MP Filtri standard
B 1.75 bar	Pxx	Zxx* Customized

\* Not for Mxx filter media

### FILTER ELEMENT

<b>Element series and size</b> MFX020   MFX100 MFX030   MFX180	Filter Element with <b>MYCLEAN</b> feature	Configuration example 1: MFX180 2 M25 H V P01	Configuration example 2: MFX100 1 A10 N B E P01
--	--	---	---

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		Filter media		
		Axx	Mxx	Pxx
N 10 bar		-	•	•
H 10 bar		•	-	-

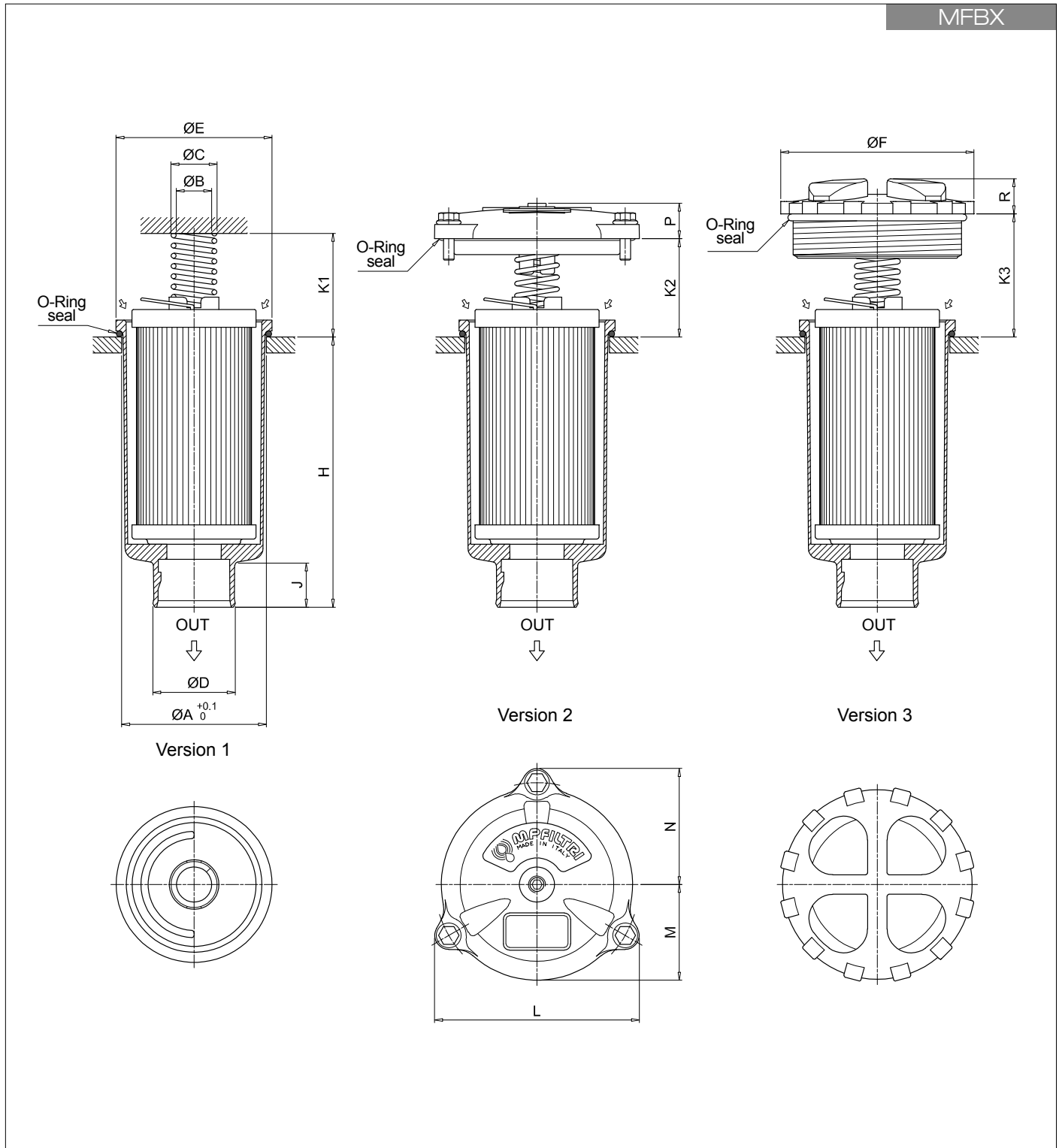
Seals	Bypass valve	Executions	
		Base	zerospark*
B NBR	E 3 bar	P01	Z01* MP Filtri standard
V FPM	- 1.75 bar	Pxx	Zxx* Customized

\* Not for Mxx filter media

### ACCESSORIES

See page 268-269

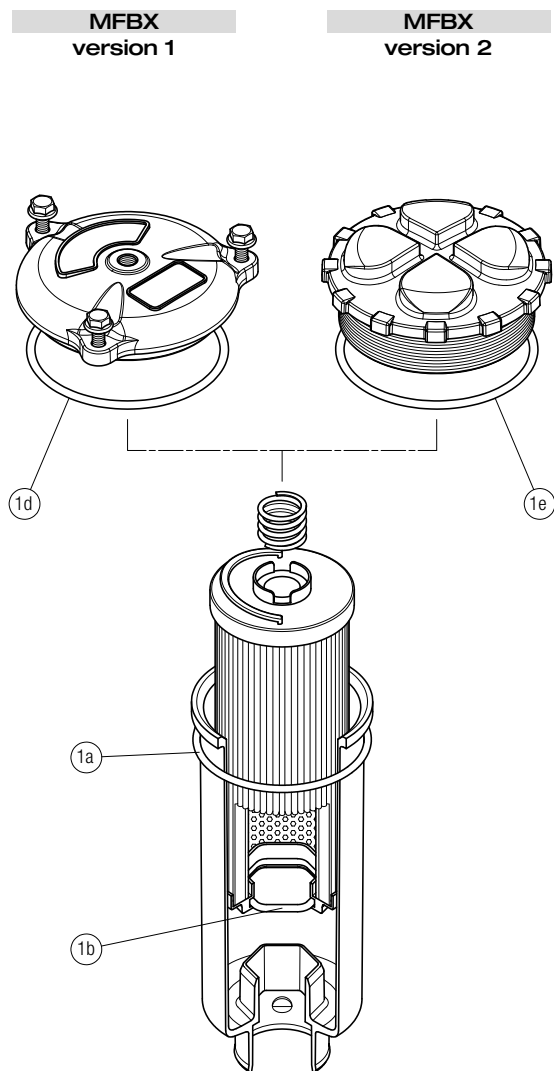
	MFBX020	MFBX030	MFBX100	MFBX180	MFBX190
TE Extension tube	•	•	•	•	•
DFS Diffuser with fast lock connection	-	-	•	-	-



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]
<b>020</b>	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
<b>030</b>	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
<b>100</b>	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
<b>180</b>	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	-
<b>190</b>	2	112.5	26	33.5	50	121	-	454	38	58	69	-	159	76	95	21	-

# MFBX SPARE PARTS

Order number for spare parts



Filter series	Seal Kit code number	
	NBR	FPM
<b>MFBX 020</b>	02050713	02050714
<b>MFBX 030</b>	02050715	02050716
<b>MFBX 100</b>	02050717	02050718
<b>MFBX 180-190</b>	02050719	02050720

Q.ty: 1 pc.

**1** (1a ÷ 1d)

# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

Series	Length	H [mm]	Seals	Execution
<b>DPT</b>	<b>15</b>	<b>134</b>	<b>A</b> NBR	<b>P01</b> MP Filtri standard
	<b>20</b>	<b>184</b>	<b>V</b> FPM	<b>Pxx</b> Customized
	<b>25</b>	<b>234</b>		
	<b>30</b>	<b>284</b>		
	<b>35</b>	<b>334</b>		

**Materials**

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

**Technical data**

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

**Fastening**

- M8** Fastening with screws  $\varnothing D = M8$
- M10** Fastening with screws  $\varnothing D = M10$

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

**Technical data**

Tightening torque: 15 N·m

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

## POLYAMIDE EXTENSION TUBE

H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
	<b>250</b>	250	•	-
	<b>300</b>	300	•	•
	<b>350</b>	350	•	-
	<b>400</b>	400	•	•
	<b>450</b>	450	•	-
	<b>500</b>	500	•	•
	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material
<b>A</b> Polyamide

COMPATIBILITY TABLE																				
Filter series	Filter size			Filter length	Tube length															
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600			
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-		
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-		
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-		
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-		
				2	-	-	-	-	-	-	-	623	673	723	773	823	873	923	-	
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020		
					2	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752
	750	1	-	-	-	-	•	-	-	-	411	-	511	-	611	-	711	811		
		3	-	-	-	-	-	•	-	-	459	-	559	-	659	-	759	859		
MPT	110	114	116	120	1	-	-	-	-	-	278	328	378	428	478	528	578	-		
					2	-	•	-	-	-	-	-	342	392	442	492	542	592	642	-
					3	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-		
					2	-	-	-	-	-	-	-	320	370	420	470	520	570	620	-
					3	-	-	-	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	-	-	-	273	323	373	423	473	523	573	-		
					2	-	-	•	-	-	-	-	318	368	418	468	518	568	618	-
					3	-	-	-	-	-	-	-	396	446	496	546	596	656	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-

## STEEL EXTENSION TUBE

H1

ØD

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

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

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

# MPF series

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



## Description

## Technical data

### Return filter

**Maximum working pressure up to 800 kPa (8 bar)**

**Flow rate up to 900 l/min**

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

They are directly fixed to the reservoir, in immersed or semi-immersed position.

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

### Available features:

- Female threaded connections up to 2" and flanged connections up to 2", for a maximum flow rate of 900 l/min
- Multiple connections, to connect several return lines or drains
- Fine filtration rating, to get a good cleanliness level into the reservoir
- Bypass valve integrated into the filter element, to relieve excessive pressure drop across the filter media
- 2, 3 or 4 fixing holes for installation, to suit a variety of reservoir surfaces
- O-ring or Flat Seal to suit a variety of reservoir surfaces
- Oil dipstick, to easily check the level of the fluid into the reservoir (sold as separate item)
- Extension tube, to be used in deep reservoirs (sold as separate item)
- Diffuser, to reduce the risk of aeration, foaming and noise (sold as separate item)
- Filler plug, to fill cleaned fluid into the tank without an additional connection
- Visual, electrical and electronic clogging indicators

### Common applications:

- Light industrial equipment
- Mobile application

### Filter housing materials

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

### Bypass valve

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

### $\Delta p$ 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 [dm<sup>3</sup>]

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

Flow rates [l/min]

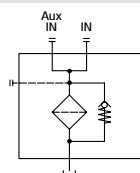
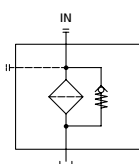
Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MPF 020</b>	<b>1</b>	7	10	23	28	42	59	51	54
<b>MPF 030</b>	<b>1</b>	7	10	24	29	47	84	60	66
<b>MPF 100-104-110</b>	<b>1</b>	18	20	53	56	65	153	87	96
	<b>2</b>	28	38	65	75	95	158	111	123
	<b>3</b>	48	55	125	135	169	289	224	251
	<b>4</b>	79	89	180	185	198	306	264	289
<b>MPF 181-182-184</b>	<b>1</b>	127	148	235	243	278	441	285	299
	<b>2</b>	231	262	358	382	388	472	404	412
<b>MPF 191-192-194</b>	<b>2</b>	261	305	489	528	546	696	583	598
<b>MPF 400</b>	<b>1</b>	150	171	294	304	350	585	370	390
	<b>2</b>	237	252	454	462	589	868	619	645
	<b>3</b>	248	288	553	609	621	885	680	703
<b>MPF 410</b>	<b>1</b>	146	167	277	285	325	512	341	357
	<b>2</b>	226	239	396	402	485	644	503	519
	<b>3</b>	236	269	462	497	505	653	539	553
<b>MPF 450-451</b>	<b>1</b>	150	171	294	304	350	585	370	390
	<b>2</b>	237	252	454	462	589	868	619	645
	<b>3</b>	248	288	553	609	621	885	680	703
<b>MPF 750</b>	<b>1</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

Hydraulic symbols

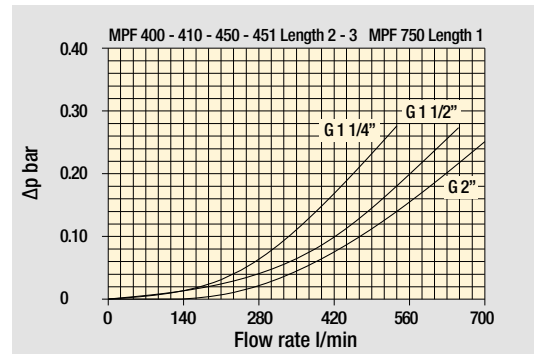
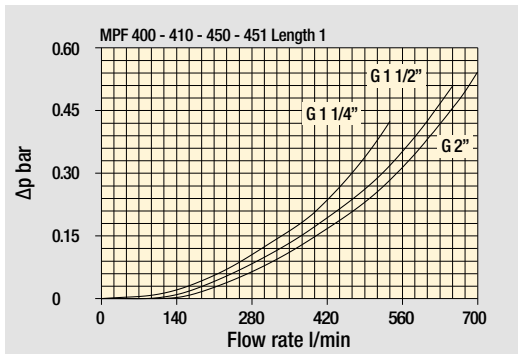
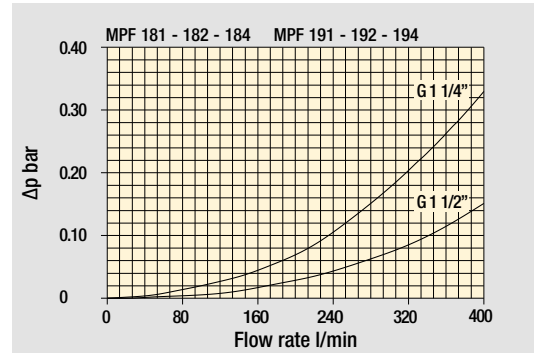
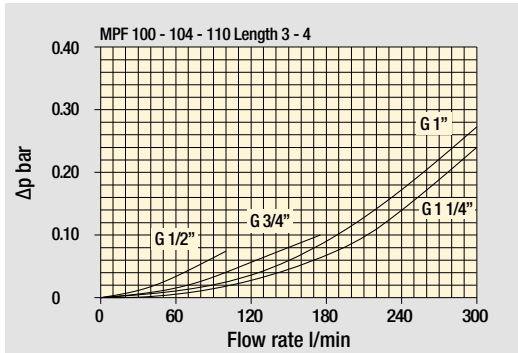
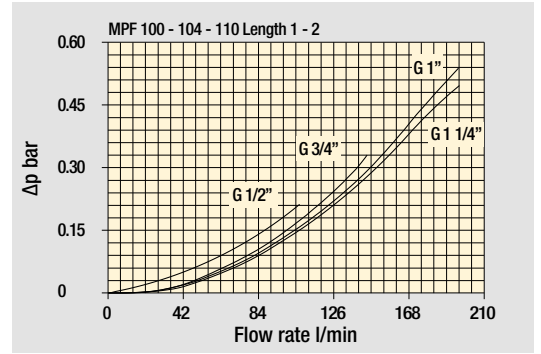
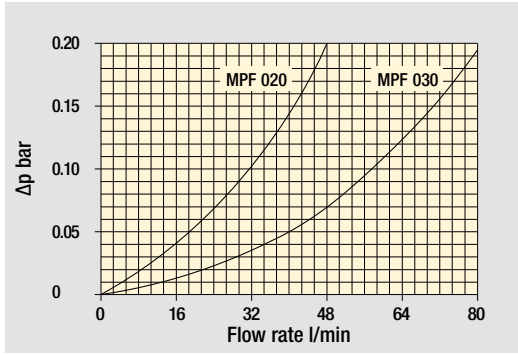
Filter series	Style 1 connection	Style 2 connections
<b>MPF 020</b>	•	-
<b>MPF 030</b>	•	-
<b>MPF 100</b>	•	-
<b>MPF 104</b>	•	-
<b>MPF 110</b>		•
<b>MPF 181</b>	•	-
<b>MPF 182</b>		•
<b>MPF 184</b>	•	•
<b>MPF 191</b>	•	-
<b>MPF 192</b>	•	-
<b>MPF 194</b>	•	•
<b>MPF 400</b>	•	-
<b>MPF 410</b>		•
<b>MPF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



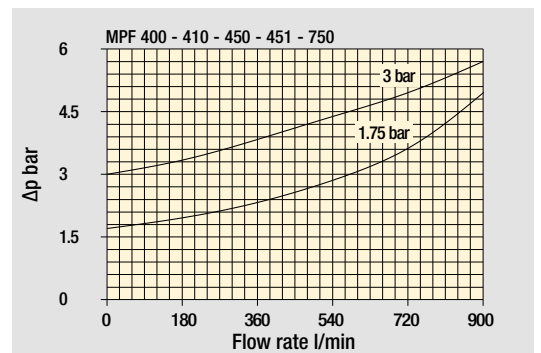
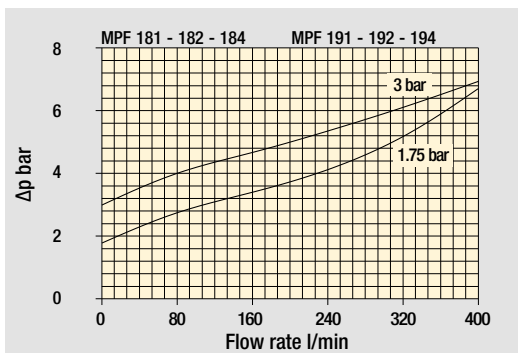
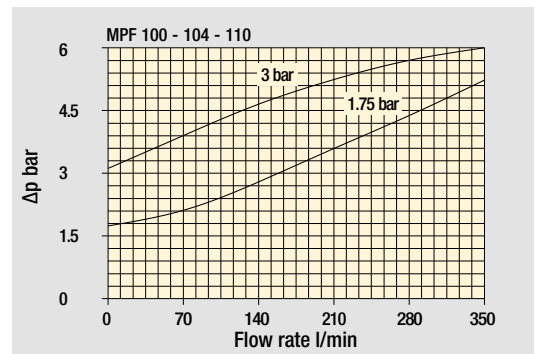
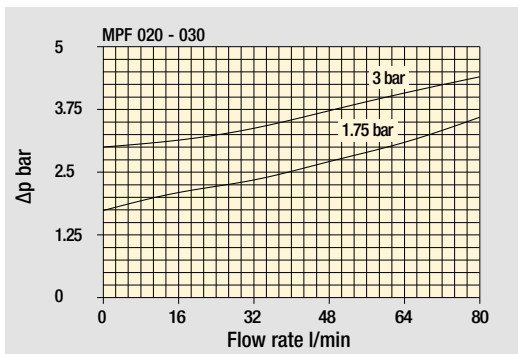
# MPF GENERAL INFORMATION

## Pressure drop

### Filter housings $\Delta p$ pressure drop



### Bypass valve pressure drop

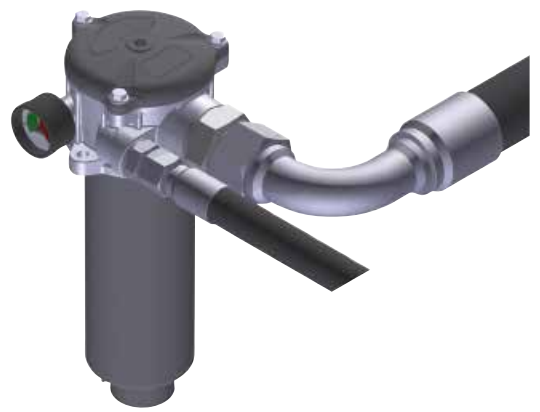


The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

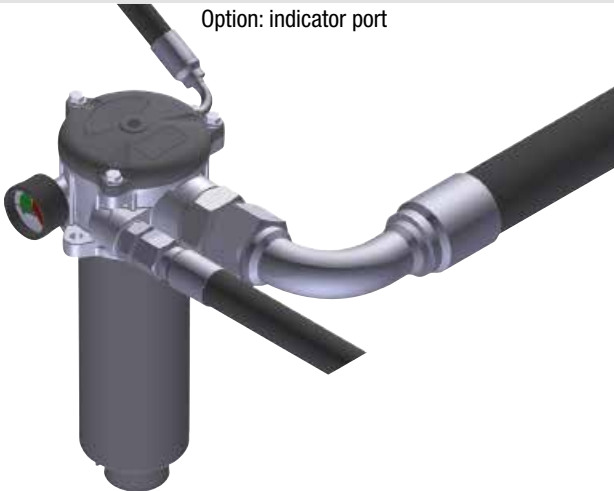
Standard - Single IN port



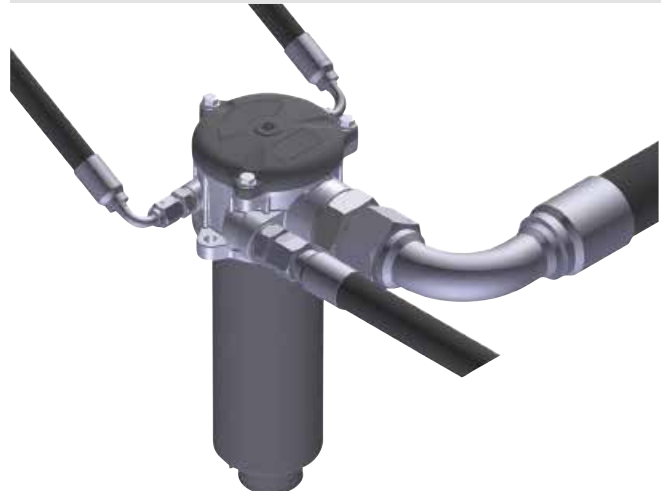
Double IN port  
Option: double indicator port



Double IN port - Drain port  
Option: indicator port



Double IN port - Double drain port



# MPF MPF020 - MPF030

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1:	<b>MPF020</b>	<b>1</b>	<b>A</b>	<b>P1</b>	<b>A10</b>	<b>H</b>	<b>E</b>	<b>P01</b>
<b>MPF020 MPF030</b> Filter element with standard spigot	Configuration example 2:	<b>MPF030</b>	<b>1</b>	<b>V</b>	<b>G1</b>	<b>M25</b>	<b>N</b>	<b>B</b>	<b>P01</b>

<b>Length</b>	
<b>1</b>	

<b>Seals and treatments</b>	
<b>A</b> NBR	
<b>V</b> FPM	
<b>W</b> NBR head anodized	
<b>Z</b> FPM head anodized	

<b>Connections</b>	<b>Size 20</b>	<b>Size 30</b>
<b>P1</b> Hose barb ø12	•	-
<b>G1</b> G 1/2"	-	•
<b>G4</b> 1/2" NPT	-	•
<b>G7</b> SAE 8 - 3/4" - 16 UNF	-	•

<b>Filtration rating (filter media)</b>	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

		<b>Filter media</b>		
<b>Element Δp</b>		<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>
<b>N</b> 10 bar		-	•	•
<b>H</b> 10 bar		•	-	-

<b>Bypass valve</b>	<b>Execution</b>
<b>E</b> 3 bar	<b>P01</b> MP Filtri standard
<b>B</b> 1.75 bar	<b>Pxx</b> Customized

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1:	<b>MF030</b>	<b>1</b>	<b>A10</b>	<b>H</b>	<b>B</b>	<b>E</b>	<b>P01</b>
<b>MF030</b> Filter element with standard spigot	Configuration example 2:	<b>MF030</b>	<b>1</b>	<b>M25</b>	<b>N</b>	<b>V</b>		<b>P01</b>

<b>Element length</b>	
<b>1</b>	

<b>Filtration rating (filter media)</b>	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

		<b>Filter media</b>		
<b>Element Δp</b>		<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>
<b>N</b> 10 bar		-	•	•
<b>H</b> 10 bar		•	-	-

<b>Seals</b>	<b>Bypass valve</b>	<b>Execution</b>
<b>B</b> NBR	<b>E</b> 3 bar	<b>P01</b> MP Filtri standard
<b>V</b> FPM	- 1.75 bar	<b>Pxx</b> Customized

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

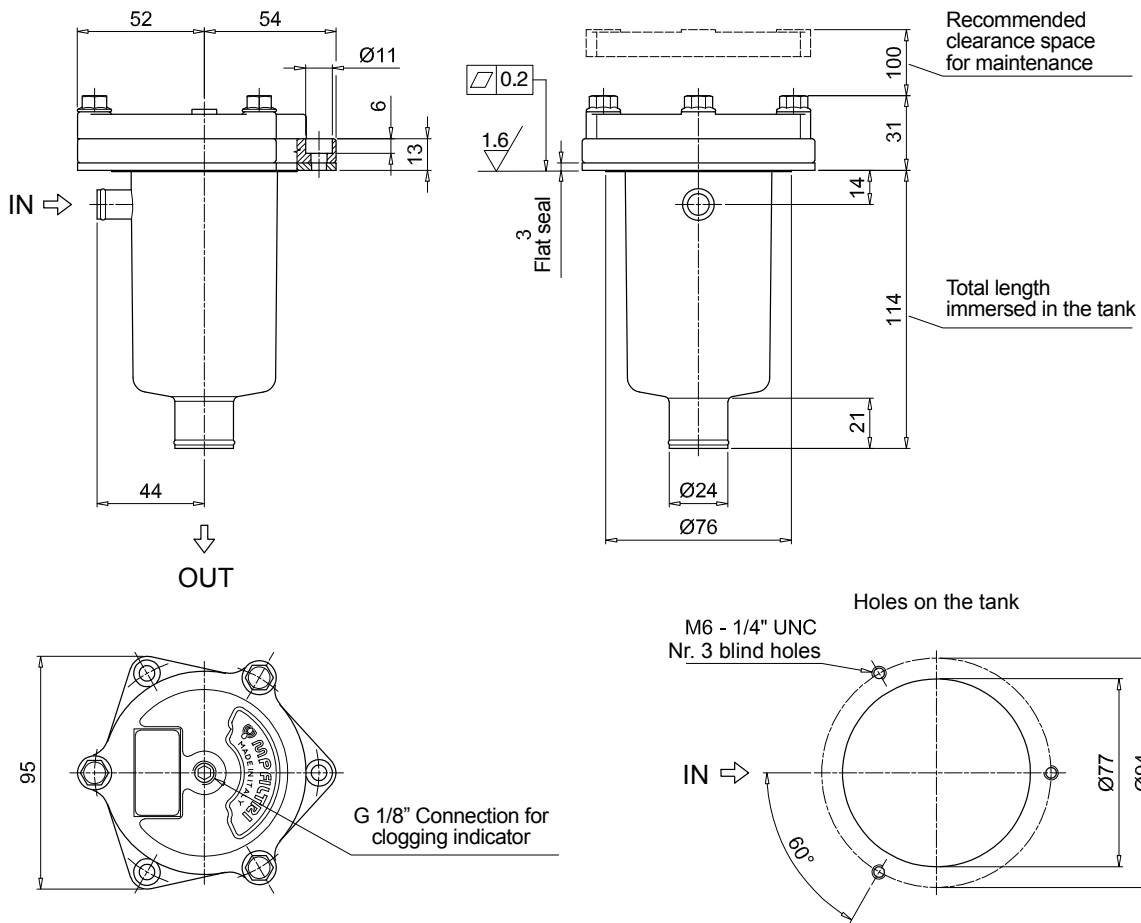
<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

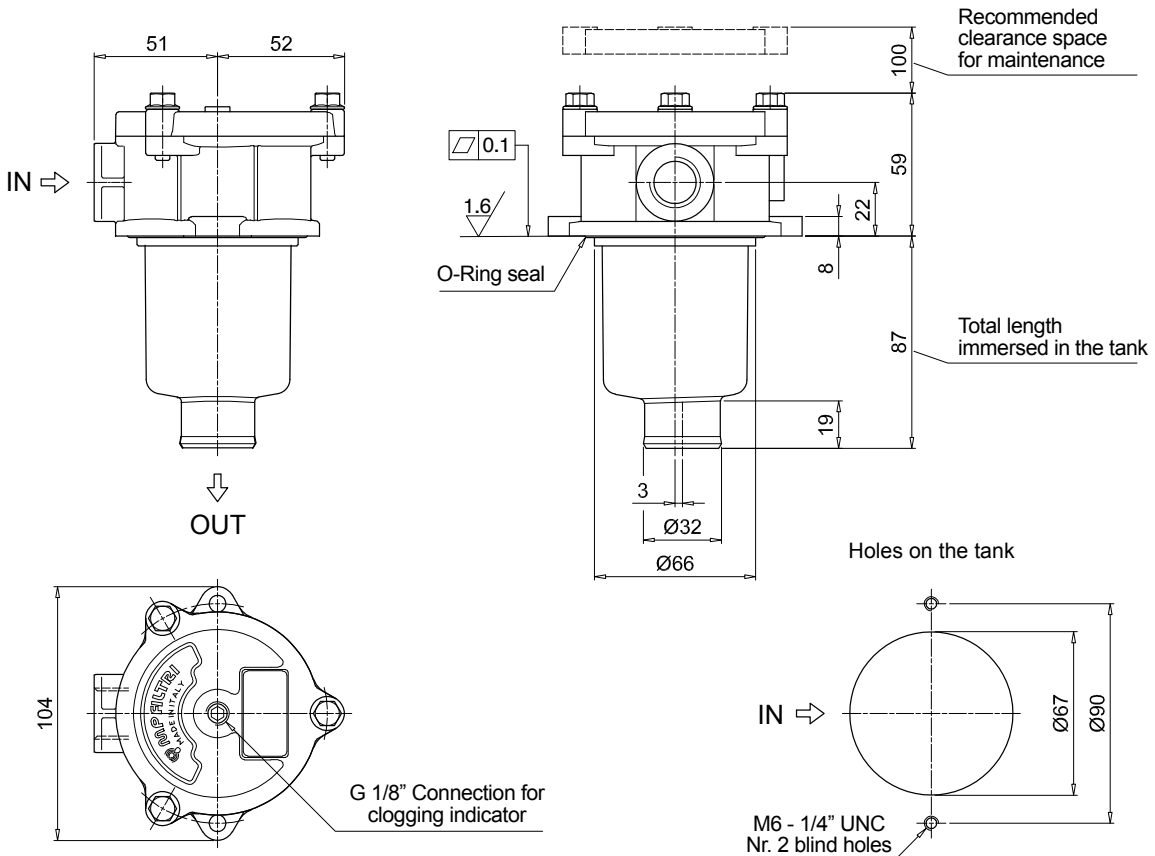
See page 268

<b>TE</b> Extension tube
<b>T5</b> Filler plug M30x1.5

### MPF020



### MPF030



# MPF MPF100 - MPF104

## Designation & Ordering code

### COMPLETE FILTER

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

### FILTER ELEMENT

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

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

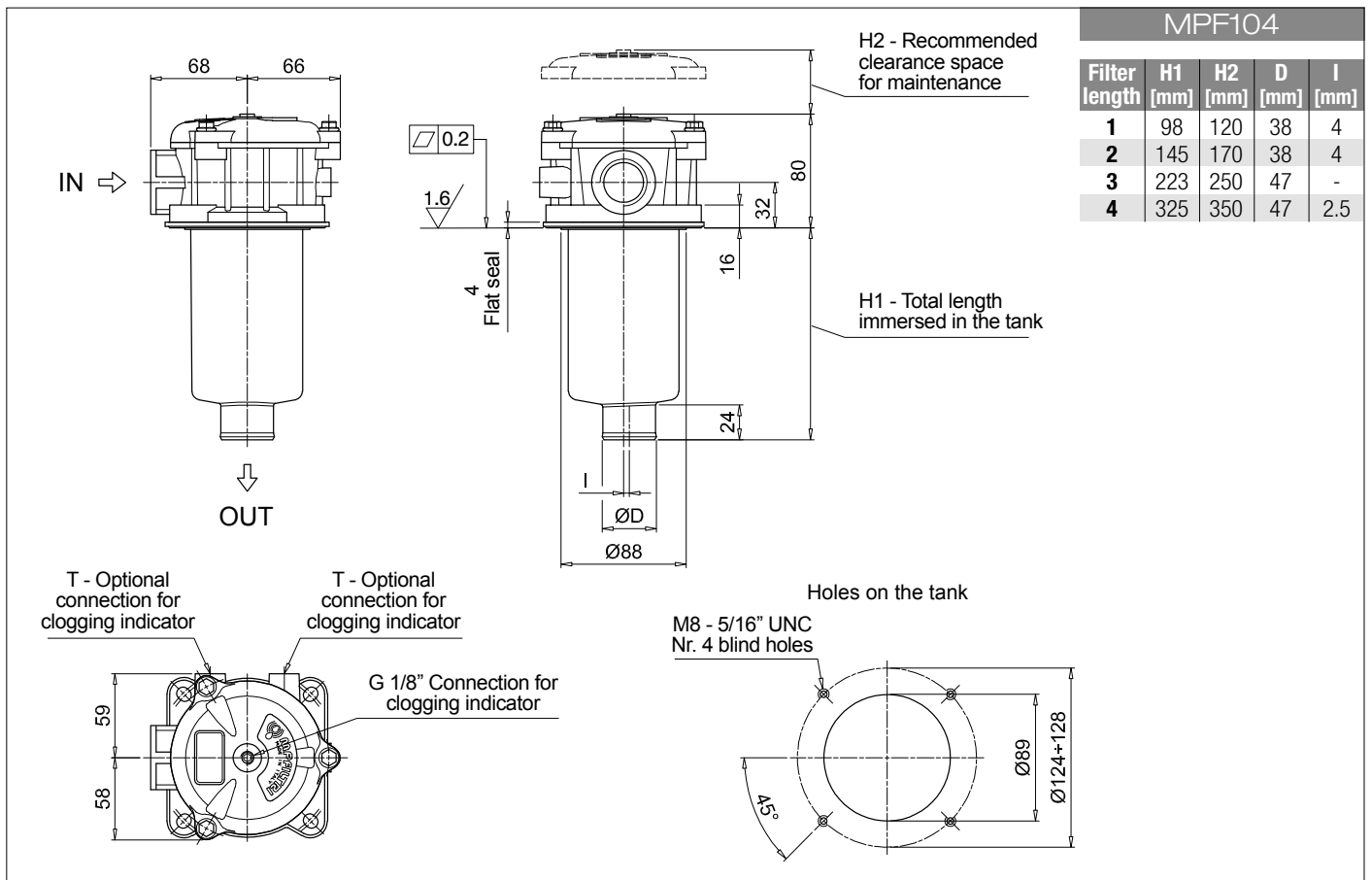
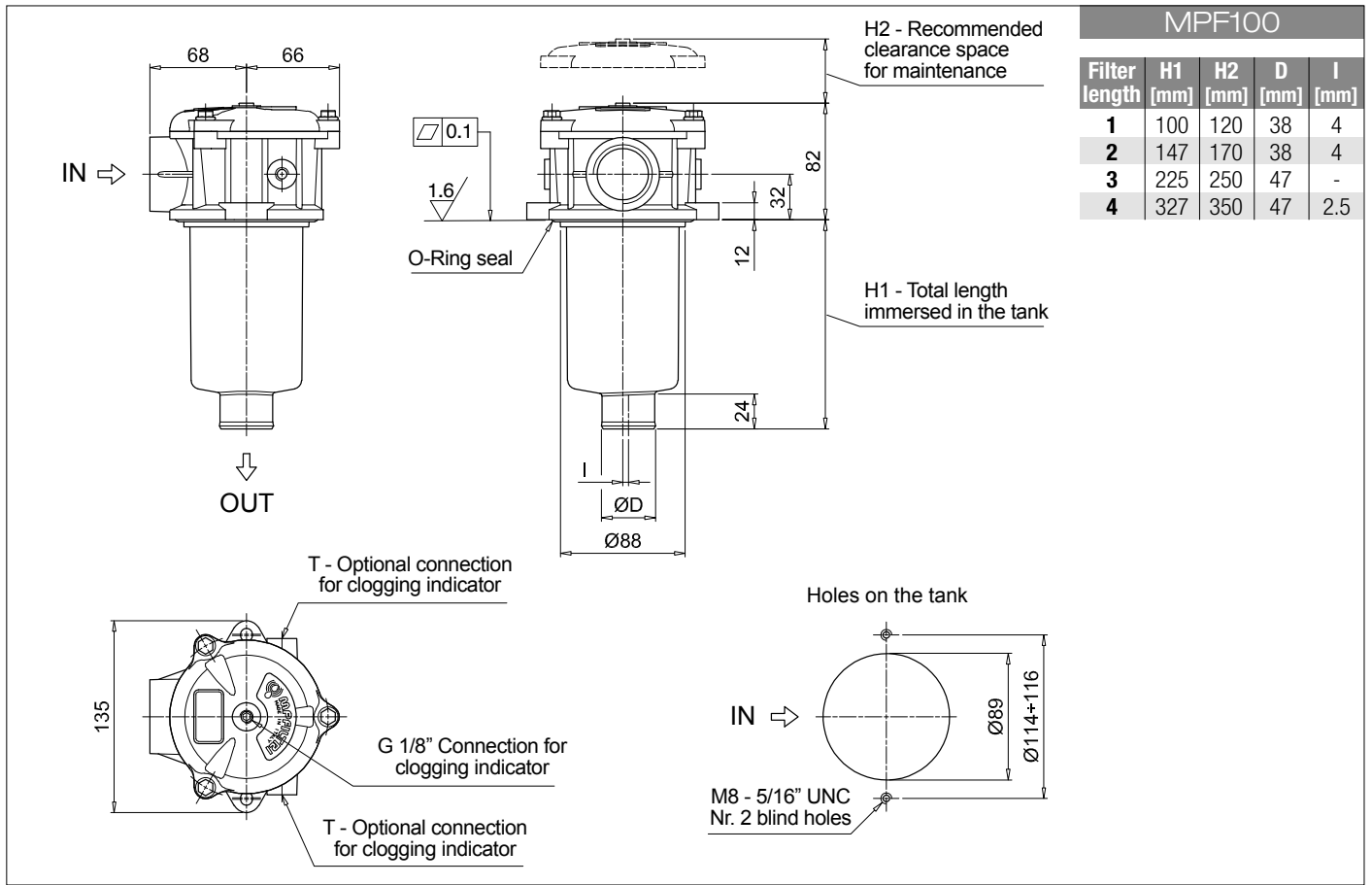
<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube
<b>DFS</b> Diffuser with fast lock connection

<b>T5</b> Filler plug M30x1.5
<b>DPT</b> Dipstick



# MPF MPF110

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b> <b>MPF110</b> Filter element with standard spigot	Configuration example 1:	MPF110	2	A	G2	1	A16	H	E	P01
	Configuration example 2:	MPF110	4	V	G12	1	M60	N	B	P01

<b>Length</b>	1	2	3	4
---------------	---	---	---	---

<b>Seals and treatments</b>	<b>A</b> NBR	<b>W</b> NBR head anodized
	<b>V</b> FPM	<b>Z</b> FPM head anodized

Main Connections	Aux size 1	Aux size 2	Main Connections	Aux size 1	Aux size 2
<b>G1</b> G 1/2"	G 3/8"	G 1/2"	<b>G7</b> SAE 8 - 3/4" - 16 UNF	SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF
<b>G2</b> G 3/4"			<b>G8</b> SAE 12 - 1 1/16" - 12 UN		
<b>G3</b> G 1"	3/8" NPT	1/2" NPT	<b>G9</b> SAE 16 - 1 5/16" - 12 UN	G 3/8"	G 1/2"
<b>G4</b> 1/2" NPT			<b>G10</b> G 1 1/4"		
<b>G5</b> 3/4" NPT			<b>G11</b> 1 1/4" NPT		
<b>G6</b> 1" NPT			<b>G12</b> SAE 20 - 1 5/8" - 12 UN	SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF

<b>Aux connection</b> - see previous table	<b>1</b> Aux size 1	<b>2</b> Aux size 2
--	---------------------	---------------------

<b>Filtration rating (filter media)</b>	<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
	<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
	<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
	<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
	<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

<b>Element Δp</b>	<b>N</b> 10 bar	<b>H</b> 10 bar	
<b>Filter media</b>	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>
	-	•	•
	•	-	-

<b>Bypass valve</b>	<b>E</b> 3 bar	<b>B</b> 1.75 bar
<b>Execution</b>	<b>P01</b> MP Filtri standard	<b>Pxx</b> Customized

### FILTER ELEMENT

<b>Element series and size</b> <b>MF100</b> Filter element with standard spigot	Configuration example 1:	MF100	2	A16	H	B	E	P01
	Configuration example 2:	MF100	4	M60	N	V		P01

<b>Element length</b>	1	2	3	4
-----------------------	---	---	---	---

<b>Filtration rating (filter media)</b>	<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
	<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
	<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
	<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
	<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

<b>Element Δp</b>	<b>N</b> 10 bar	<b>H</b> 10 bar	
<b>Filter media</b>	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>
	-	•	•
	•	-	-

<b>Seals</b>	<b>B</b> NBR	<b>V</b> FPM
<b>Bypass valve</b>	<b>E</b> 3 bar	<b>-</b> 1.75 bar
<b>Execution</b>	<b>P01</b> MP Filtri standard	<b>Pxx</b> Customized

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

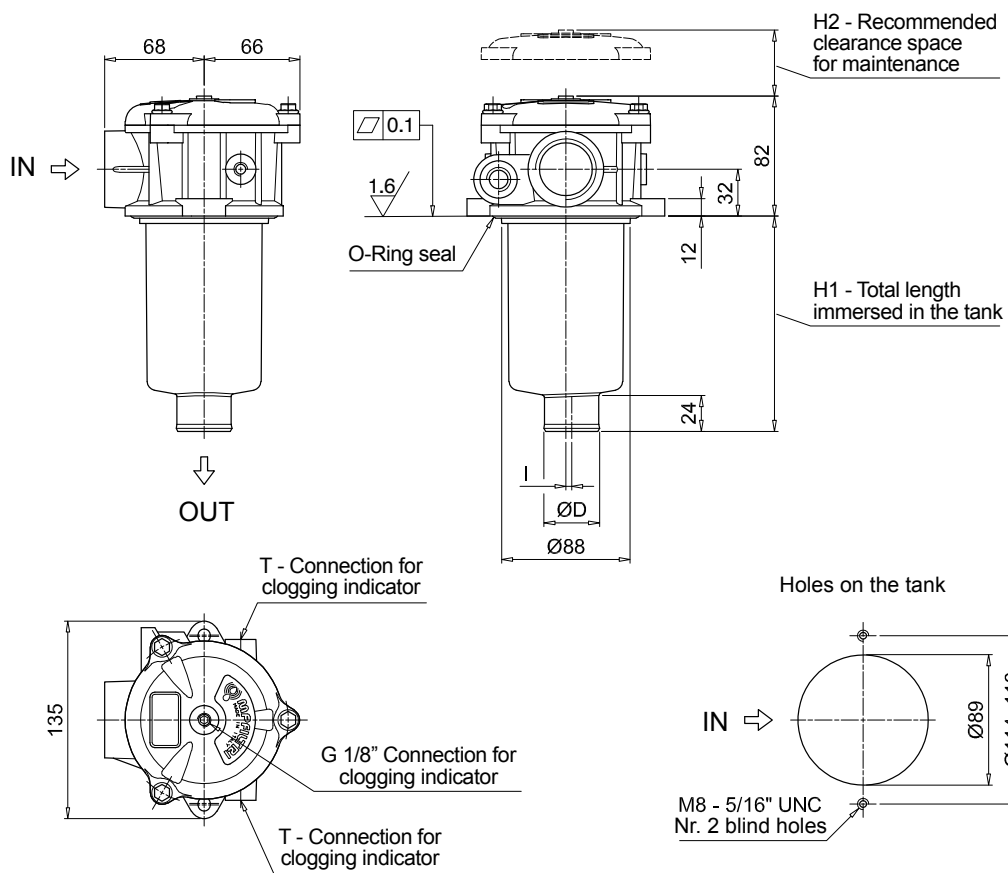
<b>TE</b> Extension tube
<b>DFS</b> Diffuser with fast lock connection

<b>T5</b> Filler plug M30x1.5
<b>DPT</b> Dipstick

MPF110				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
<b>1</b>	100	120	38	4
<b>2</b>	147	170	38	4
<b>3</b>	225	250	47	-
<b>4</b>	327	350	47	2.5

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



# MPF MPF181 - MPF191

## Designation & Ordering code

### COMPLETE FILTER

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

### FILTER ELEMENT

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

### CLOGGING INDICATORS

See page 720-721

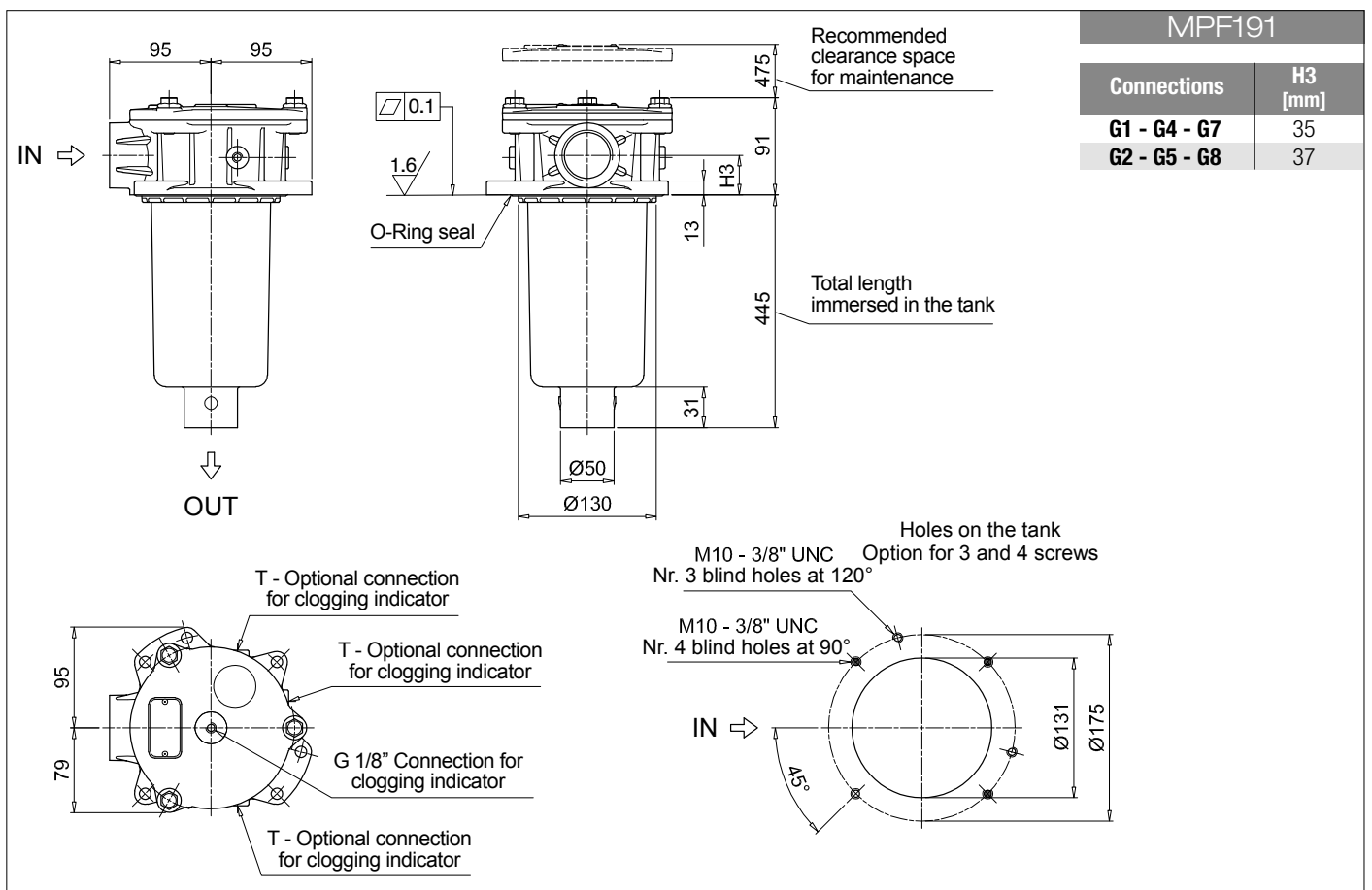
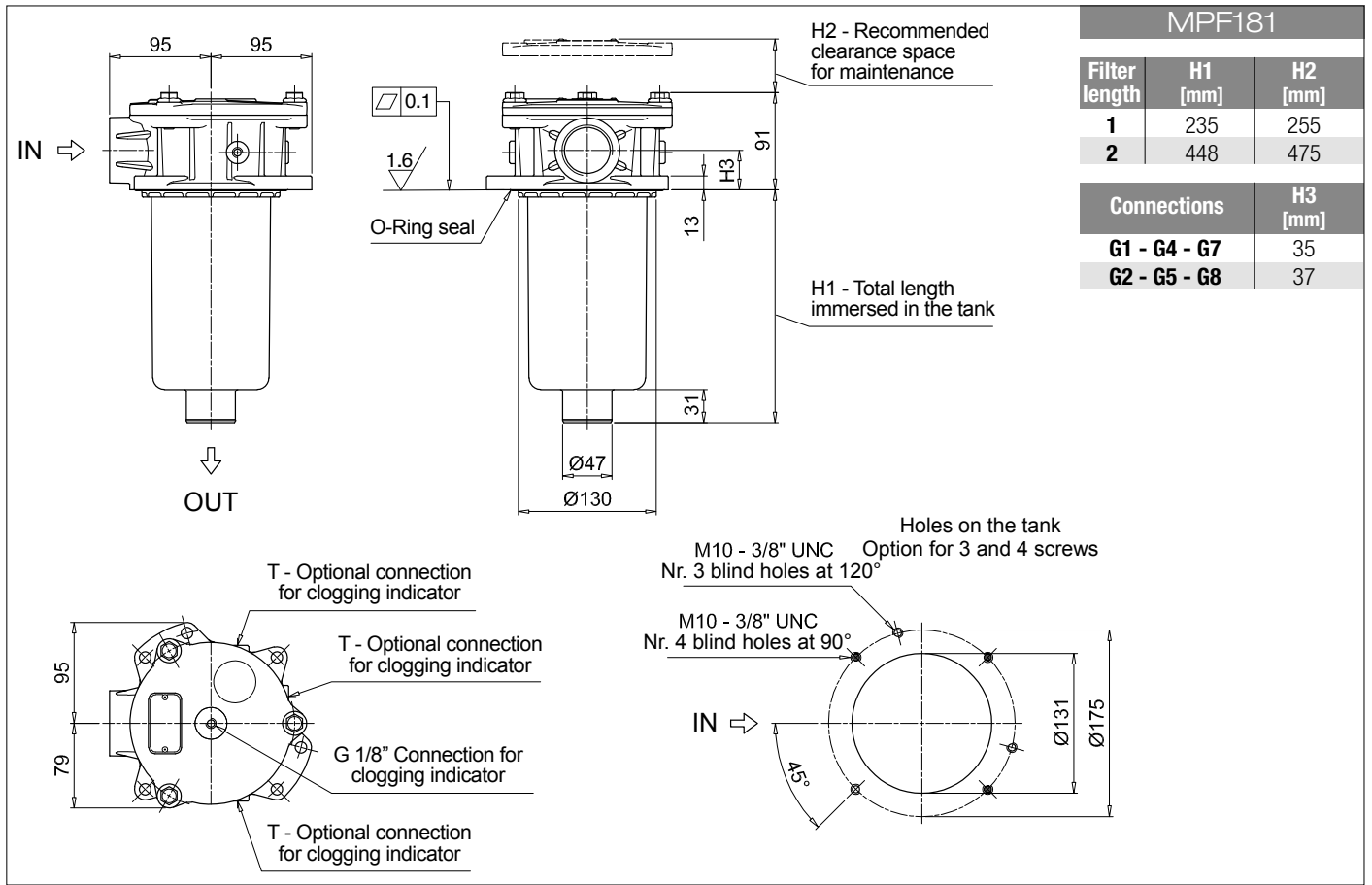
<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

<b>TE</b> Extension tube
<b>Sxx</b> Extension tube
<b>T5</b> Filler plug M30x1.5



# MPF MPF182 - MPF192

## Designation & Ordering code

### COMPLETE FILTER

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

<b>Element Δp</b>			<b>Filter media</b>			<b>Bypass valve</b>		<b>Execution</b>	
<b>N</b>	10 bar		<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>	<b>E</b>	3 bar	<b>P01</b>	MP Filtri standard
<b>H</b>	10 bar		•	-	-	<b>B</b>	1.75 bar	<b>Pxx</b>	Customized

### FILTER ELEMENT

<b>Element series and size</b>			Configuration example 1: <b>MF180</b>   1   A25   H   B   E   P01								
<b>MF180</b>	<b>MF190</b>	Filter element with standard spigot	Configuration example 2: <b>MF190</b>   2   P10   N   V   P01								
<b>Element length</b>		<b>Size 180</b>	<b>Size 190</b>								
1		•	-								
2		•	•								
<b>Filtration rating (filter media)</b>											
<b>A03</b>	Inorganic microfiber 3 µm	<b>M25</b>	Wire mesh 25 µm								
<b>A06</b>	Inorganic microfiber 6 µm	<b>M60</b>	Wire mesh 60 µm								
<b>A10</b>	Inorganic microfiber 10 µm	<b>M90</b>	Wire mesh 90 µm								
<b>A16</b>	Inorganic microfiber 16 µm	<b>P10</b>	Resin impregnated paper 10 µm								
<b>A25</b>	Inorganic microfiber 25 µm	<b>P25</b>	Resin impregnated paper 25 µm								

<b>Element Δp</b>			<b>Filter media</b>			<b>Seals</b>		<b>Bypass valve</b>		<b>Execution</b>	
<b>N</b>	10 bar		<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>	<b>B</b>	NBR	<b>E</b>	3 bar	<b>P01</b>	MP Filtri standard
<b>H</b>	10 bar		•	-	-	<b>V</b>	FPM	-	1.75 bar	<b>Pxx</b>	Customized

### CLOGGING INDICATORS

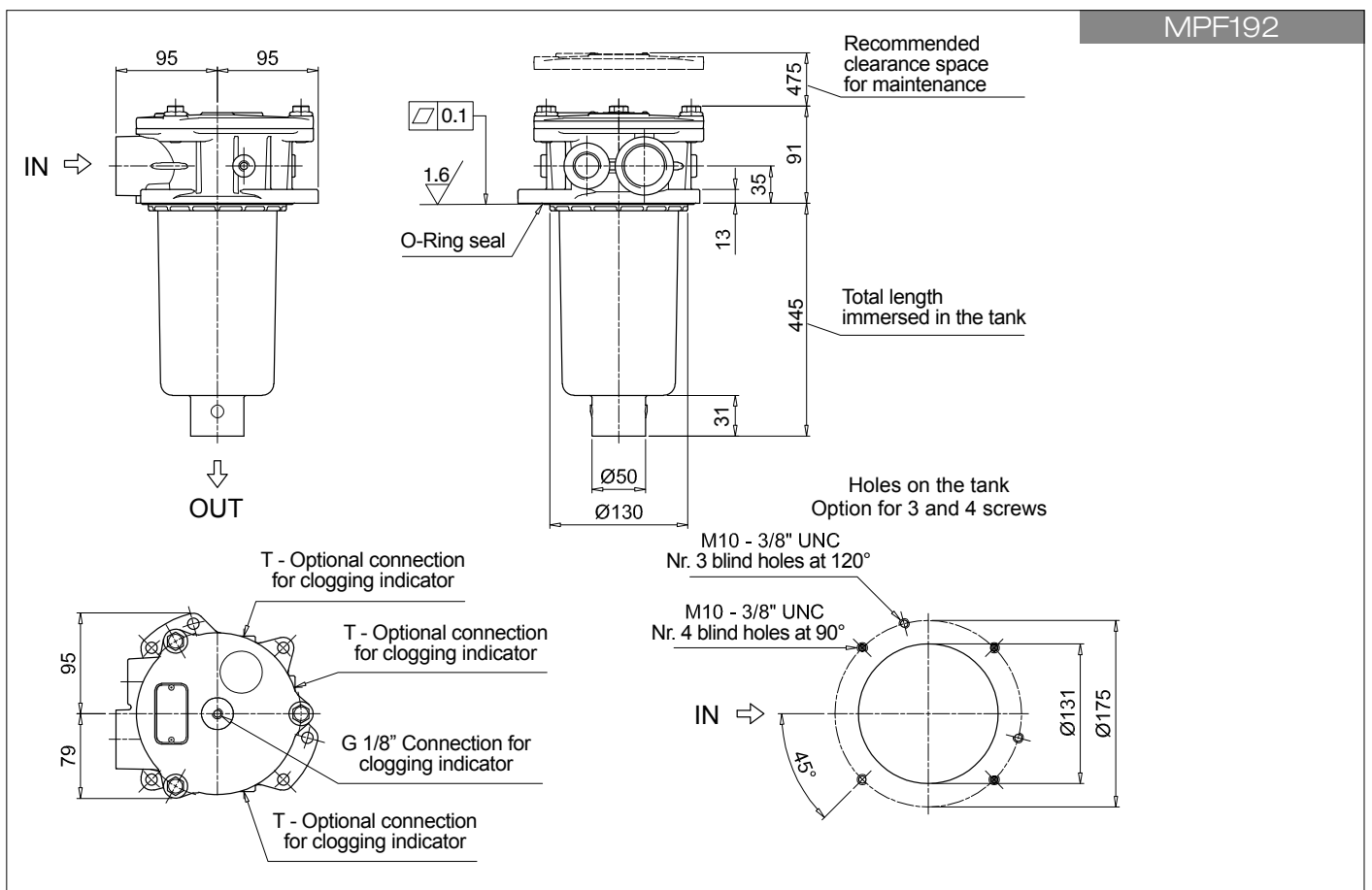
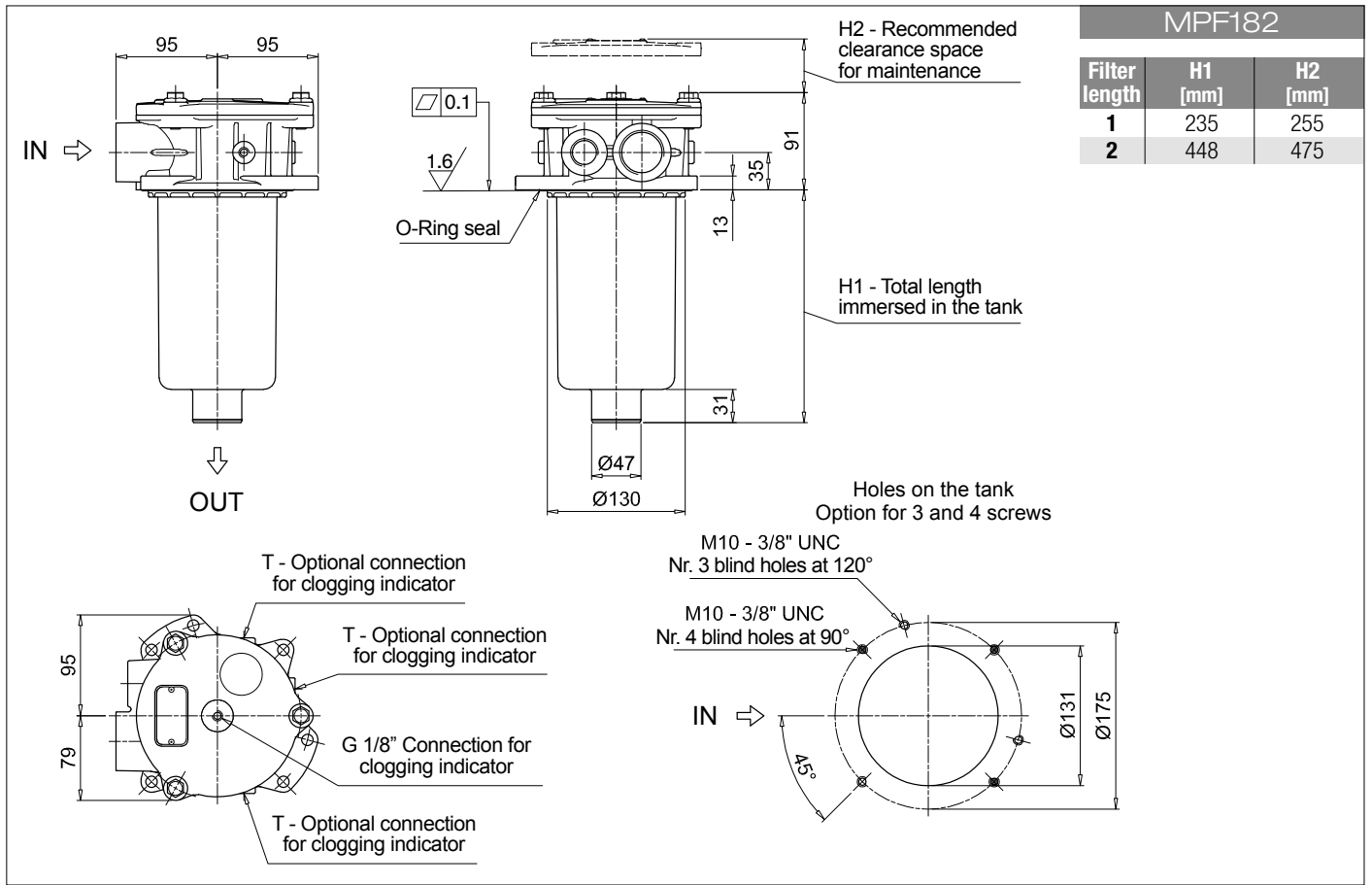
See page 720-721

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

### ADDITIONAL FEATURES

See page 268

<b>TE</b>	Extension tube
<b>Sxx</b>	Extension tube
<b>T5</b>	Filler plug M30x1.5



# MPF MPF184 - MPF194

## Designation & Ordering code

### COMPLETE FILTER

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

<b>Element Δp</b>			<b>Filter media</b>			<b>Bypass valve</b>		<b>Execution</b>	
<b>N</b> 10 bar	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>	<b>E</b> 3 bar	<b>P01</b> MP Filtri standard				
<b>H</b> 10 bar	•	-	-	<b>B</b> 1.75 bar	<b>Pxx</b> Customized				

### FILTER ELEMENT

<b>Element series and size</b>			Configuration example 1: <b>MF180</b>   <b>1</b>   <b>A25</b>   <b>H</b>   <b>B</b>   <b>E</b>   <b>P01</b>								
<b>MF180</b>   <b>MF190</b> Filter element with standard spigot			Configuration example 2: <b>MF190</b>   <b>2</b>   <b>P10</b>   <b>N</b>   <b>V</b>   <b>P01</b>								
<b>Element length</b>	<b>Size 180</b>	<b>Size 190</b>									
<b>1</b>	•	-									
<b>2</b>	•	•									
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm										
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm										
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm										
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm										
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm										

<b>Element Δp</b>			<b>Filter media</b>			<b>Seals</b>		<b>Bypass valve</b>		<b>Execution</b>	
<b>N</b> 10 bar	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>	<b>B</b> NBR	<b>E</b> 3 bar		<b>P01</b> MP Filtri standard				
<b>H</b> 10 bar	•	-	-	<b>V</b> FPM	<b>-</b> 1.75 bar		<b>Pxx</b> Customized				

### CLOGGING INDICATORS

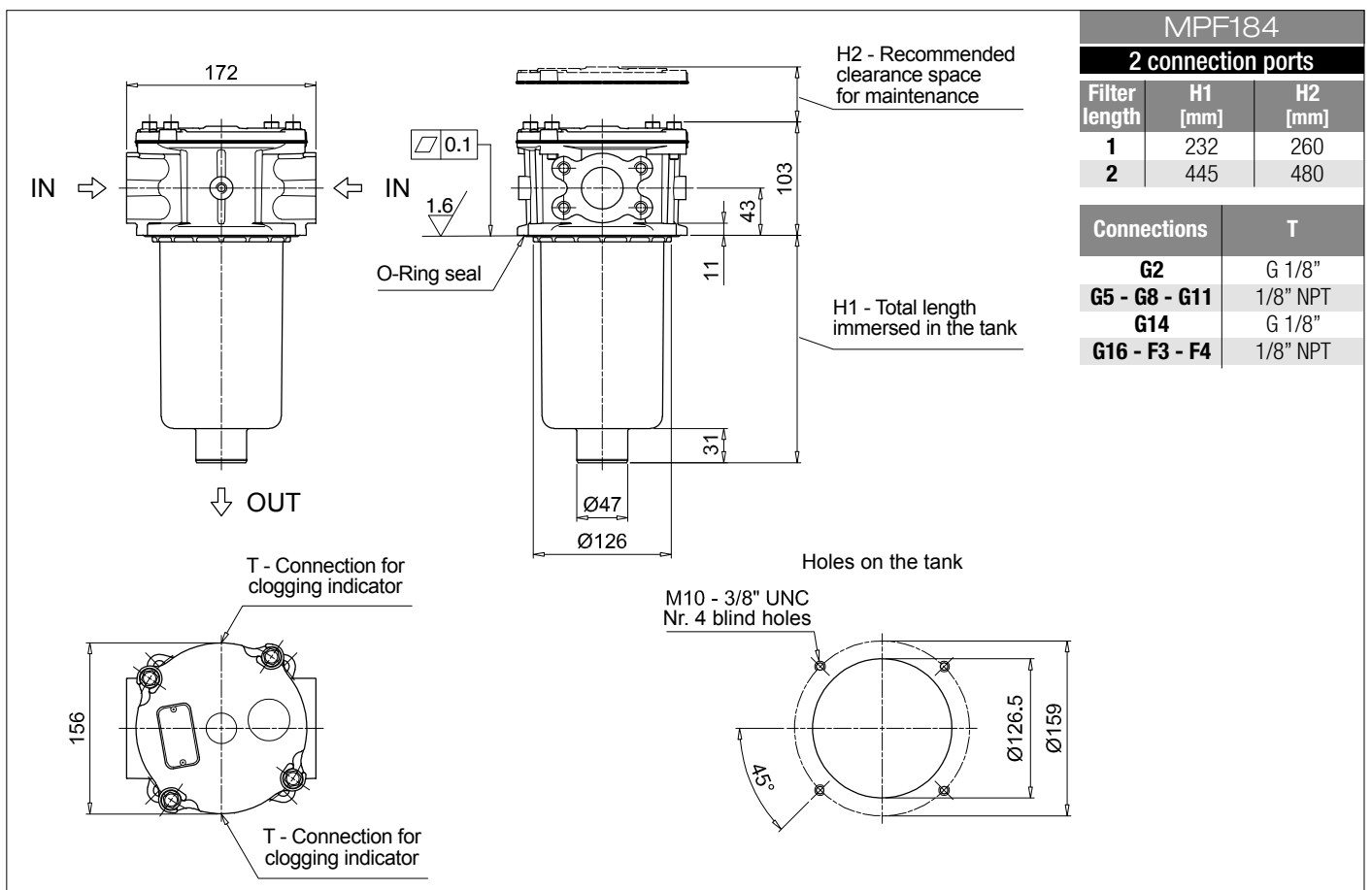
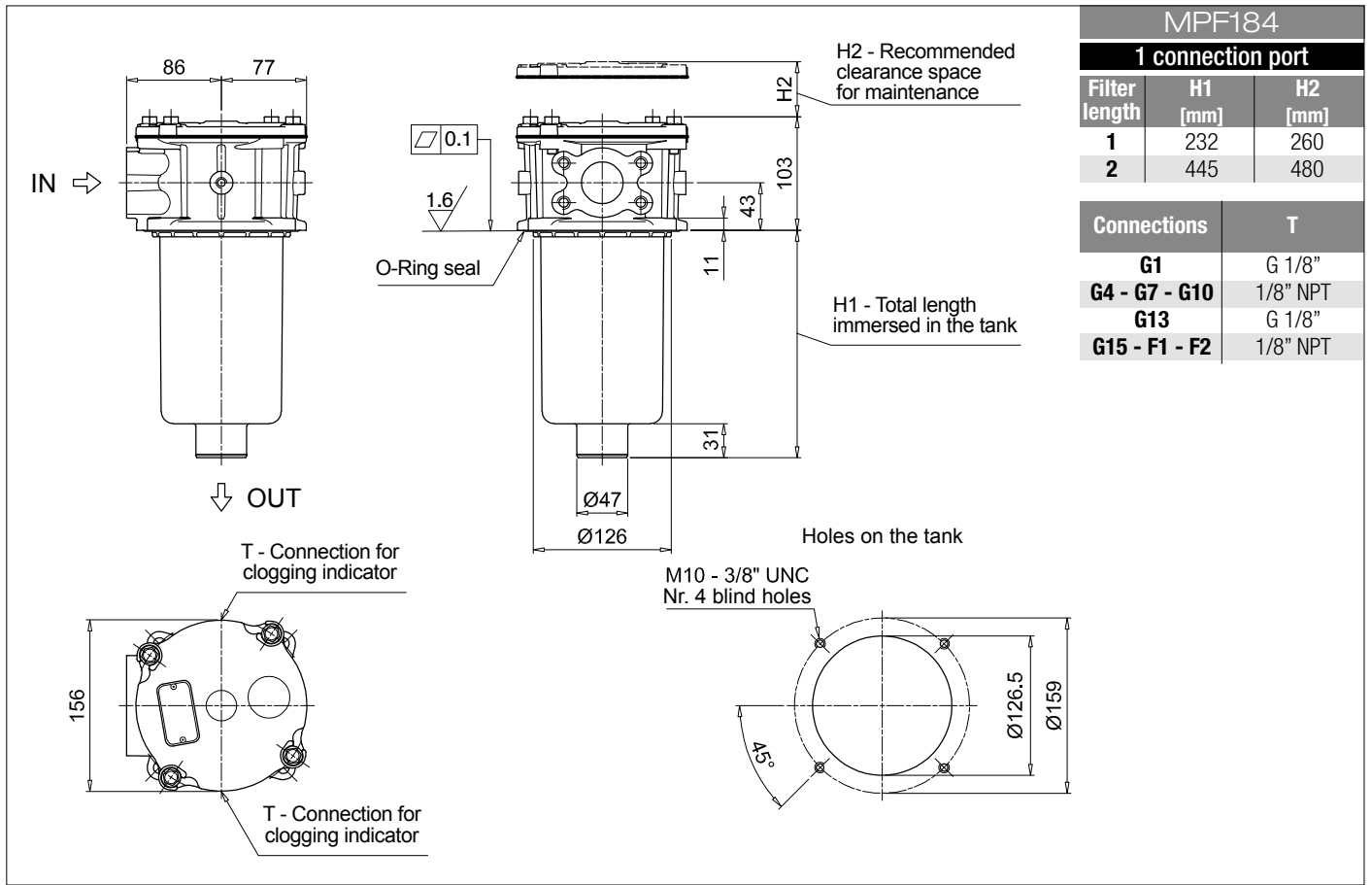
See page 720-721

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

### ADDITIONAL FEATURES

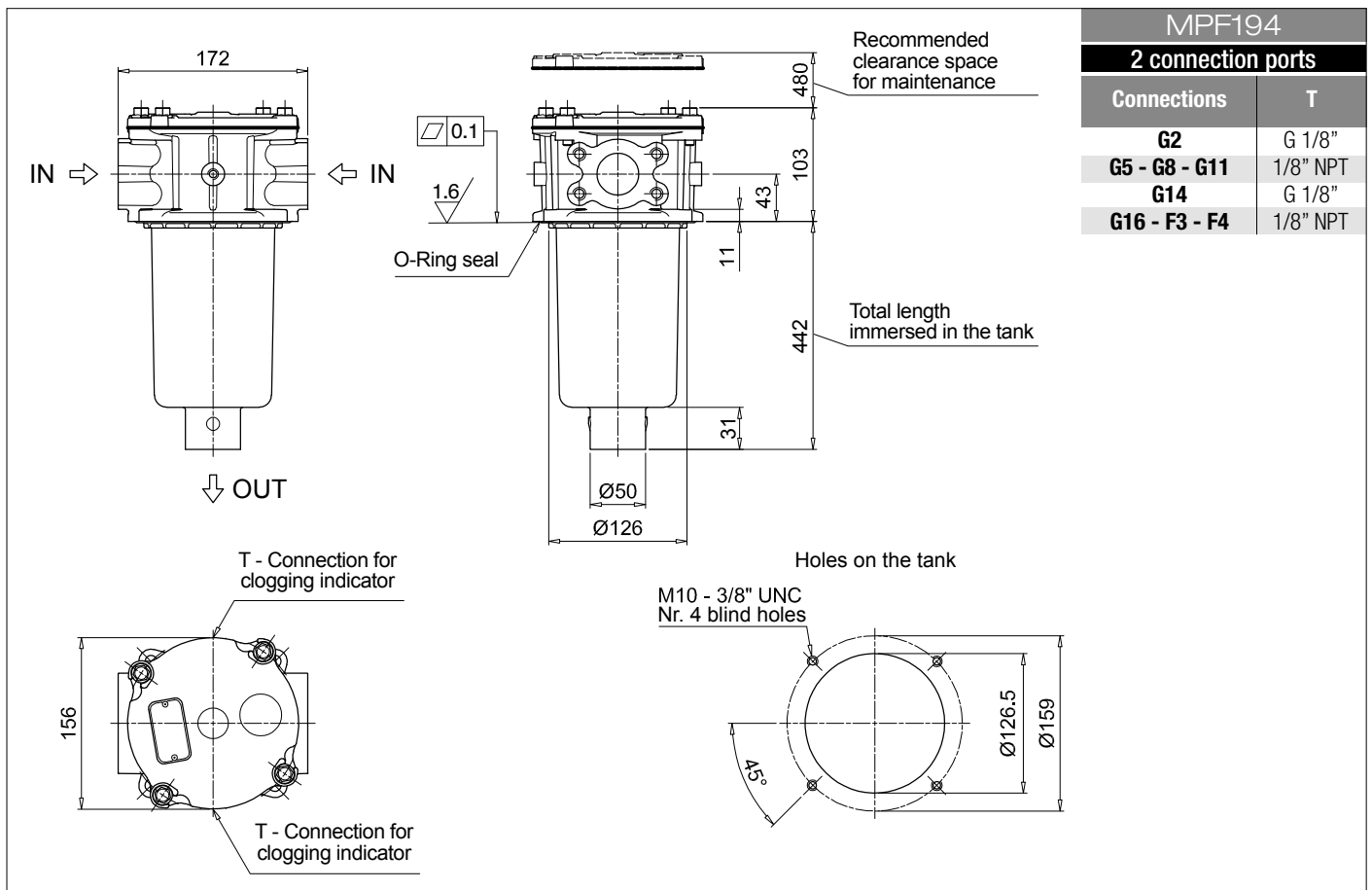
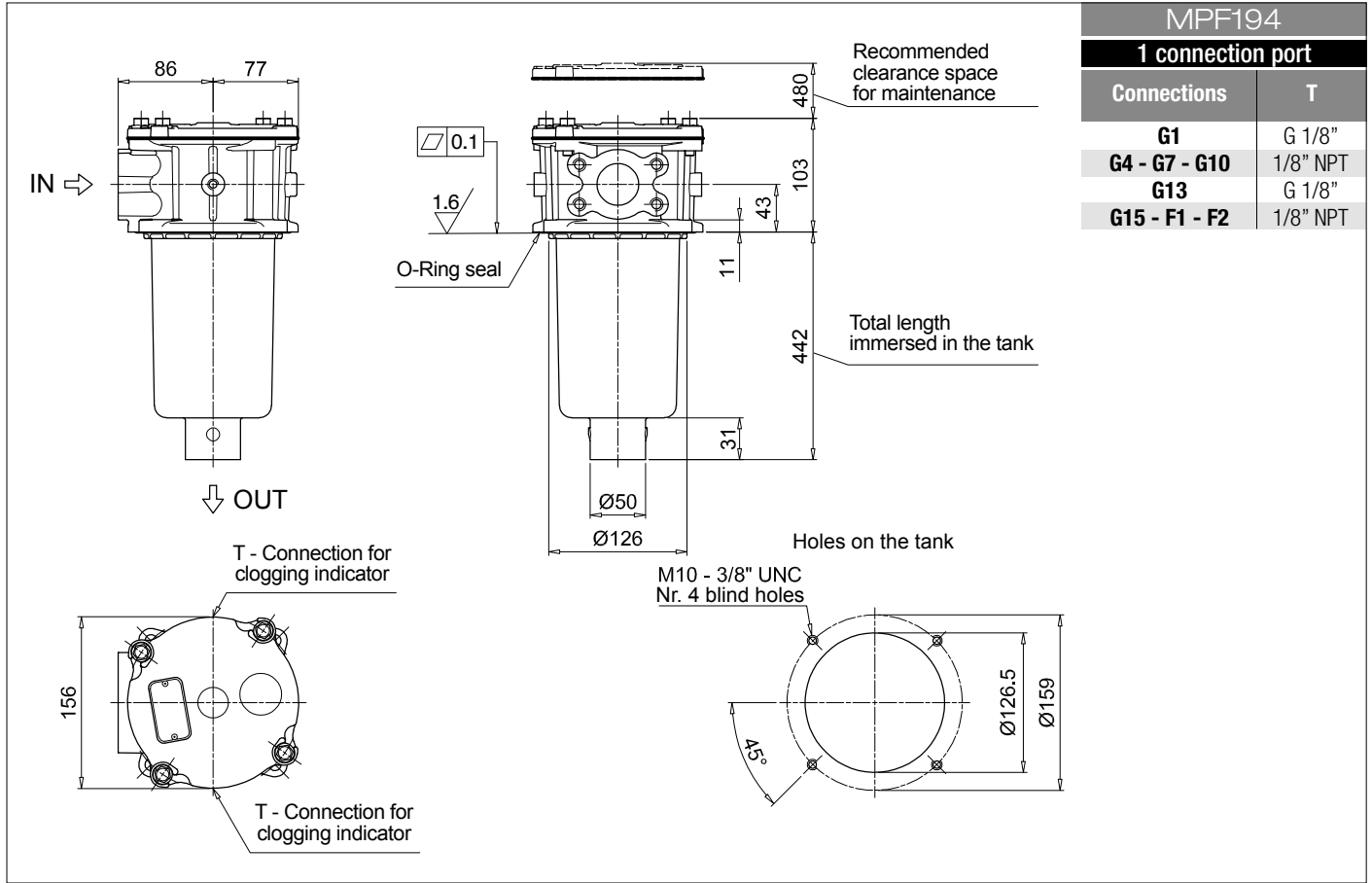
See page 268

<b>TE</b> Extension tube
<b>Sxx</b> Extension tube
<b>T5</b> Filler plug M30x1.5



# MPF MPF184 - MPF194

## Dimensions



# MPF MPF400

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>		Configuration example 1:		MPF400	1	A	G9	A25	H	B	P01
<b>MPF400</b> Filter element with standard spigot		Configuration example 2:		MPF400	2	V	G4	P10	N	E	P01
<b>Length</b>											
1   2   3											
<b>Seals and treatments</b>											
A NBR											
V FPM											
W NBR head anodized											
Z FPM head anodized											
<b>Connections</b>											
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											
<b>Filtration rating (filter media)</b>											
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									
<b>Element Δp</b>		Filter media			Bypass valve		Execution				
N 10 bar		Axx	Mxx	Pxx	E 3 bar		P01 MP Filtri standard				
H 10 bar		•	-	-	B 1.75 bar		Pxx Customized				

### FILTER ELEMENT

<b>Element series and size</b>		Configuration example 1:		MF400	1	A25	H	B		P01	
<b>MF400</b> Filter element with standard spigot		Configuration example 2:		MF400	2	P10	N	V	E	P01	
<b>Element length</b>											
1   2   3											
<b>Filtration rating (filter media)</b>											
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									
<b>Element Δp</b>		Filter media			Seals		Bypass valve		Execution		
N 10 bar		Axx	Mxx	Pxx	B NBR		E 3 bar		P01 MP Filtri standard		
H 10 bar		•	-	-	V FPM		- 1.75 bar		Pxx Customized		

### CLOGGING INDICATORS

See page 720-721

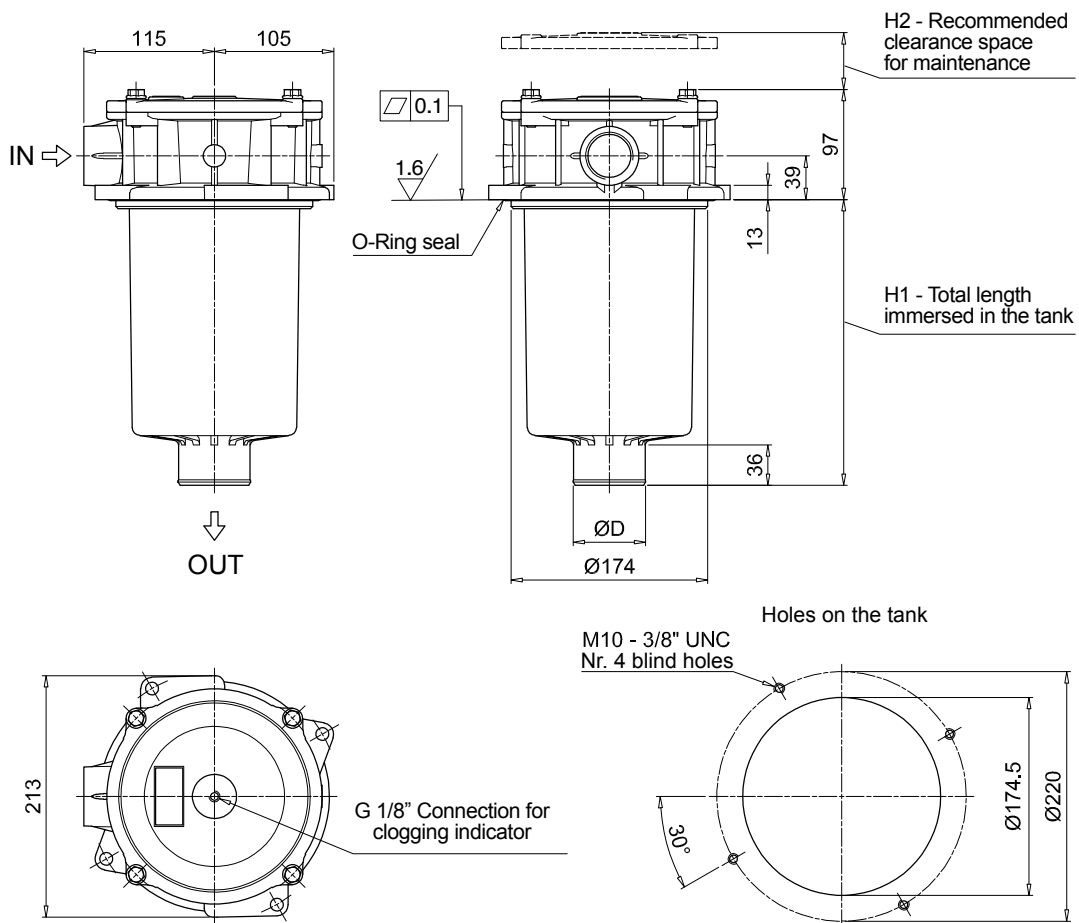
<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator
<b>BVQ</b> Visual pressure indicator with manual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

### ADDITIONAL FEATURES

See page 268

<b>Sxx</b> Extension tube
<b>T5</b> Filler plug M30x1.5

MPF400			
Filter length	H1 [mm]	H2 [mm]	D [mm]
<b>1</b>	180	210	51
<b>2</b>	240	270	64
<b>3</b>	290	315	64



# MPF MPF410

## Designation & Ordering code

### COMPLETE FILTER

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

### FILTER ELEMENT

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

### CLOGGING INDICATORS

See page 720-721

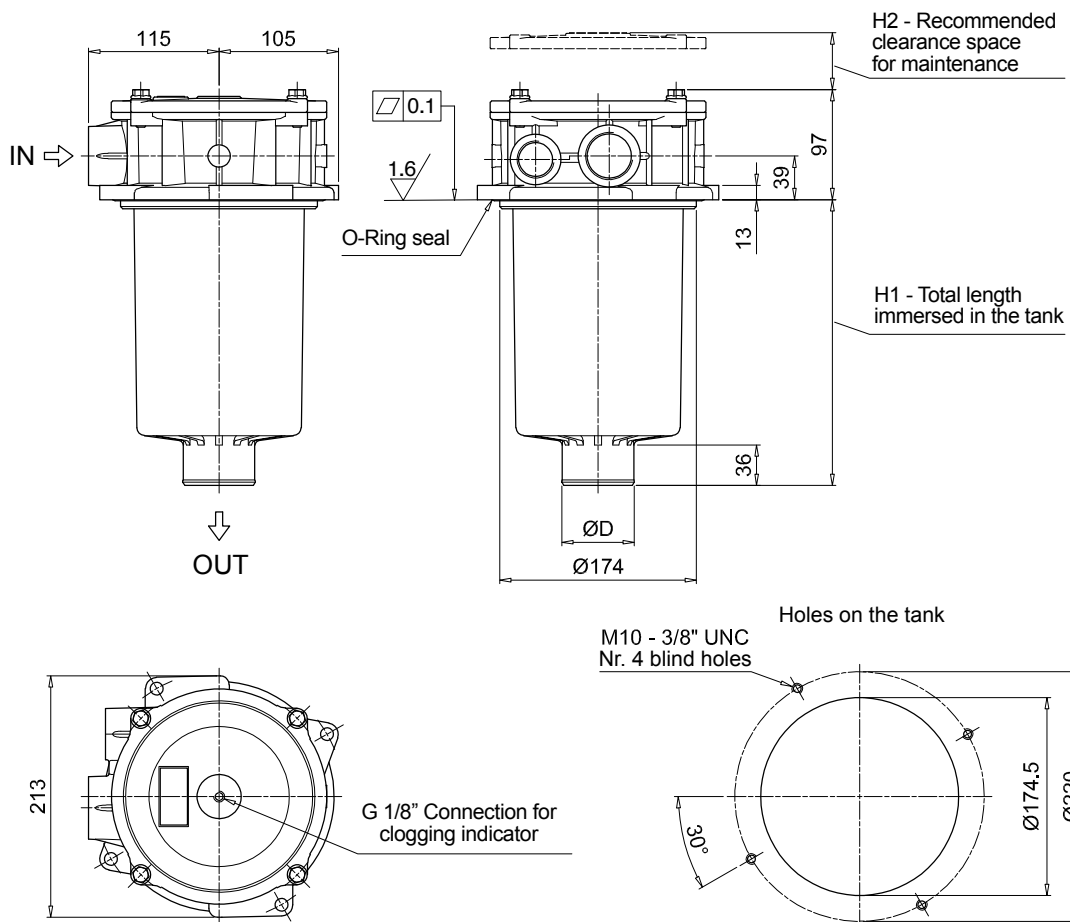
<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator
<b>BVQ</b> Visual pressure indicator with manual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

### ADDITIONAL FEATURES

See page 268

<b>Sxx</b> Extension tube
<b>T5</b> Filler plug M30x1.5

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



# MPF MPF450 - MPF451 - MPF750

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b> <b>MPF450</b>   <b>MPF451</b>   <b>MPF750</b>	Filter element with standard spigot	Configuration example 1:	<b>MPF450</b>	<b>1</b>	<b>A</b>	<b>G1</b>	<b>A25</b>	<b>H</b>	<b>B</b>	<b>P01</b>
		Configuration example 2:	<b>MPF750</b>	<b>1</b>	<b>V</b>	<b>F2</b>	<b>P10</b>	<b>N</b>	<b>E</b>	<b>P01</b>

Length	MPF 450	MPF 451	MPF 750
<b>1</b>	•	•	•
<b>2</b>	•	•	-
<b>3</b>	•	•	-

Seals and treatments	
<b>A</b> NBR	<b>W</b> NBR head anodized
<b>V</b> FPM	<b>Z</b> FPM head anodized

Connections		Aux (only size 451)
<b>G1</b> G 2"		G 3/4"
<b>G4</b> 2" NPT		3/4" NPT
<b>G7</b> SAE 32 - 2 1/2" - 12 UN		SAE 12 - 1 1/16" - 12 UN
<b>F1</b> 2" SAE 3000 psi/M		G 3/4"
<b>F2</b> 2" SAE 3000 psi/UNC		3/4" NPT

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Bypass valve	Execution
<b>E</b> 3 bar	<b>P01</b> MP Filtri standard
<b>B</b> 1.75 bar	<b>Pxx</b> Customized

### FILTER ELEMENT

<b>Element series and size</b> <b>MF400</b>   <b>MF750</b>	Filter element with standard spigot	Configuration example 1:	<b>MF400</b>	<b>1</b>	<b>A25</b>	<b>H</b>	<b>B</b>	<b>P01</b>	
		Configuration example 2:	<b>MF750</b>	<b>1</b>	<b>P10</b>	<b>N</b>	<b>V</b>	<b>E</b>	<b>P01</b>

Element length	MPF 450	MPF 451	MPF 750
<b>1</b>	•	•	•
<b>2</b>	•	•	-
<b>3</b>	•	•	-

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Element Δp	Filter media		
	Axx	Mxx	Pxx
<b>N</b> 10 bar	-	•	•
<b>H</b> 10 bar	•	-	-

Seals	Bypass valve	Execution
<b>B</b> NBR	<b>E</b> 3 bar	<b>P01</b> MP Filtri standard
<b>V</b> FPM	- 1.75 bar	<b>Pxx</b> Customized

### CLOGGING INDICATORS

See page 720-721

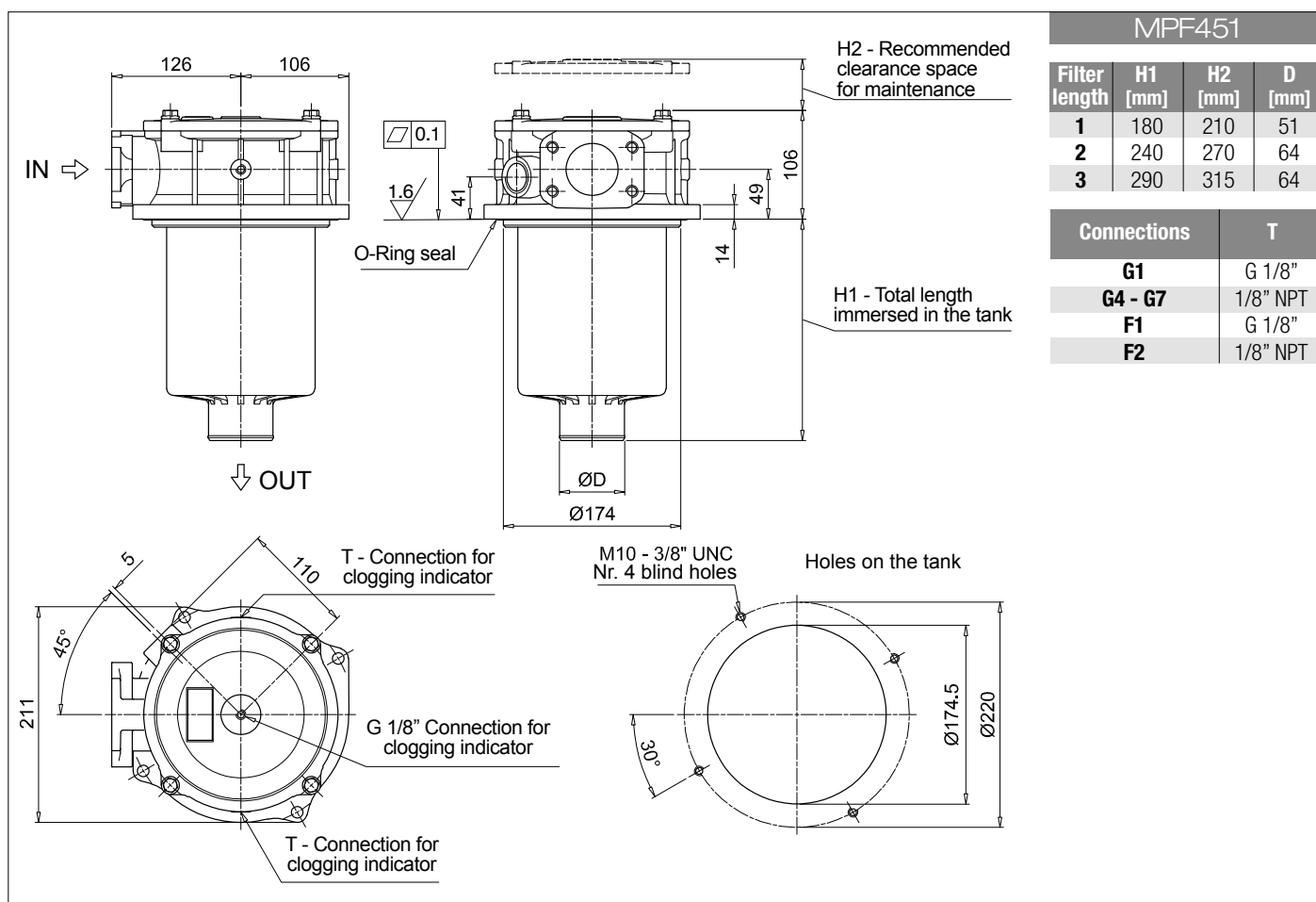
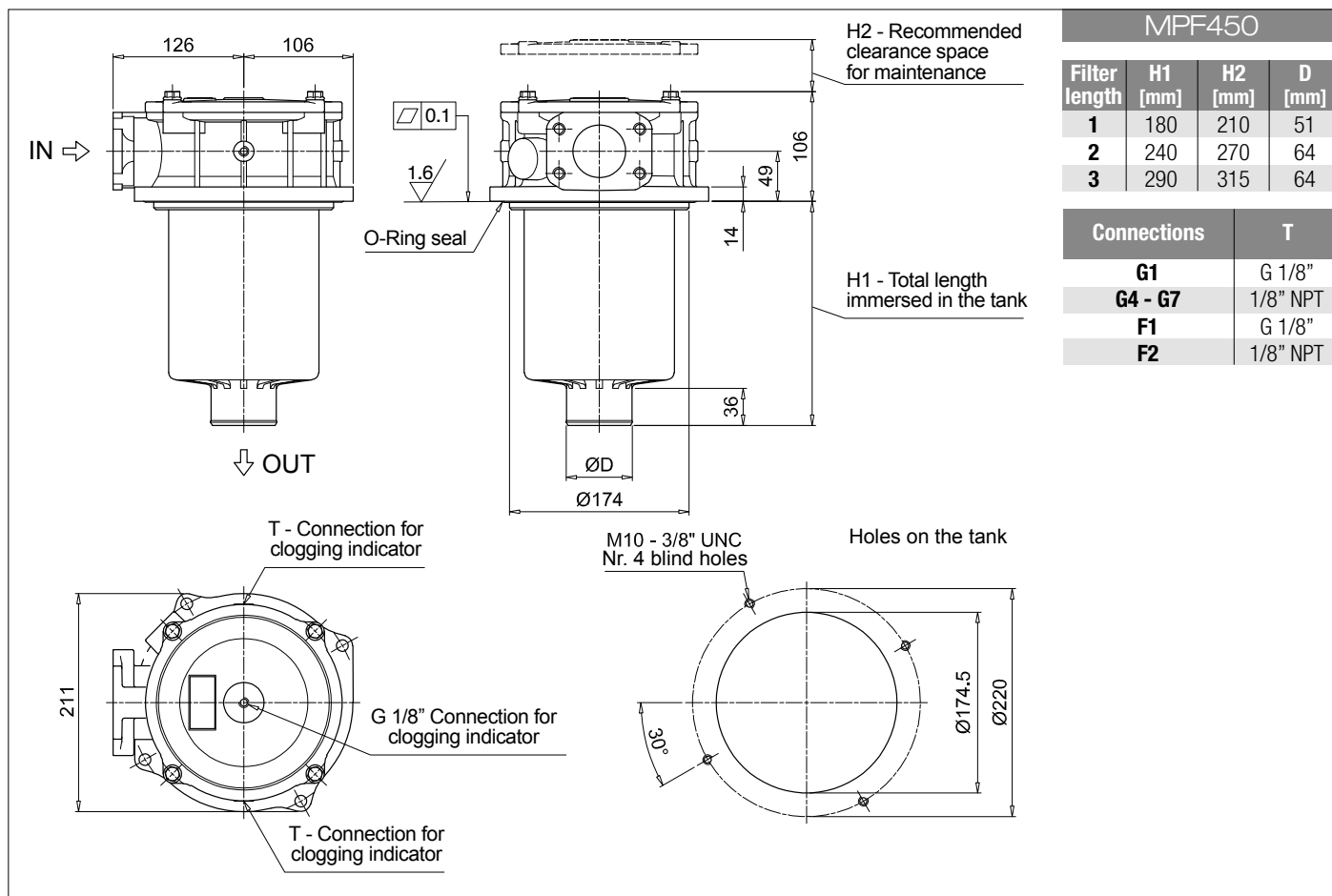
<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

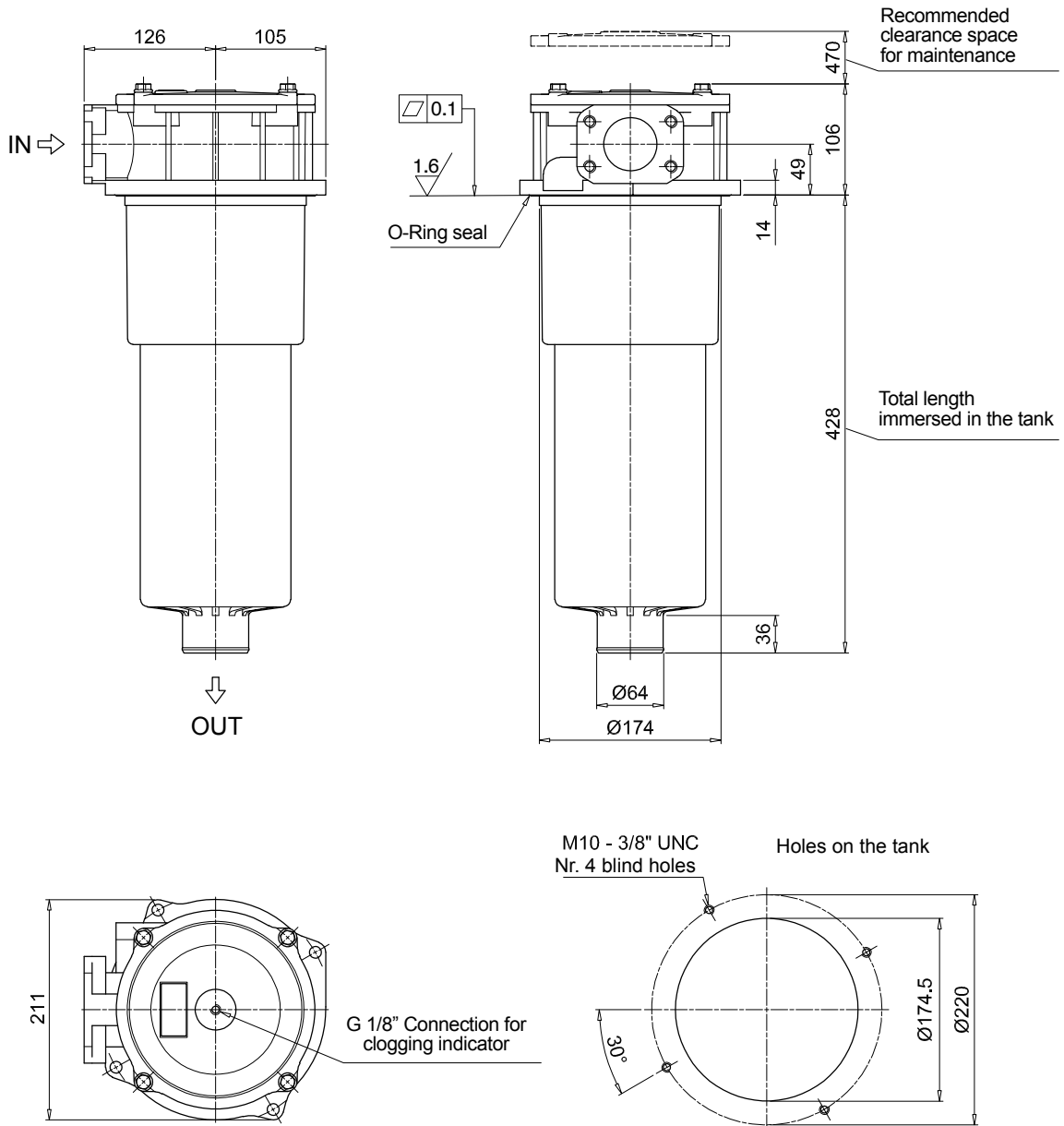
<b>Sxx</b> Extension tube
<b>T5</b> Filler plug M30x1.5



# MPF MPF450 - MPF451 - MPF750

## Dimensions

MPF750



**MPF 100**

**MPF 181**

**O-RING SEAL**

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

**MPF 104**

**MPF 181**

**FLAT SEAL**

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

# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

Series	Length	H [mm]	Seals	Execution
<b>DPT</b>	<b>15</b>	<b>134</b>	<b>A</b> NBR	<b>P01</b> MP Filtri standard
	<b>20</b>	<b>184</b>	<b>V</b> FPM	<b>Pxx</b> Customized
	<b>25</b>	<b>234</b>		
	<b>30</b>	<b>284</b>		
	<b>35</b>	<b>334</b>		

**Materials**

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

**Technical data**

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

**Fastening**

- M8** Fastening with screws  $\varnothing D = M8$
- M10** Fastening with screws  $\varnothing D = M10$

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

**Technical data**

Tightening torque: 15 N·m

O-Ring 3106

M30x1.5

A/F

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

## POLYAMIDE EXTENSION TUBE

H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
	<b>250</b>	250	•	-
	<b>300</b>	300	•	•
	<b>350</b>	350	•	-
	<b>400</b>	400	•	•
	<b>450</b>	450	•	-
	<b>500</b>	500	•	•
	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material  
**A** Polyamide

COMPATIBILITY TABLE																					
Filter series	Filter size			Filter length	Tube length																
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600				
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-			
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-			
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-		
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-	
				4	-	-	•	-	-	-	-	-	502	552	602	652	702	752	802	-	
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-			
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-		
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-	
				4	-	-	•	-	-	-	-	-	502	552	602	652	702	752	802	-	
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-			
				2	-	-	•	-	-	-	-	623	673	723	773	823	873	923	-		
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020			
					2	-	-	-	•	-	-	-	352	-	452	-	552	-	652	752	
	3	-	-	-	•	-	-	-	-	411	-	511	-	611	-	711	811				
	4	-	-	-	•	-	-	-	-	459	-	559	-	659	-	759	859				
MPT	110	114	116	120	1	-	-	-	-	•	597	-	697	-	797	-	897	997			
					2	-	-	-	-	-	-	-	278	328	378	428	478	528	578	-	
					3	-	-	-	-	-	-	-	-	342	392	442	492	542	592	642	-
					4	-	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-			
					2	-	•	-	-	-	-	-	320	370	420	470	520	570	620	-	
					3	-	-	•	-	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	•	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	•	-	-	273	323	373	423	473	523	573	-			
					2	-	-	•	-	-	-	-	318	368	418	468	518	568	618	-	
					3	-	-	•	-	-	-	-	-	396	446	496	546	596	656	696	-
					4	-	-	•	-	-	-	-	-	498	548	598	648	698	748	798	-

## STEEL EXTENSION TUBE

H1

ØD

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

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

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

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

Type	BE	BL	BV		
<b>A</b> Standard type	•	•	<b>A</b> Axial connection pressure gauge		
<b>M</b> With wired electrical connection	•	-	<b>R</b> Radial connection pressure gauge		
<b>T</b> With thermal switch	•	-	<b>P</b> Visual indicator with automatic reset		
			<b>Q</b> Visual indicator with manual reset		

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
<b>14</b> 1.4 bar	-	-	-	•	-
<b>15</b> 1.5 bar	•	-	•	-	•
<b>20</b> 2.0 bar	•	•	•	-	•
<b>25</b> 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVA-BVR	BVP-BVQ
<b>H</b> HNBR	•	•	-	•

Thermostat	BEA-BEM	BET	BLA
<b>A</b> Without thermostat	•	-	•
<b>F</b> With thermostat	-	•	-

Electrical connections	BEA	BEM	BET	BL
<b>10</b> Connection AMP Superseal series 1,5	-	-	•	-
<b>30</b> Connection Deutsch DT-04-2-P	-	-	•	-
<b>41</b> Connection via four-core cable	-	•	-	-
<b>50</b> Connection EN 175301-803	•	-	-	-
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
<b>53</b> Connection EN 175301-803, transparent base with lamps 230 Vac	-	-	-	•
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option	BEA	BEM-BET	BL	BV
<b>P01</b> MP Filtri standard	•	•	•	•
<b>Pxx</b> Customized	•	-	-	-

Certifications	BEA	BEM-BET	BL	BV
Without	•	•	•	•
<b>EX</b> ATEX certification	•	-	-	-
<b>UL</b> UL certification	•	-	-	-

**DIFFERENTIAL PRESSURE INDICATORS**

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

**PLUGS**

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example	T2	H
-----------------------	----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-

# MPT series

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



## 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: Polyamide
- Bowl: Polyamide

### Bypass valve

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

### $\Delta p$ 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 [dm<sup>3</sup>]

Filter series	Weights [kg]					Volumes [dm <sup>3</sup> ]				
	Length	1	2	3	4	Length	1	2	3	4
<b>MPT 025</b>		0.41	0.45	0.50	-		0.24	0.35	0.42	-
<b>MPT 027</b>		0.44	0.48	0.55	-		0.24	0.35	0.42	-
<b>MPT 110</b>		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74
<b>MPT 114</b>		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
<b>MPT 116</b>		1.10	1.15	1.25	1.50		0.72	0.93	1.28	1.74
<b>MPT 120</b>		1.00	1.05	1.15	1.40		0.72	0.93	1.28	1.74

Flow rates [l/min]

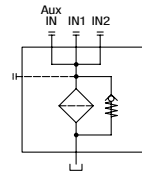
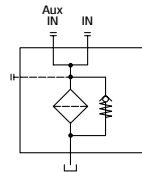
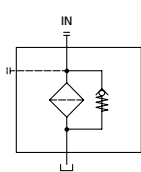
Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MPT 025-027</b>	<b>1</b>	7	10	23	28	42	59	51	54
	<b>2</b>	17	20	45	48	56	72	64	67
	<b>3</b>	21	24	50	55	59	76	74	75
<b>MPT 110-114 116-120</b>	<b>1</b>	18	20	53	56	65	153	87	96
	<b>2</b>	28	38	65	75	95	158	111	123
	<b>3</b>	48	55	125	135	169	289	224	251
	<b>4</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

Hydraulic symbols

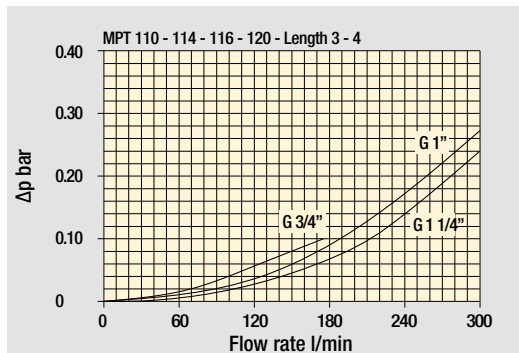
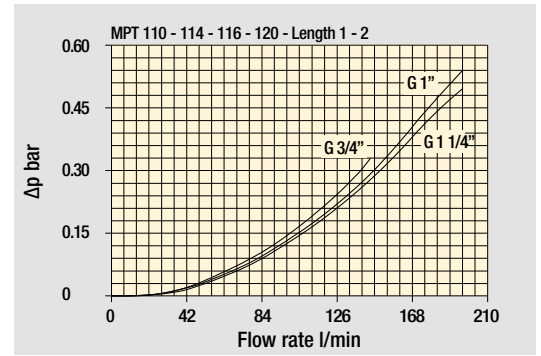
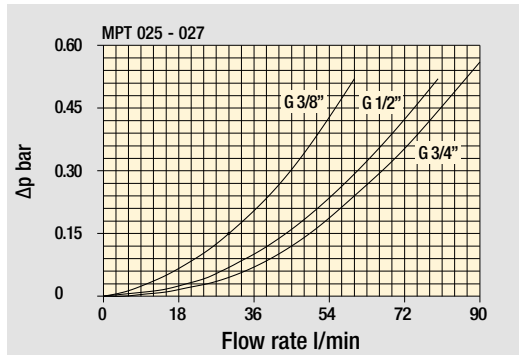
Filter series	Style 1 connection	Style 2 connections	Style 3 connections
<b>MPT 025</b>	•	-	-
<b>MPT 027</b>	•	-	-
<b>MPT 110</b>	-	•	-
<b>MPT 114</b>	•	-	-
<b>MPT 116</b>	•	-	-
<b>MPT 120</b>	-	-	•



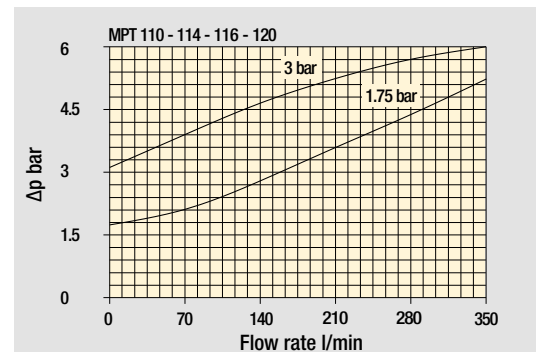
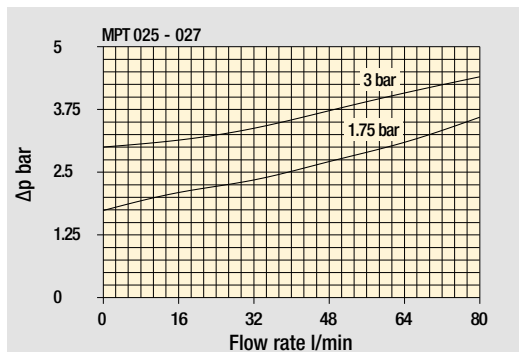
# MPT GENERAL INFORMATION

## Pressure drop

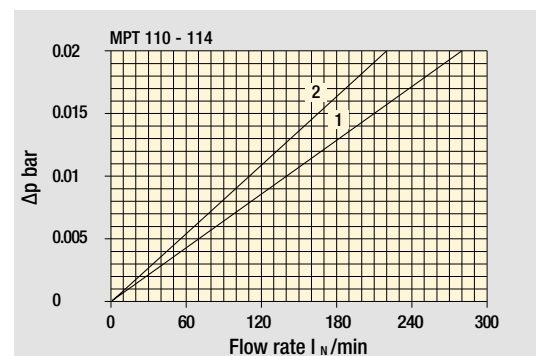
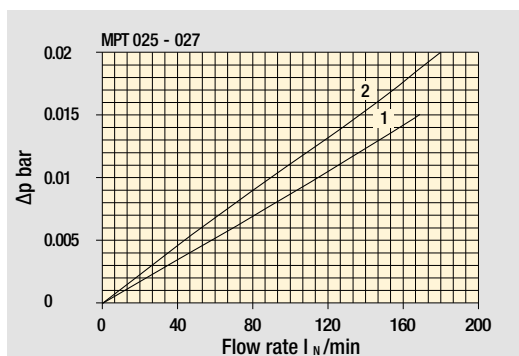
### Filter housings $\Delta p$ pressure drop



### Bypass valve pressure drop



### Air breather pressure drop



- 1  C With air breather 10  $\mu$ m
- 2  D With anti-splash and SAP50 10  $\mu$ m

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  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

<b>Series and size</b>		Configuration example 1:		MPT025	1	S	A	G3	A10	E	P01		
<b>MPT025</b>	<b>MPT027</b>	Filter element with standard spigot		Configuration example 2:		MPT027	3	C	W	G6	A03	B	P01
<b>Length</b>													
1		2		3									
<b>Air breather</b>													
<b>S</b>		Without air breather											
<b>C</b>		With air breather 10 µm											
<b>D</b>		With anti-splash and air breather SAP050 10 µm											
<b>P</b>		With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar											
<b>Seals and treatments</b>													
		Filtration rating											
		Axx		Mxx		Pxx							
<b>A</b>		NBR		•		•		•					
<b>V</b>		FPM		•		•		•					
<b>W</b>		NBR head anodized		•		•		-					
<b>Z</b>		FPM head anodized		•		•		-					
<b>Connections</b>													
<b>G1</b>		G 3/8"		<b>G6</b>		3/4" NPT							
<b>G2</b>		G 1/2"		<b>G7</b>		SAE 6 - 9/16" - 18 UNF							
<b>G3</b>		G 3/4"		<b>G8</b>		SAE 8 - 3/4" - 16 UNF							
<b>G4</b>		3/8" NPT		<b>G9</b>		SAE 12 - 1 1/16" - 12 UN							
<b>G5</b>		1/2" NPT											
<b>Filtration rating (filter media)</b>													
<b>A03</b>		Inorganic microfiber 3 µm		<b>M25</b>		Wire mesh 25 µm							
<b>A06</b>		Inorganic microfiber 6 µm		<b>M60</b>		Wire mesh 60 µm							
<b>A10</b>		Inorganic microfiber 10 µm		<b>M90</b>		Wire mesh 90 µm							
<b>A16</b>		Inorganic microfiber 16 µm		<b>P10</b>		Resin impregnated paper 10 µm							
<b>A25</b>		Inorganic microfiber 25 µm		<b>P25</b>		Resin impregnated paper 25 µm							
										<b>Bypass valve</b>		<b>Execution</b>	
										<b>E</b>		<b>P01</b>	
										3 bar		MP Filtri standard	
										<b>B</b>		<b>Pxx</b>	
										1.75 bar		Customized	

### FILTER ELEMENT

<b>Element series and size</b>		Configuration example 1:		MF020	1	A10	H	B	E	P01	
<b>MF020</b>	Filter element with standard spigot		Configuration example 2:		MF020	3	A03	N	B	P01	
<b>Element length</b>											
1		2		3							
<b>Filtration rating (filter media)</b>											
<b>A03</b>		Inorganic microfiber 3 µm		<b>M25</b>		Wire mesh 25 µm					
<b>A06</b>		Inorganic microfiber 6 µm		<b>M60</b>		Wire mesh 60 µm					
<b>A10</b>		Inorganic microfiber 10 µm		<b>M90</b>		Wire mesh 90 µm					
<b>A16</b>		Inorganic microfiber 16 µm		<b>P10</b>		Resin impregnated paper 10 µm					
<b>A25</b>		Inorganic microfiber 25 µm		<b>P25</b>		Resin impregnated paper 25 µm					
<b>Element Δp</b>											
		Filter media									
		Axx		Mxx		Pxx					
<b>N</b>		10 bar		-		•		•			
<b>H</b>		10 bar		•		-		-			
										<b>Seals</b>	
										<b>B</b>	
										NBR	
										<b>V</b>	
										FPM	
										<b>Bypass valve</b>	
										<b>E</b>	
										3 bar	
										<b>Pxx</b>	
										1.75 bar	
										<b>Execution</b>	
										<b>P01</b>	
										MP Filtri standard	
										<b>Pxx</b>	
										Customized	

### CLOGGING INDICATORS

See page 720-721

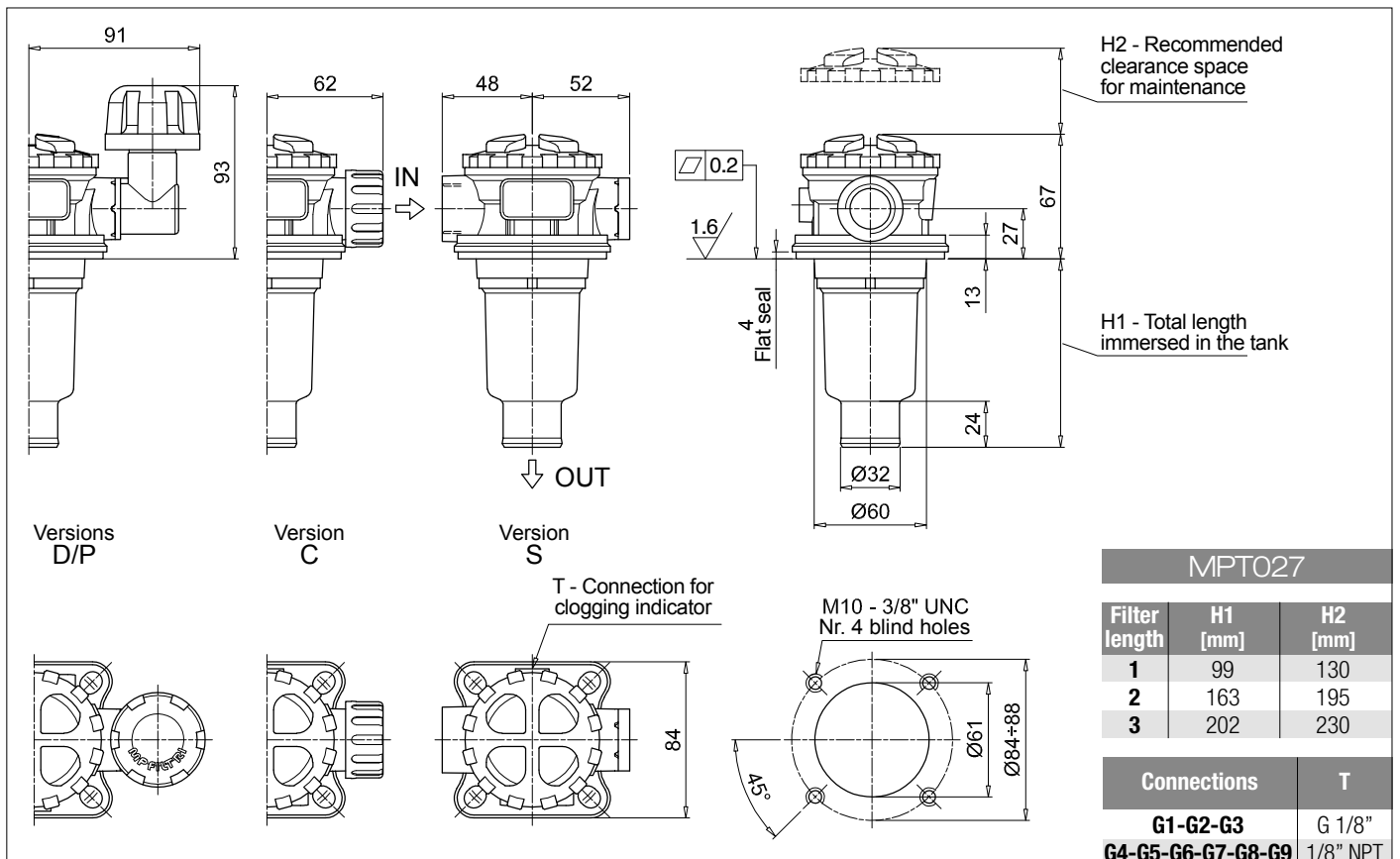
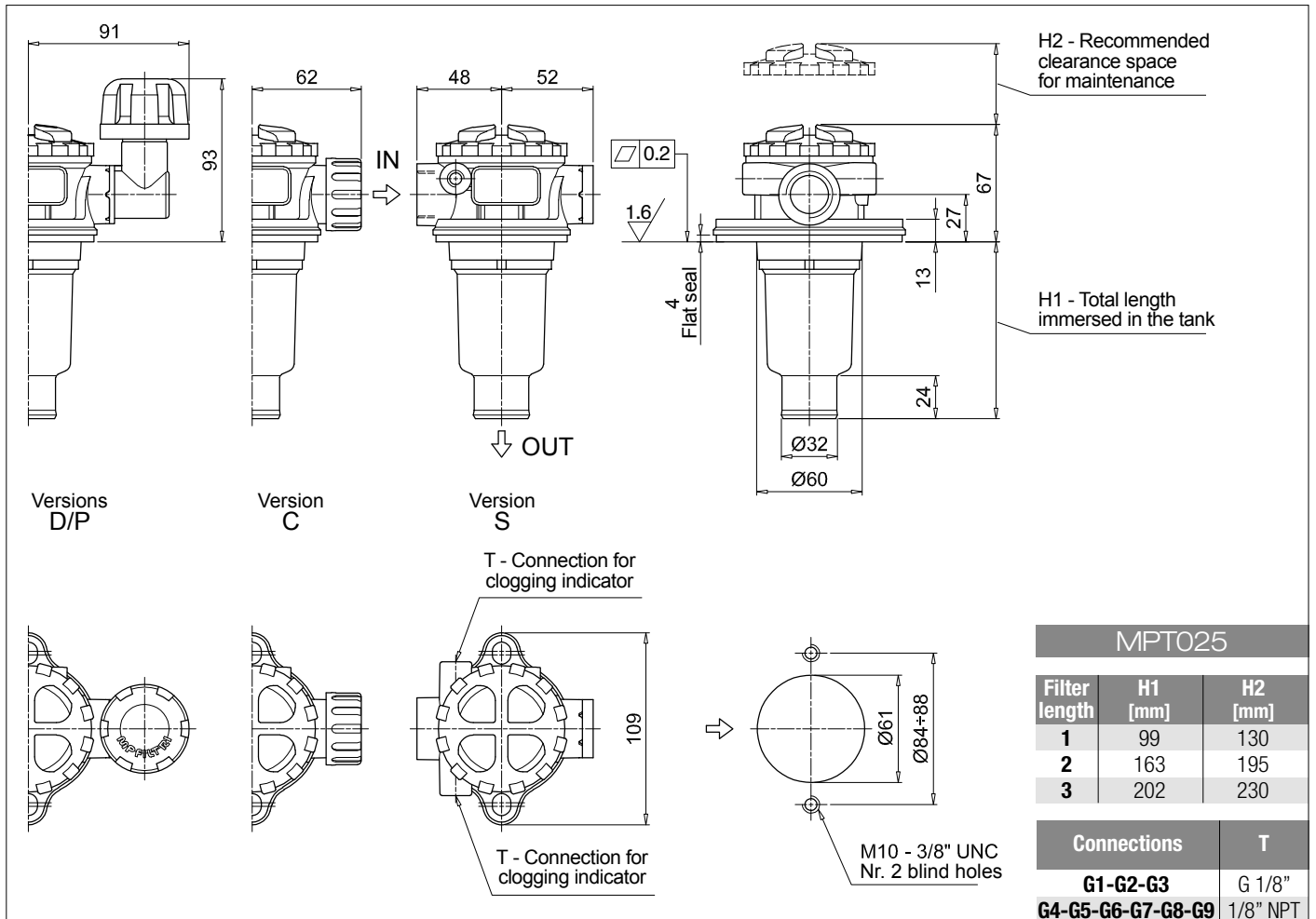
<b>BVA</b>	Axial pressure gauge
<b>BVR</b>	Radial pressure gauge
<b>BVP</b>	Visual pressure indicator with automatic reset
<b>BVQ</b>	Visual pressure indicator with manual reset

<b>BEA</b>	Electrical pressure indicator
<b>BEM</b>	Electrical pressure indicator
<b>BLA</b>	Electrical / visual pressure indicator

### ADDITIONAL FEATURES

See page 268

<b>TE</b>	Extension tube
<b>DPT</b>	Dipstick



## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>			Configuration example 1: <b>MPT110</b>   <b>1</b>   <b>S</b>   <b>A</b>   <b>G1</b>   <b>0</b>   <b>A06</b>   <b>E</b>   <b>P01</b>								
<b>MPT110</b> Filter element with standard spigot			Configuration example 2: <b>MPT110</b>   <b>3</b>   <b>P</b>   <b>V</b>   <b>G4</b>   <b>1</b>   <b>M25</b>   <b>B</b>   <b>P01</b>								
<b>Length</b>											
1   2   3   4											
<b>Air breather</b>											
<b>S</b> Without air breather											
<b>C</b> With air breather 10 µm											
<b>D</b> With anti-splash and air breather SAP050 10 µm											
<b>P</b> With anti-splash and air breather SAP050 10 µm, pressurization 0.5 bar											
<b>Seals and treatments</b>			Filtration rating								
			Axx	Mxx	Pxx						
<b>A</b> NBR			•	•	•						
<b>V</b> FPM			•	•	•						
<b>W</b> NBR head anodized			•	•	-						
<b>Z</b> FPM head anodized			•	•	-						
<b>Main Connections</b>		<b>Aux size 1</b>	<b>Aux size 2</b>	<b>Main Connections</b>		<b>Aux size 1</b>	<b>Aux size 2</b>				
<b>G1</b> G 3/4"		G 3/8"	G 1/2"	<b>G6</b> 1 1/4" NPT		3/8" NPT	1/2" NPT				
<b>G2</b> G 1"				<b>G7</b> SAE 12 - 1 1/16" - 12 UN		SAE 6 - 9/16" - 18 UNF	SAE 8 - 3/4" - 16 UNF				
<b>G3</b> G 1 1/4"				<b>G8</b> SAE 16 - 1 5/16" - 12 UN							
<b>G4</b> 3/4" NPT		3/8" NPT	1/2" NPT	<b>G9</b> SAE 20 - 1 5/8" - 12 UN							
<b>G5</b> 1" NPT											
<b>Aux connection - see previous table</b>											
<b>0</b> Not machined		<b>1</b> Aux size 1	<b>2</b> Aux size 2								
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm			<b>M25</b> Wire mesh 25 µm								
<b>A06</b> Inorganic microfiber 6 µm			<b>M60</b> Wire mesh 60 µm								
<b>A10</b> Inorganic microfiber 10 µm			<b>M90</b> Wire mesh 90 µm								
<b>A16</b> Inorganic microfiber 16 µm			<b>P10</b> Resin impregnated paper 10 µm								
<b>A25</b> Inorganic microfiber 25 µm			<b>P25</b> Resin impregnated paper 25 µm								
						<b>Bypass valve</b>		<b>Execution</b>			
						<b>E</b> 3 bar		<b>P01</b> MP Filtri standard			
						<b>B</b> 1.75 bar		<b>Pxx</b> Customized			

### FILTER ELEMENT

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

### CLOGGING INDICATORS

See page 720-721

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

### ADDITIONAL FEATURES

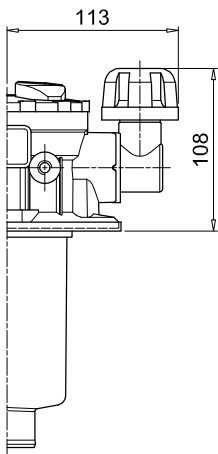
See page 268

<b>TE</b> Extension tube	<b>DPT</b> Dipstick
<b>DFS</b> Diffuser with fast lock connection	

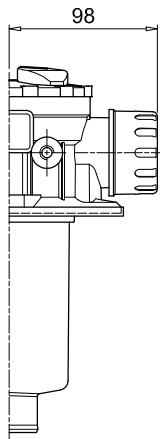
MPT110				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	97	120	38	4
2	144	170	38	4
3	222	250	47	-
4	324	350	47	2.5

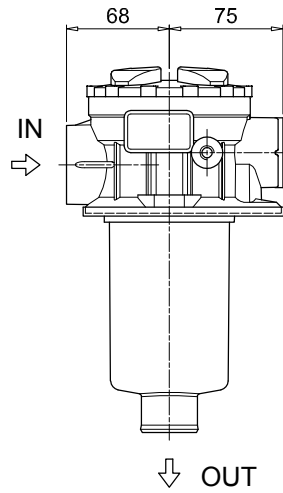
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



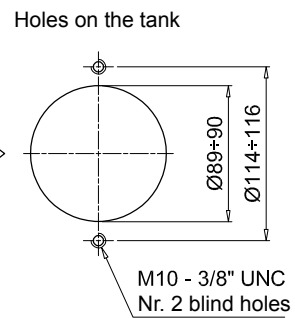
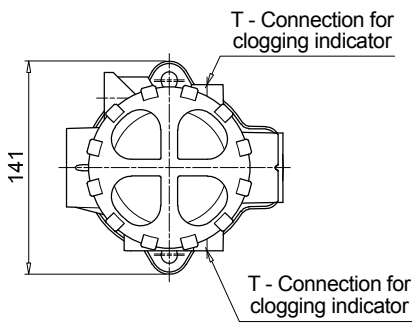
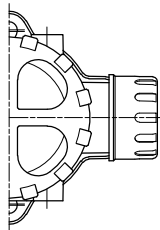
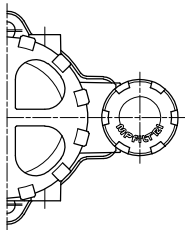
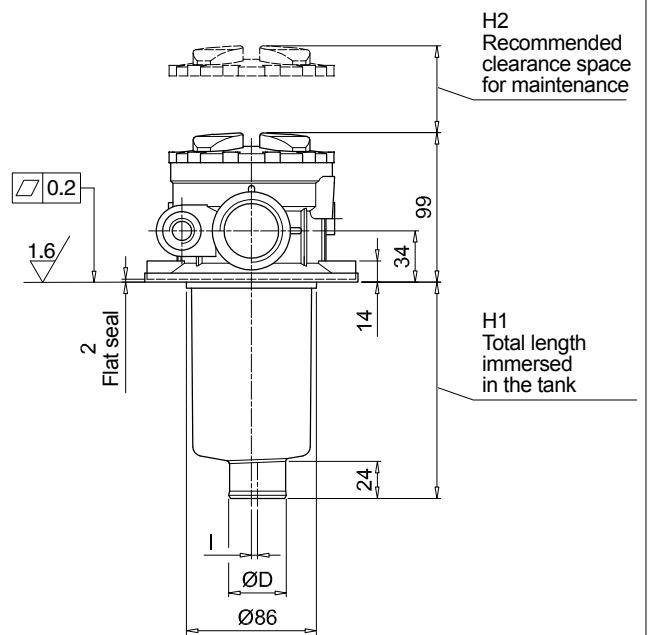
Versions D/P



Version C



Version S

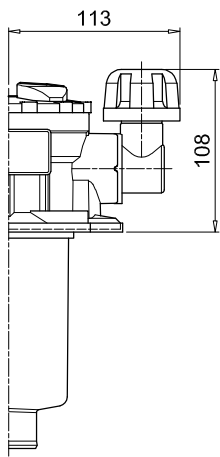




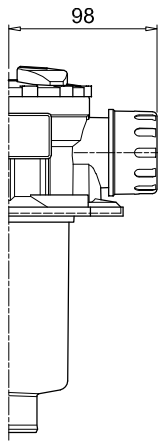
MPT114				
Filter length	H1 [mm]	H2 [mm]	D [mm]	I [mm]
1	97	120	38	4
2	144	170	38	4
3	222	250	47	-
4	324	350	47	2.5

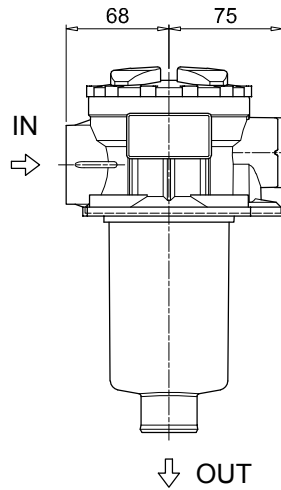
Connections	T
G1-G2-G3	G 1/8"
G4-G5-G6-G7-G8-G9	1/8" NPT



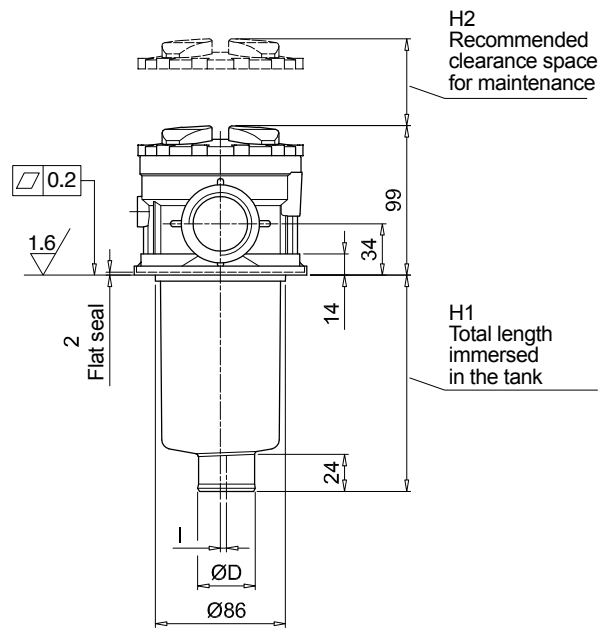
Versions D/P



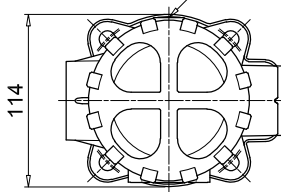
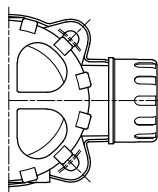
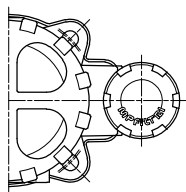
Version C



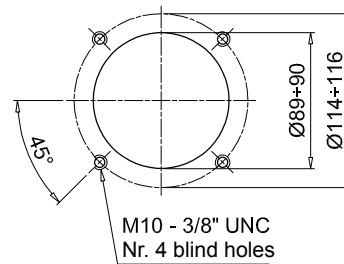
Version S



Holes on the tank



T - Connection for clogging indicator



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

## Designation & Ordering code

### COMPLETE FILTER

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

<b>Length</b>	1   2   3   4
---------------	---------------

<b>Air breather</b>	S Without air breather
---------------------	------------------------

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

Flat seal on the head on request

<b>Connections</b>	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		

<b>Filtration rating (filter media)</b>	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	

<b>Bypass valve</b>	<b>Execution</b>
E 3 bar	P01 MP Filtri standard
B 1.75 bar	Pxx Customized

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 2:	MF100	1	M90	N	B	E	P01
<b>MF100</b> Filter element with standard spigot	Configuration example 1:	MF100	2	A03	H	V		P01

<b>Element length</b>	1   2   3   4
-----------------------	---------------

<b>Filtration rating (filter media)</b>	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	•	-	-

<b>Seals</b>	<b>Bypass valve</b>	<b>Execution</b>
B NBR	E 3 bar	P01 MP Filtri standard
V FPM	- 1.75 bar	Pxx Customized

### CLOGGING INDICATORS

See page 720-721

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

### ADDITIONAL FEATURES

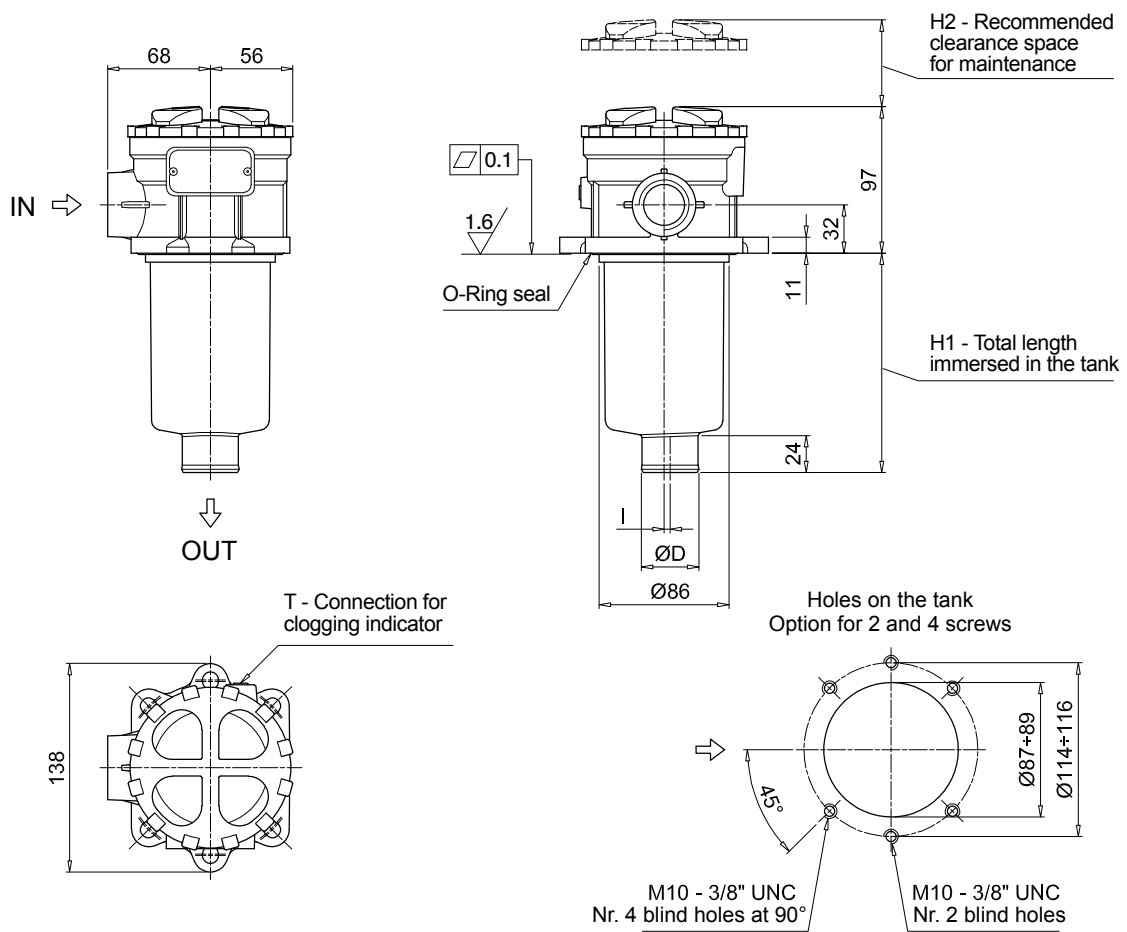
See page 268

<b>TE</b> Extension tube	<b>DPT</b> Dipstick
<b>DFS</b> Diffuser with fast lock connection	

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

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



# MPT MPT120

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>		Configuration example 1: <b>MPT120</b>   <b>1</b>   <b>A</b>   <b>G1</b>   <b>0</b>   <b>A06</b>   <b>E</b>   <b>P01</b>														
<b>MPT120</b> Filter element with standard spigot		Configuration example 2: <b>MPT120</b>   <b>3</b>   <b>V</b>   <b>G4</b>   <b>1</b>   <b>M25</b>   <b>B</b>   <b>P01</b>														
<b>Length</b>		1   2   3   4														
<b>Seals and treatments</b>		Filtration rating														
		<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>												
<b>A</b>	NBR	•	•	•												
<b>V</b>	FPM	•	•	•												
<b>W</b>	NBR head anodized	•	•	-												
<b>Z</b>	FPM head anodized	•	•	-												
<b>Main Connections</b>		<b>Rear connections</b>		<b>Aux size 1</b>		<b>Aux size 2</b>										
<b>G1</b>	G 3/4"	G 3/4"		G 3/8"		G 1/2"										
<b>G2</b>	G 1"	G 1"														
<b>G3</b>	G 1 1/4"	G 3/4"		3/8" NPT		1/2" NPT										
<b>G4</b>	3/4" NPT	3/4" NPT														
<b>G5</b>	1" NPT	1" NPT		SAE 6 - 9/16" - 18 UNF		SAE 8 - 3/4" - 16 UNF										
<b>G6</b>	1 1/4" NPT	3/4" NPT														
<b>G7</b>	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										
<b>G8</b>	SAE 16 - 1 5/16" - 12 UN	SAE 16 - 1 5/16" - 12 UN														
<b>G9</b>	SAE 20 - 1 5/8" - 12 UN	SAE 12 - 1 1/16" - 12 UN														
<b>Aux connection - see previous table</b>																
<b>0</b>	Not machined	<b>1</b>	Aux size 1	<b>2</b>	Aux size 2											
<b>Filtration rating (filter media)</b>																
<b>A03</b>	Inorganic microfiber 3 µm	<b>M25</b>		Wire mesh 25 µm							<b>Bypass valve</b>		<b>Execution</b>			
<b>A06</b>	Inorganic microfiber 6 µm	<b>M60</b>		Wire mesh 60 µm							<b>E</b>	3 bar		<b>P01</b>	MP Filtri standard	
<b>A10</b>	Inorganic microfiber 10 µm	<b>M90</b>		Wire mesh 90 µm							<b>B</b>	1.75 bar		<b>Pxx</b>	Customized	
<b>A16</b>	Inorganic microfiber 16 µm	<b>P10</b>		Resin impregnated paper 10 µm												
<b>A25</b>	Inorganic microfiber 25 µm	<b>P25</b>		Resin impregnated paper 25 µm												

### FILTER ELEMENT

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

### CLOGGING INDICATORS

See page 720-721

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

### ADDITIONAL FEATURES

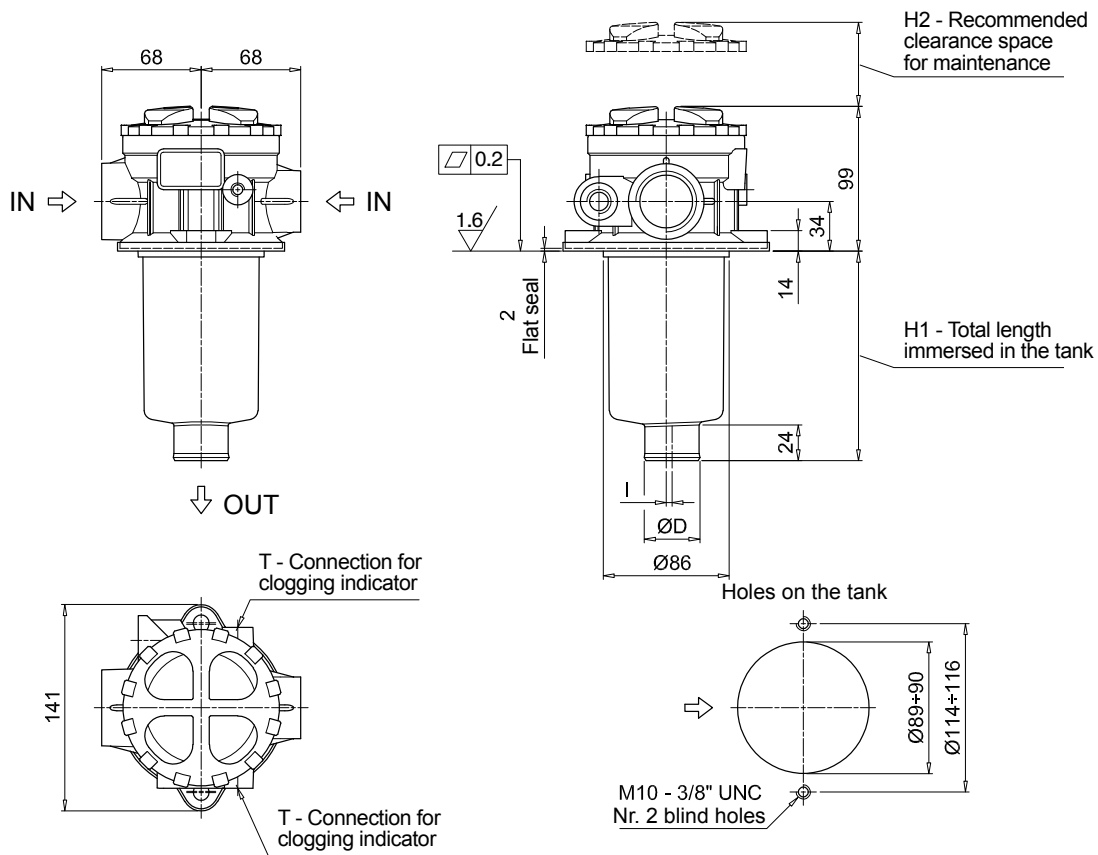
See page 268

<b>TE</b>	Extension tube	<b>DPT</b>	Dipstick
<b>DFS</b>	Diffuser with fast lock connection		

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

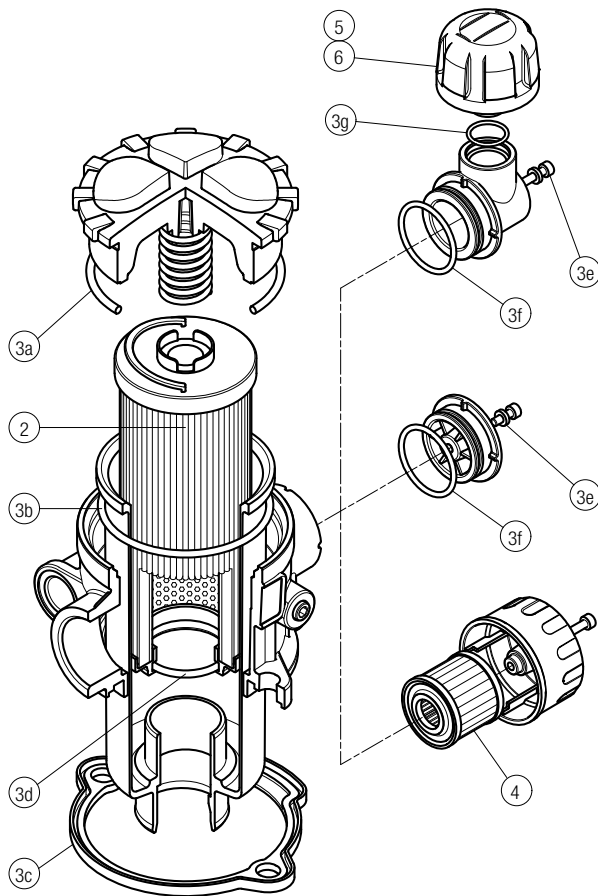
Connections	T
<b>G1-G2-G3</b>	G 1/8"
<b>G4-G5-G6-G7-G8-G9</b>	1/8" NPT



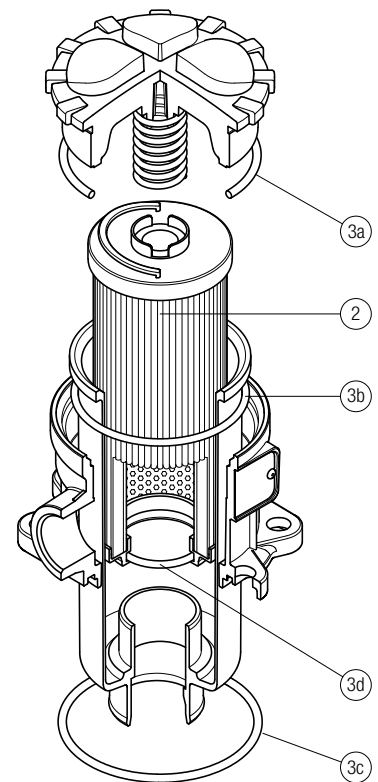
# MPT SPARE PARTS

Order number for spare parts

MPT 025 - 027 - 110



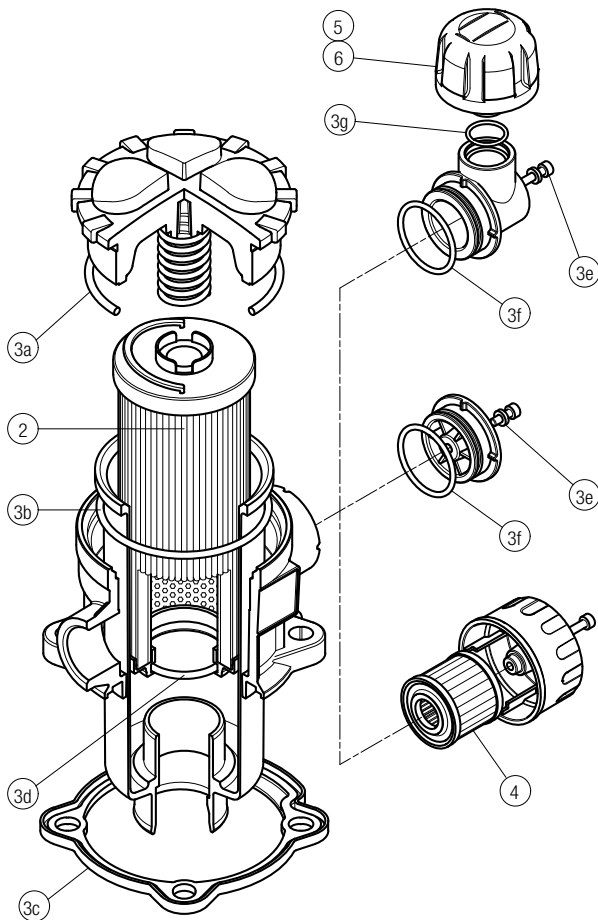
MPT 116



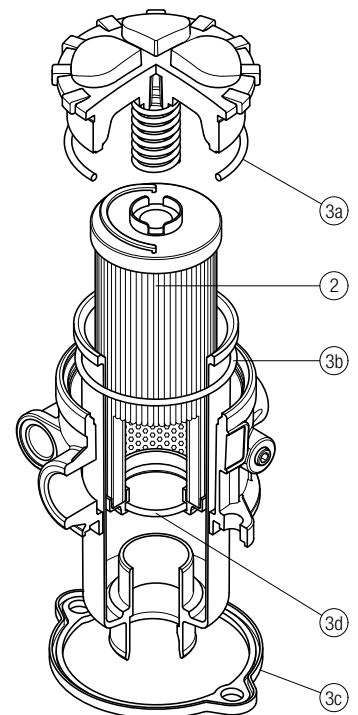
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		C	D	P
		NBR	FPM			
MPT 025	See order table	02050557	02050558	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01
MPT 027		02050559	02050560	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm 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:		
MPT 114	See order table	NBR	FPM	C	D	P
		02050580	02050581	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	
MPT 120	See order table	NBR	FPM
		02050563	02050564

# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

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

**Materials**

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

**Technical data**

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

**Seals**

<b>A</b>	NBR
<b>V</b>	FPM

**Fastening**

<b>M8</b>	Fastening with screws Ø D = M8
<b>M10</b>	Fastening with screws Ø D = M10

**Execution**

<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

**Technical data**

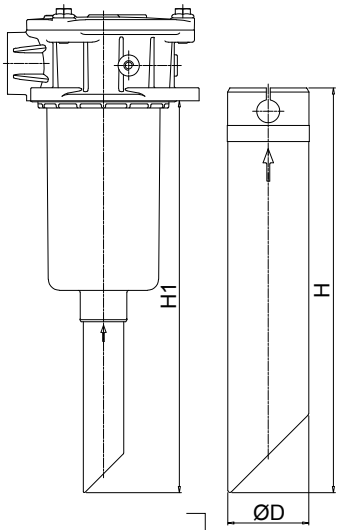
Tightening torque: 15 N·m

O-Ring 3106

M30x1.5

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

## POLYAMIDE EXTENSION TUBE



H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

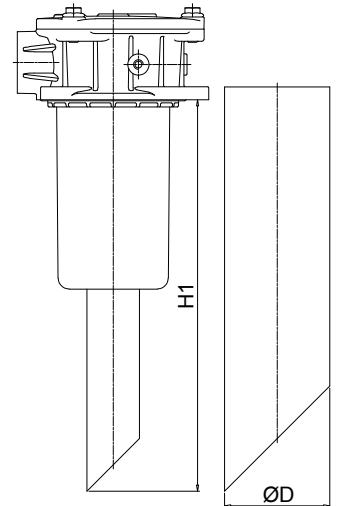
Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
<b>250</b>	<b>250</b>	250	•	-
<b>300</b>	<b>300</b>	300	•	•
<b>350</b>	<b>350</b>	350	•	-
<b>400</b>	<b>400</b>	400	•	•
<b>450</b>	<b>450</b>	450	•	-
<b>500</b>	<b>500</b>	500	•	•
<b>600</b>	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material **A** Polyamide

COMPATIBILITY TABLE																				
Filter series	Filter size			Filter length	Tube length															
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600			
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-		
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-		
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-		
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-		
				2	-	-	•	-	-	-	-	623	673	723	773	823	873	923	-	
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020		
					2	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752
	750	1	-	-	-	-	•	-	-	411	-	511	-	611	-	711	811			
		3	-	-	-	-	-	•	-	459	-	559	-	659	-	759	859			
MPT	110	114	116	120	1	-	•	-	-	-	278	328	378	428	478	528	578	-		
					2	-	•	-	-	-	-	-	342	392	442	492	542	592	642	-
					3	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-		
					2	-	•	-	-	-	-	-	320	370	420	470	520	570	620	-
					3	-	-	•	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	•	-	-	273	323	373	423	473	523	573	-		
					2	-	-	•	-	-	-	-	318	368	418	468	518	568	618	-
					3	-	-	-	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-

## STEEL EXTENSION TUBE



H1

ØD

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

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

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

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example 

T2	H
----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-

# MFB series

BOWL ASSEMBLY

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



# MFB GENERAL INFORMATION

## Description

## Technical data

### 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  
Polyamide: MFB 020-030-100  
Aluminium: MFB 180-190

- Bowl: Polyamide

#### Filter element materials

- Caps: Polyamide
- Spring: Spring steel

#### Bypass valve

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

#### $\Delta p$ 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 [dm<sup>3</sup>]

Filter series	Weights [kg]					Volumes [dm <sup>3</sup> ]				
	Length	1	2	3	4	Length	1	2	3	4
<b>MFB 020</b>		0.25	0.35	0.40	-		0.10	0.15	0.20	-
<b>MFB 030</b>		0.25	-	-	-		0.15	-	-	-
<b>MFB 100</b>		0.50	0.60	0.75	0.95		0.35	0.50	0.80	1.10
<b>MFB 180</b>		1.60	2.40	-	-		1.50	2.90	-	-
<b>MFB 190</b>		-	2.40	-	-		-	3.00	-	-

# GENERAL INFORMATION MFB

Flow rates [l/min]

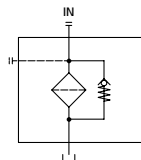
Filter series	Length	Filter element design - H series					Filter element design - N series		
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
MFB 020	1	7	10	23	28	42	59	51	54
	2	17	20	45	48	56	72	64	67
	3	21	24	50	55	59	76	74	75
MFB 030	1	7	10	24	29	47	84	60	66
MFB 100	1	18	20	53	56	65	153	87	96
	2	28	38	65	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  $30 \text{ mm}^2/\text{s}$  (cSt) and a density of  $0.86 \text{ kg}/\text{dm}^3$ .

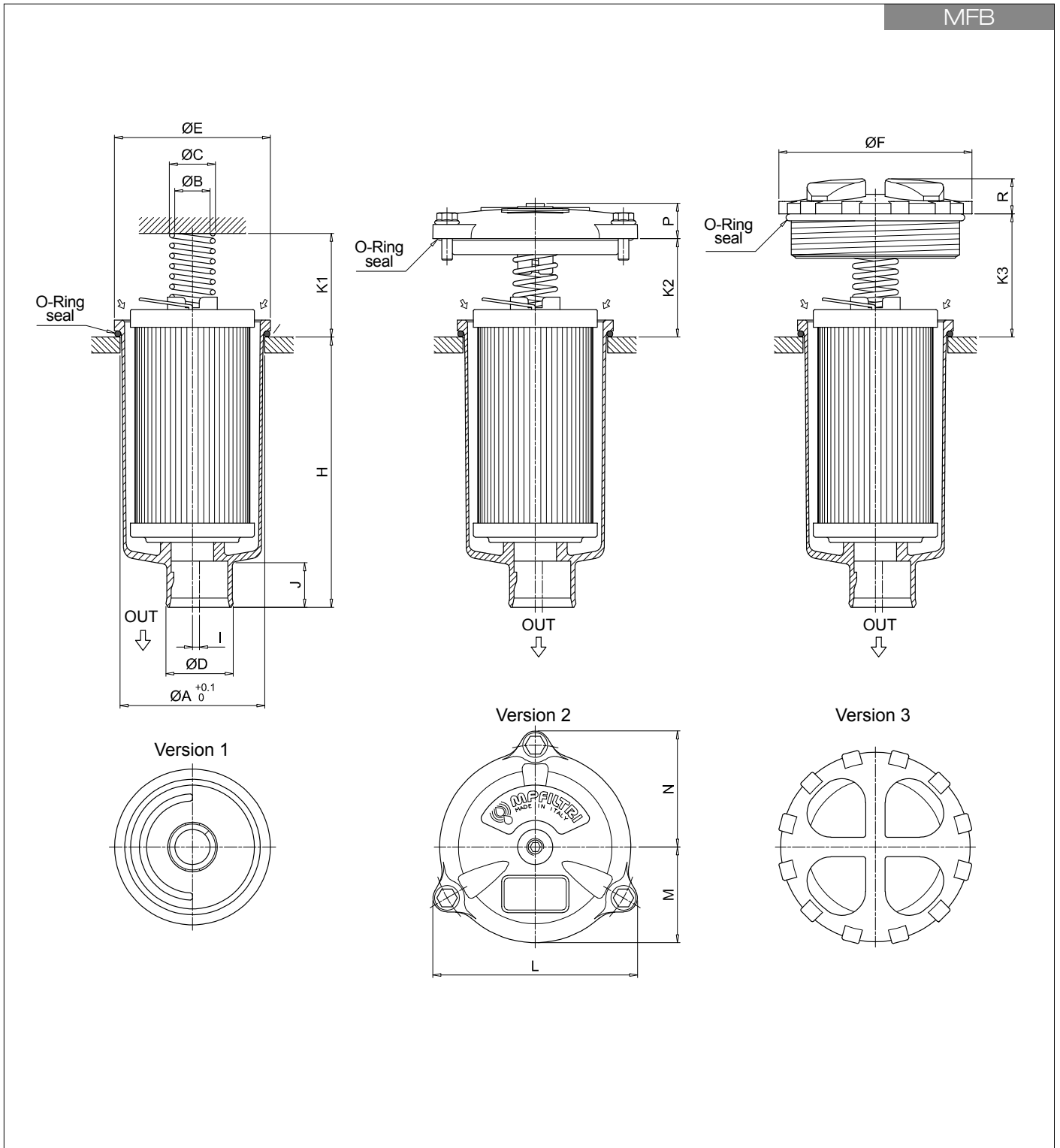
Hydraulic symbols

Filter series	Style 1 connection
MFB 020	•
MFB 030	•
MFB 100	•
MFB 180	•
MFB 190	•





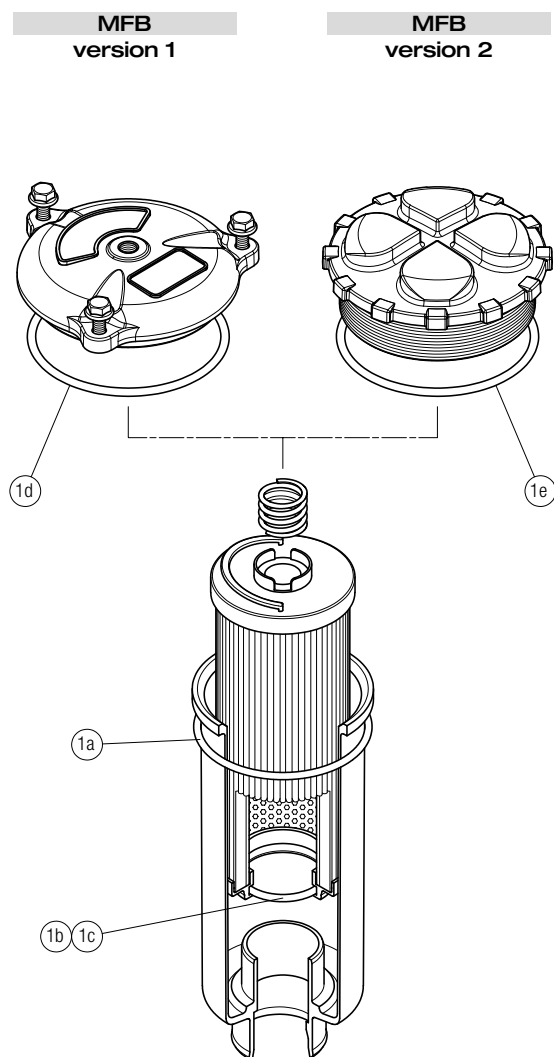
MFB



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]
<b>020</b>	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
<b>030</b>	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
<b>100</b>	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	-
	<b>190</b>	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	
	NBR	FPM
<b>MFB 020</b>	02050572	02050573
<b>MFB 030</b>	02050574	02050575
<b>MFB 100</b>	02050555	02050556
<b>MFB 180</b>	02050576	02050577
<b>MFB 190</b>	02050578	02050579

# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

Series	Length	H [mm]	Seals	Execution
<b>DPT</b>	<b>15</b>	<b>134</b>	<b>A</b> NBR	<b>P01</b> MP Filtri standard
	<b>20</b>	<b>184</b>	<b>V</b> FPM	<b>Pxx</b> Customized
	<b>25</b>	<b>234</b>		
	<b>30</b>	<b>284</b>		
	<b>35</b>	<b>334</b>		

**Materials**

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

**Technical data**

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

**Fastening**

- M8** Fastening with screws  $\varnothing D = M8$
- M10** Fastening with screws  $\varnothing D = M10$

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

**Technical data**

Tightening torque: 15 N·m

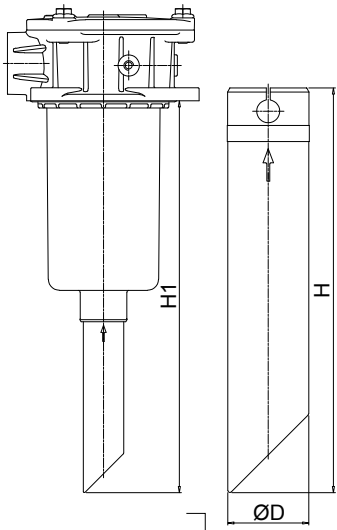
O-Ring 3106

M30x1.5

A/F

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

## POLYAMIDE EXTENSION TUBE



H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

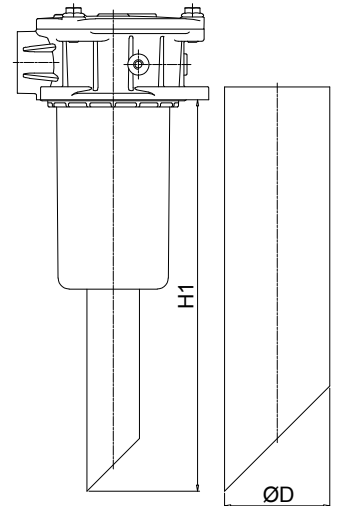
Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
<b>250</b>	<b>250</b>	250	•	-
<b>300</b>	<b>300</b>	300	•	•
<b>350</b>	<b>350</b>	350	•	-
<b>400</b>	<b>400</b>	400	•	•
<b>450</b>	<b>450</b>	450	•	-
<b>500</b>	<b>500</b>	500	•	•
<b>600</b>	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material **A** Polyamide

COMPATIBILITY TABLE																				
Filter series	Filter size			Filter length	Tube length															
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600			
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-		
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-		
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-		
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-		
				2	-	-	•	-	-	-	-	623	673	723	773	823	873	923	-	
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020		
					2	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752
	750	1	-	-	-	-	•	-	-	411	-	511	-	611	-	711	811			
		3	-	-	-	-	-	•	-	459	-	559	-	659	-	759	859			
MPT	110	114	116	120	1	-	•	-	-	-	278	328	378	428	478	528	578	-		
					2	-	•	-	-	-	-	-	342	392	442	492	542	592	642	-
					3	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-		
					2	-	•	-	-	-	-	-	320	370	420	470	520	570	620	-
					3	-	-	•	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	•	-	-	273	323	373	423	473	523	573	-		
					2	-	-	•	-	-	-	-	318	368	418	468	518	568	618	-
					3	-	-	-	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-

## STEEL EXTENSION TUBE



H1

ØD

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

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

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

# MDH series

Maximum working pressure up to 1 MPa (10 bar) - Flow rate up to 500 l/min



## Description

## Technical data

### Return filter

**Maximum working pressure up to 1 MPa (10 bar)**  
**Flow rate up to 500 l/min**

MDH, is a technically advanced filtration product line for efficient and compact, hydraulic reservoir management. Designed to ensure overall system cleanliness, the filters are either installed in a semi immersed or fully immersed position. This new design reduces the volume of the air coming into the tank space and dramatically reduces the velocity of the air through the filter which in turn allows the separation of the air from the fluid. This insures that the system is protected against the effects caused by air contamination such as incorrect system response, cavitation, foaming and fluid degradation. The filtration from inside to outside allows for a cleaner filter element replacement which insures that any contaminated fluid remains within the used filter element.

### Available features:

- Female threaded connections up to 1 1/2" and flanged connections up to 1 1/2", for a maximum flow rate of 500 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
- Flat Seal to suit a variety of reservoir surfaces
- Oil dipstick, to easily check the level of the fluid into the reservoir (separate item)
- Anti-drain membrane, to reduce the volume of air coming to the tank
- Optimized flow path, to reduce the speed of the fluid through the filter
- Diffuser with optimized output, to promote the air separation and to reduce the risk of foaming and noise
- Optional filler plug, to fill cleaned fluid into the tank without an additional plug
- Visual, electrical and electronic clogging indicators and differential pressure clogging indicators

### Common applications:

Heavy duty industrial equipment  
 Large mobile machines with limited space for the tank

### Filter housing materials

- Head and cover: Aluminium
- Anti-drain membrane: Polyamide
- Diffuser: AISI 430
- Valve: Polyamide / Steel

### Bypass valve

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

### $\Delta p$ element type

- Microfibre filter elements - series DH: 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

MDH filters are provided for vertical mounting

## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Weights [kg]			Volumes [dm <sup>3</sup> ]		
	Length	2	4	Length	2	4
<b>MDH 250</b>		3.80	4.55		4.65	6.90

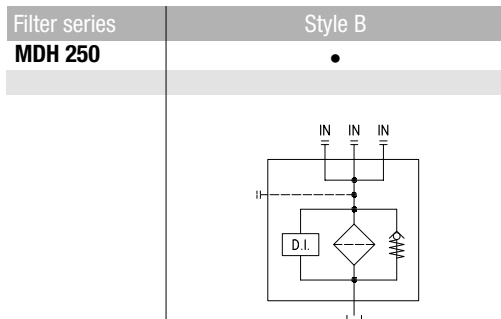
# GENERAL INFORMATION MDH

Flow rates [l/min]

Filter series	Length	A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MDH 250</b>	<b>2</b>	134	120	244	255	303	480	326	370
	<b>4</b>	217	256	338	419	487	465	437	694

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

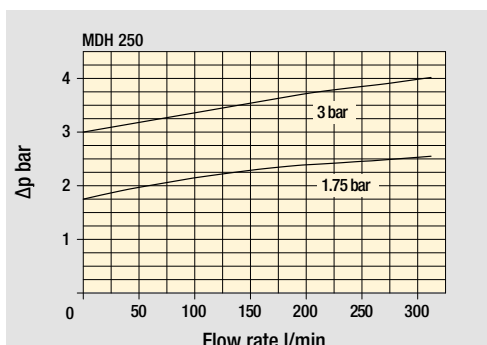
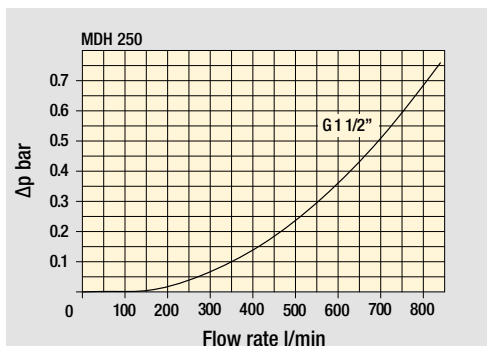
The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.



Hydraulic symbols

Pressure drop

Filter housings  $\Delta p$  pressure drop



Bypass valve pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

# MDH250

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b> <b>MDH250</b>	Configuration example: <b>MDH250</b>   <b>2</b>   <b>C</b>   <b>F</b>   <b>S</b>   <b>A</b>   <b>B</b>   <b>2</b>   <b>A10</b>   <b>P01</b>									
<b>Length</b> <b>2</b>   <b>4</b>										
<b>Bypass valve</b> <b>C</b> 1.75 bar <b>E</b> 3 bar										
<b>Diffuser</b> <b>F</b> With diffuser										
<b>Air breather</b> <b>S</b> Without air breather										
<b>Seals and treatments</b>	Filtration rating									
<b>A</b> NBR	<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>							
<b>V</b> FPM	•	•	•							
<b>W</b> NBR head anodized	•	•	-							
<b>Z</b> FPM head anodized	•	•	-							
<b>Connections</b>										
	<b>Front</b>	<b>Left</b>	<b>Right</b>							
<b>A</b> G 1 1/2"	1 1/2" SAE 3000 psi/M + G 1 1/4"	1 1/4" SAE 3000 psi/M + G 1"								
<b>B</b> 1 1/2" NPT	1 1/2" SAE 3000 psi/UNC + 1 1/4" NPT	1 1/4" SAE 3000 psi/UNC + 1" NPT								
<b>C</b> SAE 24 - 1 7/8" - 12 UN	1 1/2" SAE 3000 psi/UNC + SAE 20 - 1 5/8" - 12 UN	1 1/4" SAE 3000 psi/UNC + SAE 16 - 1 5/16" - 12 UN								
<b>Connection indicator</b>										
<b>1</b> Without connection										
<b>2</b> With 2 plugged connections (pressure indicator + diff. pressure indicator)										
<b>Filtration rating (filter media)</b>										
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm									
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm									
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm									
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm									
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm									
				<b>Execution</b>						
				<b>P01</b> MP Filtri standard						
				<b>Pxx</b> Customized						

### FILTER ELEMENT

<b>Element series and size</b> <b>DH250</b>	Configuration example: <b>DH250</b>   <b>2</b>   <b>A10</b>   <b>A</b>   <b>P01</b>				
<b>Element length</b> <b>2</b>   <b>4</b>					
<b>Filtration rating (filter media)</b>					
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm				
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm				
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm				
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm				
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm				
	<b>Seals</b>		<b>Execution</b>		
	<b>A</b> NBR		<b>P01</b> MP Filtri standard		
	<b>V</b> FPM		<b>Pxx</b> Customized		

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge	<b>BEA</b> Electrical pressure indicator
<b>BVR</b> Radial pressure gauge	<b>BEM</b> Electrical pressure indicator
<b>BVP</b> Visual pressure indicator with automatic reset	<b>BLA</b> Electrical / visual pressure indicator
<b>BVQ</b> Visual pressure indicator with manual reset	<b>DES</b> Electrical differential pressure indicator
	<b>DVS</b> Visual differential pressure indicator

### PLUGS

See page 747

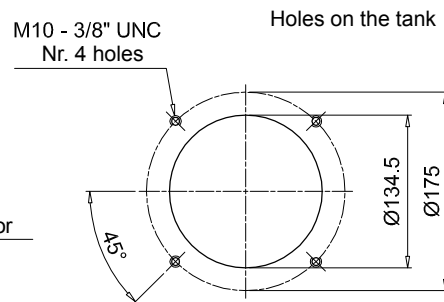
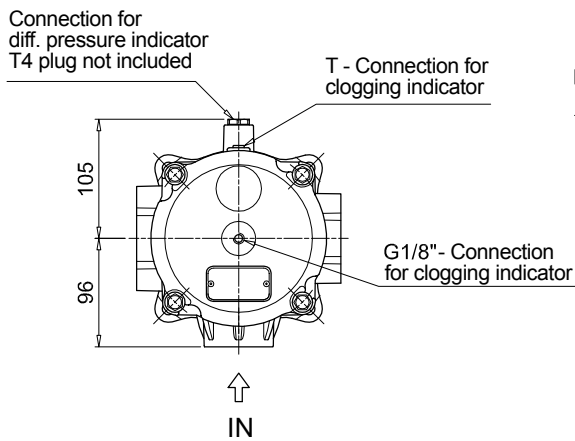
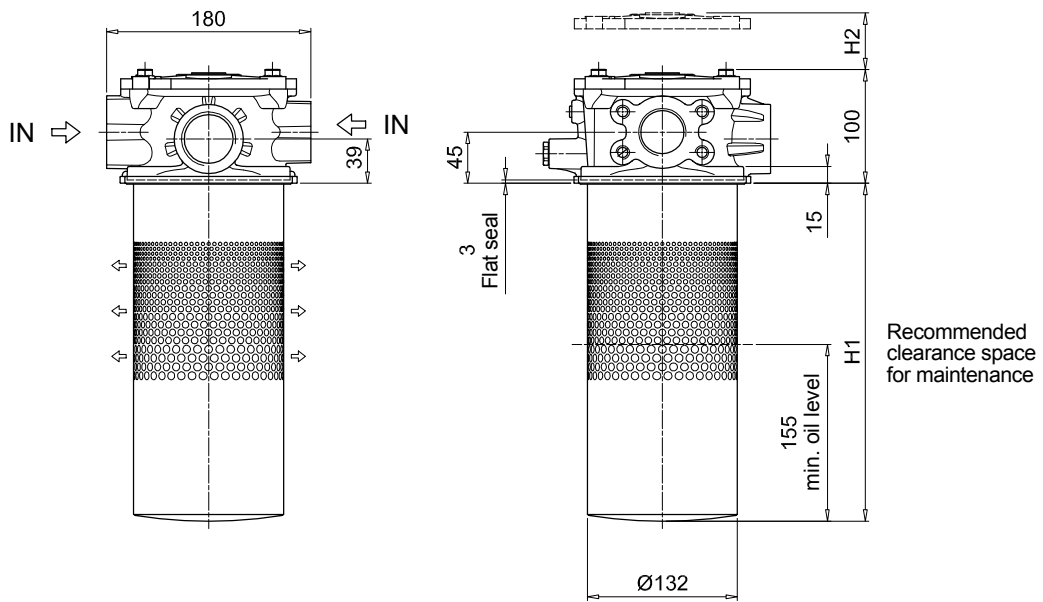
<b>T4</b> Plug
----------------

# MDH250

## Dimensions

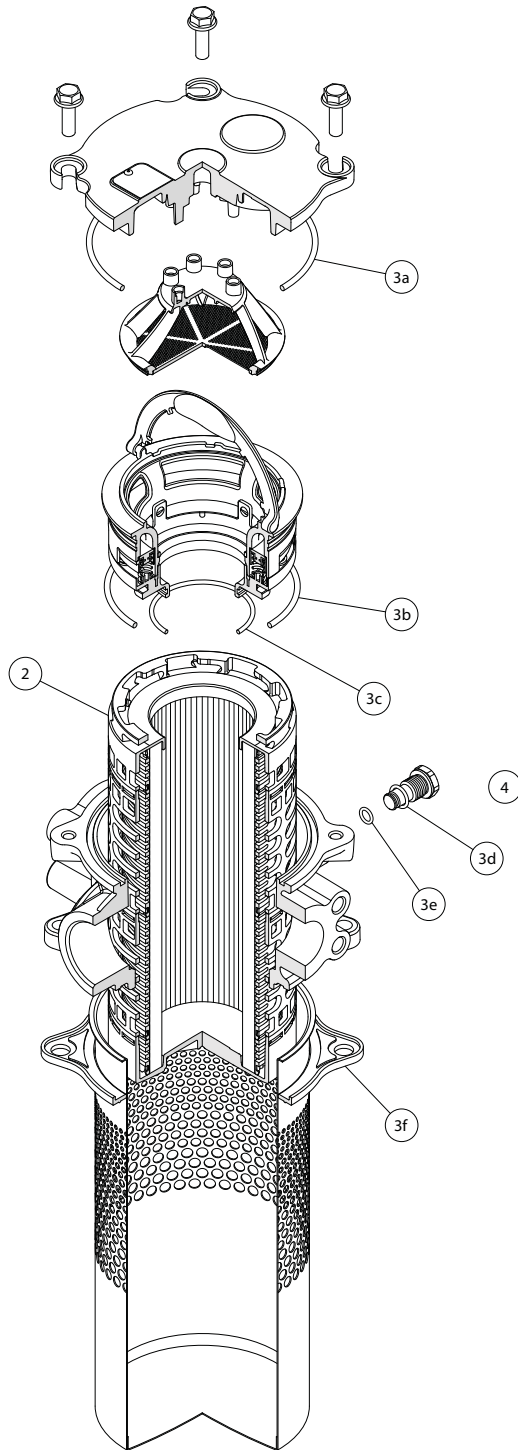
MDH250		
Filter length	H1 [mm]	H2 [mm]
2	300	380
4	485	565

Connections	T
A	G 1/8"
B-C	1/8" NPT



# MDH SPARE PARTS

Order number for spare parts



Item:	Q.ty: 1 pc. 2	Q.ty: 1 pc. 3 (3a ÷ 3f)	Q.ty: 1 pc. 4
Filter series	Filter element	Seal Kit code number NBR FPM	Indicator connection plug NBR
<b>MDH 250</b>	See order table	02050850 02050851	T4A

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

Type	BE	BL	BV
<b>A</b> Standard type	•	•	<b>A</b> Axial connection pressure gauge
<b>M</b> With wired electrical connection	•	-	<b>R</b> Radial connection pressure gauge
<b>T</b> With thermal switch	•	-	<b>P</b> Visual indicator with automatic reset
			<b>Q</b> Visual indicator with manual reset

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
<b>14</b> 1.4 bar	-	-	-	•	-
<b>15</b> 1.5 bar	•	-	•	-	•
<b>20</b> 2.0 bar	•	•	•	-	•
<b>25</b> 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVA-BVR	BVP-BVQ
<b>H</b> HNBR	•	•	-	•

Thermostat	BEA-BEM	BET	BLA
<b>A</b> Without thermostat	•	-	•
<b>F</b> With thermostat	-	•	-

Electrical connections	BEA	BEM	BET	BL
<b>10</b> Connection AMP Superseal series 1,5	-	-	•	-
<b>30</b> Connection Deutsch DT-04-2-P	-	-	•	-
<b>41</b> Connection via four-core cable	-	•	-	-
<b>50</b> Connection EN 175301-803	•	-	-	-
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
<b>53</b> Connection EN 175301-803, transparent base with lamps 230 Vac	-	-	-	•
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	BEA	BEM-BET	BL	BV
Without	•	•	•	•
<b>EX</b> ATEX certification	•	-	-	-
<b>UL</b> UL certification	•	-	-	-

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example 

T2	H
----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-

# MPH series

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



# MPH GENERAL INFORMATION

## 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 3500 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
  - Polyamide: MPH 110-114-116-120
  - Aluminium: MPH 250
  - Anodized Aluminium: MPH 630
  - Painted Aluminium: MPH 660
  - Steel: MPH 850

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

- Diffuser: Stainless 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 [dm<sup>3</sup>]

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

# GENERAL INFORMATION MPH

Flow rates [l/min]

Filter series	Length	A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MPH 110-114 116-120</b>	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
<b>MPH 250</b>	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
<b>MPH 630</b>	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
<b>MPH 660</b>	4	370	399	903	1042	1460	2376	1596	1830
	5	624	699	1282	1343	1997	2663	2182	2331
<b>MPH 850</b>	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

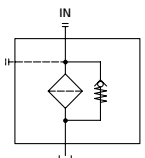
**Maximum flow rate for a complete return filter with a pressure drop  $\Delta p = 0.5$  bar.**

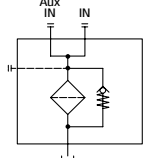
The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

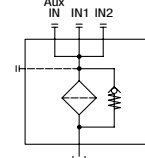
## Hydraulic symbols

Filter series	Style 1 connection	Style 2 connections	Style 3 connections
<b>MPH 110</b>	-	•	-
<b>MPH 114</b>	•	-	-
<b>MPH 116</b>	•	-	-
<b>MPH 120</b>	-	-	•
<b>MPH 250</b>	•	•	-
<b>MPH 630</b>	•	•	-
<b>MPH 660</b>	•	-	-
<b>MPH 850</b>	-	•	-



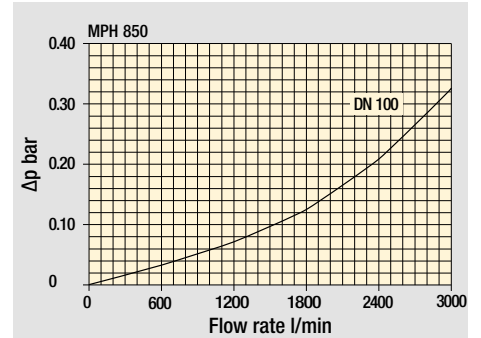
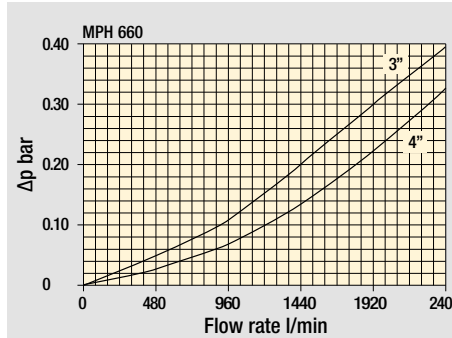
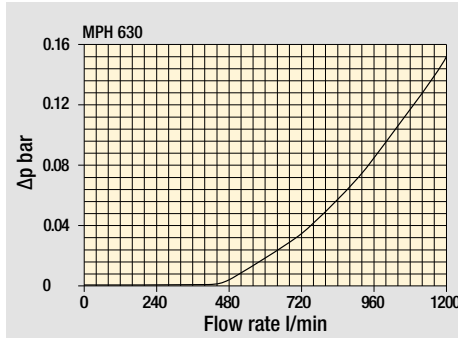
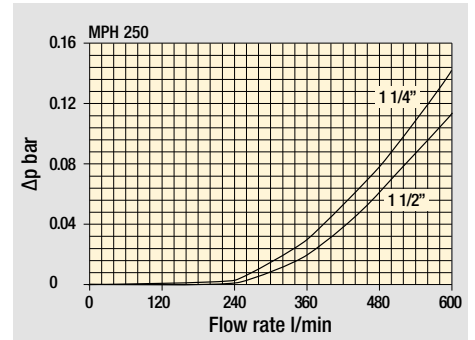
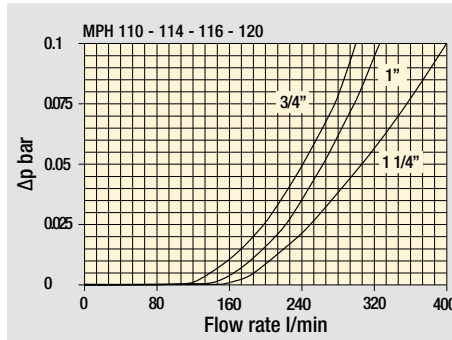




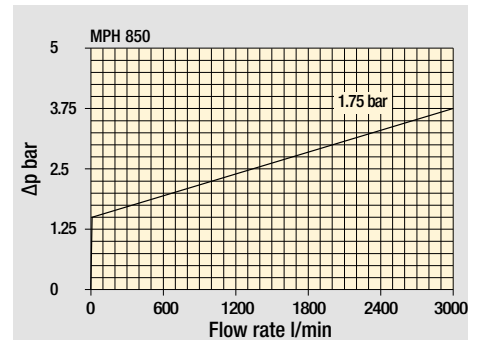
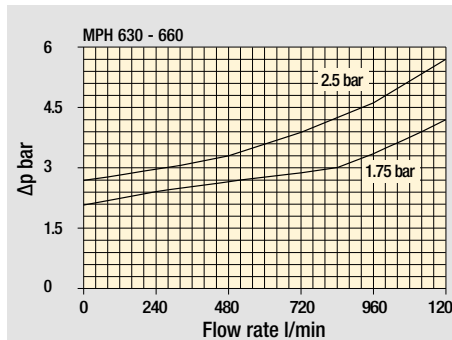
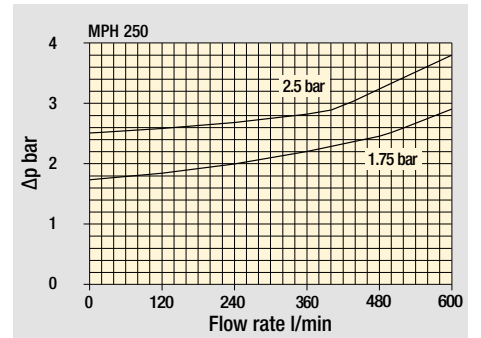
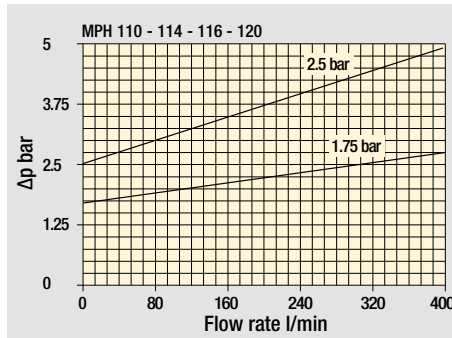
# MPH GENERAL INFORMATION

## Pressure drop

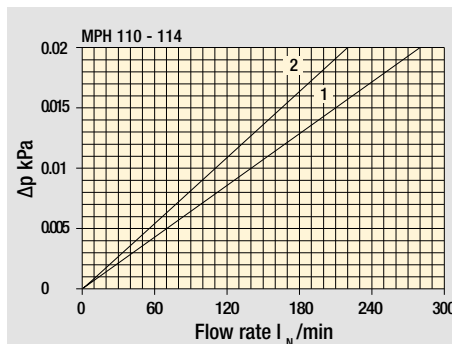
### Filter housings $\Delta p$ pressure drop



### Bypass valve pressure drop



### Air breather pressure drop



- 1  C With air breather 10  $\mu$ m
- 2  D With anti-splash and SAP50 10  $\mu$ m

The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

## Designation & Ordering code

### COMPLETE FILTER

Series and size **MPH110** Configuration example: **MPH110** | **1** | **S** | **D** | **S** | **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

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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

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

Aux connection - see previous table: **0** Not machined | **1** Aux size 1 | **2** Aux size 2

Filtration rating (filter media):

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

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

Seals: **A** NBR | **V** FPM

Execution: **P01** MP Filtri standard | **Pxx** Customized

### CLOGGING INDICATORS

See page 720-721

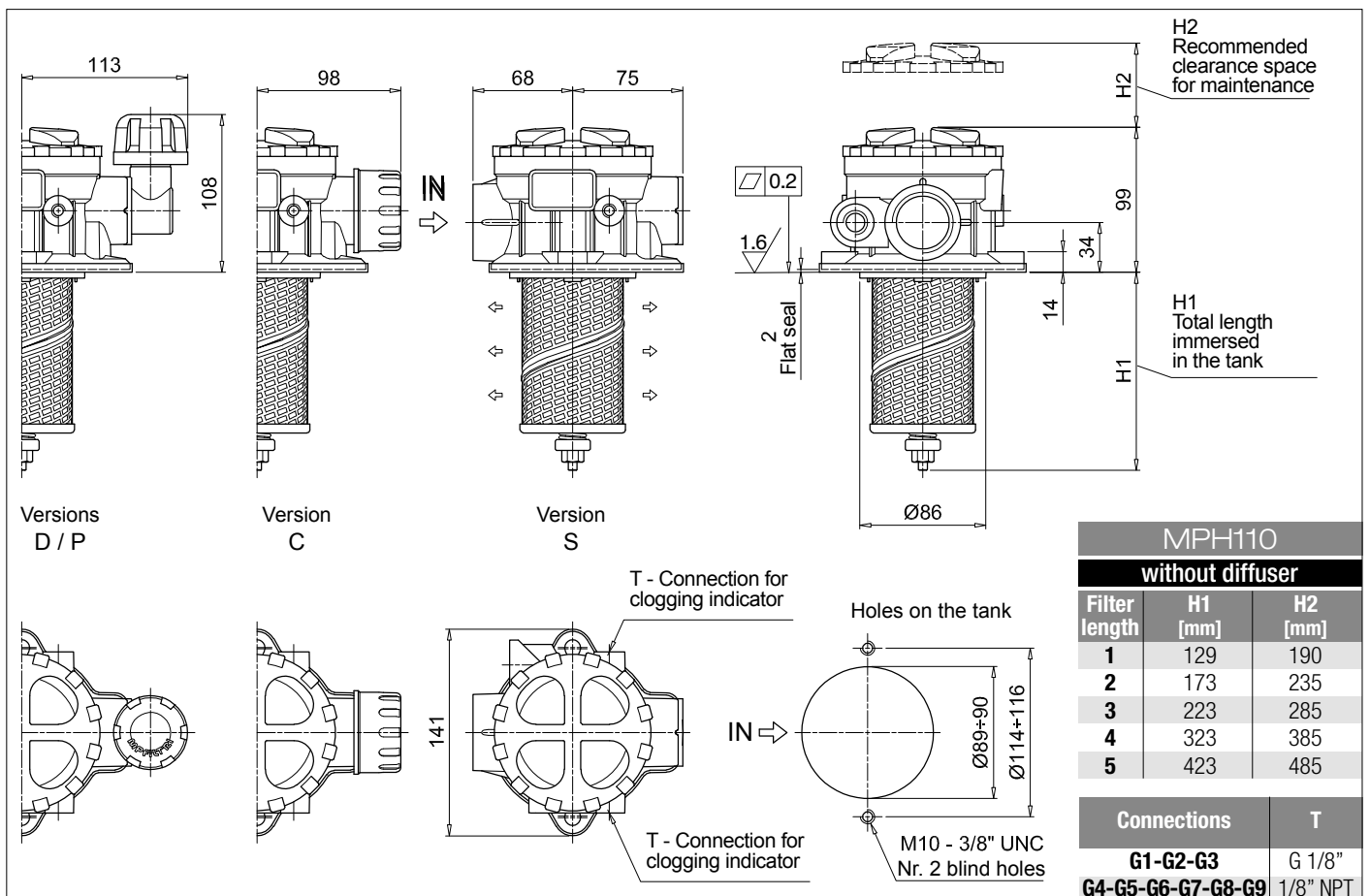
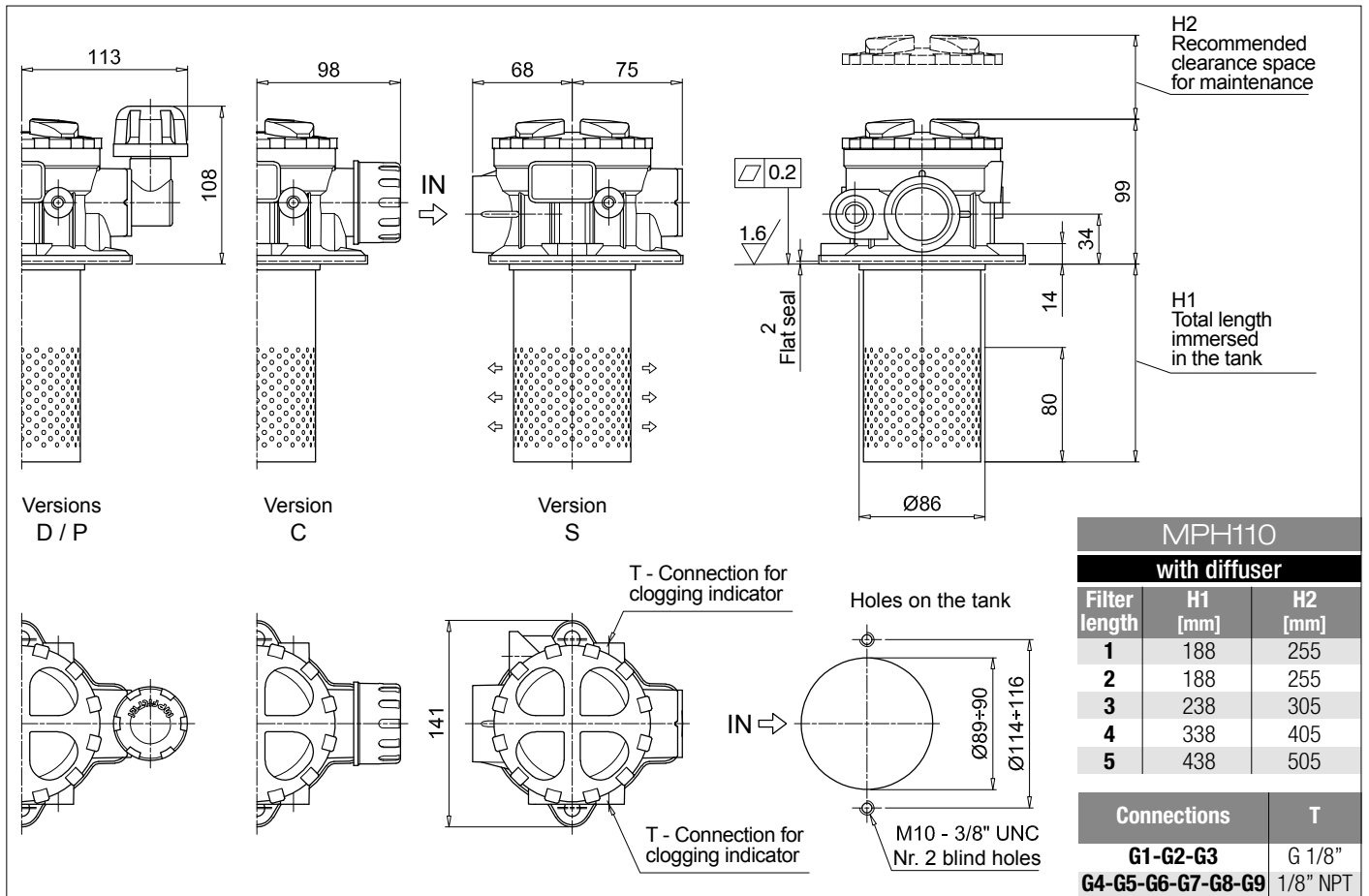
**BVA** Axial pressure gauge  
**BVR** Radial pressure gauge  
**BVP** Visual pressure indicator with automatic reset  
**BVQ** Visual pressure indicator with manual reset

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

### ADDITIONAL FEATURES

See page 268

**DPT** Dipstick



## Designation & Ordering code

### COMPLETE FILTER

Configuration example: **MPH114** | **3** | **C** | **E** | **C** | **Z** | **G6** | **M60** | **P01**

**Series and size**  
**MPH114**

**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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

**Connections**

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

**Filtration rating (filter media)**

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

**Execution**  
**P01** MP Filtri standard  
**Pxx** Customized

### FILTER ELEMENT

Configuration example: **MR100** | **3** | **M60** | **V** | **P01**

**Element series and size**  
**MR100**

**Element length**  
**1** | **2** | **3** | **4** | **5**

**Filtration rating (filter media)**

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

**Seals**  
**A** NBR  
**V** FPM

**Execution**  
**P01** MP Filtri standard  
**Pxx** Customized

### CLOGGING INDICATORS

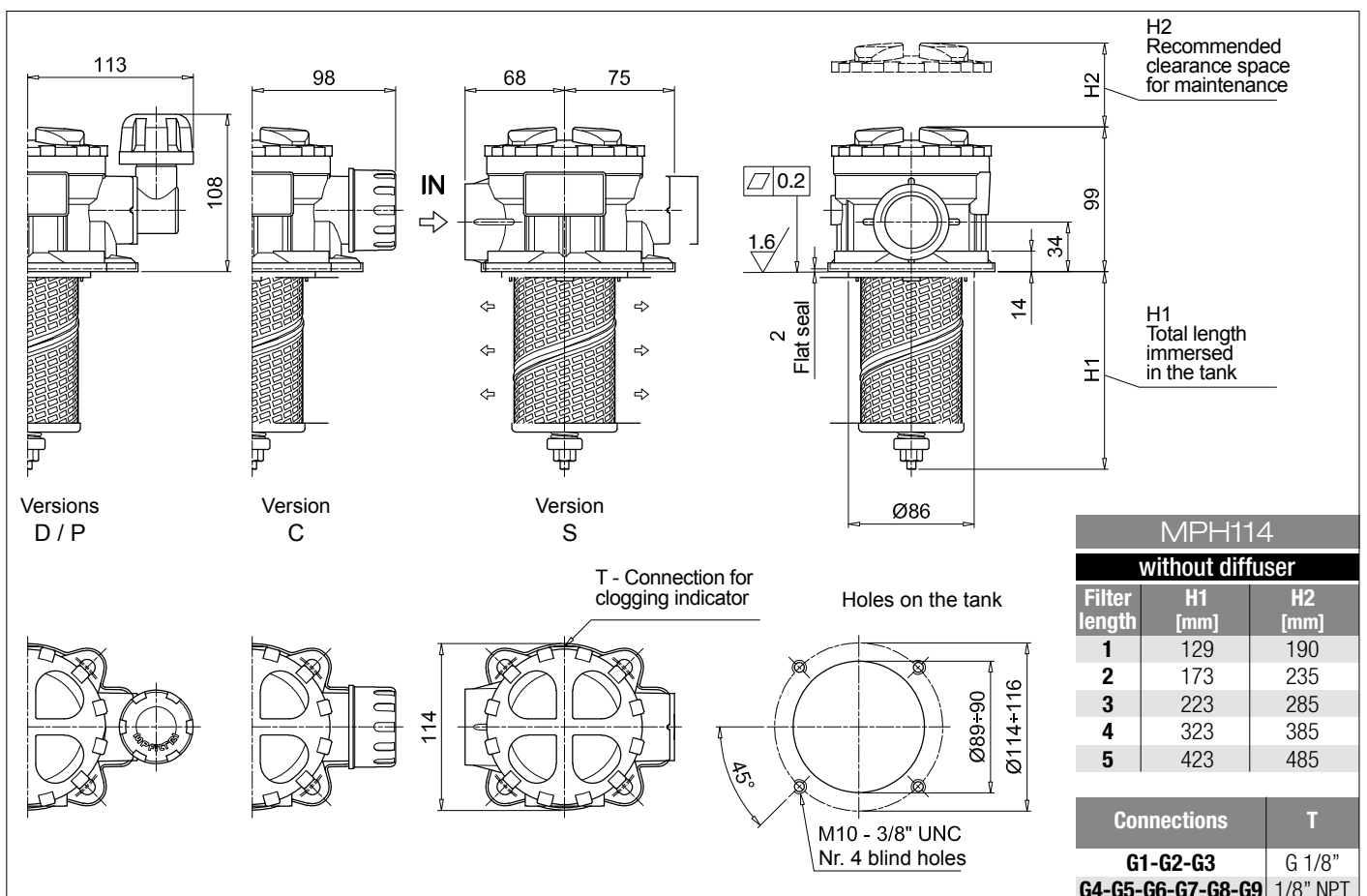
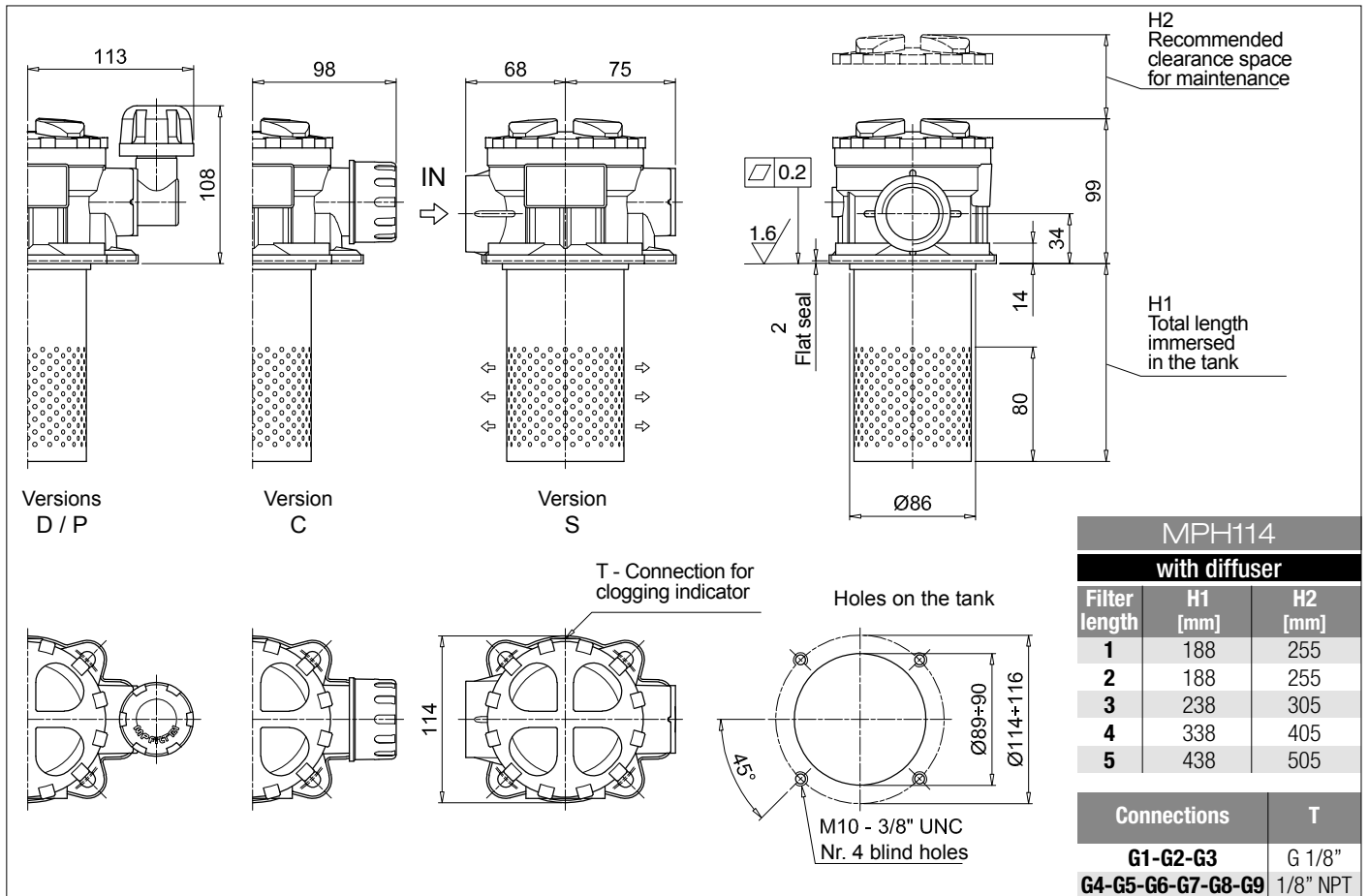
See page 720-721

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

### ADDITIONAL FEATURES

See page 268

**DPT** Dipstick



## 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		
	Axx	Mxx	Pxx
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

Flat seal on the head on request

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

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	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)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Seals	
<b>A</b>	NBR
<b>V</b>	FPM

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### CLOGGING INDICATORS

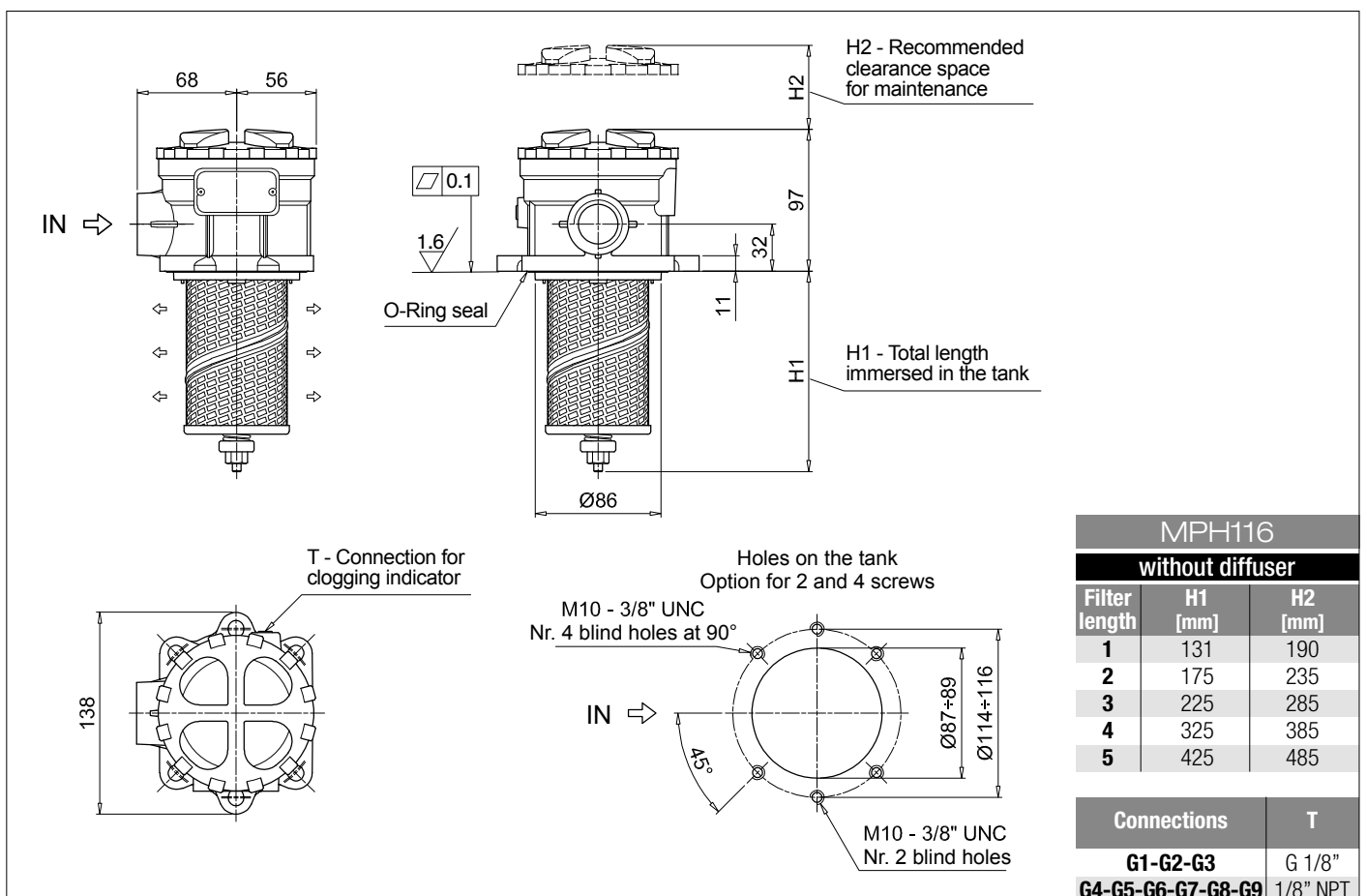
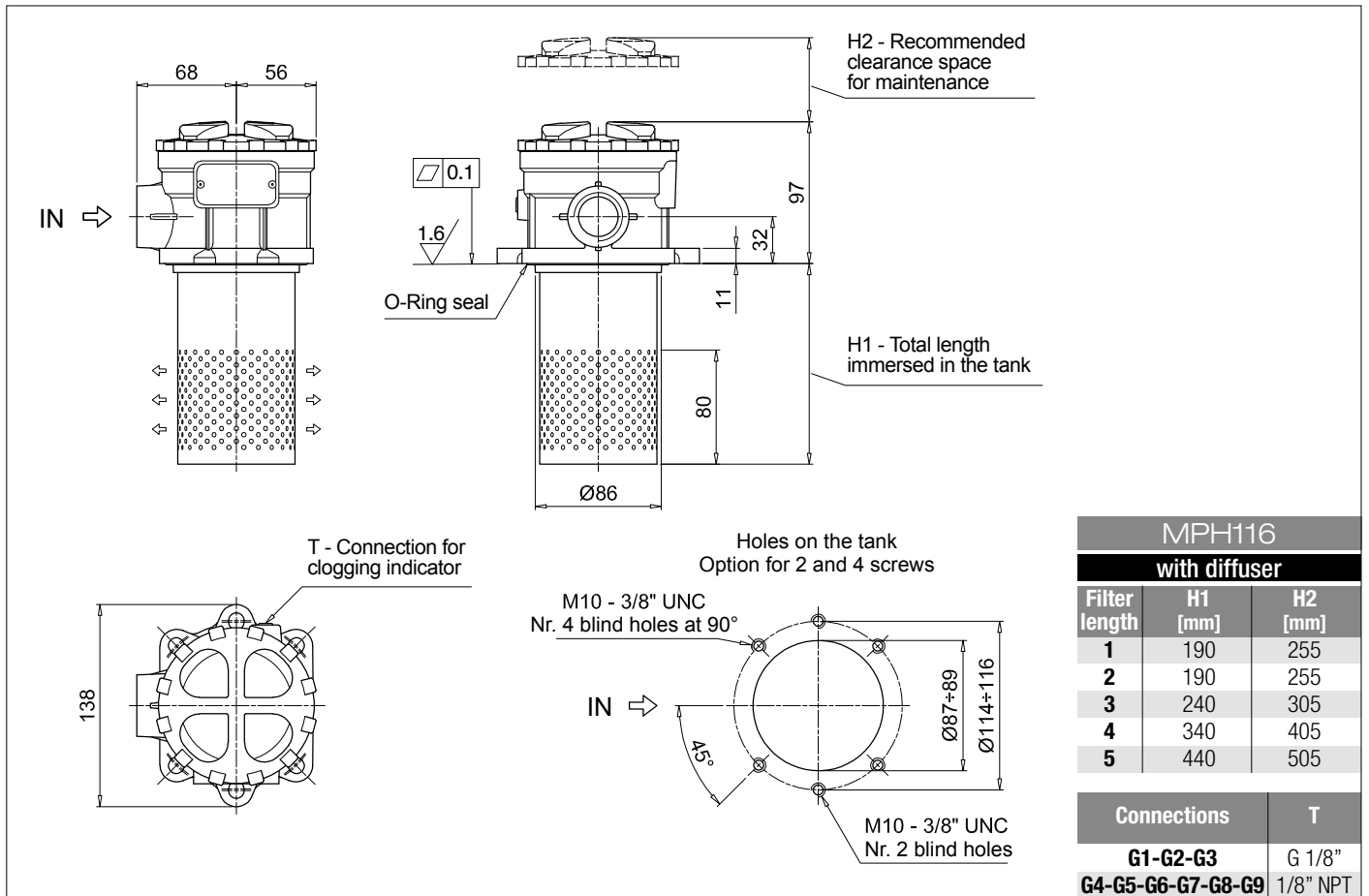
See page 720-721

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

### ADDITIONAL FEATURES

See page 268

**DPT** Dipstick



# MPH MPH120

## 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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

Main Connections	Rear connections	Aux size 1	Aux size 2
<b>G1</b> G 3/4"	G 3/4"	G 3/8"	G 1/2"
<b>G2</b> G 1"	G 1"		
<b>G3</b> G 1 1/4"	G 3/4"		
<b>G4</b> 3/4" NPT	3/4" NPT	3/8" NPT	1/2" NPT
<b>G5</b> 1" NPT	1" NPT		
<b>G6</b> 1 1/4" NPT	3/4" NPT		
<b>G7</b> 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
<b>G8</b> SAE 16 - 1 5/16" - 12 UN	SAE 16 - 1 5/16" - 12 UN		
<b>G9</b> 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)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> 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)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Seals: **A** NBR | **V** FPM

Execution: **P01** MP Filtri standard | **Pxx** Customized

### CLOGGING INDICATORS

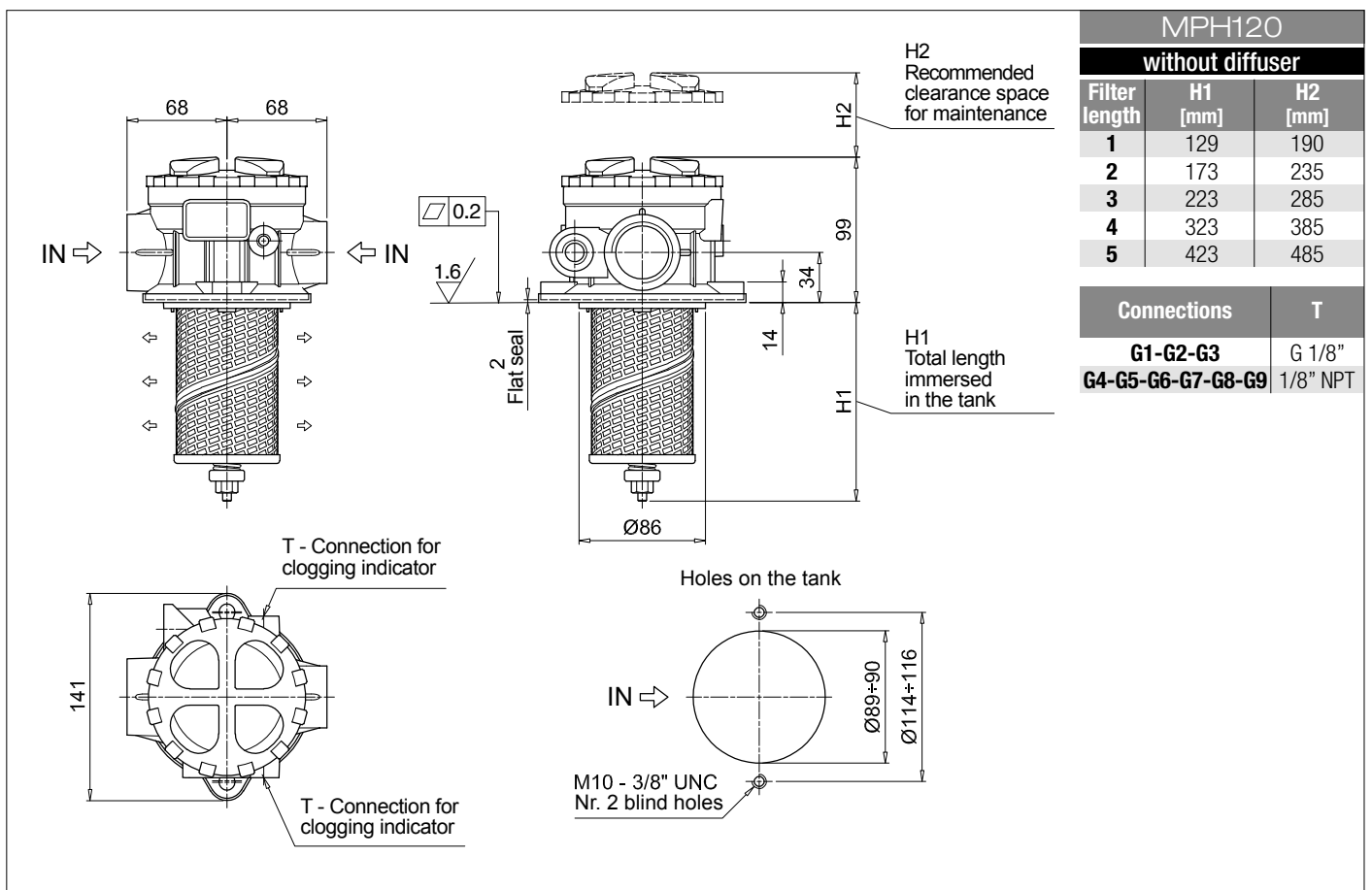
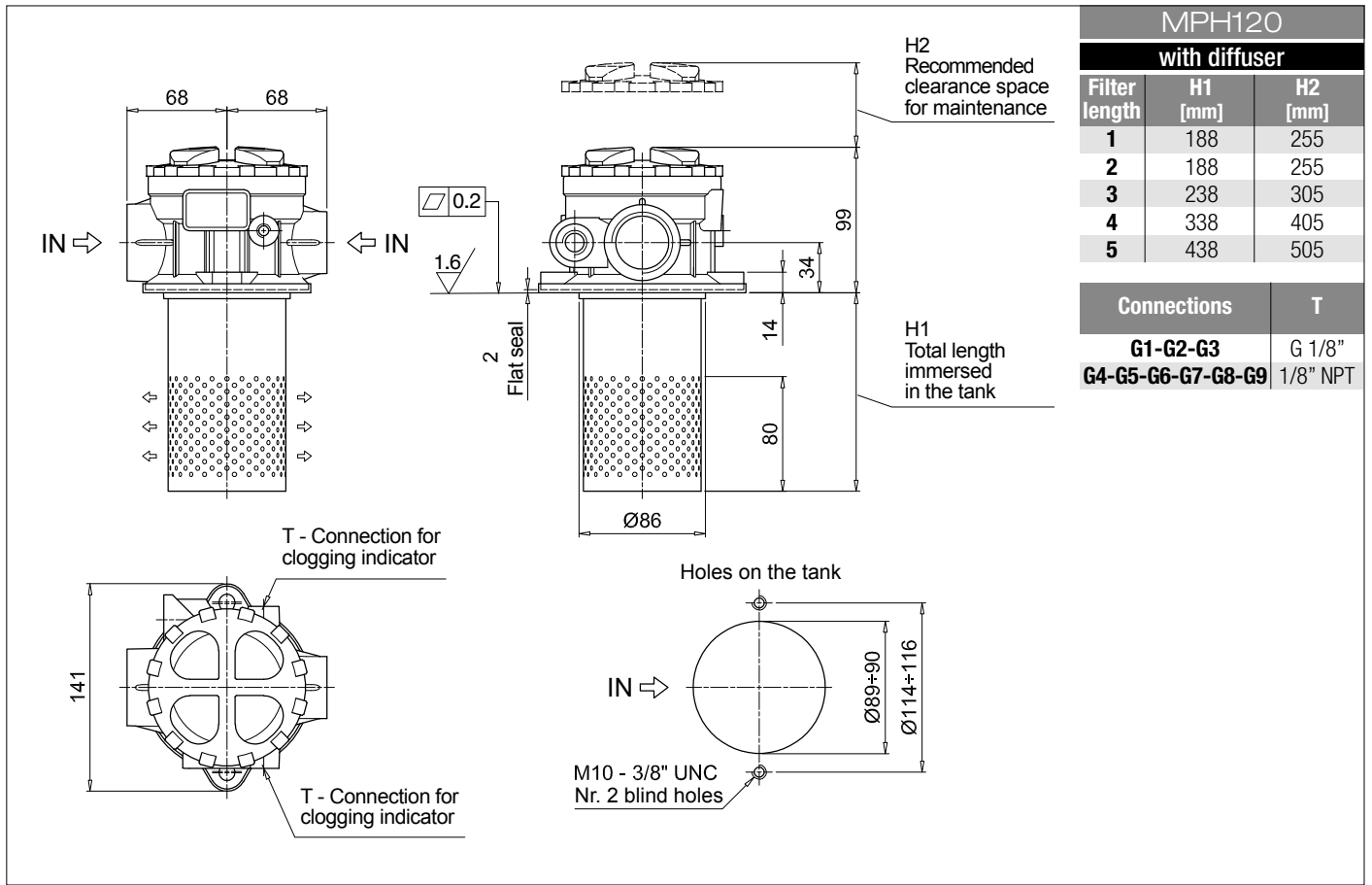
See page 720-721

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

### ADDITIONAL FEATURES

See page 268

**DPT** Dipstick



# MPH MPH250

## Designation & Ordering code

### COMPLETE FILTER

Series and size		Configuration example: MPH250									
<b>MPH250</b>		1	C	D	S	A	G1	A10	P01		
Length		1	2	3	4						
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		•	•	-							
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)		M25 Wire mesh 25 µm									
A03 Inorganic microfiber 3 µm		M60 Wire mesh 60 µm									
A06 Inorganic microfiber 6 µm		M90 Wire mesh 90 µm									
A10 Inorganic microfiber 10 µm		P10 Resin impregnated paper 10 µm									
A16 Inorganic microfiber 16 µm		P25 Resin impregnated paper 25 µm									
A25 Inorganic microfiber 25 µm											
				Execution							
				P01 MP Filtri standard							
				Pxx Customized							

### FILTER ELEMENT

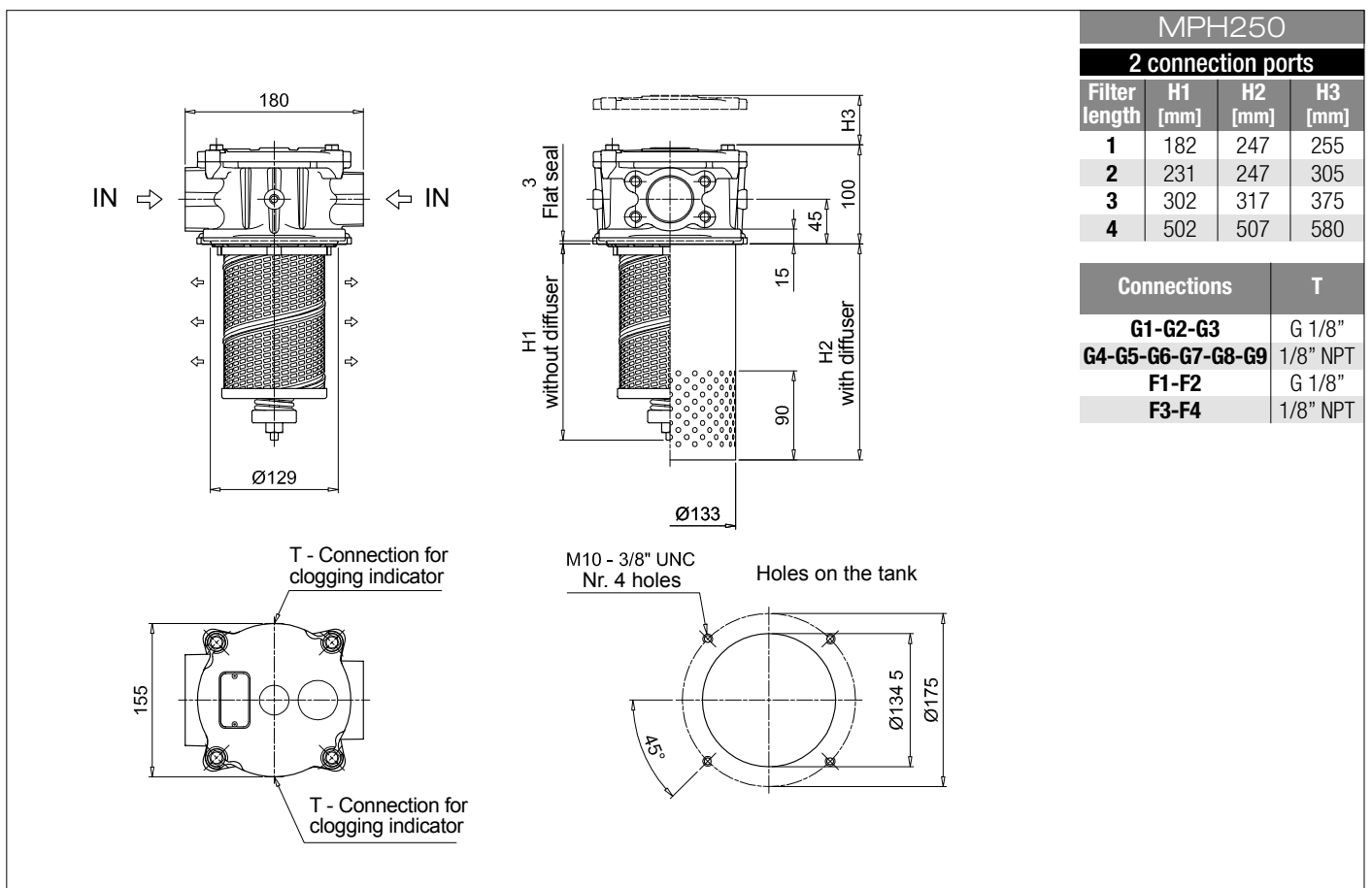
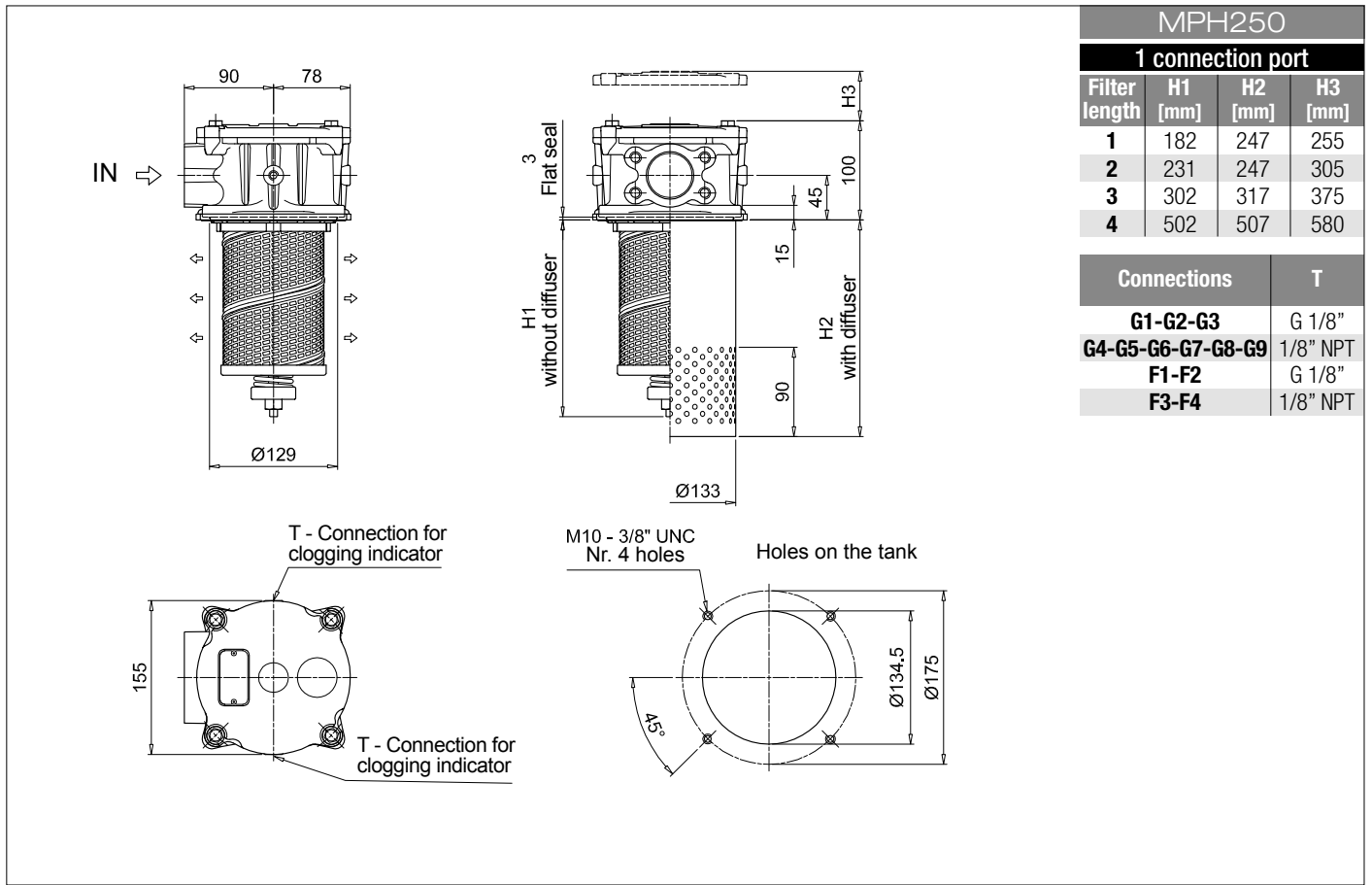
Element series and size		Configuration example: MR250				
<b>MR250</b>		1	A10	A	P01	
Element length		1	2	3	4	
Filtration rating (filter media)		M25 Wire mesh 25 µm				
A03 Inorganic microfiber 3 µm		M60 Wire mesh 60 µm				
A06 Inorganic microfiber 6 µm		M90 Wire mesh 90 µm				
A10 Inorganic microfiber 10 µm		P10 Resin impregnated paper 10 µm				
A16 Inorganic microfiber 16 µm		P25 Resin impregnated paper 25 µm				
A25 Inorganic microfiber 25 µm						
		Seals		Execution		
		A NBR		P01 MP Filtri standard		
		V FPM		Pxx Customized		

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge	
<b>BVR</b> Radial pressure gauge	
<b>BVP</b> Visual pressure indicator with automatic reset	
<b>BVQ</b> Visual pressure indicator with manual reset	

<b>BEA</b> Electrical pressure indicator	
<b>BEM</b> Electrical pressure indicator	
<b>BLA</b> Electrical / visual pressure indicator	



# MPH MPH630

## Designation & Ordering code

### COMPLETE FILTER

Configuration example: **MPH630** | **1** | **S** | **E** | **S** | **W** | **F1** | **M25** | **P01**

**Series and size**  
**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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

Main Connections	Rear connections
<b>F1</b> 2 1/2" SAE 3000 psi/M	-
<b>F2</b> 2 1/2" SAE 3000 psi/M	2" SAE 3000 psi/M
<b>F3</b> 2 1/2" SAE 3000 psi/UNC	-
<b>F4</b> 2 1/2" SAE 3000 psi/UNC	2" SAE 3000 psi/UNC

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### FILTER ELEMENT

Configuration example: **MR630** | **1** | **M25** | **A** | **P01**

**Element series and size**  
**MR630**

**Element length**  
**1** | **2** | **3** | **4** | **5**

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

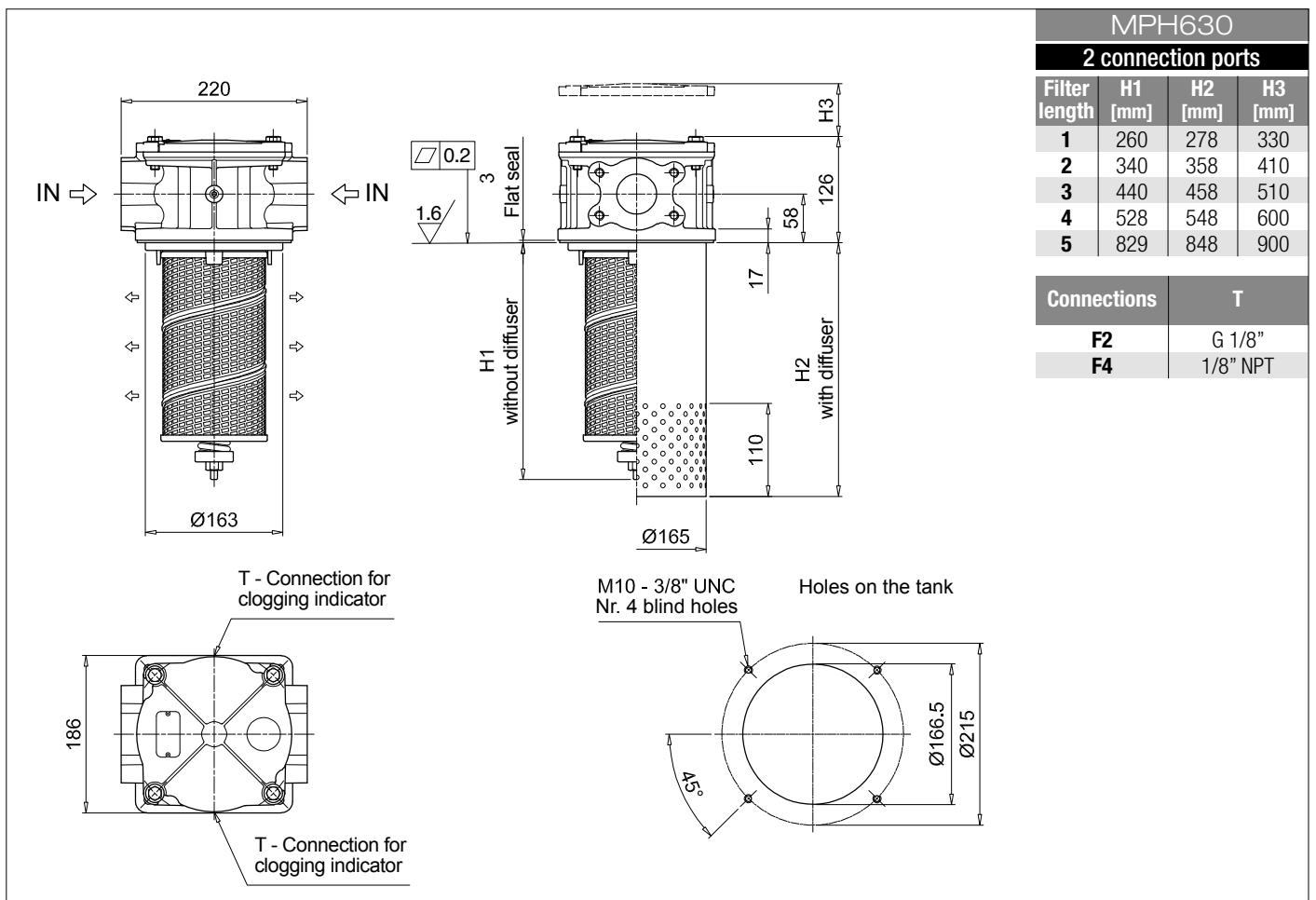
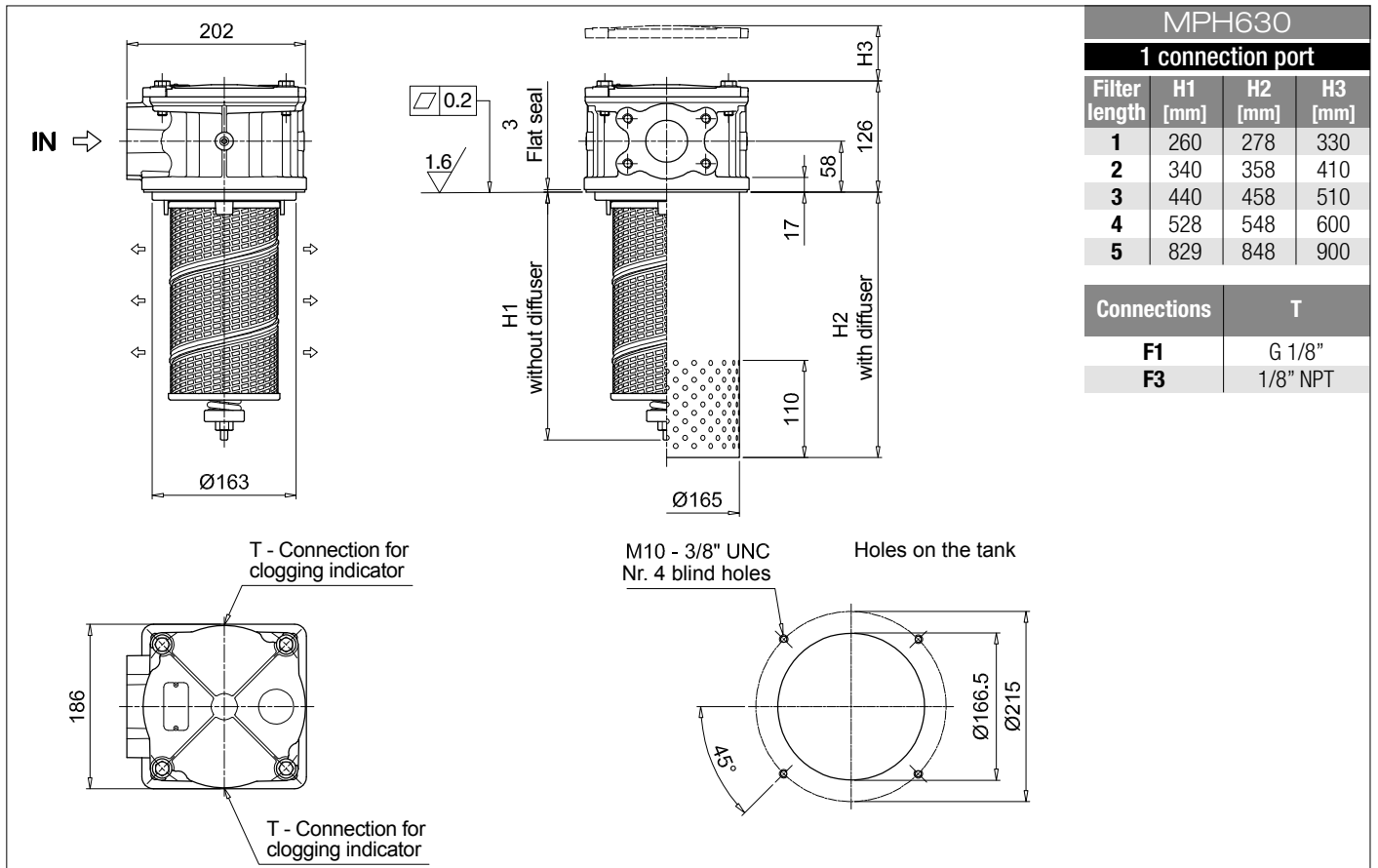
Seals	Execution
<b>A</b> NBR	<b>P01</b> MP Filtri standard
<b>V</b> FPM	<b>Pxx</b> Customized

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator



# MPH MPH660

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example: MPH660									
<b>MPH660</b>	4	C	D	S	A	F2	A10	P01		
<b>Length</b>										
4   5										
<b>Bypass valve</b>										
S Without bypass	C 1.75 bar	E 2.5 bar								
<b>Diffuser and magnetic filter</b>										
D With diffuser, with magnetic filter										
F With diffuser, without magnetic filter										
O Without diffuser, with magnetic filter										
E Without diffuser, without magnetic filter										
<b>Air breather</b>										
S Without air breather										
<b>Seals and treatments</b>	Filtration rating									
	Axx	Mxx	Pxx							
A NBR	•	•	•							
V FPM	•	•	•							
W NBR head anodized	•	•	-							
Z FPM head anodized	•	•	-							
<b>Main Connections</b>										
F1 3" SAE 3000 psi/M										
F2 4" SAE 3000 psi/M										
<b>Filtration rating (filter media)</b>										
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									
								<b>Execution</b>		
								P01	MP Filtri standard	
								Pxx	Customized	

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example: MR630			
<b>MR630</b>	5	M25	A	P01
<b>Element length</b>				
4   5				
<b>Filtration rating (filter media)</b>				
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			
		<b>Seals</b>	<b>Execution</b>	
		A NBR	P01 MP Filtri standard	
		V FPM	Pxx Customized	

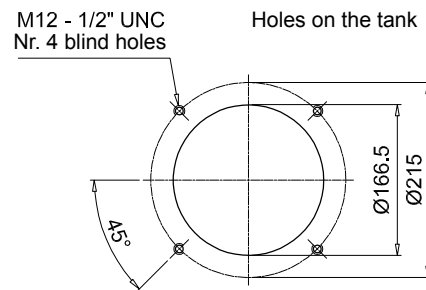
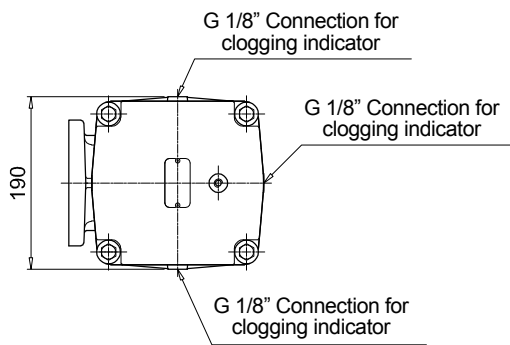
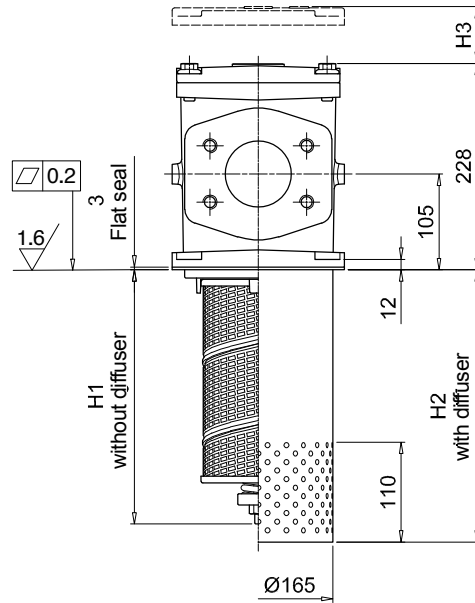
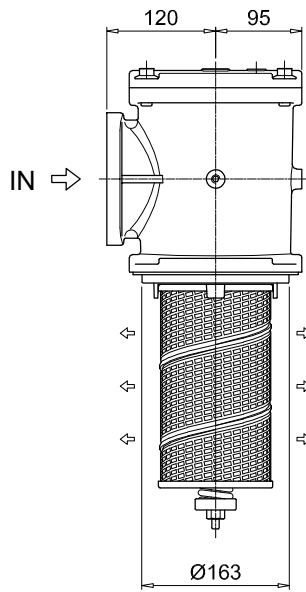
### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator

MPH660			
Filter length	H1 [mm]	H2 [mm]	H3 [mm]
4	538	548	610
5	838	848	910



# MPH MPH850

## Designation & Ordering code

### COMPLETE FILTER

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

**Series and size**  
**MPH850**

**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
<b>A</b> NBR	•	•	•
<b>V</b> FPM	•	•	•
<b>W</b> NBR head anodized	•	•	-
<b>Z</b> FPM head anodized	•	•	-

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

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

Execution	
<b>P01</b>	MP Filtri standard
<b>Pxx</b>	Customized

### FILTER ELEMENT

Configuration example: **MR850** | **1** | **A10** | **A** | **P01**

**Element series and size**  
**MR850**

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

Filtration rating (filter media)	
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm

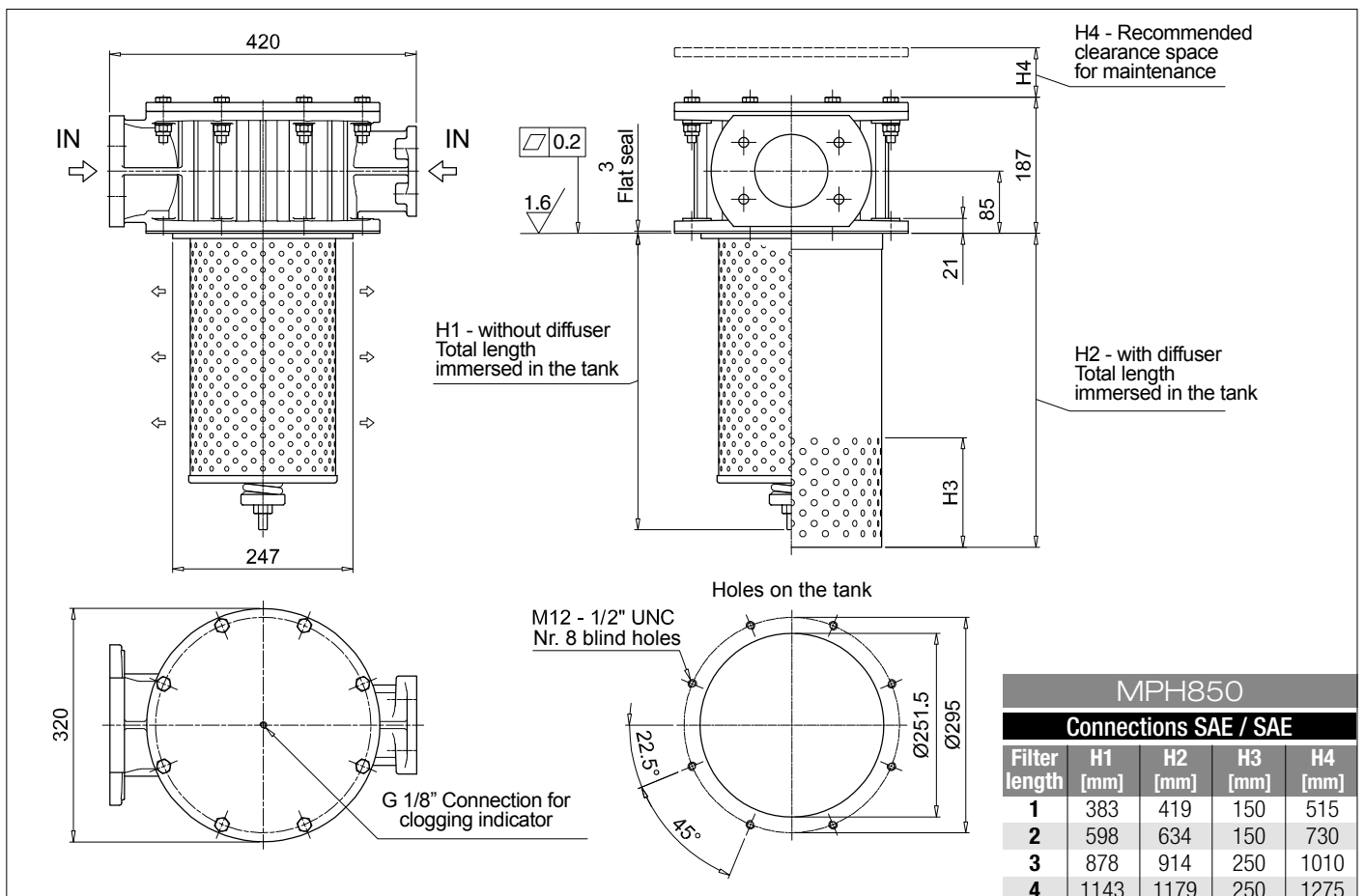
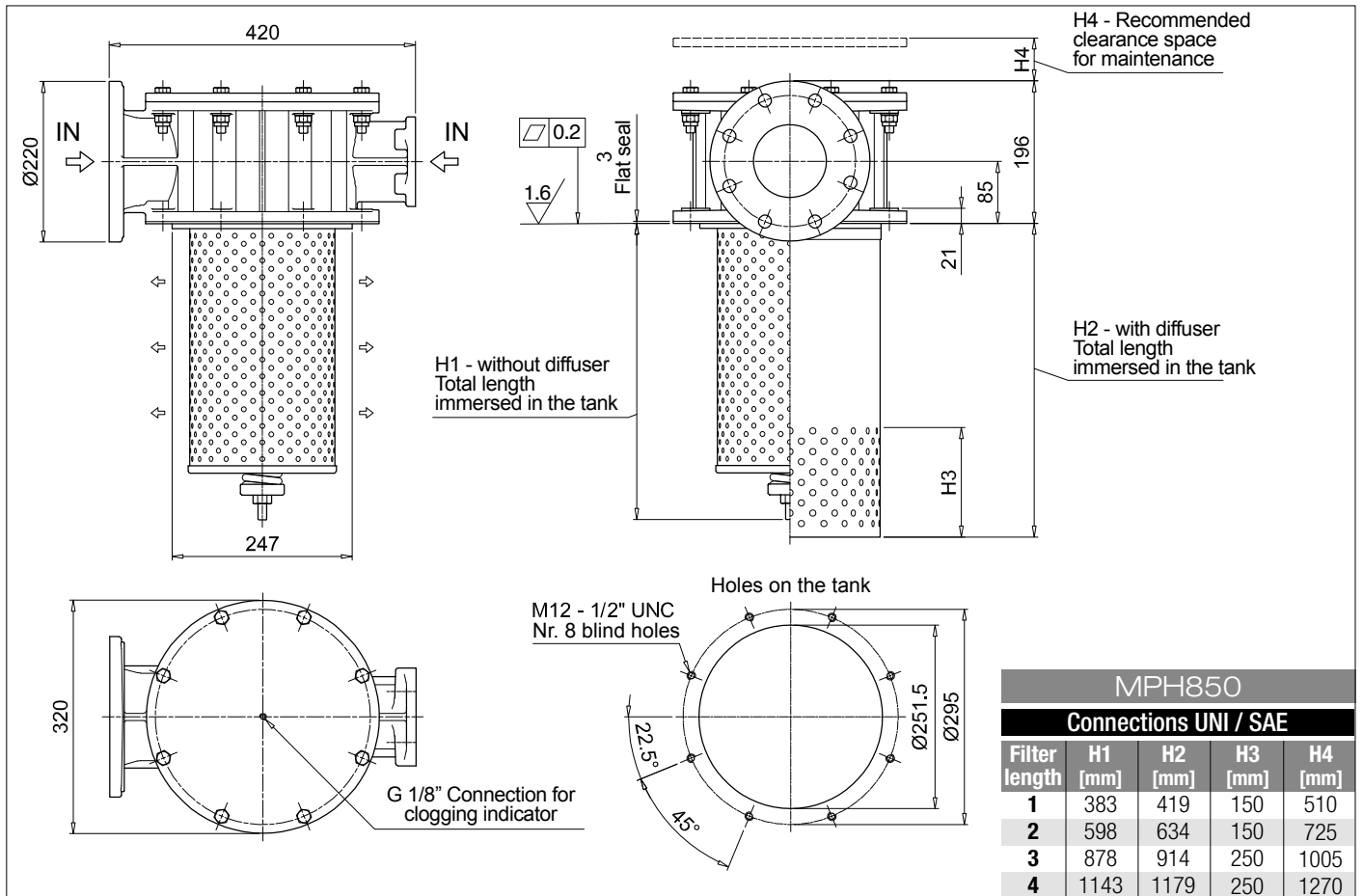
Seals	Execution
<b>A</b> NBR	<b>P01</b> MP Filtri standard
<b>V</b> FPM	<b>Pxx</b> Customized

### CLOGGING INDICATORS

See page 720-721

<b>BVA</b> Axial pressure gauge
<b>BVR</b> Radial pressure gauge
<b>BVP</b> Visual pressure indicator with automatic reset
<b>BVQ</b> Visual pressure indicator with manual reset

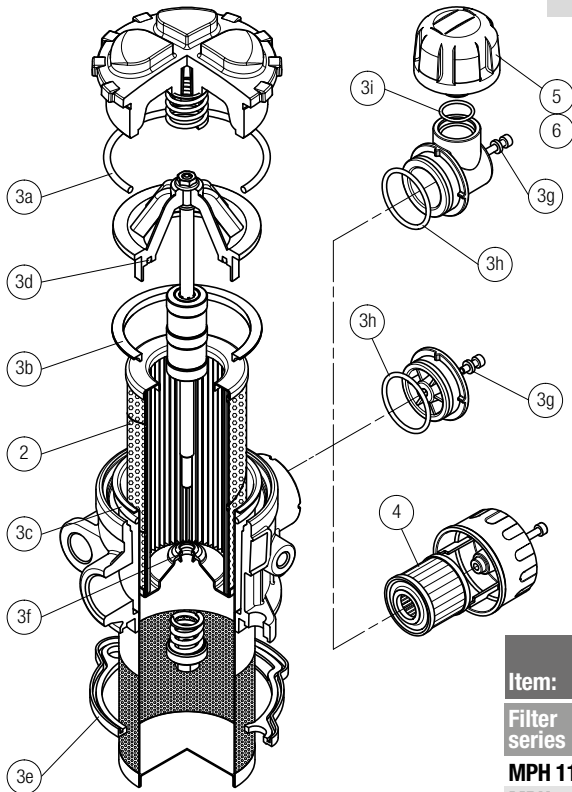
<b>BEA</b> Electrical pressure indicator
<b>BEM</b> Electrical pressure indicator
<b>BLA</b> Electrical / visual pressure indicator



# MPH SPARE PARTS

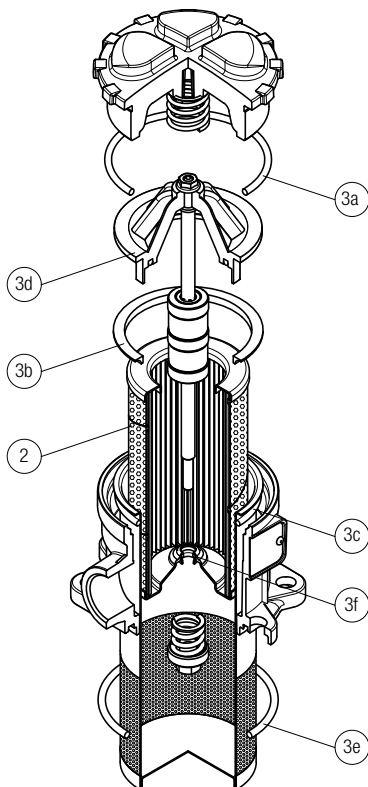
Order number for spare parts

## MPH 110 - 114



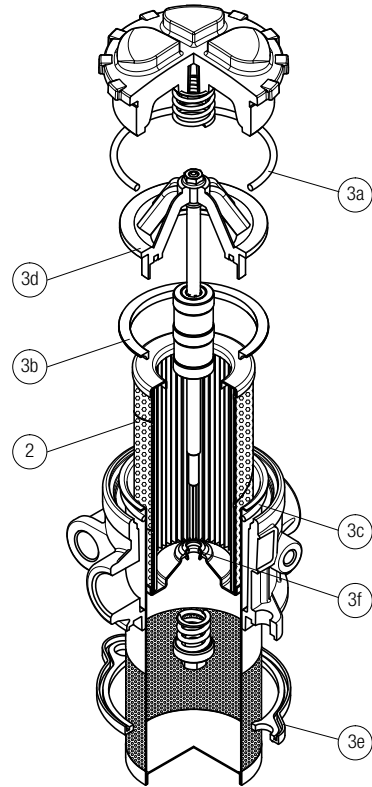
Item:	Q.ty: 1 pc.		Q.ty: 1 pc.		Q.ty: 1 pc.		Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		Air breather filter element - version:				
MPH 110	MPH 114	NBR	FPM	C	D	P		
	See order table	02050565	02050566	10 µm A3L03	10 µm SAP50G3L03A0P01	10 µm SAP50G3L03A1P01		

## MPH 116



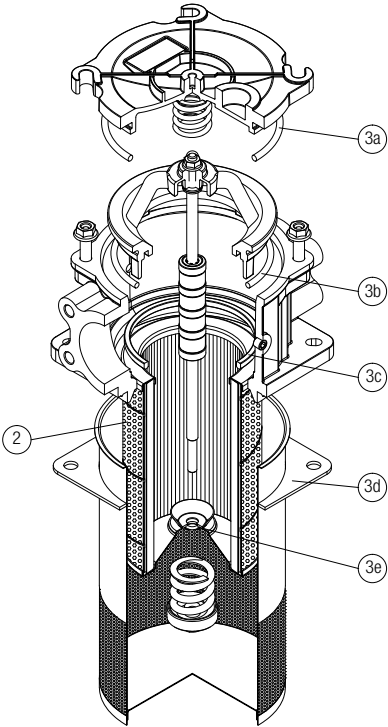
Item:	Q.ty: 1 pc.		Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		
MPH 116	See order table	NBR	FPM	
		02050741	02050742	

## MPH 120



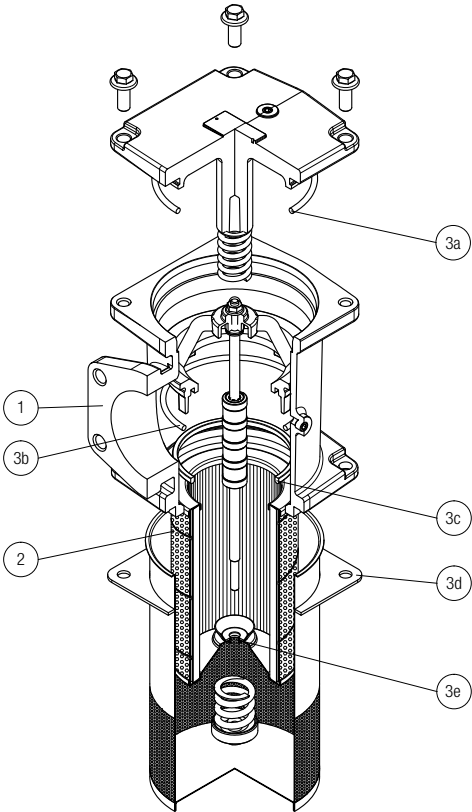
Item:	Q.ty: 1 pc.		Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number		
MPH 120	See order table	NBR	FPM	
		02050567	02050568	

**MPH 250 - 630**



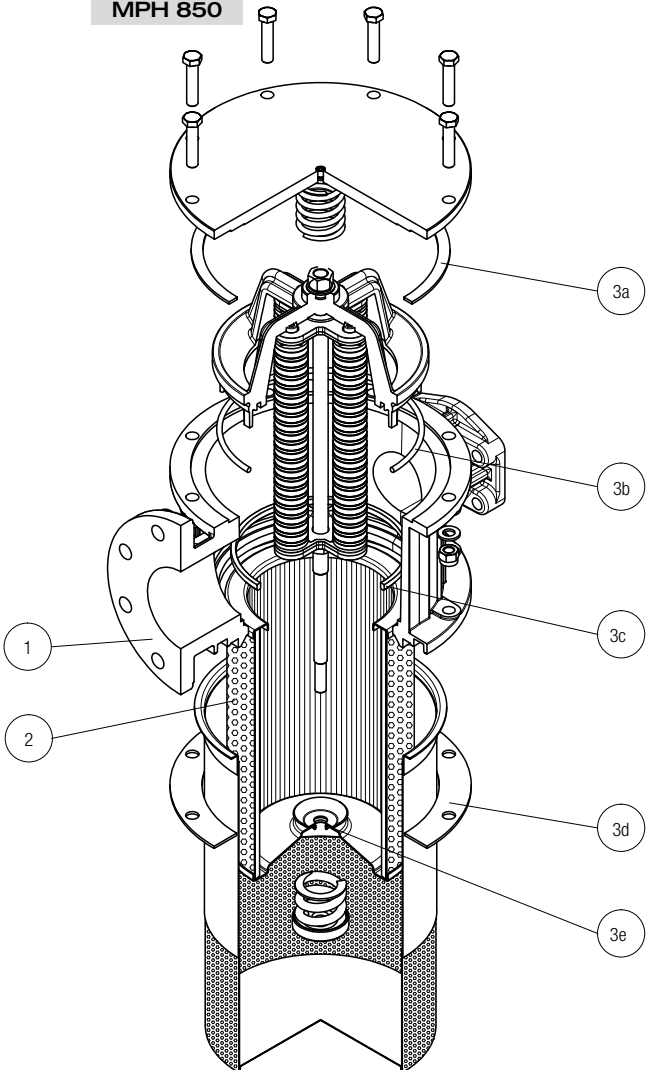
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
MPH 250	MPH 630	NBR	FPM
	2	3 (3a ÷ 3e)	
	See order table	02050151	02050152
	See order table	02050153	02050154

**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
	See order table	02050155	02050156

**MPH 850**



# Accessories

## DIFFUSER WITH FAST LOCK CONNECTION

Configuration example: **DFS 32 A 075**

Series	Size	Ø D [mm]	Version	Length
<b>DFS</b>	<b>40</b>	<b>40</b>	<b>A</b> Standard	<b>075</b> Standard

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

## DIPSTICK

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

Series	Length	H [mm]	Seals	Execution
<b>DPT</b>	<b>15</b>	<b>134</b>	<b>A</b> NBR	<b>P01</b> MP Filtri standard
	<b>20</b>	<b>184</b>	<b>V</b> FPM	<b>Pxx</b> Customized
	<b>25</b>	<b>234</b>		
	<b>30</b>	<b>284</b>		
	<b>35</b>	<b>334</b>		

**Materials**

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

**Technical data**

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

**Fastening**

- M8** Fastening with screws  $\varnothing D = M8$
- M10** Fastening with screws  $\varnothing D = M10$

## FILLER PLUG

**Materials**

- Body: Polyamide
- Seal: NBR

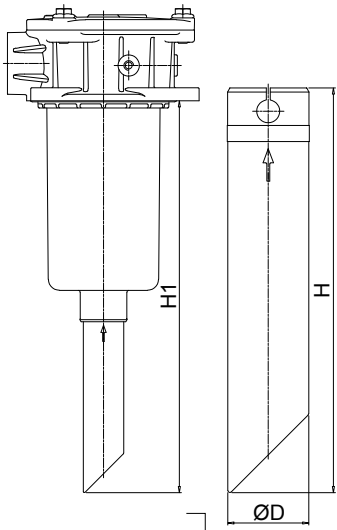
**Technical data**

Tightening torque: 15 N·m

O-Ring 3106

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

## POLYAMIDE EXTENSION TUBE



H1 - Total length immersed in the tank

Conf. example: **TE** **40** **A** **250**

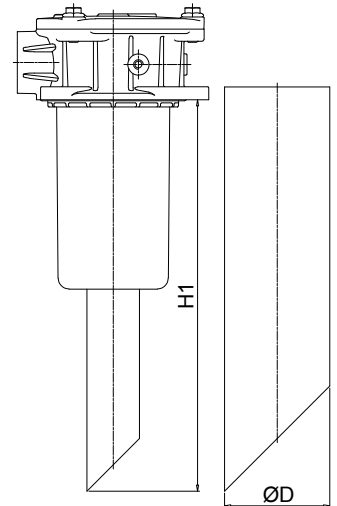
Series	Length	H [mm]	25-32-40	51-62
<b>TE</b>	<b>200</b>	200	•	•
<b>250</b>	<b>250</b>	250	•	-
<b>300</b>	<b>300</b>	300	•	•
<b>350</b>	<b>350</b>	350	•	-
<b>400</b>	<b>400</b>	400	•	•
<b>450</b>	<b>450</b>	450	•	-
<b>500</b>	<b>500</b>	500	•	•
<b>600</b>	<b>600</b>	600	-	•

Size	Ø D [mm]
<b>25</b>	25
<b>32</b>	32
<b>40</b>	40
<b>51</b>	51
<b>62</b>	62

Material **A** Polyamide

COMPATIBILITY TABLE																				
Filter series	Filter size			Filter length	Tube length															
					TE25	TE32	TE40	TE51	TE62	200	250	300	350	400	450	500	600			
MPF	30			1	•	-	-	-	-	-	266	316	366	416	466	516	566	-		
MPF	100	104	110	1	-	•	-	-	-	-	275	325	375	425	475	525	575	-		
				2	-	•	-	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	•	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPFX	100	104	110	1	-	-	•	-	-	-	277	327	377	427	477	527	577	-		
				2	-	-	•	-	-	-	-	322	372	422	472	522	572	622	-	
				3	-	-	-	-	-	-	-	-	400	450	500	550	600	650	700	-
				4	-	-	-	-	-	-	-	-	502	552	602	652	702	752	802	-
MPF	181	182	184	1	-	-	•	-	-	-	410	460	510	560	610	660	710	-		
				2	-	-	•	-	-	-	-	623	673	723	773	823	873	923	-	
MPFX	400	410	450	451	1	-	-	-	•	-	620	-	720	-	820	-	920	1020		
					2	-	-	-	-	•	-	-	352	-	452	-	552	-	652	752
	750	1	-	-	-	-	•	-	-	411	-	511	-	611	-	711	811			
		3	-	-	-	-	-	•	-	459	-	559	-	659	-	759	859			
MPT	110	114	116	120	1	-	•	-	-	-	278	328	378	428	478	528	578	-		
					2	-	•	-	-	-	-	-	342	392	442	492	542	592	642	-
					3	-	-	-	-	-	-	-	380	430	480	530	580	630	680	-
MPTX	110	114	116	120	1	-	•	-	-	-	273	323	373	423	473	523	573	-		
					2	-	•	-	-	-	-	-	320	370	420	470	520	570	620	-
					3	-	-	•	-	-	-	-	396	446	496	546	596	646	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-
MPTX	110	114	116	120	1	-	-	•	-	-	273	323	373	423	473	523	573	-		
					2	-	-	•	-	-	-	-	318	368	418	468	518	568	618	-
					3	-	-	-	-	-	-	-	396	446	496	546	596	656	696	-
					4	-	-	-	-	-	-	-	498	548	598	648	698	748	798	-

## STEEL EXTENSION TUBE



H1

ØD

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

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

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

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

## DIFFERENTIAL PRESSURE INDICATORS

Series	Configuration example 1:	DE	M	20	H	F	50	P01	
<b>DE</b> Electrical differential pressure indicator	Configuration example 2:	DE	U	50	V	A	50	P01	UL
<b>DL</b> Electrical/Visual differential pressure indicator	Configuration example 3:	DL	E	20	V	A	71	P01	
<b>DT</b> Electrical differential pressure indicator	Configuration example 4:	DT	A	20	H	F	70	P01	
<b>DV</b> Visual differential pressure indicator	Configuration example 5:	DV	M	20	V			P01	

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series	Configuration example	T2	H
<b>T2</b> Plug			
<b>T4</b> Plug			

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-

# MPI series

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



## 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

### $\Delta p$ 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 [dm<sup>3</sup>]

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

Flow rates [l/min]

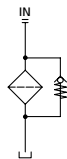
Filters series	Length	A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>MPI 100</b>	<b>1</b>	26	29	72	79	107	282	164	190
	<b>2</b>	43	46	112	114	161	318	164	190
	<b>3</b>	64	72	132	156	178	324	219	251
	<b>4</b>	90	99	184	198	216	324	266	302
	<b>5</b>	117	128	201	219	244	324	282	318
<b>MPI 250</b>	<b>1</b>	93	102	210	251	315	1093	339	383
	<b>2</b>	124	151	327	412	421	1122	460	514
	<b>3</b>	189	221	418	445	500	1137	544	616
	<b>4</b>	261	304	592	670	766	1166	832	923
<b>MPI 630</b>	<b>1</b>	160	200	369	423	518	1894	565	632
	<b>2</b>	240	257	571	611	1045	1929	1137	1285
	<b>3</b>	330	374	745	788	1308	1938	1416	1577
	<b>4</b>	374	403	887	1010	1348	1956	1448	1612
	<b>5</b>	625	698	1210	1257	1723	2121	1839	1929
<b>MPI 850</b>	<b>1</b>	775	1041	1246	1568	2242	3311	2371	2625
	<b>2</b>	1176	1522	1682	1747	2449	3378	2684	2886
	<b>3</b>	1490	1914	1995	2014	3035	3405	3144	3220
	<b>4</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

Hydraulic symbol

Filter series	Style 1 connection
<b>MPI 100</b>	•
<b>MPI 250</b>	•
<b>MPI 630</b>	•
<b>MPI 850</b>	•



# MPI MPI100 - MPI250 - MPI630 - MPI850

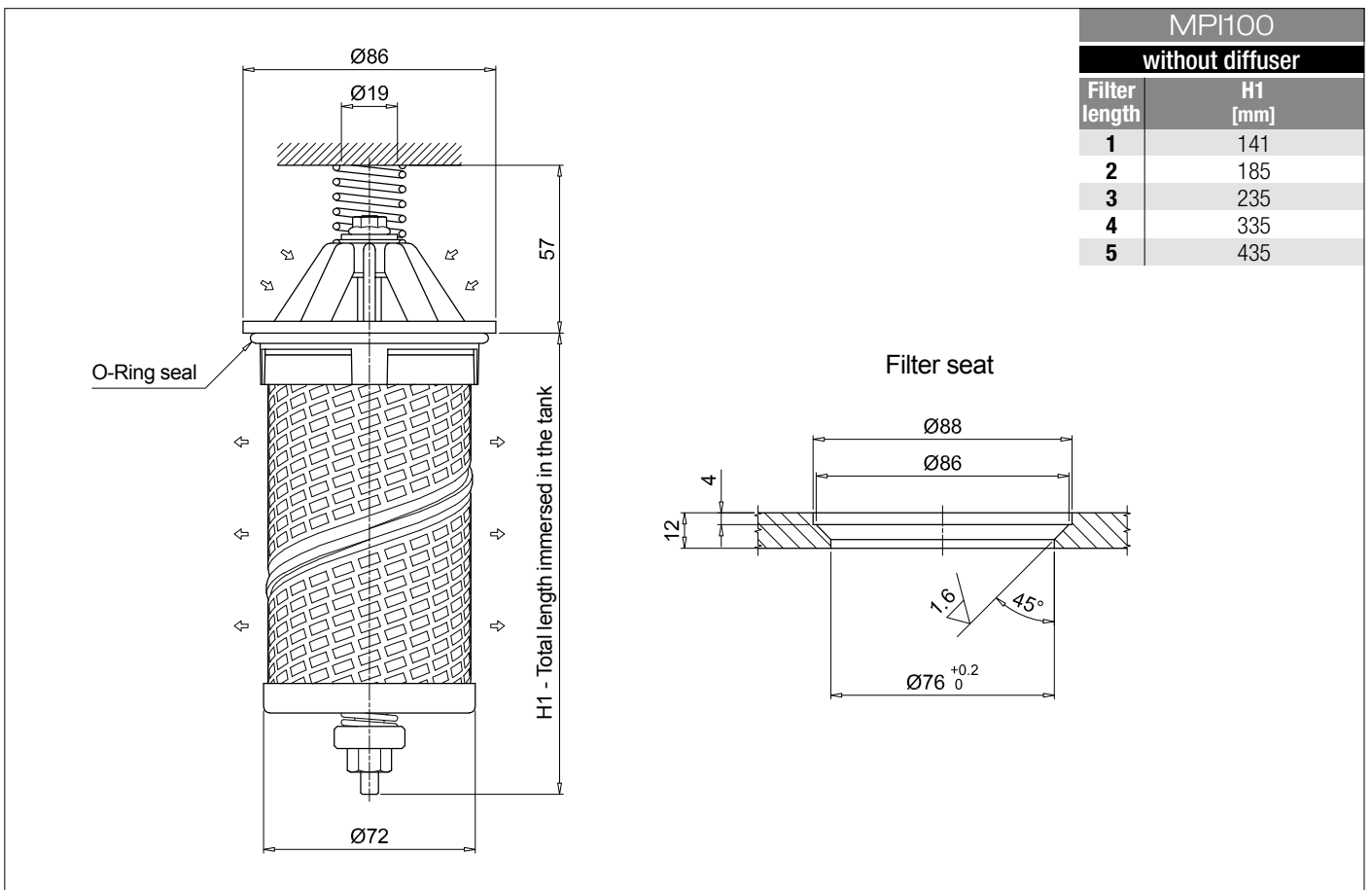
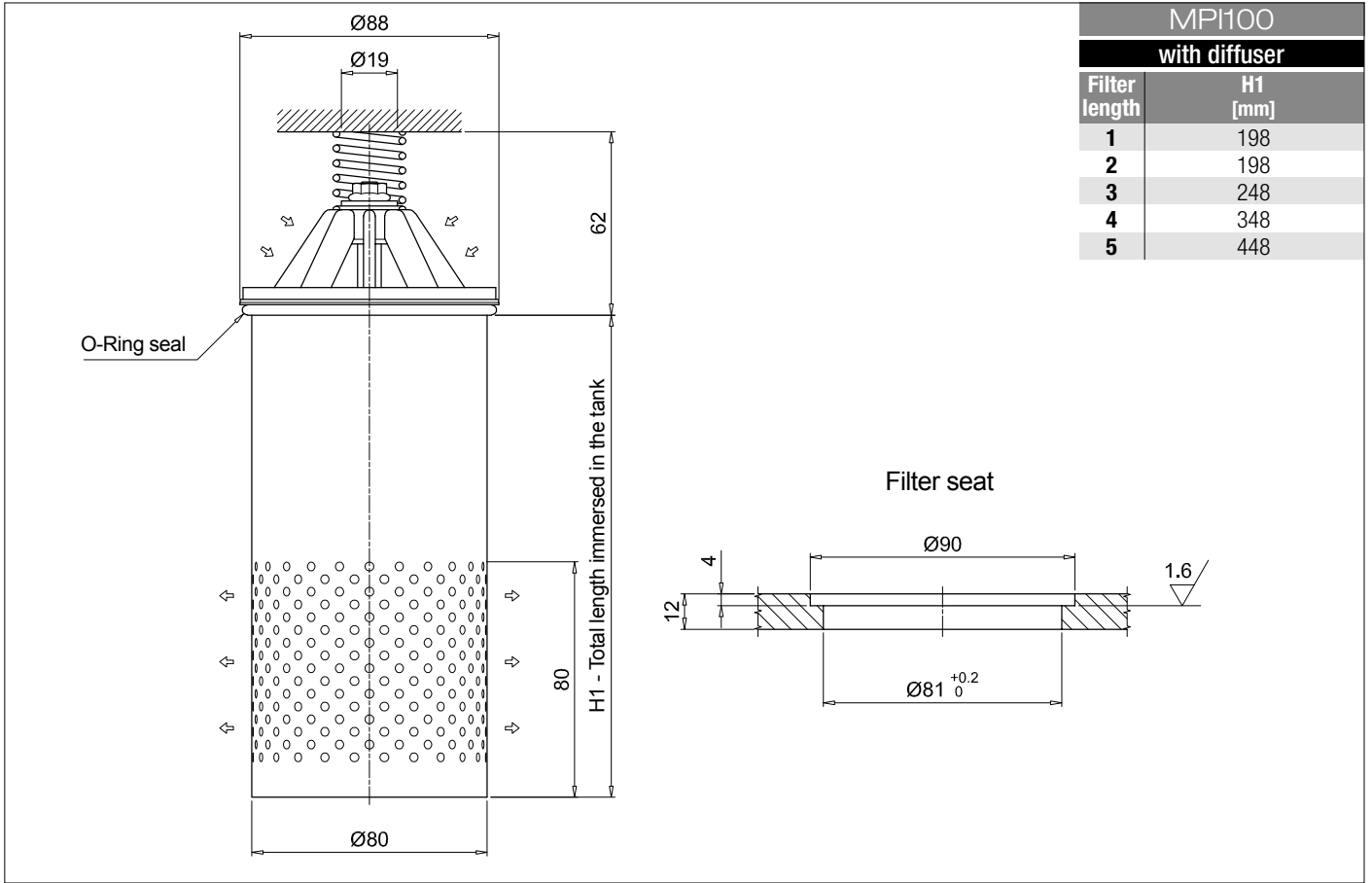
## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>					Configuration example 1: <b>MPI100</b>   <b>1</b>   <b>C</b>   <b>D</b>   <b>A</b>   <b>A10</b>   <b>P01</b>						
<b>MPI100</b>					Configuration example 2: <b>MPI630</b>   <b>5</b>   <b>E</b>   <b>D</b>   <b>Z</b>   <b>M25</b>   <b>P01</b>						
<b>MPI250</b>											
<b>MPI630</b>											
<b>MPI850</b>											
<b>Length</b>											
<b>1</b>	•	•	•	•							
<b>2</b>	•	•	•	•							
<b>3</b>	•	•	•	•							
<b>4</b>	•	•	•	•							
<b>5</b>	•	-	•	-							
<b>Bypass valve</b>											
<b>S</b> Without bypass	•	•	•	•							
<b>C</b> 1.75 bar	•	•	•	•							
<b>E</b> 2.5 bar	•	•	•	-							
<b>Diffuser and magnetic filter</b>											
<b>D</b> With diffuser, with magnetic filter											
<b>F</b> With diffuser, without magnetic filter											
<b>O</b> Without diffuser, with magnetic filter											
<b>E</b> Without diffuser, without magnetic filter											
					<b>Filtration rating</b>						
<b>Seals and treatments</b>					<b>Axx</b>	<b>Mxx</b>	<b>Pxx</b>				
<b>A</b> NBR					•	•	•				
<b>V</b> FPM					•	•	•				
<b>W</b> NBR head anodized					•	•	-				
<b>Z</b> FPM head anodized					•	•	-				
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm					<b>M25</b> Wire mesh 25 µm						
<b>A06</b> Inorganic microfiber 6 µm					<b>M60</b> Wire mesh 60 µm						
<b>A10</b> Inorganic microfiber 10 µm					<b>M90</b> Wire mesh 90 µm						
<b>A16</b> Inorganic microfiber 16 µm					<b>P10</b> Resin impregnated paper 10 µm						
<b>A25</b> Inorganic microfiber 25 µm					<b>P25</b> Resin impregnated paper 25 µm						
					<b>Execution</b>						
					<b>P01</b> MP Filtri standard						
					<b>Pxx</b> Customized						

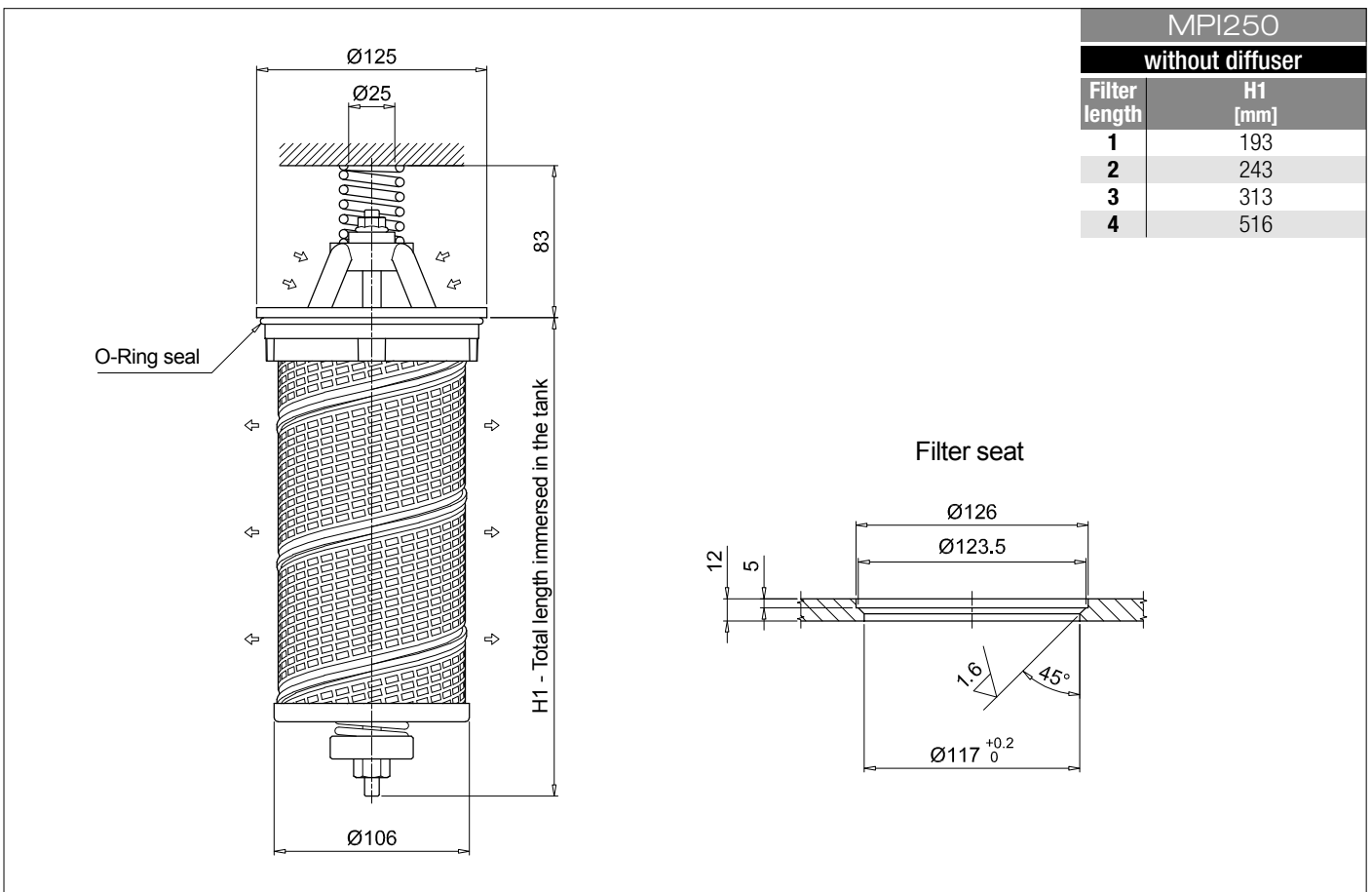
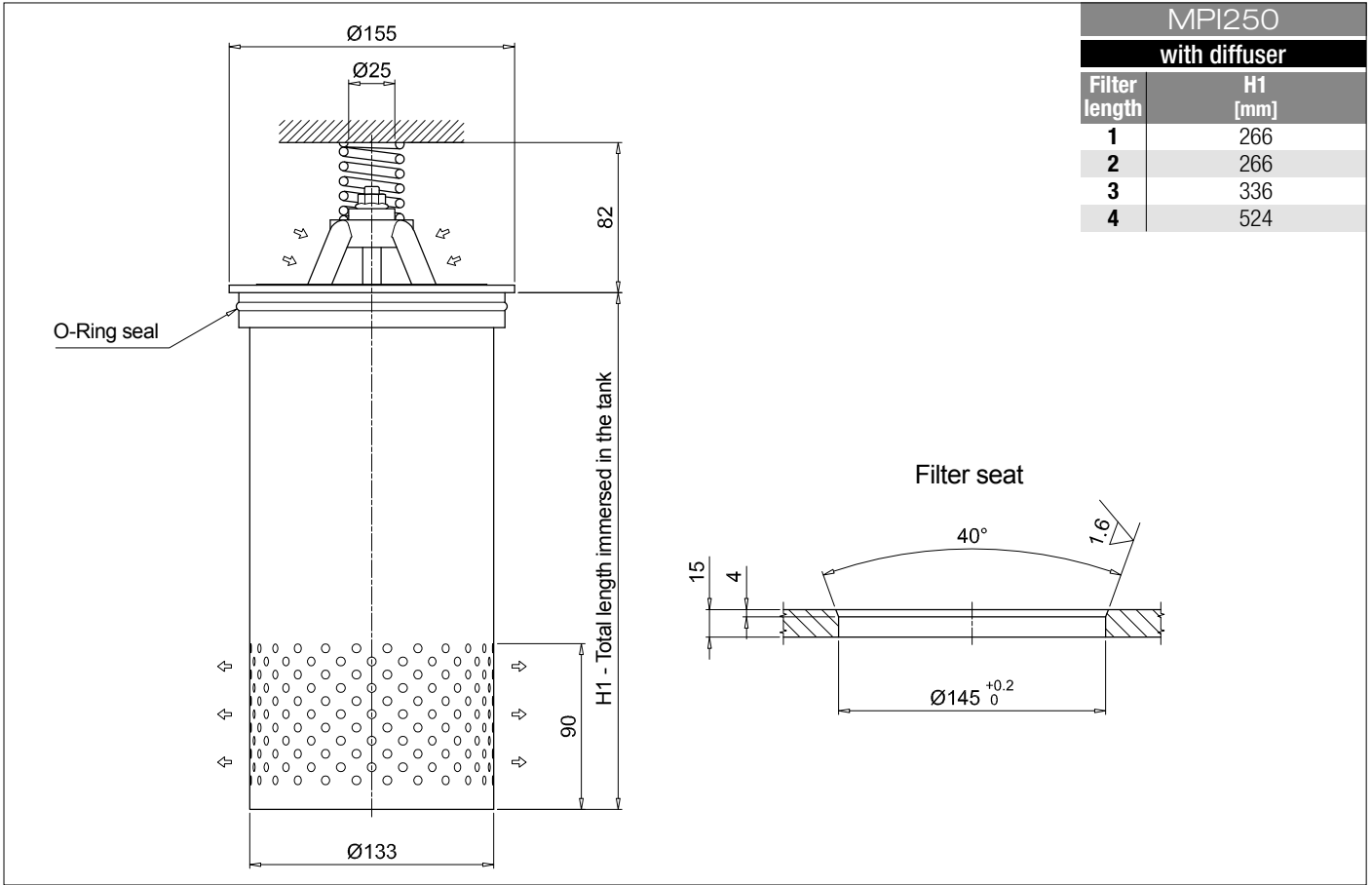
### FILTER ELEMENT

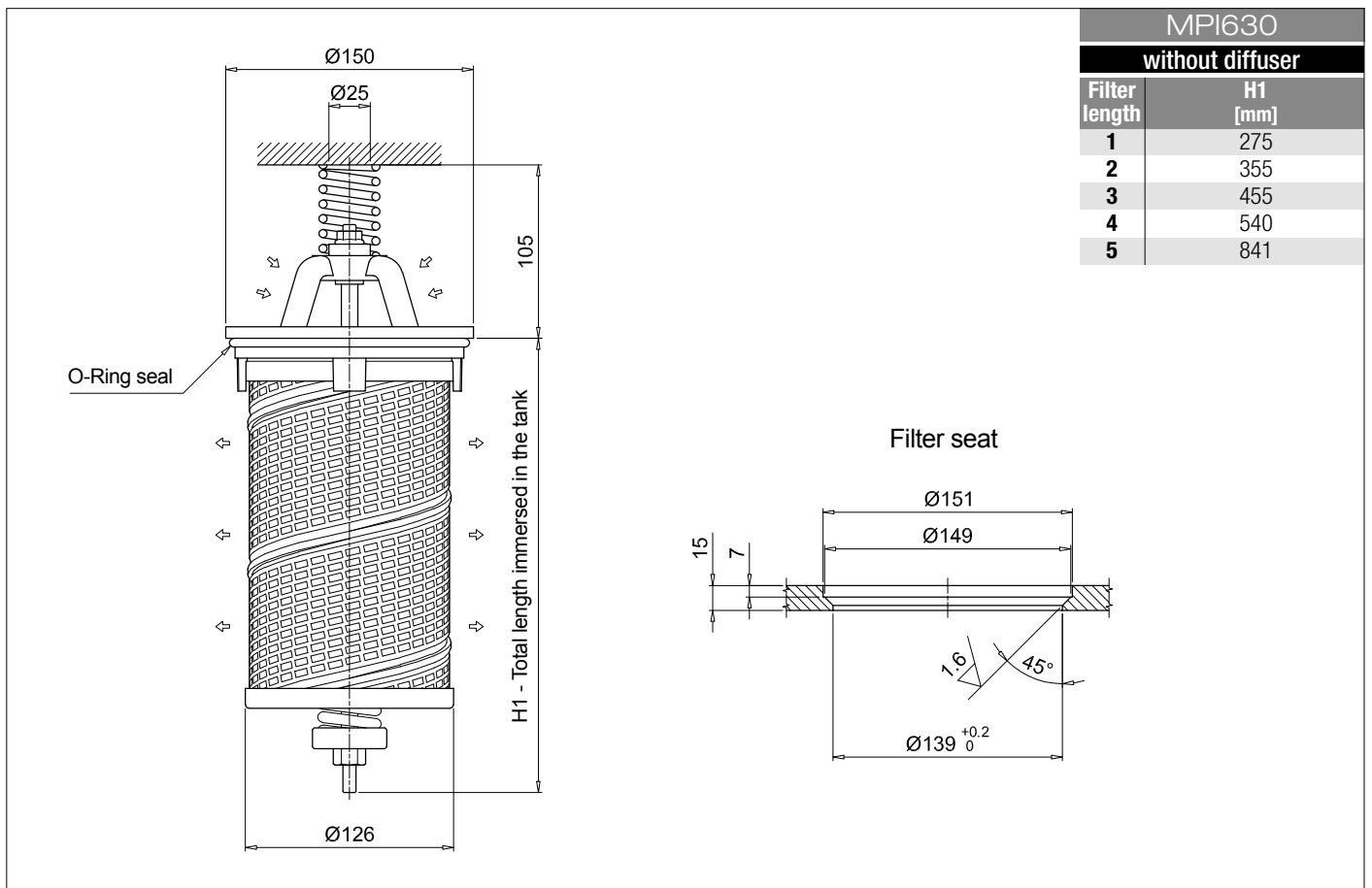
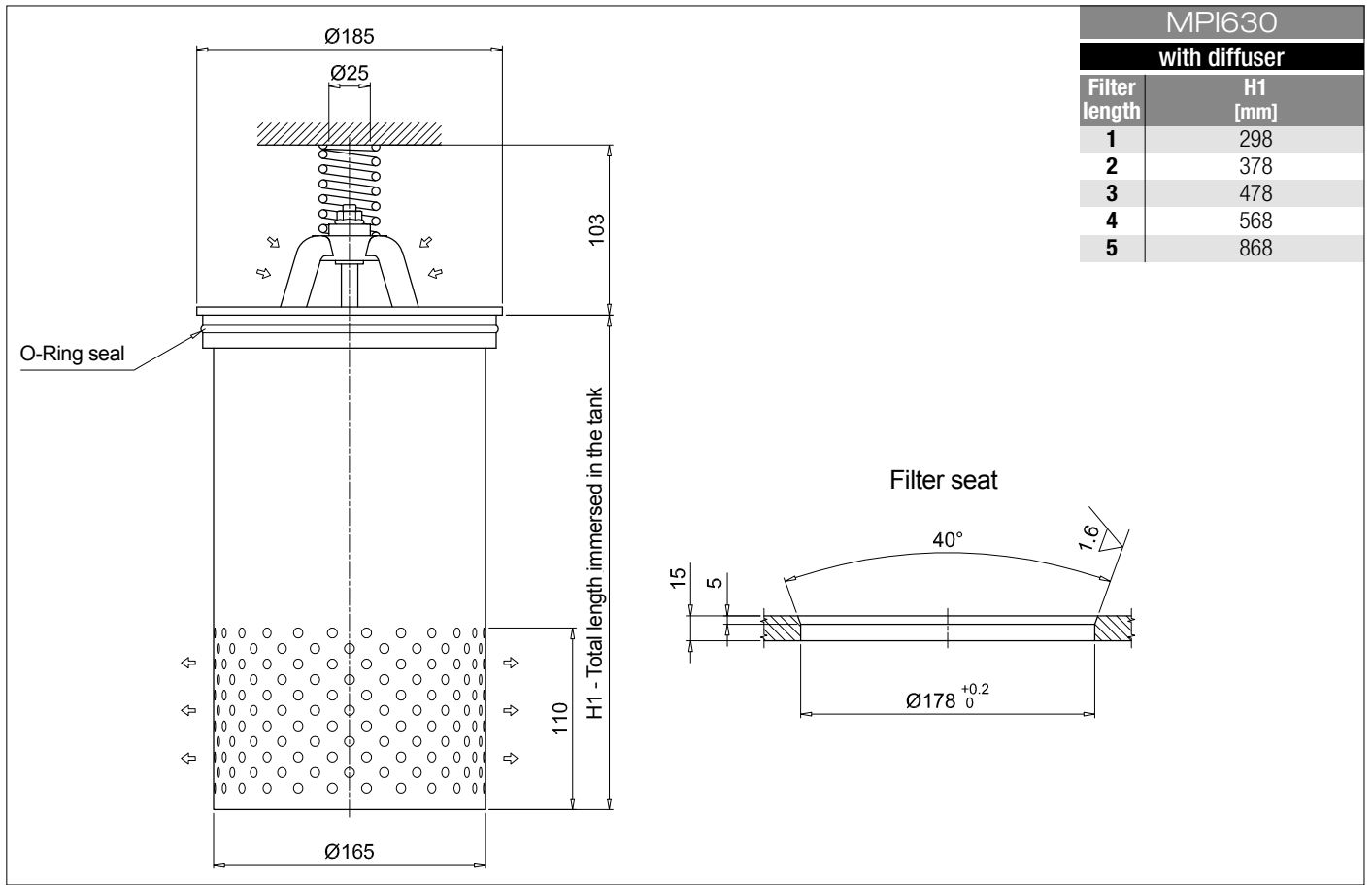
<b>Element series and size</b>					Configuration example 1: <b>MR100</b>   <b>1</b>   <b>A10</b>   <b>A</b>   <b>P01</b>						
<b>MR100</b>					Configuration example 2: <b>MR630</b>   <b>5</b>   <b>M25</b>   <b>V</b>   <b>P01</b>						
<b>MR250</b>											
<b>MR630</b>											
<b>MR850</b>											
<b>Element length</b>											
<b>1</b>	•	•	•	•							
<b>2</b>	•	•	•	•							
<b>3</b>	•	•	•	•							
<b>4</b>	•	•	•	•							
<b>5</b>	•	-	•	-							
<b>Filtration rating (filter media)</b>											
<b>A03</b> Inorganic microfiber 3 µm					<b>M25</b> Wire mesh 25 µm						
<b>A06</b> Inorganic microfiber 6 µm					<b>M60</b> Wire mesh 60 µm						
<b>A10</b> Inorganic microfiber 10 µm					<b>M90</b> Wire mesh 90 µm						
<b>A16</b> Inorganic microfiber 16 µm					<b>P10</b> Resin impregnated paper 10 µm						
<b>A25</b> Inorganic microfiber 25 µm					<b>P25</b> Resin impregnated paper 25 µm						
					<b>Seals</b>						
					<b>A</b> NBR						
					<b>V</b> FPM						
					<b>Execution</b>						
					<b>P01</b> MP Filtri standard						
					<b>Pxx</b> Customized						



# MPI MPI100 - MPI250 - MPI630 - MPI850

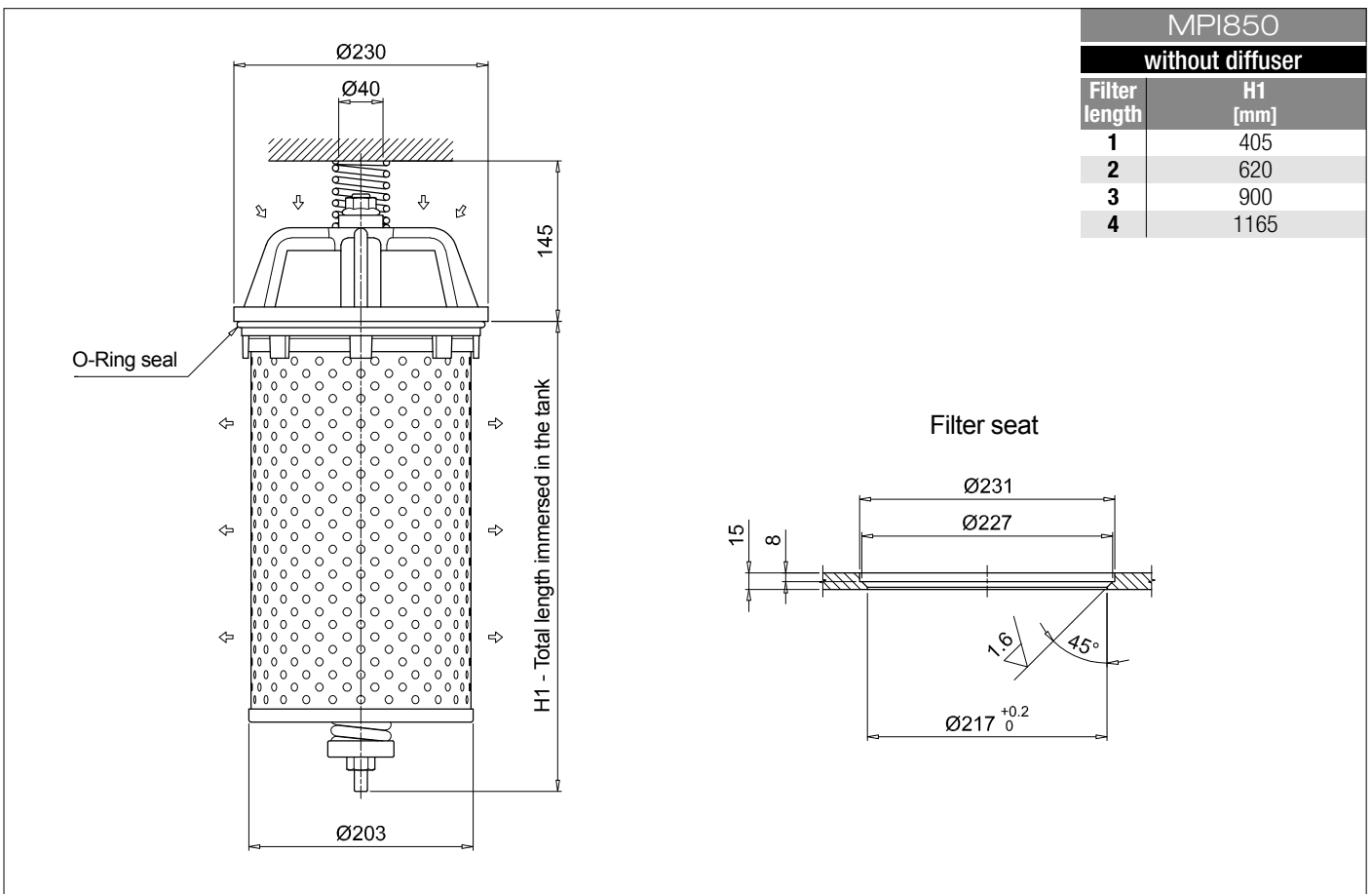
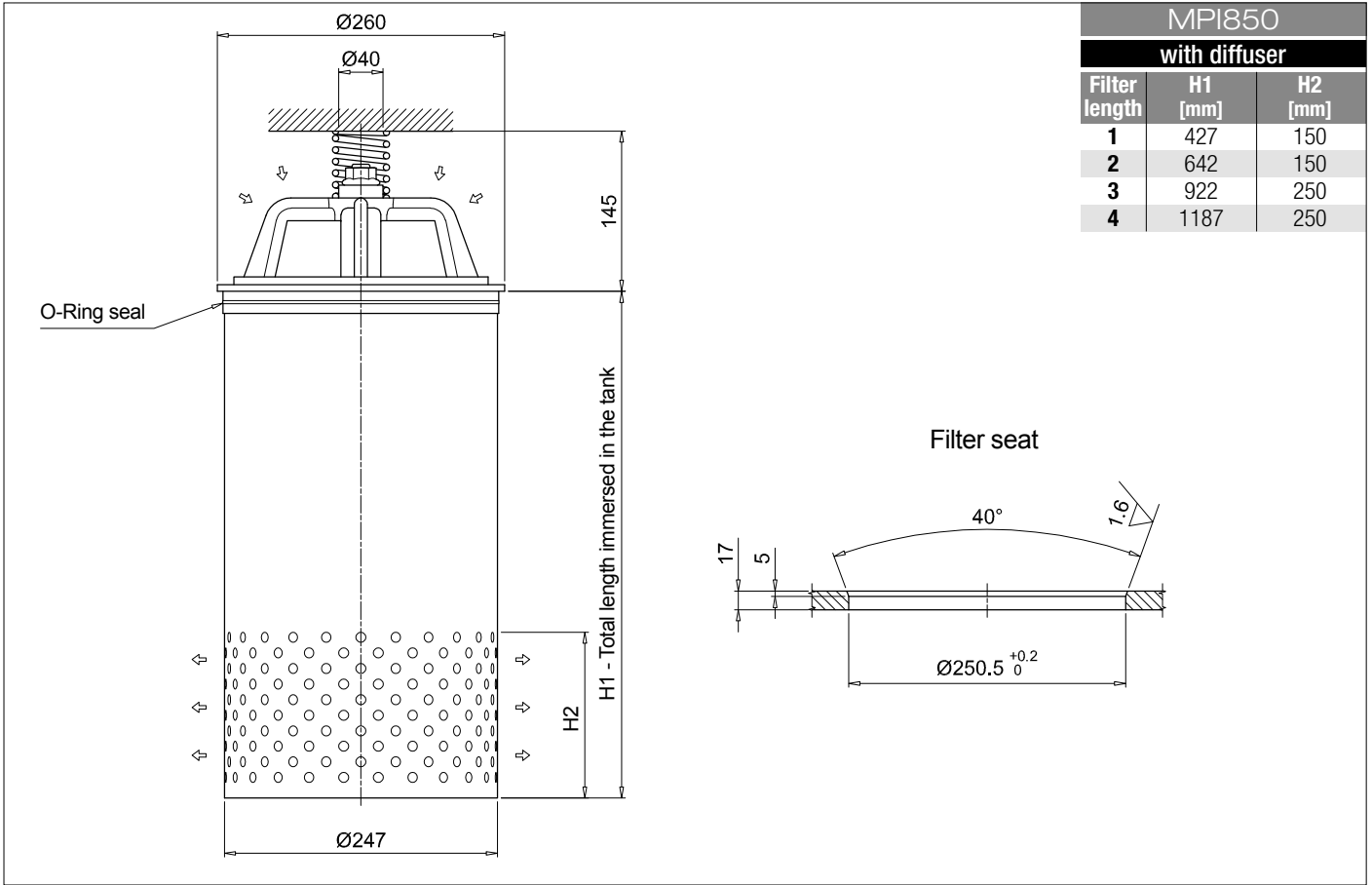
## Dimensions





# MPI MPI100 - MPI250 - MPI630 - MPI850

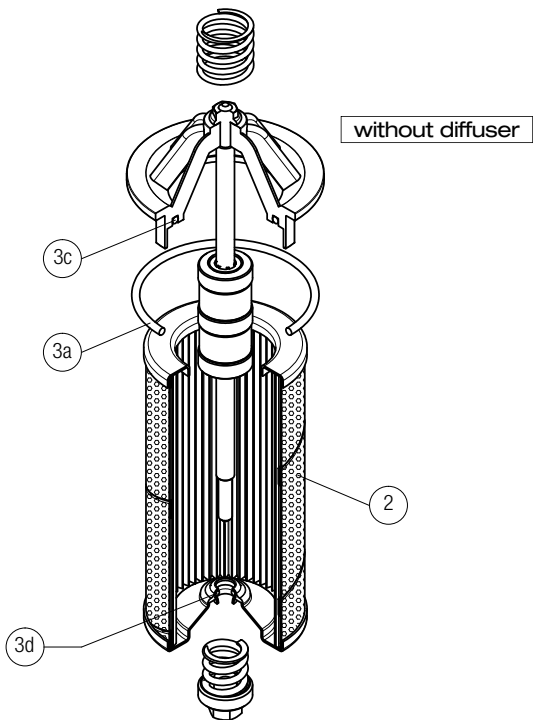
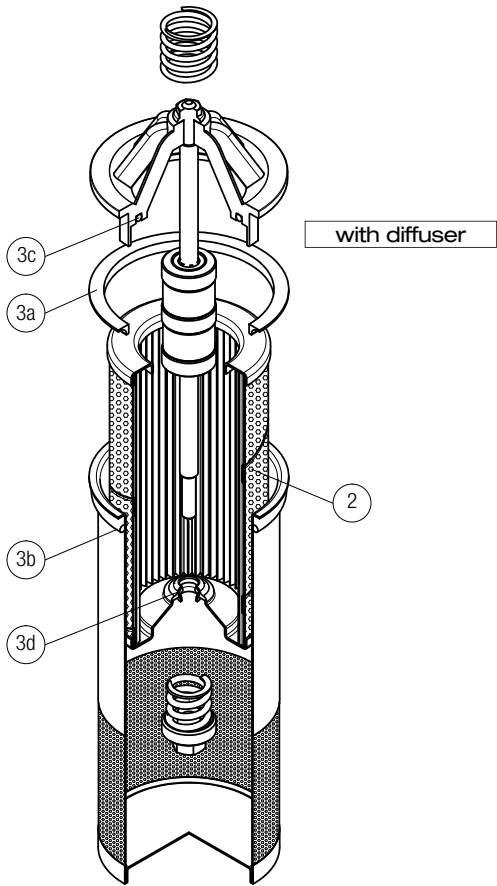
## Dimensions



# MPI SPARE PARTS

Order number for spare parts

## MPI 100



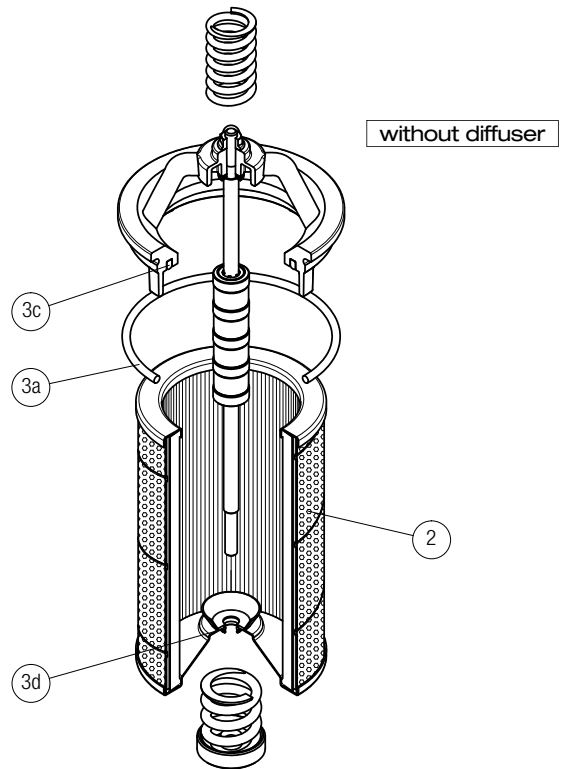
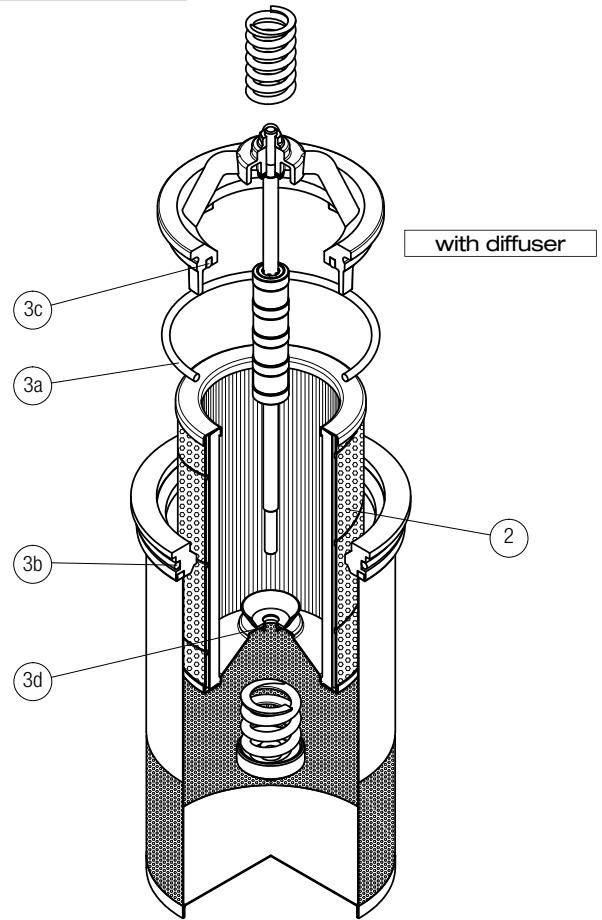
Q.ty: 1 pc.

Q.ty: 1 pc.

Item: **2** **3** (3a ÷ 3d)

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

## MPI 250 - 630



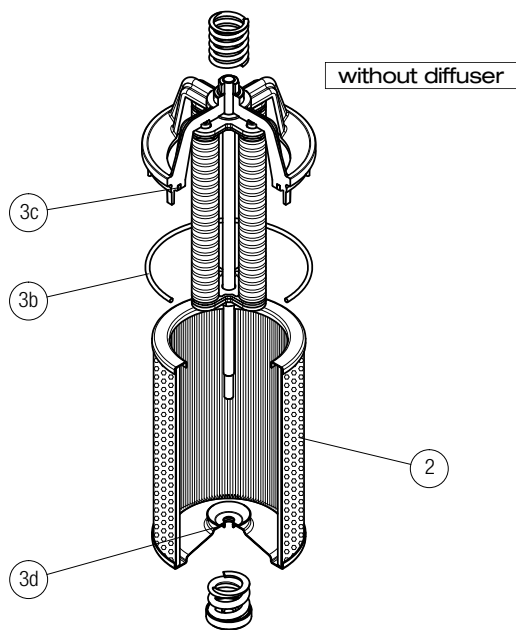
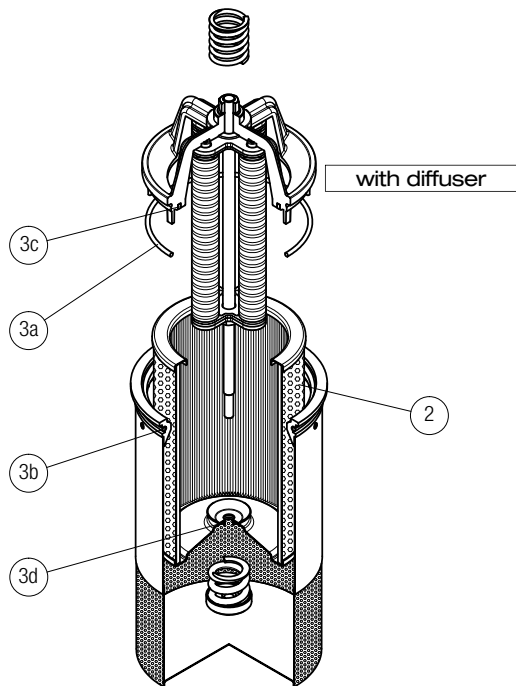
Q.ty: 1 pc.

Q.ty: 1 pc.

Item: **2** **3** (3a ÷ 3d)

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

MPI 850



Q.ty: 1 pc.

Q.ty: 1 pc.

Item:

2

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



## 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 2500 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 [dm<sup>3</sup>]

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

Flow rates [l/min]

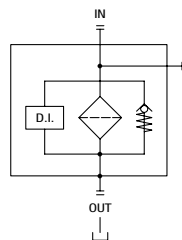
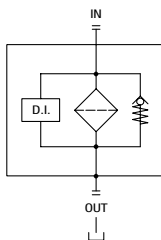
Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>FRI 025</b>	<b>1</b>	6	10	17	19	43	122	43	47
<b>FRI 040</b>	<b>1</b>	19	23	43	45	94	155	94	102
<b>FRI 100</b>	<b>1</b>	32	34	89	92	187	260	187	206
<b>FRI 250</b>	<b>1</b>	144	179	271	300	448	645	448	490
<b>FRI 255</b>	<b>1</b>	144	179	271	300	448	645	448	490
<b>FRI 630</b>	<b>1</b>	242	279	508	577	834	1446	834	911
<b>FRI 850</b>	<b>1</b>	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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

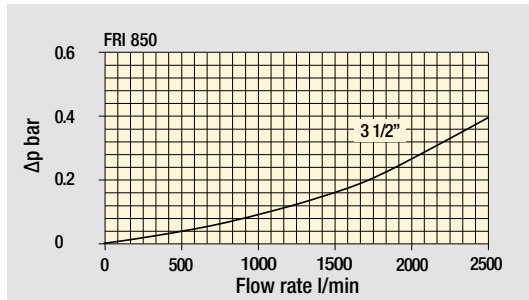
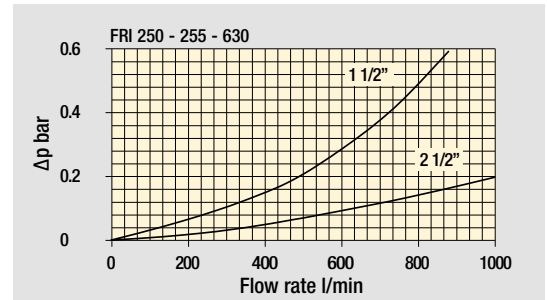
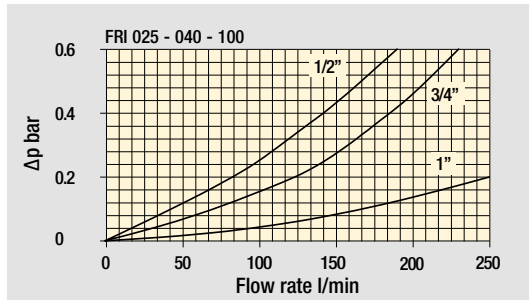
Hydraulic symbols

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

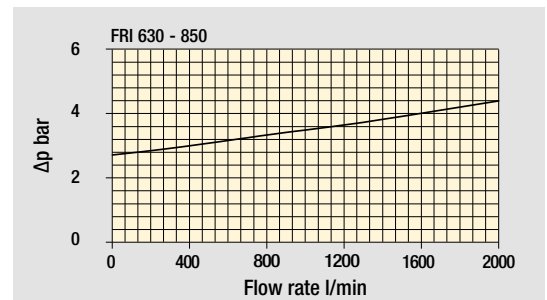
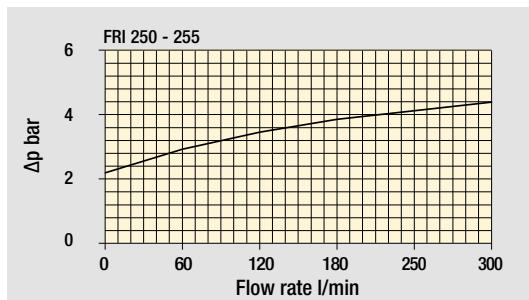
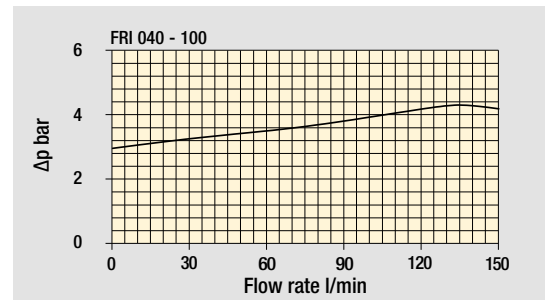
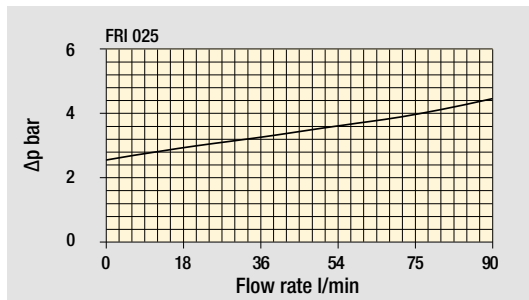


## Pressure drop

### Filter housings $\Delta p$ pressure drop



### Bypass valve pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

# FRI FRI025 - FRI040

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1: <b>FRI025</b> <b>B</b> <b>A</b> <b>G1</b> <b>A25</b> <b>N</b> <b>P01</b>						
<b>FRI025</b>	Configuration example 2: <b>FRI040</b> <b>S</b> <b>V</b> <b>G2</b> <b>M25</b> <b>N</b> <b>P01</b>						
<b>FRI040</b>							
<b>Bypass valve</b>							
<b>B</b> With bypass 2.4 bar							
<b>S</b> Without bypass							
<b>Seals and treatments</b>							
<b>A</b> NBR							
<b>V</b> FPM							
<b>Connections for FRI025</b>	<b>Connections for FRI040</b>						
<b>G1</b> G 1/2"	<b>G 3/4"</b>						
<b>G2</b> 1/2" NPT	<b>3/4" NPT</b>						
<b>G3</b> SAE 8 - 3/4" - 16 UNF	<b>SAE 12 - 1 1/16" - 12 UN</b>						
<b>Filtration rating (filter media)</b>							
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm						
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm						
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm						
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm						
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm						
	<b>Element Δp</b>			<b>Execution</b>			
	<b>N</b> 10 bar			<b>P01</b> MP Filtri standard			
				<b>Pxx</b> Customized			

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1: <b>CU025</b> <b>A25</b> <b>N</b> <b>P01</b>			
<b>CU025</b>	Configuration example 2: <b>CU040</b> <b>M25</b> <b>V</b> <b>P01</b>			
<b>CU040</b>				
<b>Filtration rating (filter media)</b>				
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm			
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm			
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm			
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm			
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm			
<b>Seals and treatments</b>				
<b>N</b> NBR				
<b>V</b> FPM				
	<b>Execution</b>			
	<b>P01</b> MP Filtri standard			
	<b>Pxx</b> Customized			

### CLOGGING INDICATORS

See page 720-721

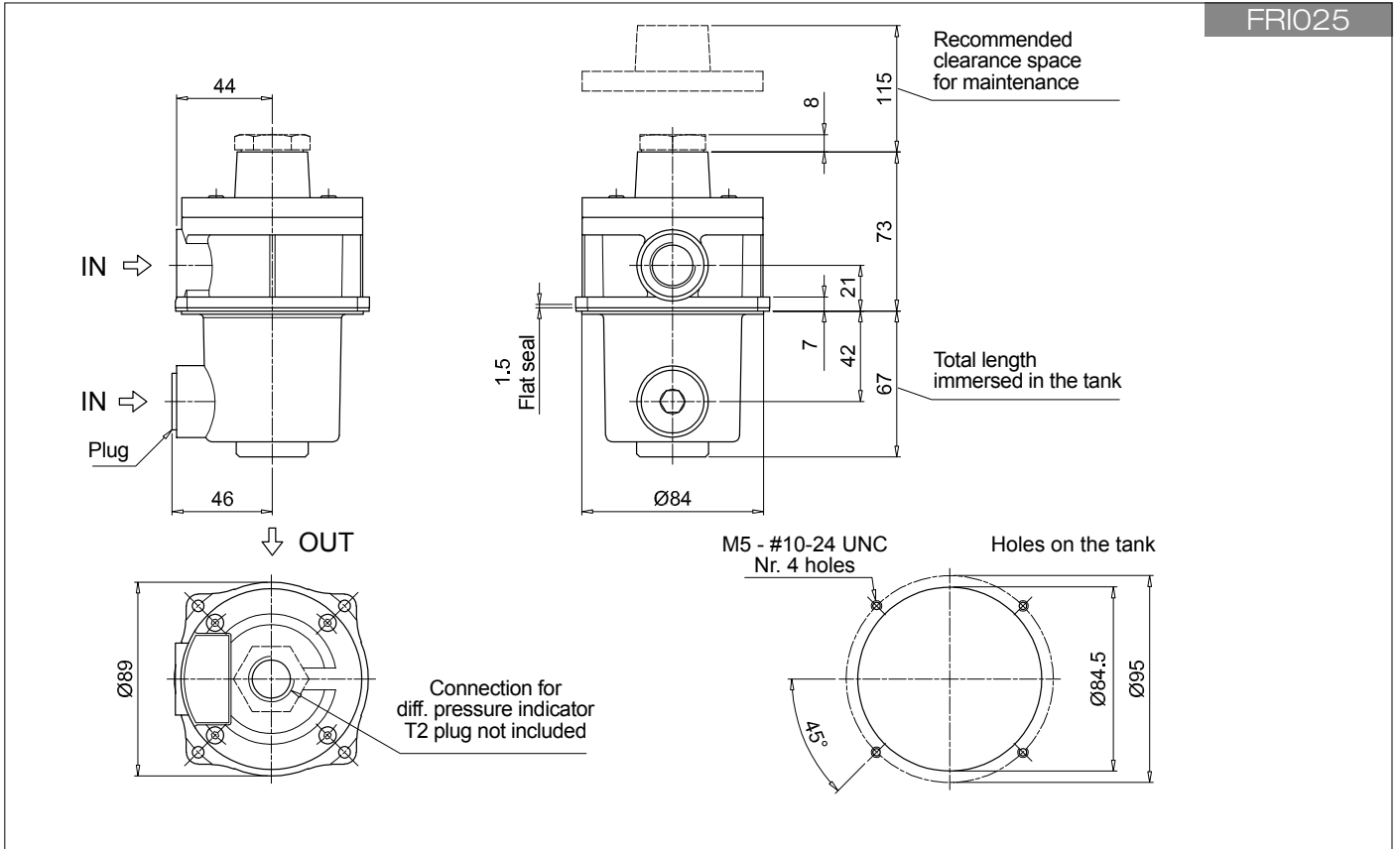
<b>DEA</b> Electrical differential pressure indicator	<b>DLE</b> Electrical / visual differential pressure indicator
<b>DEM</b> Electrical differential pressure indicator	<b>DTA</b> Electronic differential pressure indicator
<b>DEU</b> Electrical differential pressure indicator	<b>DVA</b> Visual differential pressure indicator
<b>DLA</b> Electrical / visual differential pressure indicator	<b>DVM</b> Visual differential pressure indicator

### PLUGS

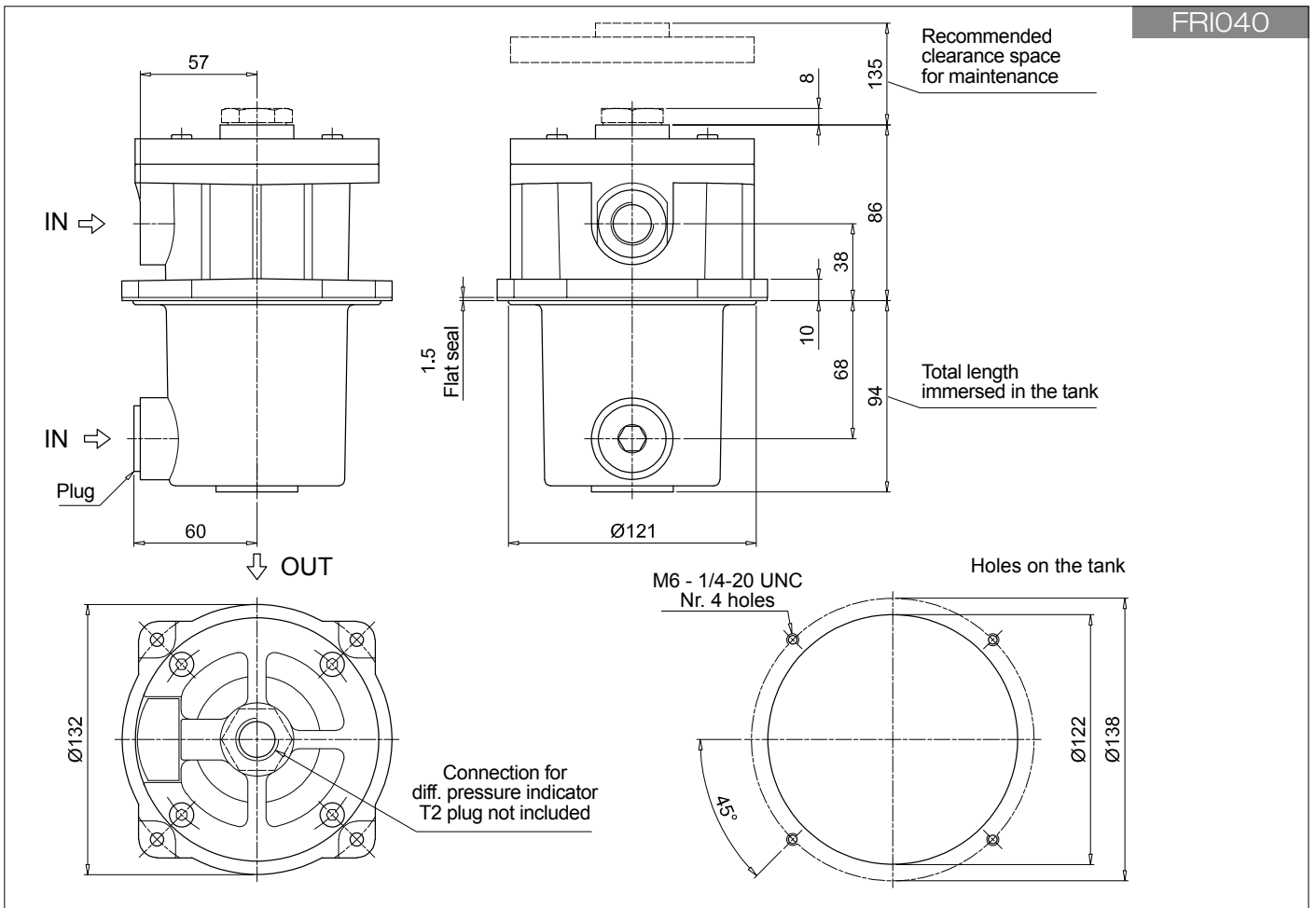
See page 747

<b>T2</b> Plug (not included)
-------------------------------

FRI025



FRI040



# FRI FRI100 - FRI250 - FRI630

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>	Configuration example 1: <b>FRI100</b> <b>B</b> <b>A</b> <b>G1</b> <b>A25</b> <b>N</b> <b>P01</b>						
<b>FRI100</b>	Configuration example 2: <b>FRI630</b> <b>S</b> <b>V</b> <b>F2</b> <b>M25</b> <b>N</b> <b>P01</b>						
<b>FRI250</b>							
<b>FRI630</b>							
<b>Bypass valve</b>							
<b>B</b> With bypass 2.4 bar							
<b>S</b> Without bypass							
<b>Seals and treatments</b>							
<b>A</b> NBR							
<b>V</b> FPM							
<b>Connections for FRI100</b>	<b>Connections for FRI250</b>	<b>Connections for FRI630</b>					
<b>G1</b> G 1"	<b>G 1 1/2"</b>	<b>G 2 1/2"</b>					
<b>G2</b> 1" NPT	<b>1 1/2" NPT</b>	<b>2 1/2" NPT</b>					
<b>G3</b> SAE 16 - 1 5/16" - 12 UN	<b>SAE 24 - 1 7/8" - 12 UN</b>	<b>SAE 32 - 2 1/2" - 12 UN</b>					
<b>F1</b> 1" SAE 3000 psi/M	<b>1 1/2" SAE 3000 psi/M</b>	<b>2 1/2" SAE 3000 psi/M</b>					
<b>F2</b> 1" SAE 3000 psi/UNC	<b>1 1/2" SAE 3000 psi/UNC</b>	<b>2 1/2" SAE 3000 psi/UNC</b>					
<b>Filtration rating (filter media)</b>							
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm						
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm						
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm						
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm						
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm						
		<b>Element Δp</b>		<b>Execution</b>			
		<b>N</b> 10 bar		<b>P01</b> MP Filtri standard			
				<b>Pxx</b> Customized			

### FILTER ELEMENT

<b>Element series and size</b>	Configuration example 1: <b>CU100</b> <b>A25</b> <b>N</b> <b>P01</b>			
<b>CU100</b>	Configuration example 2: <b>CU630</b> <b>M25</b> <b>V</b> <b>P01</b>			
<b>CU250</b>				
<b>CU630</b>				
<b>Filtration rating (filter media)</b>				
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm			
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm			
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm			
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm			
<b>A25</b> Inorganic microfiber 25 µm	<b>P25</b> Resin impregnated paper 25 µm			
<b>Seals and treatments</b>				
<b>N</b> NBR				
<b>V</b> FPM				
			<b>Execution</b>	
			<b>P01</b> MP Filtri standard	
			<b>Pxx</b> Customized	

### CLOGGING INDICATORS

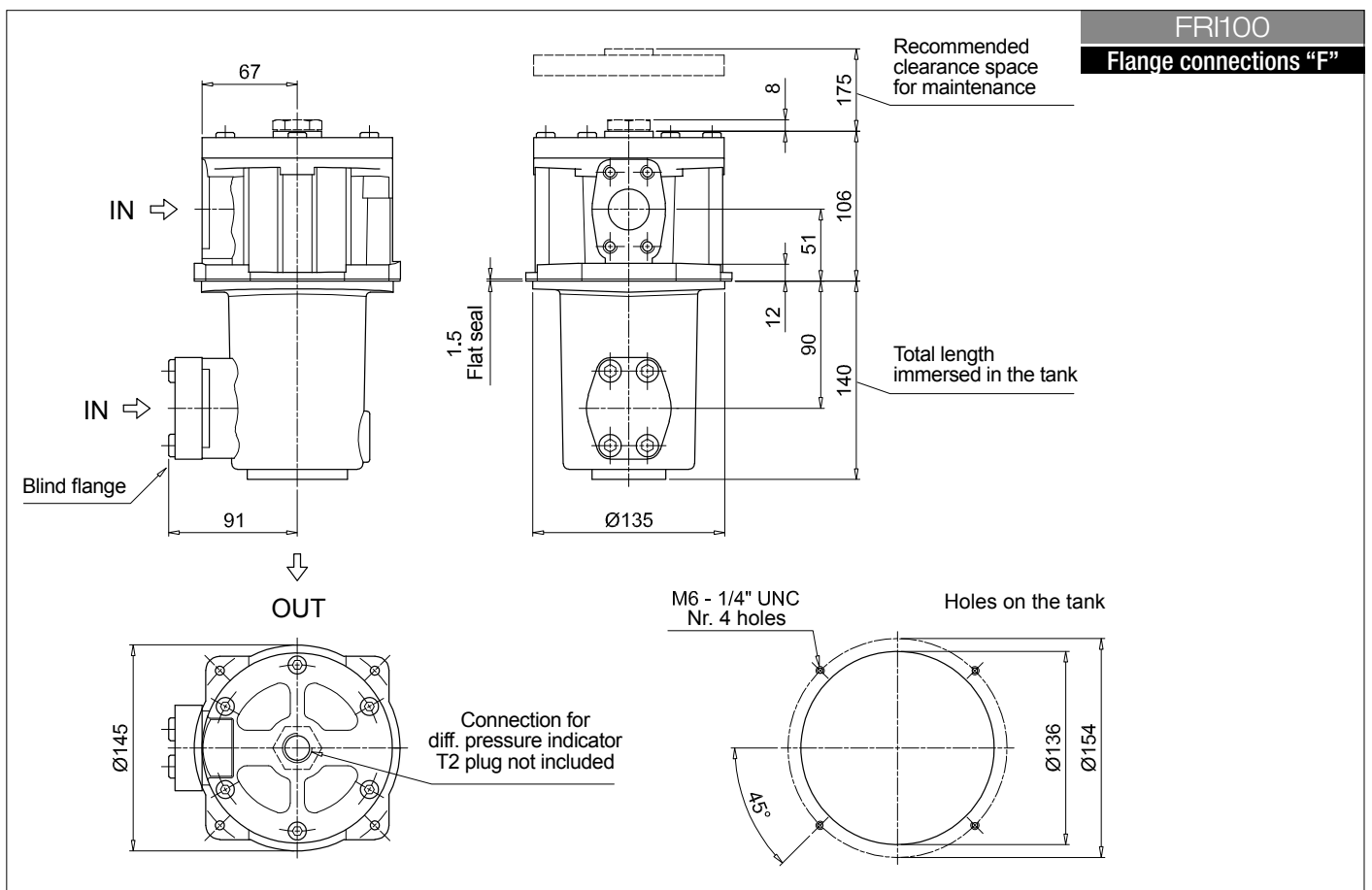
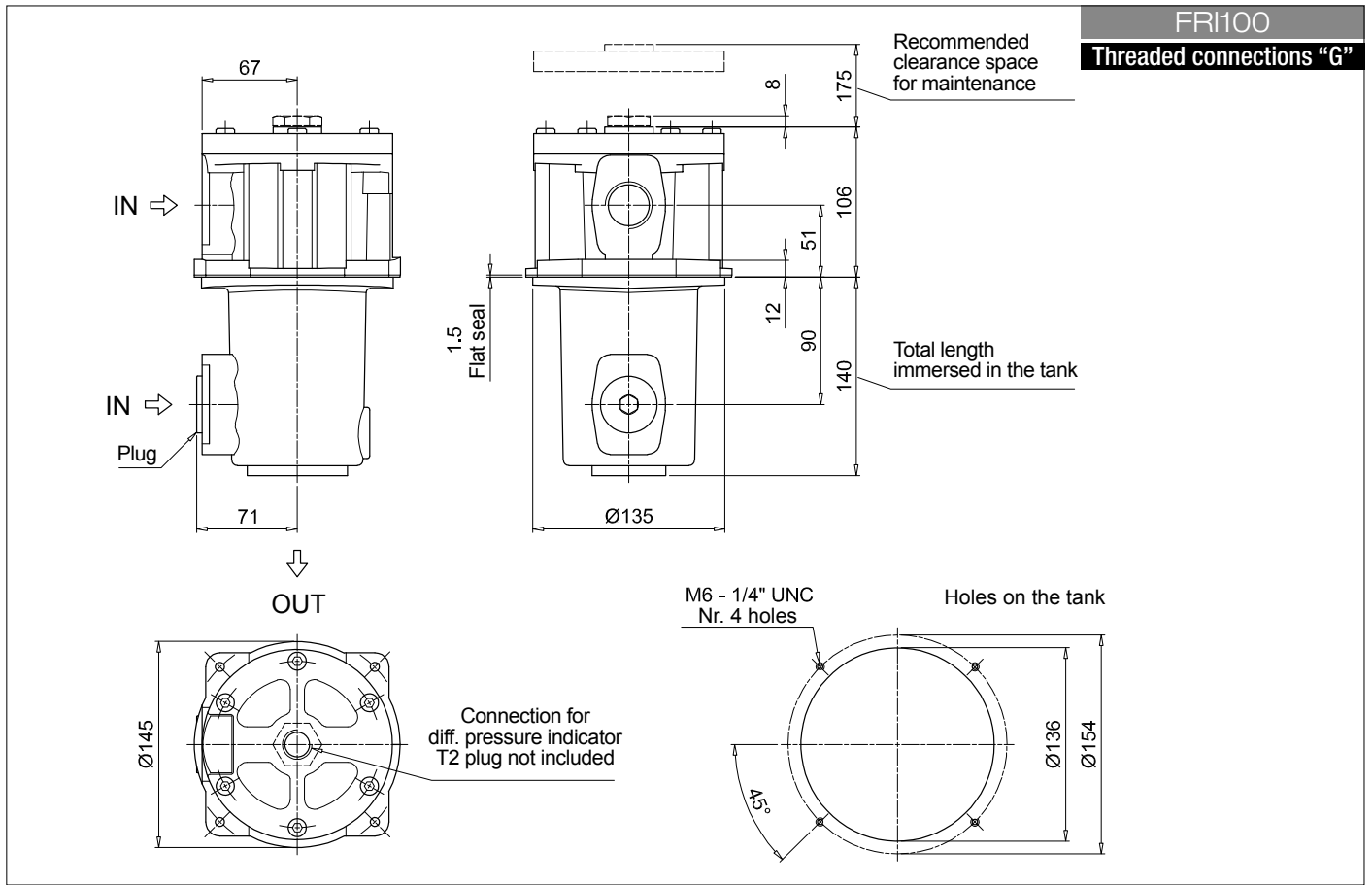
See page 720-721

<b>DEA</b> Electrical differential pressure indicator	<b>DLE</b> Electrical / visual differential pressure indicator
<b>DEM</b> Electrical differential pressure indicator	<b>DTA</b> Electronic differential pressure indicator
<b>DEU</b> Electrical differential pressure indicator	<b>DVA</b> Visual differential pressure indicator
<b>DLA</b> Electrical / visual differential pressure indicator	<b>DVM</b> Visual differential pressure indicator

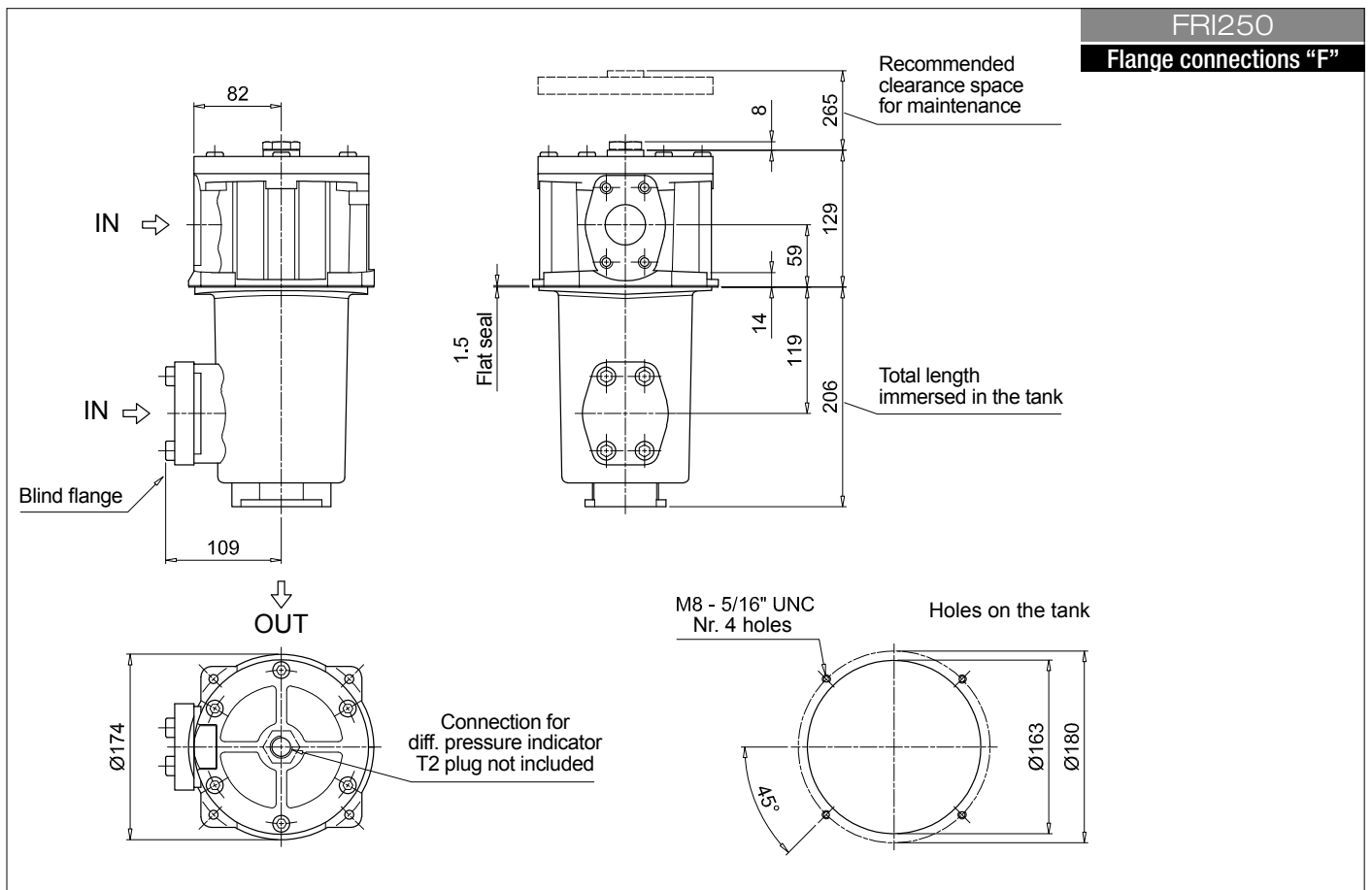
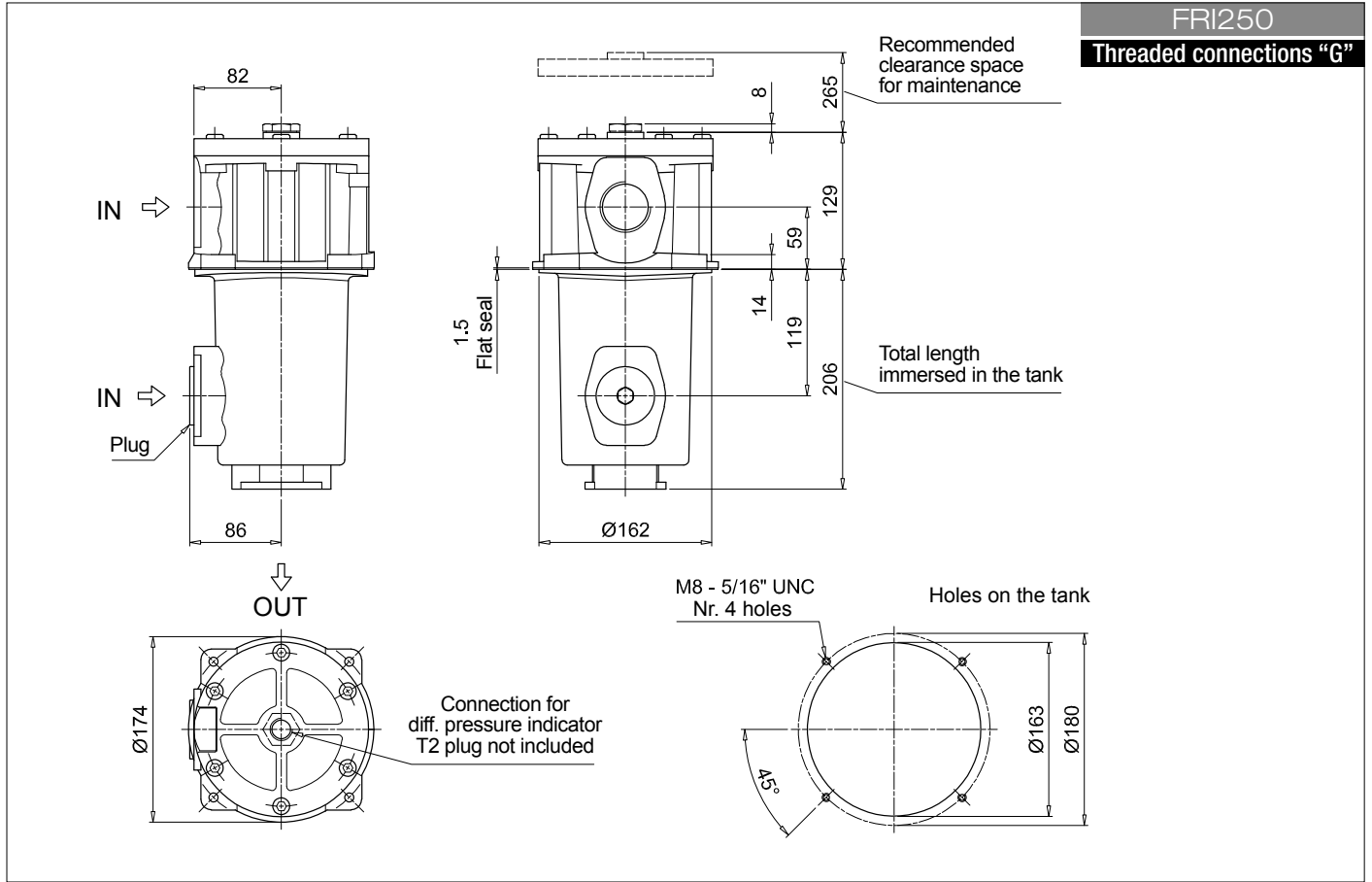
### PLUGS

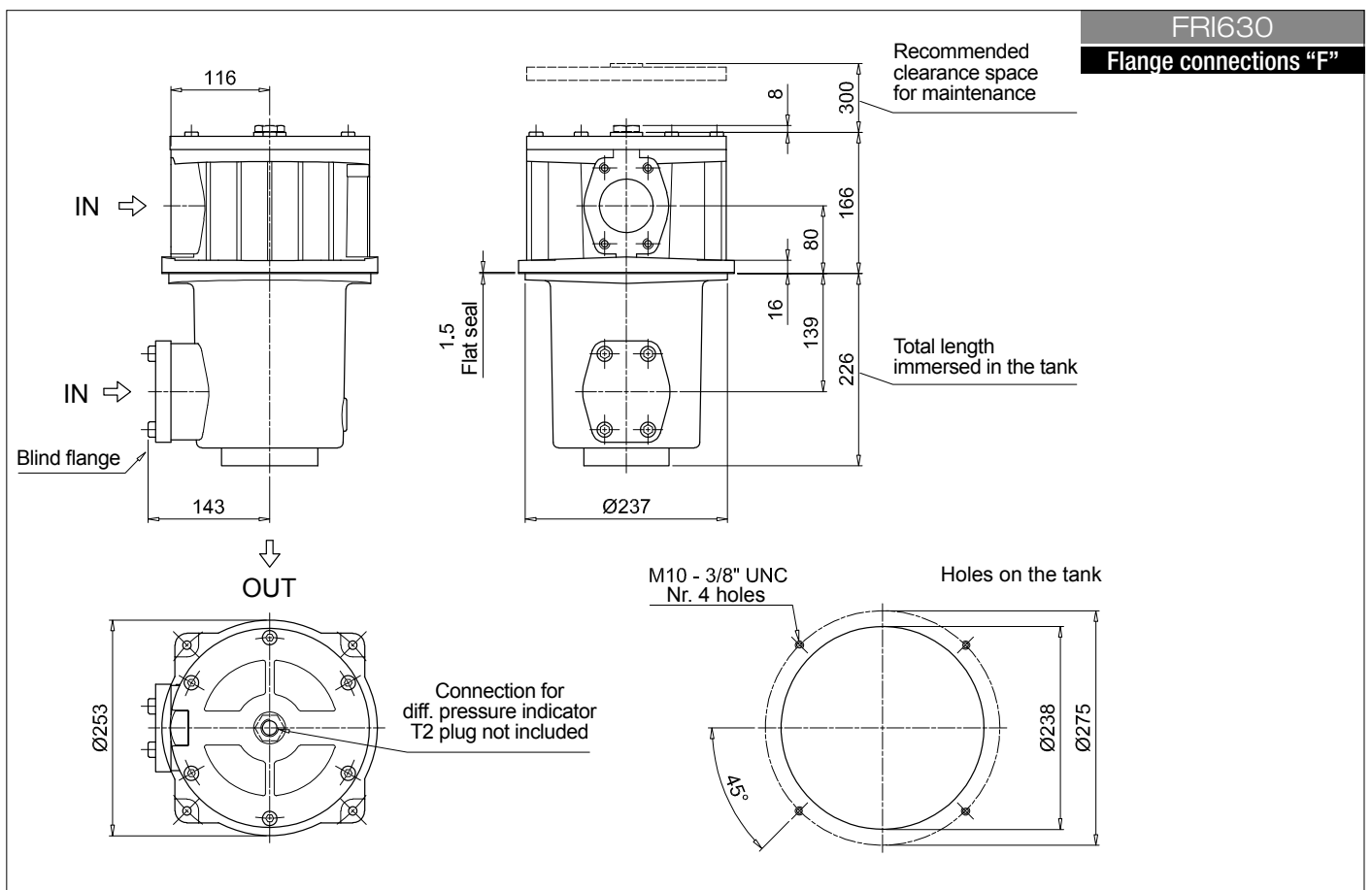
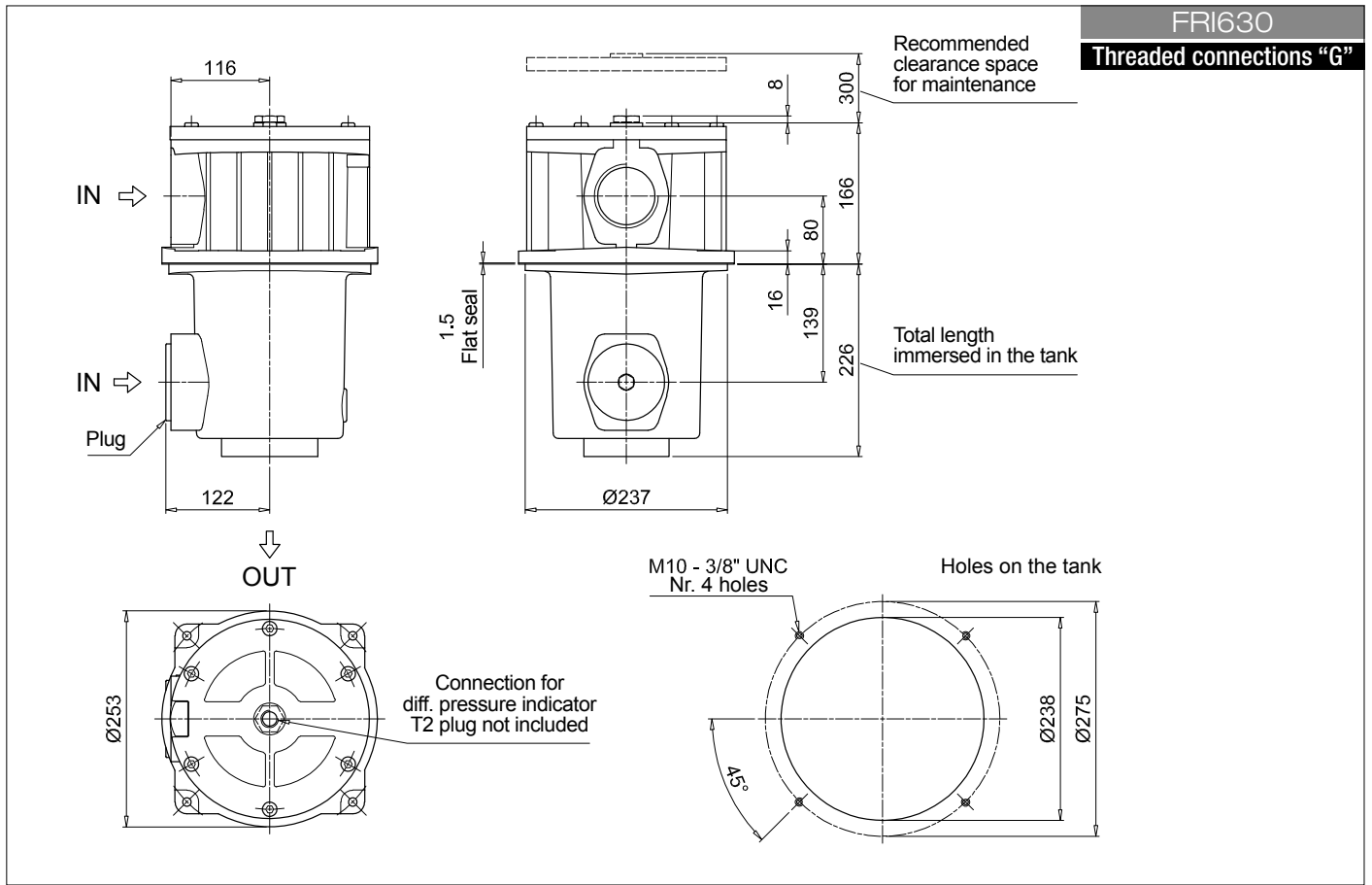
See page 747

<b>T2</b> Plug (not included)
-------------------------------



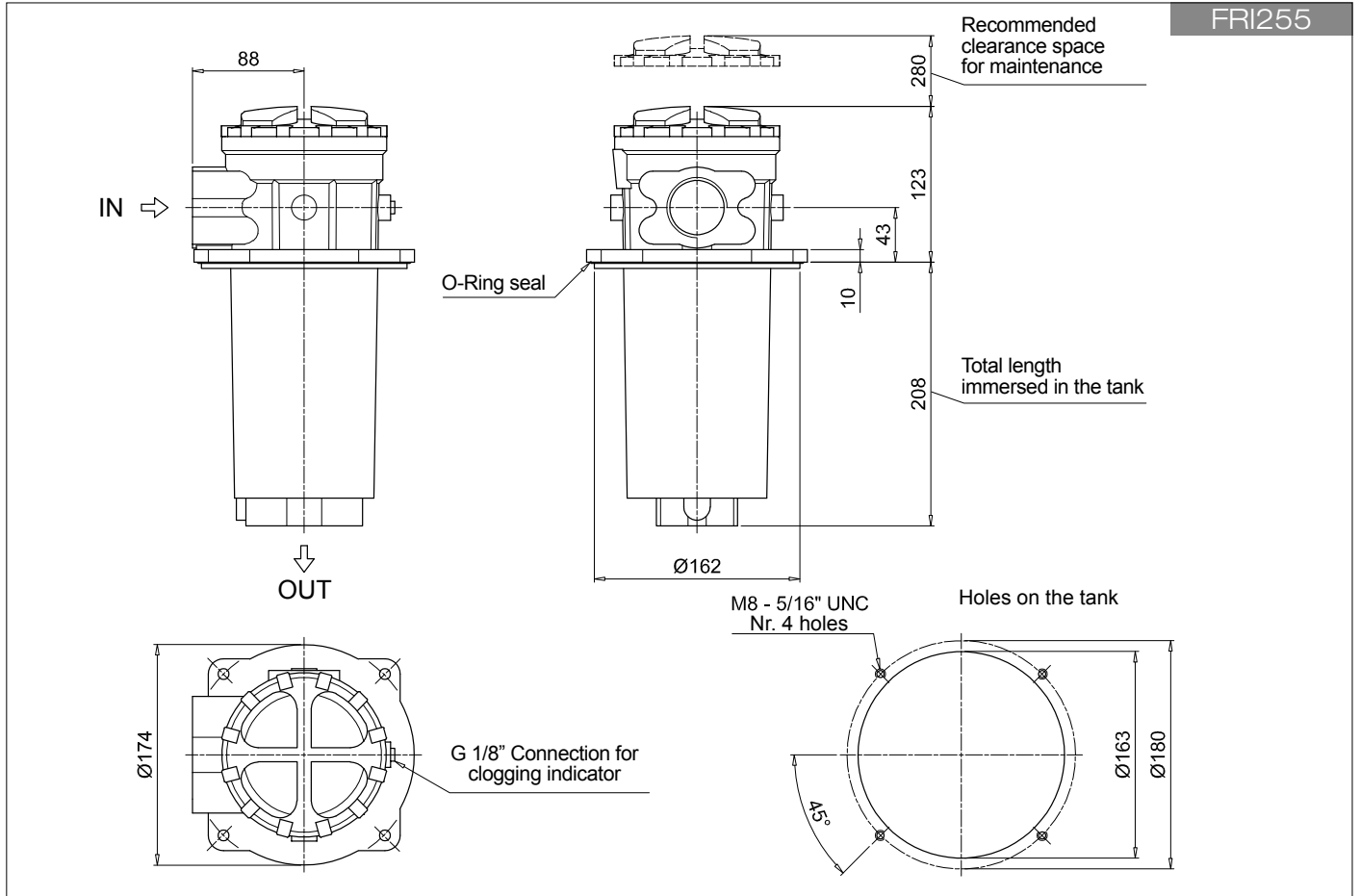
## Dimensions



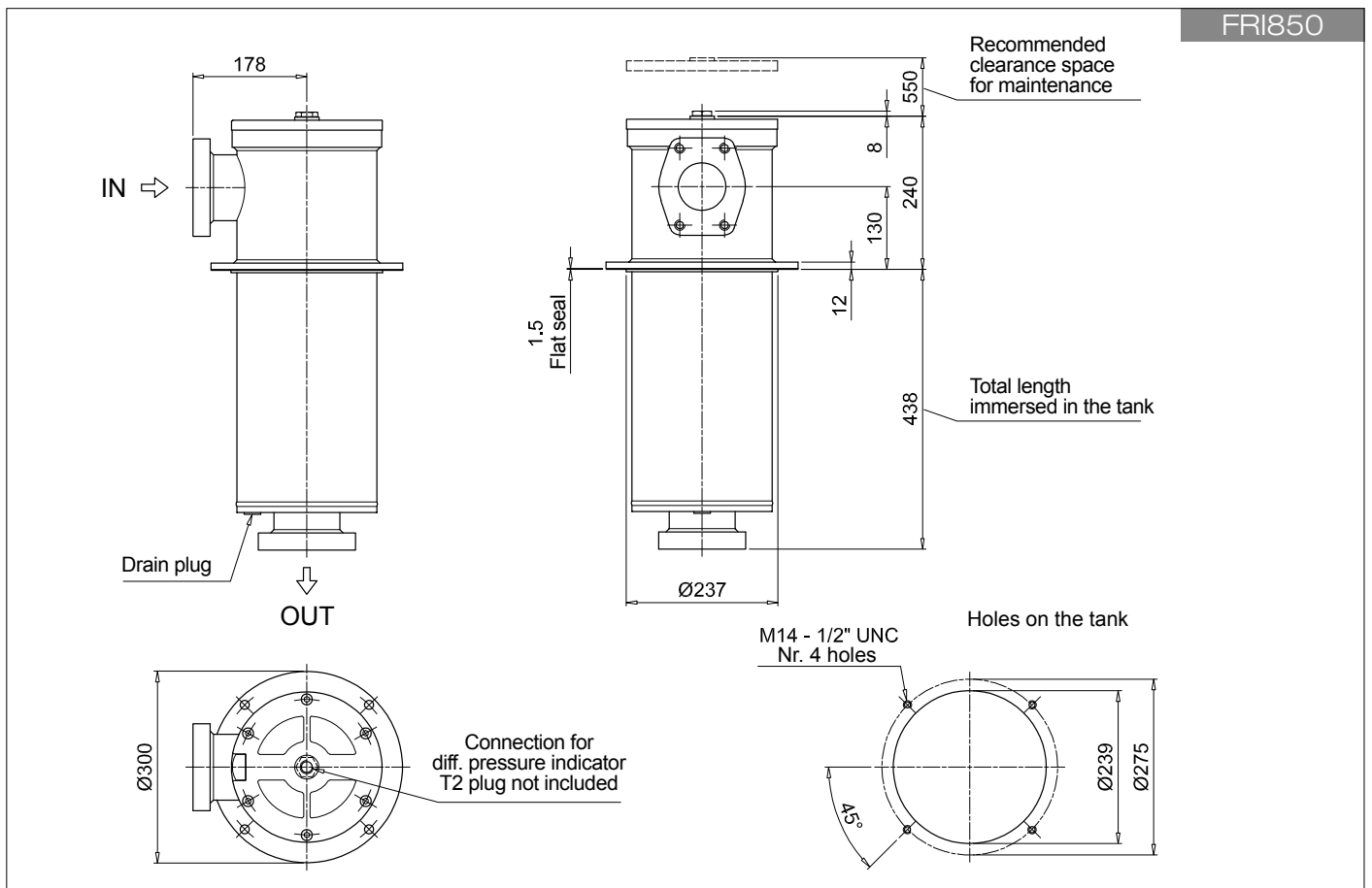




FRI255



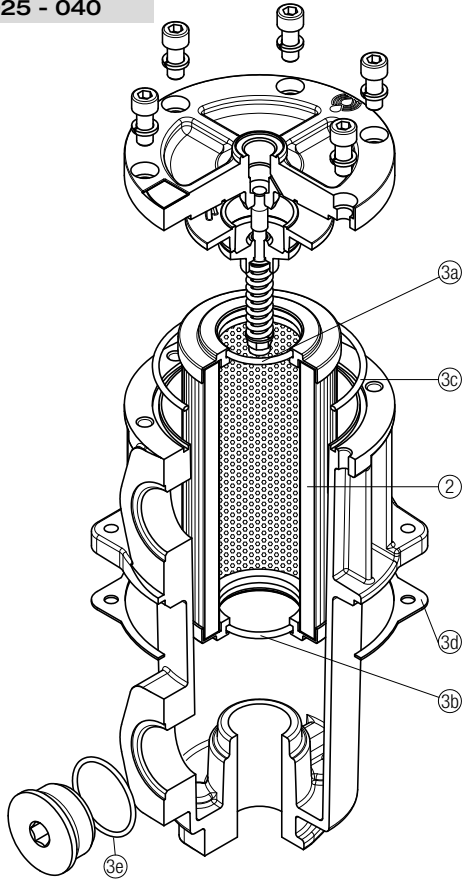
FRI850



# FRI SPARE PARTS

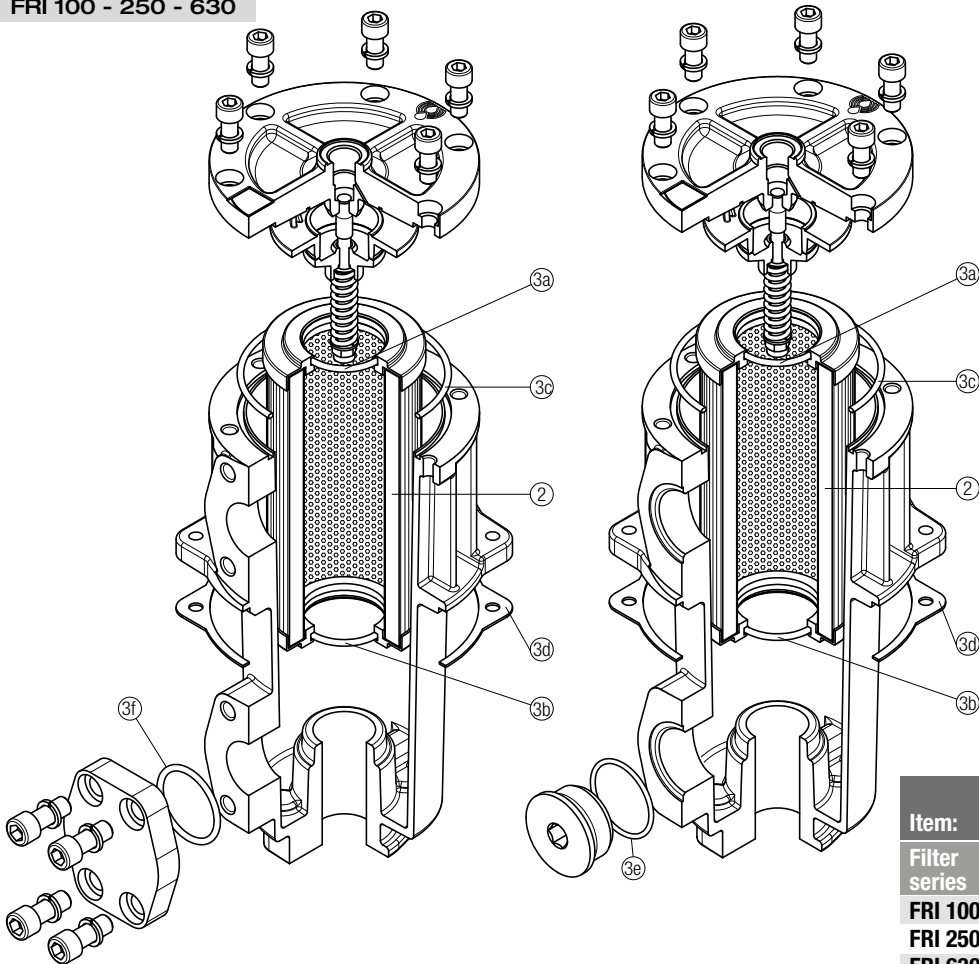
Order number for spare parts

## FRI 025 - 040



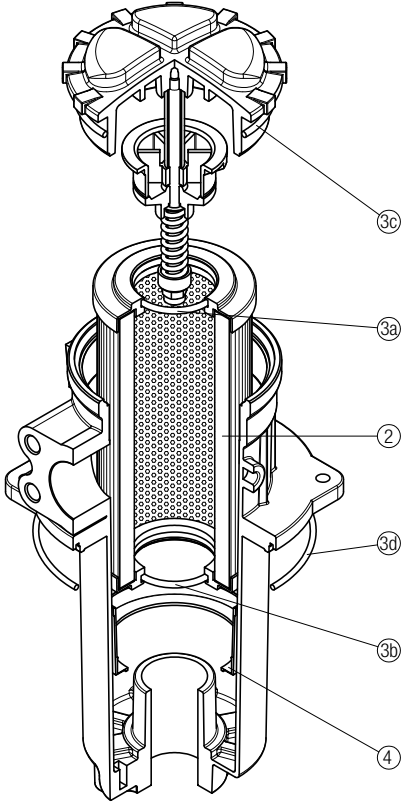
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
	<b>2</b>	<b>3</b> (3a ÷ 3e)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
<b>FRI 025</b>	See order table	02050213	02050220
<b>FRI 040</b>		02050214	02050221

## FRI 100 - 250 - 630



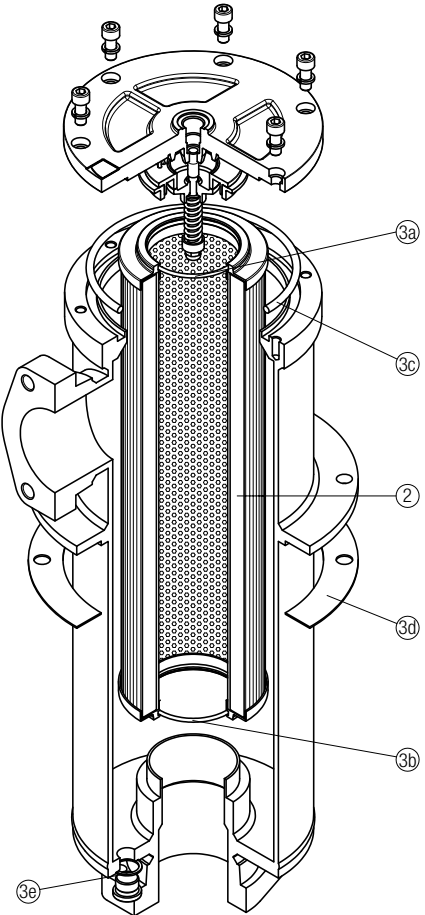
Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
	<b>2</b>	<b>3</b> (3a ÷ 3f)	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
<b>FRI 100</b>	See order table	02050215	02050222
<b>FRI 250</b>		02050216	02050223
<b>FRI 630</b>		02050217	02050224

FRI 255



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

FRI 850



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

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example	T2	H
-----------------------	----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-

# RF2 series

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



## 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 615 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) ±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 263 and following

## Weights [kg] and volumes [dm<sup>3</sup>]

Filter series	Weights [kg]		Volumes [dm <sup>3</sup> ]	
	Length	1	Length	1
<b>RF2 250</b>		2.6		2.0
<b>RF2 350</b>		2.8		2.0

Flow rates [l/min]

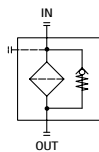
Filter series	Length	Filter element design - N Series							
		A03	A06	A10	A16	A25	M25 M60 M90	P10	P25
<b>RF2 250</b>	<b>1</b>	148	184	278	307	447	615	447	485
<b>RF2 350</b>	<b>1</b>	148	184	278	307	447	615	447	485

**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 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

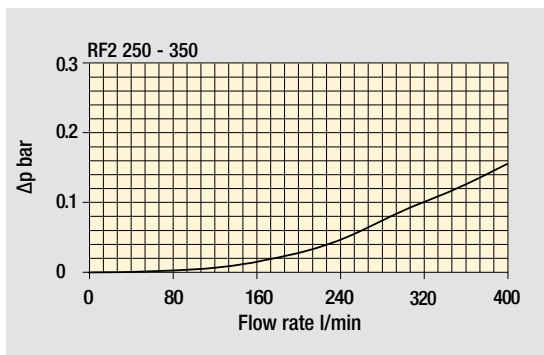
Filter series	Style B - E
<b>RF2 250</b>	•
<b>RF2 350</b>	•

Hydraulic symbols

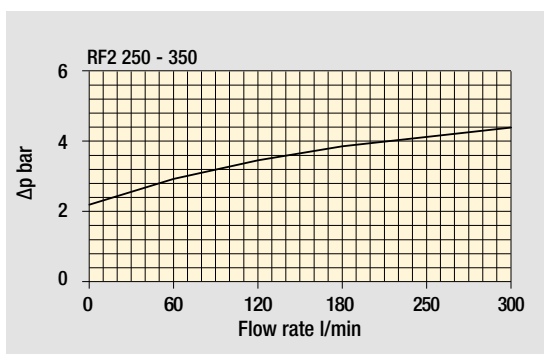


Pressure drop

Filter housings  $\Delta p$  pressure drop



Bypass valve pressure drop



The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

# RF2 RF2250 - RF2350

## Designation & Ordering code

### COMPLETE FILTER

#### Series and size

**RF2250**  
**RF2350**

Configuration example 1: **RF2250** **V** **F2** **E** **M25** **P01**

Configuration example 2: **RF2350** **A** **G1** **B** **A25** **P01**

#### Seals and treatments

**A** NBR  
**V** FPM

#### Connections

	Aux (only RF2350)	Mxx	Pxx
<b>G1</b> G 1 1/2"	G 1"	•	•
<b>G2</b> 1 1/2" NPT	-	•	-
<b>G3</b> SAE 24 - 1 7/8" - 12 UN	SAE 16 - 1 5/16" - 12 UN	•	•
<b>G4</b> G 1 1/4"	-	•	-
<b>G5</b> 1 1/4" NPT	-	•	-
<b>G6</b> SAE 20 - 1 5/8" - 12 UN	-	•	-
<b>G7</b> G 1"	-	•	-
<b>G8</b> 1" NPT	-	•	-
<b>G9</b> SAE 16 - 1 5/16" - 12 UN	-	•	-
<b>F1</b> 1 1/2" SAE 3000 psi/M	-	•	-
<b>F2</b> 1 1/2" SAE 3000 psi/UNC	-	•	-

#### Bypass valve

**B** With bypass 1.75 bar  
**E** With bypass 3 bar

#### Filtration rating (filter media)

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

#### Execution

**P01** MP Filtri standard  
**Pxx** Customized

### FILTER ELEMENT

#### Element series and size

**CU250**

Configuration example 1: **CU250** **M25** **N** **P01**

Configuration example 2: **CU250** **A25** **V** **P01**

#### Filtration rating (filter media)

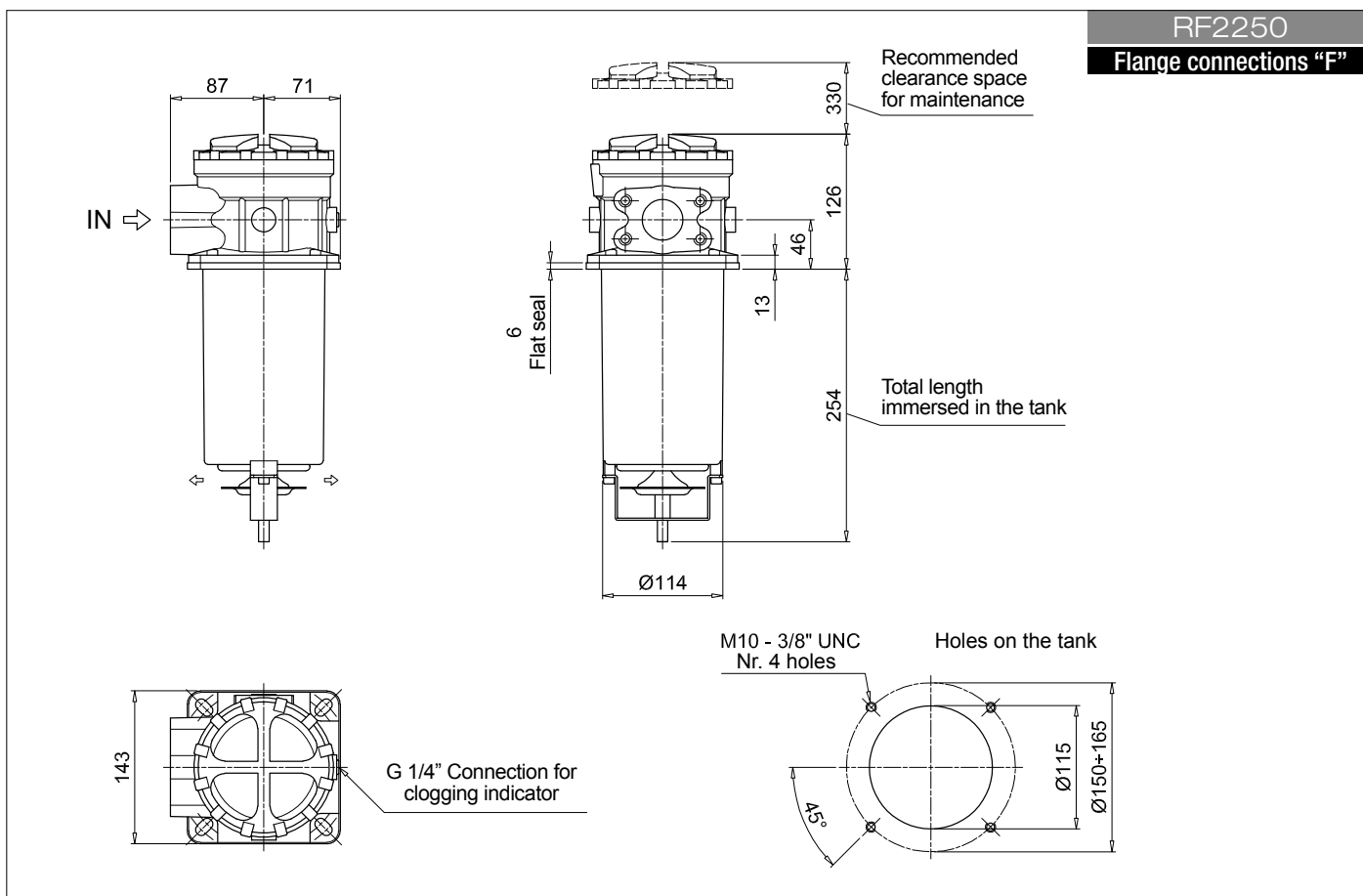
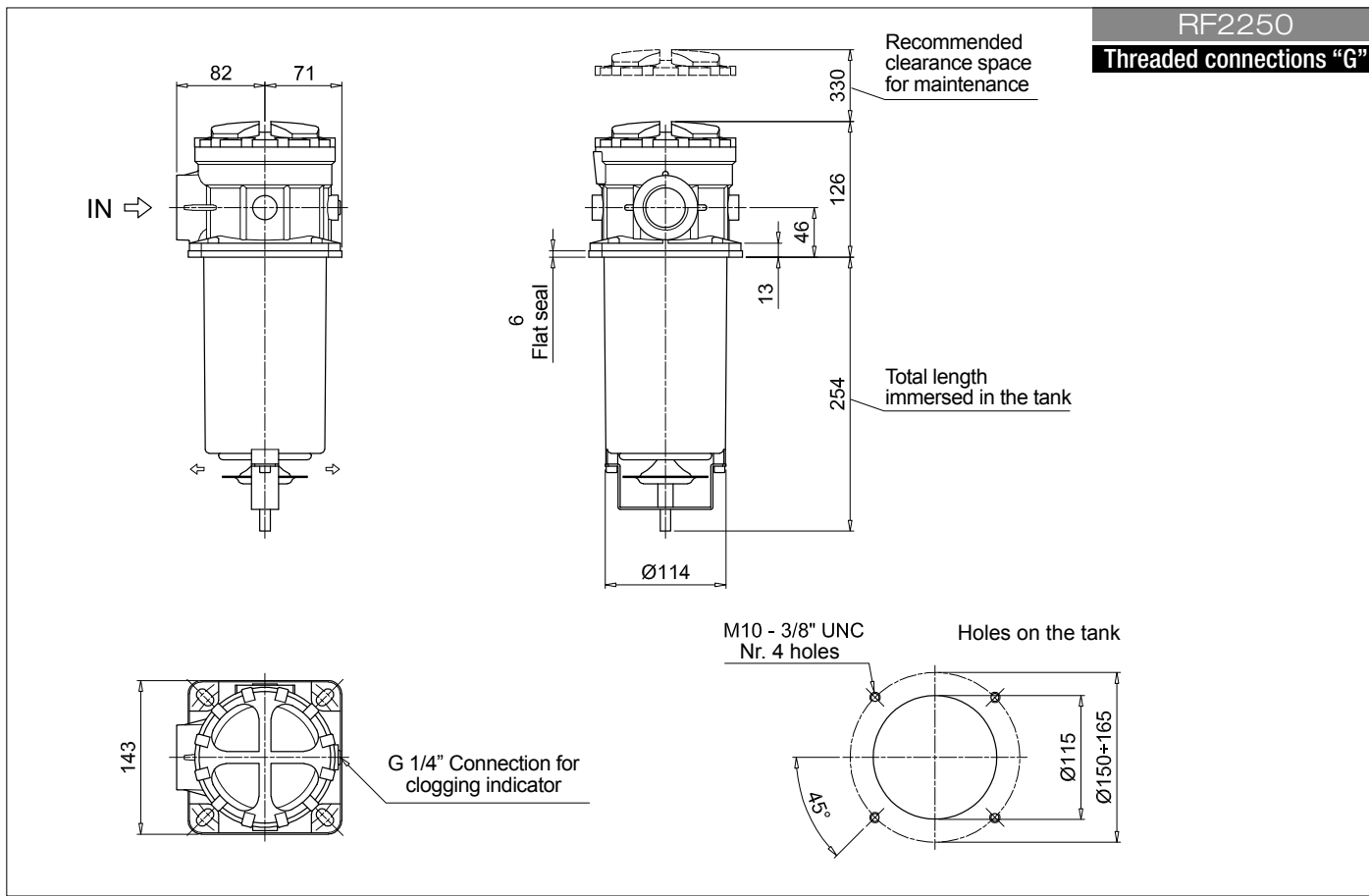
<b>A03</b> Inorganic microfiber 3 µm	<b>M25</b> Wire mesh 25 µm
<b>A06</b> Inorganic microfiber 6 µm	<b>M60</b> Wire mesh 60 µm
<b>A10</b> Inorganic microfiber 10 µm	<b>M90</b> Wire mesh 90 µm
<b>A16</b> Inorganic microfiber 16 µm	<b>P10</b> Resin impregnated paper 10 µm
<b>A25</b> Inorganic microfiber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

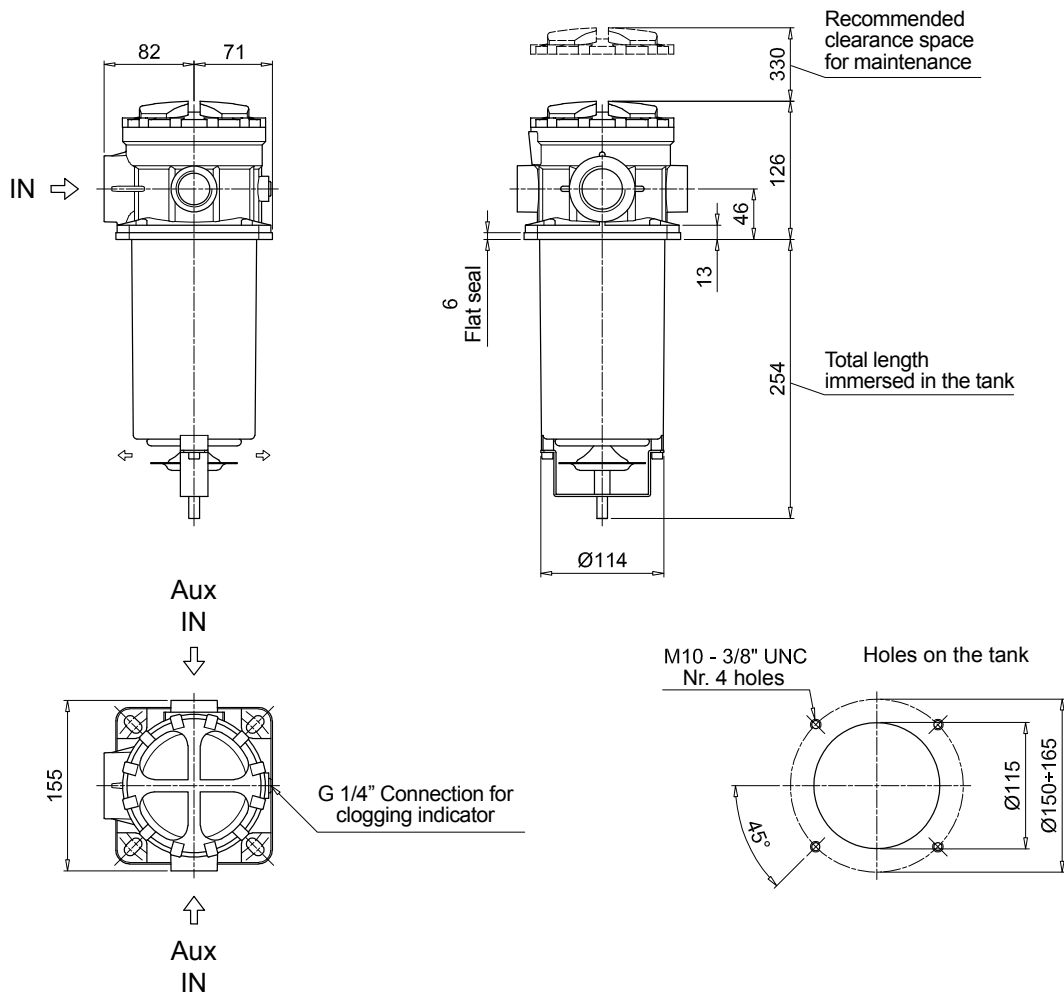
#### Seals and treatments

**N** NBR  
**V** FPM

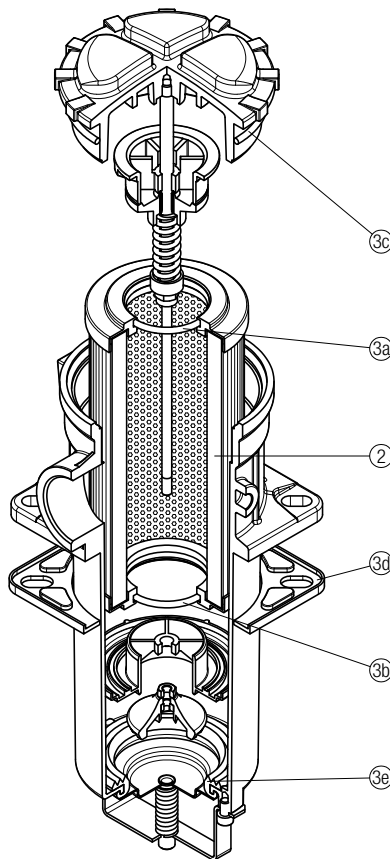
#### Execution

**P01** MP Filtri standard  
**Pxx** Customized





**RF2 250 - 350**



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
<b>RF2 250</b>	See order table	02050586	02050587
<b>RF2 350</b>	See order table	02050586	02050587

## Designation & Ordering code

### BAROMETRIC (PRESSURE) INDICATORS

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

Type	BE	BL	BV
<b>A</b> Standard type	•	•	<b>A</b> Axial connection pressure gauge
<b>M</b> With wired electrical connection	•	-	<b>R</b> Radial connection pressure gauge
<b>T</b> With thermal switch	•	-	<b>P</b> Visual indicator with automatic reset
			<b>Q</b> Visual indicator with manual reset

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
<b>14</b> 1.4 bar	-	-	-	•	-
<b>15</b> 1.5 bar	•	-	•	-	•
<b>20</b> 2.0 bar	•	•	•	-	•
<b>25</b> 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVA-BVR	BVP-BVQ
<b>H</b> HNBR	•	•	-	•

Thermostat	BEA-BEM	BET	BLA
<b>A</b> Without thermostat	•	-	•
<b>F</b> With thermostat	-	•	-

Electrical connections	BEA	BEM	BET	BL
<b>10</b> Connection AMP Superseal series 1,5	-	-	•	-
<b>30</b> Connection Deutsch DT-04-2-P	-	-	•	-
<b>41</b> Connection via four-core cable	-	•	-	-
<b>50</b> Connection EN 175301-803	•	-	-	-
<b>51</b> Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
<b>52</b> Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
<b>53</b> Connection EN 175301-803, transparent base with lamps 230 Vac	-	-	-	•
<b>71</b> Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	BEA	BEM-BET	BL	BV
Without	•	•	•	•
<b>EX</b> ATEX certification	•	-	-	-
<b>UL</b> UL certification	•	-	-	-

## DIFFERENTIAL PRESSURE INDICATORS

Series
<b>DE</b> Electrical differential pressure indicator
<b>DL</b> Electrical/Visual differential pressure indicator
<b>DT</b> Electrical differential pressure indicator
<b>DV</b> Visual differential pressure indicator

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

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

DV
<b>A</b> With automatic reset
<b>M</b> With manual reset
<b>S</b> With automatic reset

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

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

Thermostat	DEA	DEM	DEU	DES	DLA	DLE	DT
<b>A</b> Without thermostat	•	•	•	•	•	•	-
<b>F</b> With thermostat	-	•	-	-	-	•	•

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

Option
<b>P01</b> MP Filtri standard
<b>Pxx</b> Customized

Certifications	DEU	OTHERS
Without	-	•
<b>UL</b> UL certification	•	-

## PLUGS

Series
<b>T2</b> Plug
<b>T4</b> Plug

Configuration example 

T2	H
----	---

Seals	T2	T4
<b>A</b> NBR	-	•
<b>H</b> HNBR	•	-
<b>V</b> FPM	•	-

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