

# FMP 039 series

Maximum working pressure up to 11 MPa (110 bar) - Flow rate up to 80 l/min



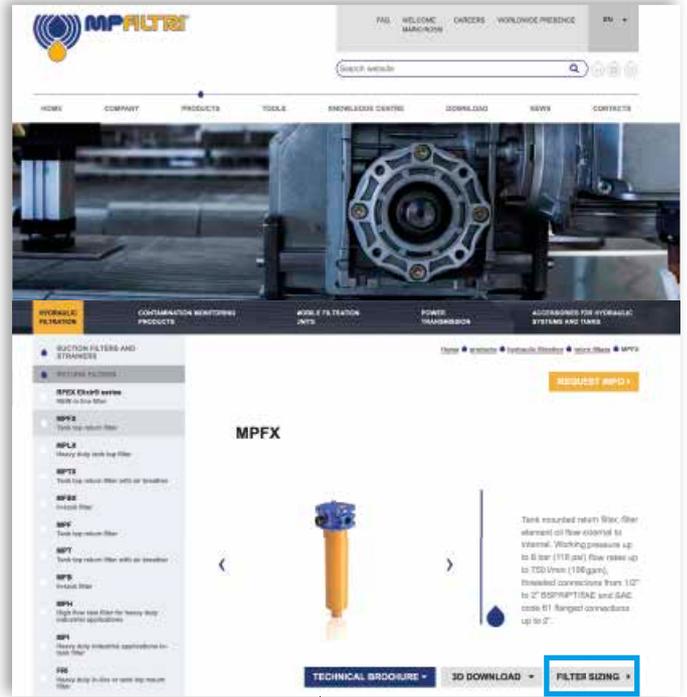
# TYPICAL FILTER SIZING Selection Software

## Step ①

Select "FILTER SIZING SOFTWARE" after login

OR

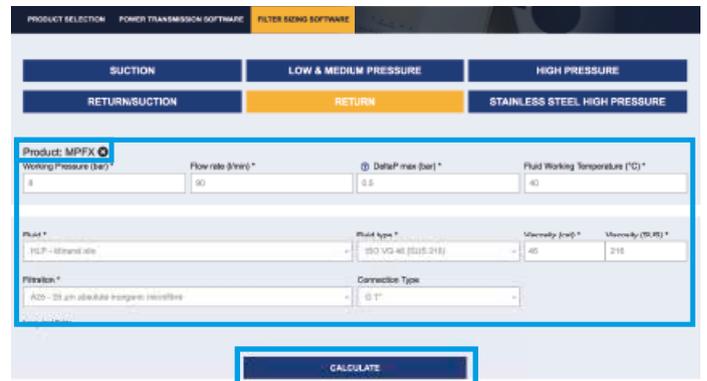
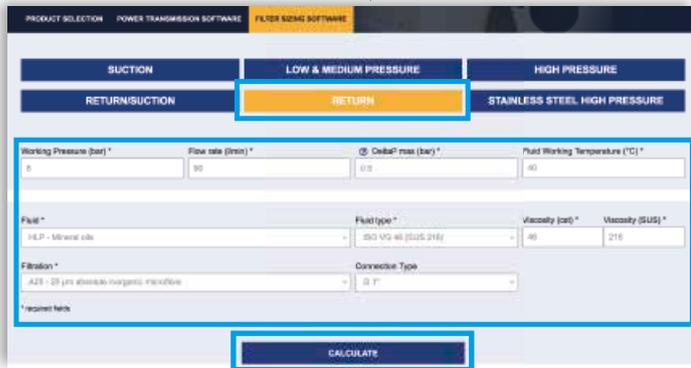
Select "FILTER SIZING" after login from a product page



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

## Step ②

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



## Step ③

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

Working Pressure: 8 (bar) | Fluid: HLP | Flow rate: 90 (l/min) | Fluid type: ISO VG 46 (SUS 216) | DP max of the project: 0.5 (bar) | Seal: A - NBR | Working Temperature: 40 (°C) | Optional seals: V - FPM | Filtration: 25 µm absolute inorganic microfibre | Working Temperature with options: -20 + 110 (°C) | Connection Type: G 1" | Viscosity: 46 (cst) - 216 (SUS)

[NEW SEARCH](#)

Filter type: MPFX: Tank top mounting - (Pmax 1 - B: 1.75 bar (Systems) | Seal: A - NBR | [X-RESET](#)

Option1: Single or duplex | DIN Standard: NOT APPLICABLE | Indicator: Visual

CSV | Excel | Show 10 entries | Search:

Image	Code	Press	Qmax	DP	Housing DP	Element DP	Connection	Seal	Link					
		bar	psi	bar	psi	bar	psi							
	MPFX-100-3-A-G3-A25-HBP51	8	116	25.74	25.3	0.47	7	0.12	2	0.35	5	G 1"	A	<a href="#">Adjustment</a> <a href="#">Report</a>
	MPFX-150-3-A-G3-A25-HBP51	8	178	66.74	25.3	0.47	7	0.12	2	0.38	6	G 1"	A	<a href="#">Adjustment</a> <a href="#">Report</a>

## Step 4

Choose the most suitable filter from the proposed list.

Image	Code	Peak bar	Qmax psi	Qmax m³/min	Qmax gpm us	ΔP bar	ψ	Housing ΔP bar	ψ	Element ΔP bar	ψ	Connection	Seal	Link
	MPFX-103-3-A-Q3-A25-H-BPFI	8	116	25.74	25.3	0.47	7	0.12	2	0.33	5	G 1"	A	<a href="#">Adjustment</a> <a href="#">Report</a>
	MPFX-104-3-A-Q3-A25-H-BPFI	8	116	25.74	25.3	0.47	7	0.12	2	0.33	5	G 1"	A	<a href="#">Adjustment</a> <a href="#">Report</a>

## Step 5

It is possible to change the filter modifying every parameter.



### A SAVE YOUR FILTER'S REPORT



### B MANUAL EDIT



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



A new browser window displays the pdf

see A

Close the report window



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

# FMP 039 GENERAL INFORMATION

## Description

## Technical data

### High Pressure filters

#### In-line

**Maximum working pressure up to 11 MPa (110 bar)**  
**Flow rate up to 80 l/min**

FMP039 is a range of versatile medium pressure filter for transmission, protection of sensitive components in medium pressure hydraulic systems and filtration of the coolant into the machine tools. They are directly connected to the lines of the system through the hydraulic fittings.

#### Available features:

- 1/2" female threaded connections, for a maximum flow rate of 80 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Bypass valve, to relieve excessive pressure drop across the filter media
- Low collapse filter element "N", for use with filters provided with bypass valve
- Visual, electrical and electronic differential clogging indicators

#### Common applications:

Delivery lines, in any medium pressure industrial equipment or mobile machines

#### Filter housing materials

- Head: Anodized aluminium
- Housing: Anodized aluminium
- Bypass valve: Steel

#### Pressure

- Test pressure: 17 MPa (170 bar)
- Burst pressure: 33 MPa (330 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 11 MPa (110 bar)

#### Bypass valve

- Opening pressure 600 kPa (6 bar)  $\pm 10\%$
- Other opening pressures on request.

#### $\Delta p$ element type

- Microfibre filter elements - series N: 20 bar
- Wire mesh filter elements - series N: 20 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

#### Connections

In-line Inlet/Outlet

#### Note

FMP 039 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	3	4	Length	2	3	4
<b>FMP 039</b>		0.60	0.70	0.80		0.19	0.26	0.34

## Executions

**Execution 1:**  
without indicator connection

**Execution 6:**  
double indicator connection (A - B)

**A:** Closure cap with standard T2 steel. The position of the cap is reversible.

**B:** Standard closure cap with plastic thread protection. If necessary, a second T2 plug is available, see ordering information.

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Special connections on request

Filter series	Length	Filter element design - N Series					
		A03	A06	A10	A16	A25	M25
FMP 039	2	20	26	45	52	61	97
	3	35	39	56	64	76	98
	4	44	48	66	71	82	92

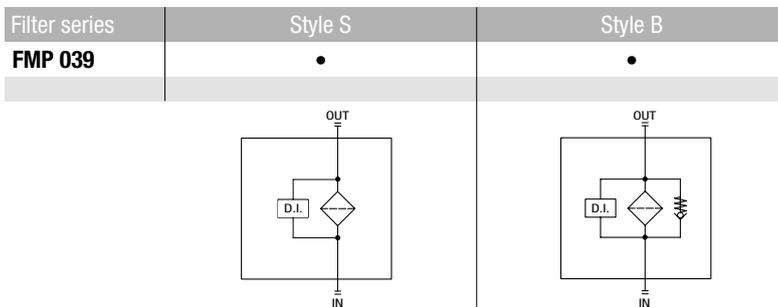
### Maximum flow rate for a complete pressure filter with a pressure drop $\Delta p = 1.5$ bar.

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>.

For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://www.mpfiltri.com).

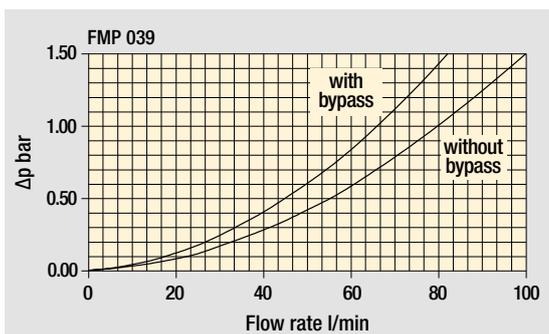
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

## Hydraulic symbols

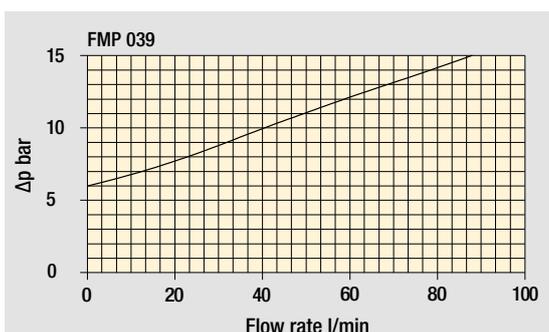


## Pressure drop

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.

# FMP 039

## Designation & Ordering code

### COMPLETE FILTER

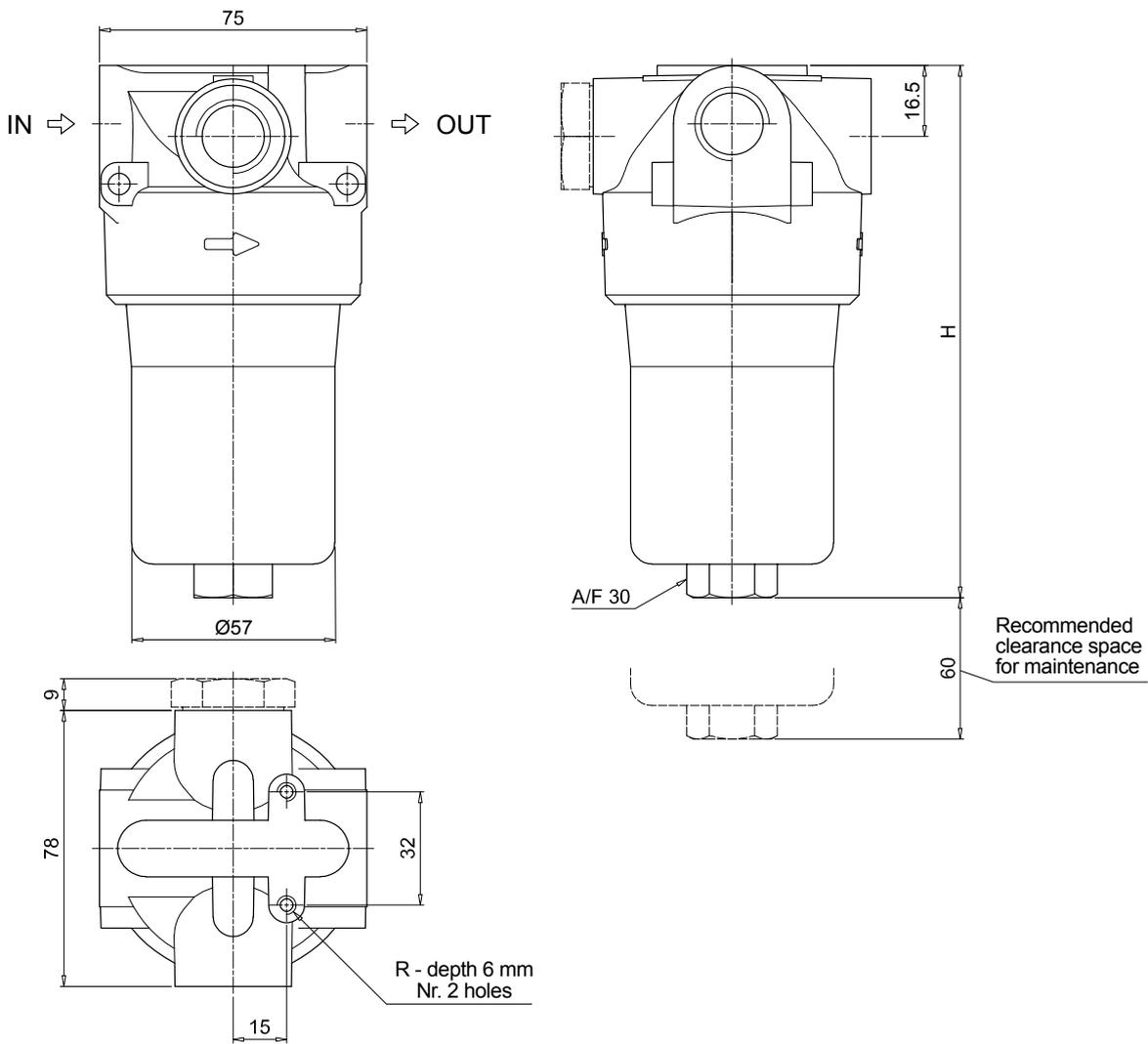
<b>Series and size</b>	Configuration example: <b>FMP039</b>   <b>3</b>   <b>B</b>   <b>A</b>   <b>B</b>   <b>6</b>   <b>A03</b>   <b>N</b>   <b>P01</b>															
<b>FMP039</b>																
<b>Length</b>	2   3   4															
<b>Valves</b>	S Without bypass B 6 bar															
<b>Seals</b>	A NBR V FPM															
<b>Connections</b>	A G 1/2" B 1/2" NPT C SAE 8 - 3/4" - 16 UNF															
<b>Connection for differential indicator</b>	1 Without 6 With two connections on both sides															
<b>Filtration rating (filter media)</b>	<table border="0"> <tr> <td><b>A03</b> Inorganic microfiber 3 µm</td> <td><b>A16</b> Inorganic microfiber 16 µm</td> </tr> <tr> <td><b>A06</b> Inorganic microfiber 6 µm</td> <td><b>A25</b> Inorganic microfiber 25 µm</td> </tr> <tr> <td><b>A10</b> Inorganic microfiber 10 µm</td> <td><b>M25</b> Wire mesh 25 µm</td> </tr> </table>										<b>A03</b> Inorganic microfiber 3 µm	<b>A16</b> Inorganic microfiber 16 µm	<b>A06</b> Inorganic microfiber 6 µm	<b>A25</b> Inorganic microfiber 25 µm	<b>A10</b> Inorganic microfiber 10 µm	<b>M25</b> Wire mesh 25 µm
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	<b>Element Δp</b>					<b>Execution</b>										
	N 20 bar					P01 MP Filtri standard Pxx Customized										

### FILTER ELEMENT

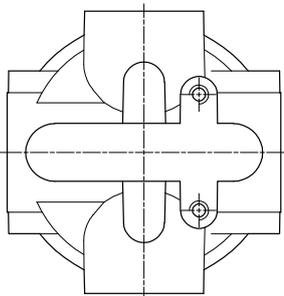
<b>Element series and size</b>	Configuration example: <b>HP039</b>   <b>3</b>   <b>A03</b>   <b>A</b>   <b>N</b>   <b>P01</b>												
<b>HP039</b>													
<b>Element length</b>	2   3   4												
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<b>Seals</b>	A NBR V FPM												
	<b>Element Δp</b>			<b>Execution</b>									
	N 20 bar			P01 MP Filtri standard Pxx Customized									

### ACCESSORIES

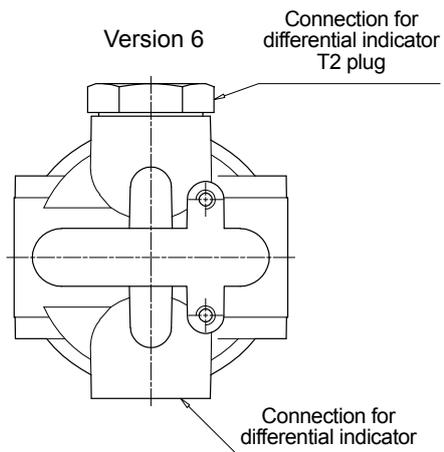
Differential indicators		page			page
<b>DEA</b>	Electrical differential indicator	577	<b>DLE</b>	Electrical / visual differential indicator	580
<b>DEH</b>	Hazardous area electronic differential indicator	577-578	<b>DTA</b>	Electronic differential indicator	581
<b>DEM</b>	Electrical differential indicator	578-579	<b>DVA</b>	Visual differential indicator	581
<b>DLA</b>	Electrical / visual differential indicator	579-580	<b>DVM</b>	Visual differential indicator	581
Additional features		page			
<b>T2</b>	Plug	582			



Version 1



Version 6



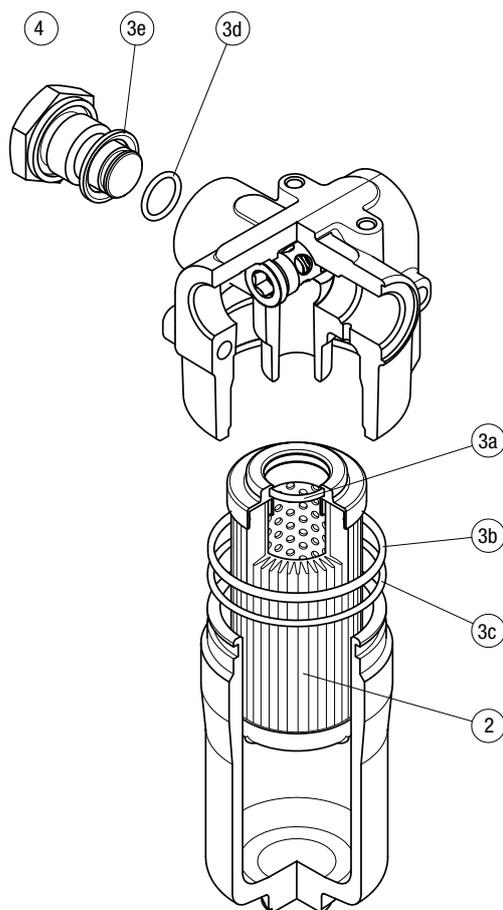
The position of the T2 plug is reversible

FMP039	
Filter length	H [mm]
2	151
3	194
4	238
Connections	R
A	M6
B - C	1/4" UNC

# FMP 039 SPARE PARTS

Order number for spare parts

FMP 039



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
		NBR	FPM
<b>FMP 039</b>	See order table	02050509	02050510