FZP series

Maximum working pressure up to 42 Mpa (420 bar) - Flow rate up to 160 l/min

INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS

Please scan the QR codes to get updated electronic version of the related document.
FZP is a range of stainless steel high pressure filter for protection of sensitive components in high pressure hydraulic systems placed in difficult environmental conditions. They are directly connected to the lines of the system through the hydraulic fittings.

Available features:
- 1 1/4" female threaded connections, for a maximum flow rate of 160 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 with external support "R", for filter element protection against the back pressure caused by the check valve or the reverse flow in filters provided with the bypass valve
- High collapse filter element with external support "S", for filter element protection against the back pressure caused by the check valve or the reverse flow in filters not provided with the bypass valve
- High collapse filter element "U", for use with aggressive fluids
- Visual, electrical and electronic differential clogging indicators

Common applications:
- Off-shore equipment
- Water filtration systems
- Systems with strong or corrosive environmental conditions
- Systems with corrosive fluids

### Filter housing materials
- Head: AISI 316L
- Housing: AISI 316L
- Bypass valve: AISI 316L

### Seals
- Standard NBR
  - series A (-25 °C to +110 °C)
- Optional FPM
  - series V (-20 °C to +120 °C)
- Optional MFQ
  - series F (-50 °C to +120 °C)

### Bypass valve
Opening pressure 6 bar ±10%

### Temperature
From -50 °C to +120 °C

### Note
FZP filters are provided for vertical mounting
Maximum flow rate for a complete stainless steel high pressure filter with a pressure drop $\Delta p = 1.5$ bar.
The reference fluid has a kinematic viscosity of 30 mm$^2$/s (cSt) and a density of 0.86 kg/dm$^3$.
For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure.
Please, contact our Sales Department for further additional information.

### Hydraulic symbols

<table>
<thead>
<tr>
<th>Filter series</th>
<th>Style S</th>
<th>Style B</th>
<th>Style T</th>
<th>Style D</th>
<th>Style V</th>
<th>Style Z</th>
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</thead>
<tbody>
<tr>
<td>FZP 039</td>
<td>•</td>
<td>•</td>
<td>-</td>
<td>•</td>
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<td>•</td>
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<tr>
<td>FZP 136</td>
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<td>-</td>
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<td>-</td>
</tr>
</tbody>
</table>

### Pressure drop

Filter housings $\Delta p$ pressure drop

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

**Filter series and size**

| FZP039 | Configuration example: | FZP039 | 2 | B | F | B | 2 | A03 | U | Z01 | EX |

**Filter length**

| 2 | 3 | 4 |

**Valves**

- S: Without bypass
- B: With bypass 6 bar
- T: With reverse flow, without bypass

**Seals**

- A: NBR
- V: FPM
- F: MFQ

**Connections**

- A: G 1/2”
- B: 1/2” NPT
- C: SAE 8 - 3/4” - 16 UNF

**Connections for differential indicator**

- 1: Without connection
- 2: With connection

**Filtration rating (filter media)**

- A03: Inorganic microfiber 3 µm
- A06: Inorganic microfiber 6 µm
- A10: Inorganic microfiber 10 µm
- A16: Inorganic microfiber 16 µm
- A25: Inorganic microfiber 25 µm

**Seals**

- A: NBR
- V: FPM
- F: MFQ

**Element Δp**

- R: 20 bar
- S: 210 bar
- U: 210 bar, stainless steel filter element

**Execution**

- Z01: MP Filtri standard
- Zxx: Customized

**CLOGGING INDICATORS**

- DEH: Electrical differential indicator
- DVX: Visual differential indicator
- DVY: Visual differential indicator

### FILTER ELEMENT

**Element series and size**

- HP039

**Element length**

| 2 | 3 | 4 |

**Filtration rating (filter media)**

- A03: Inorganic microfiber 3 µm
- A06: Inorganic microfiber 6 µm
- A10: Inorganic microfiber 10 µm
- A16: Inorganic microfiber 16 µm
- A25: Inorganic microfiber 25 µm

**Seals**

- A: NBR
- V: FPM
- F: MFQ

**Element Δp**

- R: 20 bar
- S: 210 bar
- U: 210 bar, stainless steel filter element

### CLOGGING INDICATORS

- DEH: Electrical differential indicator
- DVX: Visual differential indicator
- DVY: Visual differential indicator

### PLUGS

- X2: Differential indicator plug (not included)
### Dimensions

<table>
<thead>
<tr>
<th>Filter length</th>
<th>H (mm)</th>
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<tbody>
<tr>
<td>2</td>
<td>179</td>
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<tr>
<td>3</td>
<td>222</td>
</tr>
<tr>
<td>4</td>
<td>266</td>
</tr>
</tbody>
</table>

**Connections**

- **R**
  - A: M6
  - B - C: 1/4" UNC

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**Recommended clearance space for maintenance**

**Connection for differential indicator X2 plug not included**

**IN** ⇔ **OUT**

**IN-LINE**

FZP039 FZP

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**Filter length**

- Ø64

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**Connections**

- R
  - A: M6
  - B - C: 1/4" UNC

---

**Recommended clearance space for maintenance**

**Connection for differential indicator X2 plug not included**

**IN** ⇔ **OUT**

**IN-LINE**

FZP039 FZP

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**ATEX Certified Filters**

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**Filter length**

- Ø64
## Designation & Ordering code

**FZP FZP136 IN-LINE**

### COMPLETE FILTER

<table>
<thead>
<tr>
<th>Filter series and size</th>
<th>Configuration example:</th>
<th>FZP136</th>
<th>1</th>
<th>B</th>
<th>A</th>
<th>B</th>
<th>6</th>
<th>A03</th>
<th>R</th>
<th>Z01</th>
<th>EX</th>
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<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
</table>

### Valves
- S: Without bypass
- B: With bypass 6 bar

### Seals
- A: NBR
- V: FPM
- F: MFQ

### Connections
- A: G 3/4" NPT
- B: 3/4" NPT
- C: SAE 12-1 1/16" - 12 UN
- D: G 1"
- E: 1" NPT
- F: SAE 16 - 1 5/16" - 12 UN

### Connections for differential indicator
- S: Without connection
- B: With two connections on both sides

### Filtration rating (filter media)
- A03: Inorganic microfiber 3 µm
- A06: Inorganic microfiber 6 µm
- A10: Inorganic microfiber 10 µm
- A16: Inorganic microfiber 16 µm
- A25: Inorganic microfiber 25 µm

### Valves

### Element ∆p

### Execution
- **Z01** MP Filtri standard
- **Zxx** Customized

### Certifications
- EX ATEX certifications

## FILTER ELEMENT

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<tr>
<th>Element series and size</th>
<th>Configuration example:</th>
<th>HPT135</th>
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<th>A03</th>
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<th>1</th>
<th>2</th>
<th>3</th>
</tr>
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### Seals
- A: NBR
- V: FPM
- F: MFQ

### Element ∆p

### Execution
- **Z01** MP Filtri standard
- **Zxx** Customized

## CLOGGING INDICATORS
- DEH: Electrical differential indicator
- DVY: Visual differential indicator
- DVX: Visual differential indicator

## PLUGS
- See page 706

### ATEX Certified Filters
- See page 648
The position of the X2 plug is reversible.
### FZP SPARE PARTS

Order number for spare parts

<table>
<thead>
<tr>
<th>Item</th>
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<th>Q.ty: 1 pc.</th>
<th>Q.ty: 1 pc.</th>
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<td>Seal Kit code number</td>
<td>Indicator connection plug</td>
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<td>NBR: X2H</td>
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<td>FZP 136</td>
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<td>NBR: 02050636 FPM: 02050637</td>
<td>FPM: X2V</td>
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