

FZP series

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



Description

Technical data

Stainless steel high pressure filters

In-line

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

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

Δp element type

Fluid flow through the filter element from OUT to IN

Microfibre filter elements - series R: 20 bar.

Element series "R":

- End cap: Polyamide
- Core tube: Tinned steel
- External/Internal support: Wire mesh Epox painted
- Media/Support/Pre-filter: Microfibre/Syntetic

Microfibre filter elements - series S: 210 bar.

Element series "S":

- End cap: Tinned steel
- Core tube: Tinned steel
- External support: Wire mesh Epox painted
- Internal support: Wire mesh Stainless steel
- Media/Support/Pre-filter: Microfibre/Syntetic

Stainless Steel Microfibre filter elements series U: 210 bar.

Element series "U":

- End cap: Stainless steel
- Core tube: Stainless steel
- External support: Stainless steel
- Internal support: Stainless steel
- Media/Support/Pre-filter: Microfibre/Syntetic

Weights [kg] and volumes [dm³]

| Filter series | Weights [kg] | | | | Volumes [dm ³] | | | | | |
|----------------|--------------|------|------|-----|----------------------------|--------|------|------|---|---|
| | Length | 1 | 2 | 3 | 4 | Length | 1 | 2 | 3 | 4 |
| FZP 039 | - | 4.5 | 5.1 | 5.6 | - | 0.19 | 0.26 | 0.34 | - | - |
| FZP 136 | 8.3 | 10.2 | 11.5 | - | 0.45 | 0.78 | 1.00 | - | - | - |

| Filter series | Length | Filter element design - R Series | | | | | Filter element design - S-U Series | | | | |
|----------------|----------|----------------------------------|-----|-----|-----|-----|------------------------------------|-----|-----|-----|-----|
| | | A03 | A06 | A10 | A16 | A25 | A03 | A06 | A10 | A16 | A25 |
| FZP 039 | 2 | 19 | 25 | 43 | 50 | 59 | 19 | 23 | 41 | 45 | 55 |
| | 3 | 34 | 37 | 53 | 62 | 74 | 31 | 34 | 48 | 52 | 66 |
| | 4 | 42 | 46 | 63 | 72 | 81 | 38 | 41 | 55 | 71 | 78 |
| FZP 136 | 1 | 63 | 67 | 102 | 108 | 136 | 47 | 53 | 87 | 89 | 127 |
| | 2 | 95 | 100 | 122 | 123 | 159 | 81 | 95 | 113 | 115 | 138 |
| | 3 | 122 | 124 | 148 | 150 | 160 | 106 | 116 | 135 | 141 | 151 |

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 mm²/s (cSt) and a density of 0.86 kg/dm³.

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

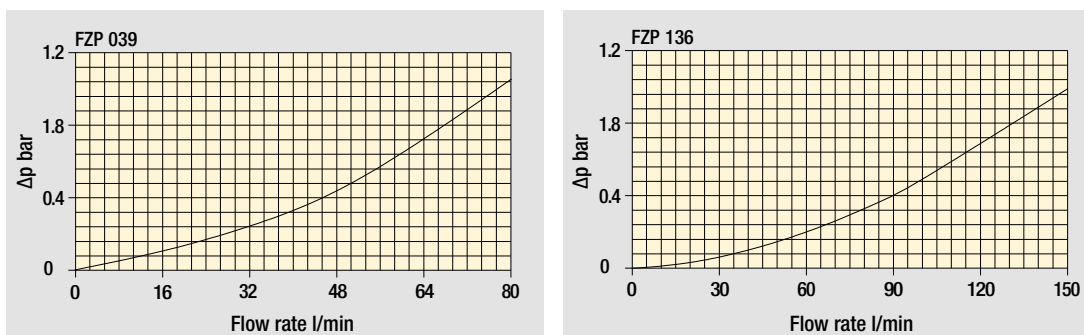
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

Hydraulic symbols

| Filter series | Style S | Style B | Style T | Style D | Style V | Style Z |
|----------------|---------|---------|---------|---------|---------|---------|
| FZP 039 | • | • | • | • | • | • |
| FZP 136 | • | • | - | - | - | - |

Pressure drop

Filter housings Δp pressure drop



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

Designation & Ordering code

COMPLETE FILTER

Configuration example: **FZP039** | **2** | **B** | **F** | **B** | **2** | **A03** | **U** | **P01**

Series and size
FZP039

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

Valves
S Without bypass
B With bypass 6 bar
T With check valve, without bypass
D With check valve, with bypass 6 bar
V With reverse flow, without bypass
Z With reverse flow, with bypass 6 bar

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 indicators
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

| Element Δp | Valves | | | | | | Execution | |
|--|--------|---|---|---|---|---|------------|--------------------|
| | S | B | T | D | V | Z | | |
| R 20 bar | - | • | - | • | - | • | P01 | MP Filtri standard |
| S 210 bar | • | - | • | - | • | - | Pxx | Customized |
| U 210 bar, stainless steel filter element | • | • | • | • | • | • | | |

FILTER ELEMENT

Configuration example: **HP039** | **2** | **A03** | **F** | **U** | **P01**

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 | Element Δp | Valves | | | | | | Execution | |
|--------------|--|--------|---|---|---|---|---|------------|--------------------|
| | | S | B | T | D | V | Z | | |
| A NBR | R 20 bar | - | • | - | • | - | • | P01 | MP Filtri standard |
| V FPM | S 210 bar | • | - | • | - | • | - | Pxx | Customized |
| F MFQ | U 210 bar, stainless steel filter element | • | • | • | • | • | • | | |

CLOGGING INDICATORS

See page 688

DEX Electrical differential indicator

DVY Visual differential indicator

DLX Electrical / visual differential indicator

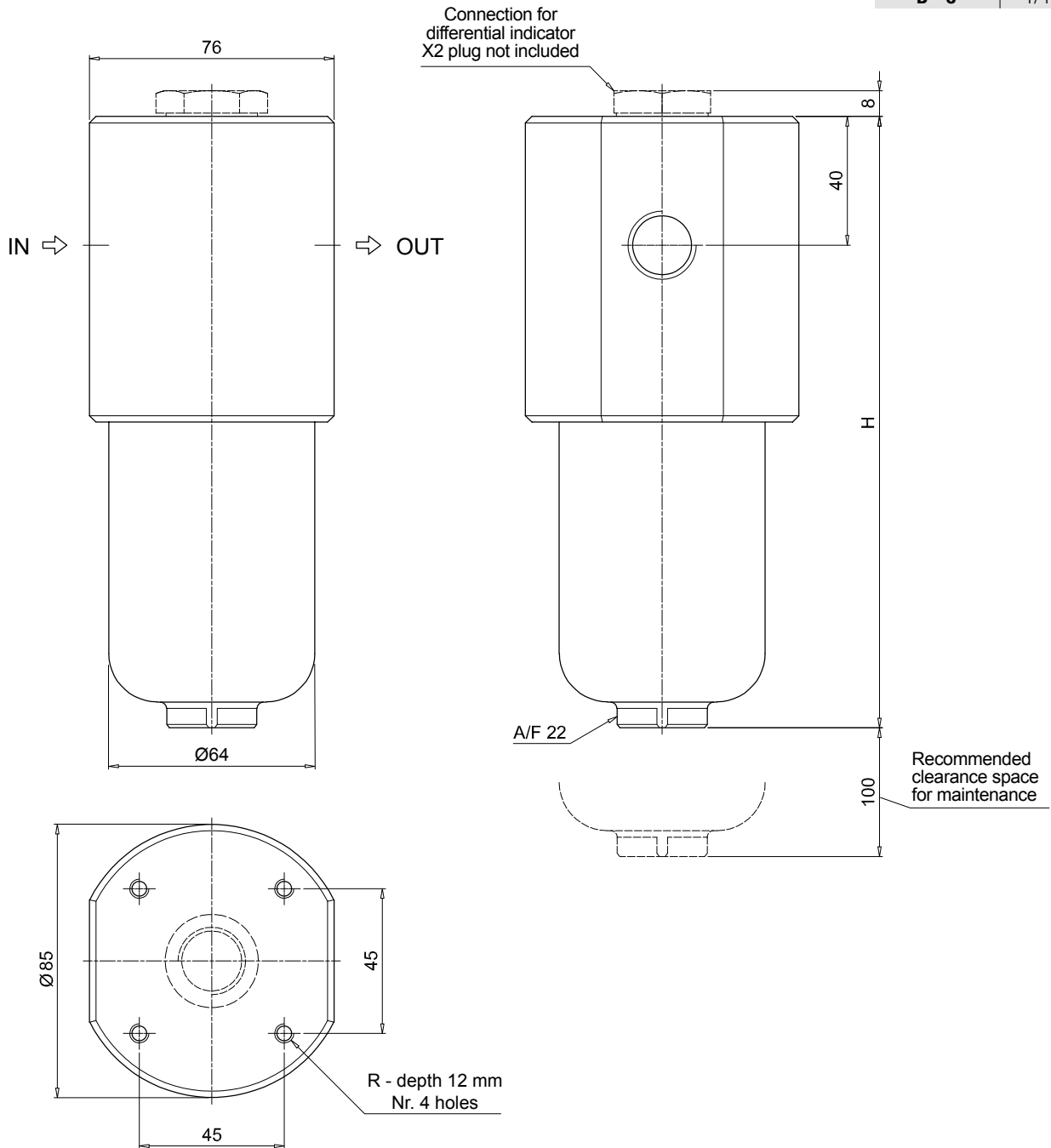
DVX Visual differential indicator

PLUGS

See page 706

X2 Differential indicator plug (not included)

| FZP039 | |
|---------------|----------|
| Filter length | H [mm] |
| 2 | 179 |
| 3 | 222 |
| 4 | 266 |
| Connections | R |
| A | M6 |
| B - C | 1/4" UNC |



Designation & Ordering code

COMPLETE FILTER

Configuration example: **FZP136** | **1** | **B** | **A** | **B** | **6** | **A03** | **R** | **P01**

Series and size
FZP136

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

Bypass valve
S Without bypass
B With bypass 6 bar

Seals
A NBR
V FPM
F MFQ

Connections
A G 3/4"
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
G G 1 1/4"
H 1 1/4" NPT
I SAE 20 - 1 5/8" - 12 UN

Connections for differential indicators
1 Without connection
6 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

| Element Δp | Valves | | Execution |
|--|--------|---|-------------------------------|
| | S | B | |
| R 20 bar | - | • | P01 MP Filtri standard |
| S 210 bar | • | - | Pxx Customized |
| U 210 bar, stainless steel filter element | • | • | |

FILTER ELEMENT

Configuration example: **HP135** | **1** | **A03** | **A** | **R** | **P01**

Element series and size
HP135

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

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

| Element Δp | Valves | | Execution |
|--|--------|---|-------------------------------|
| | S | B | |
| R 20 bar | - | • | P01 MP Filtri standard |
| S 210 bar | • | - | Pxx Customized |
| U 210 bar, stainless steel filter element | • | • | |

CLOGGING INDICATORS

See page 688

- DEX** Electrical differential indicator
- DLX** Electrical / visual differential indicator
- DVX** Visual differential indicator

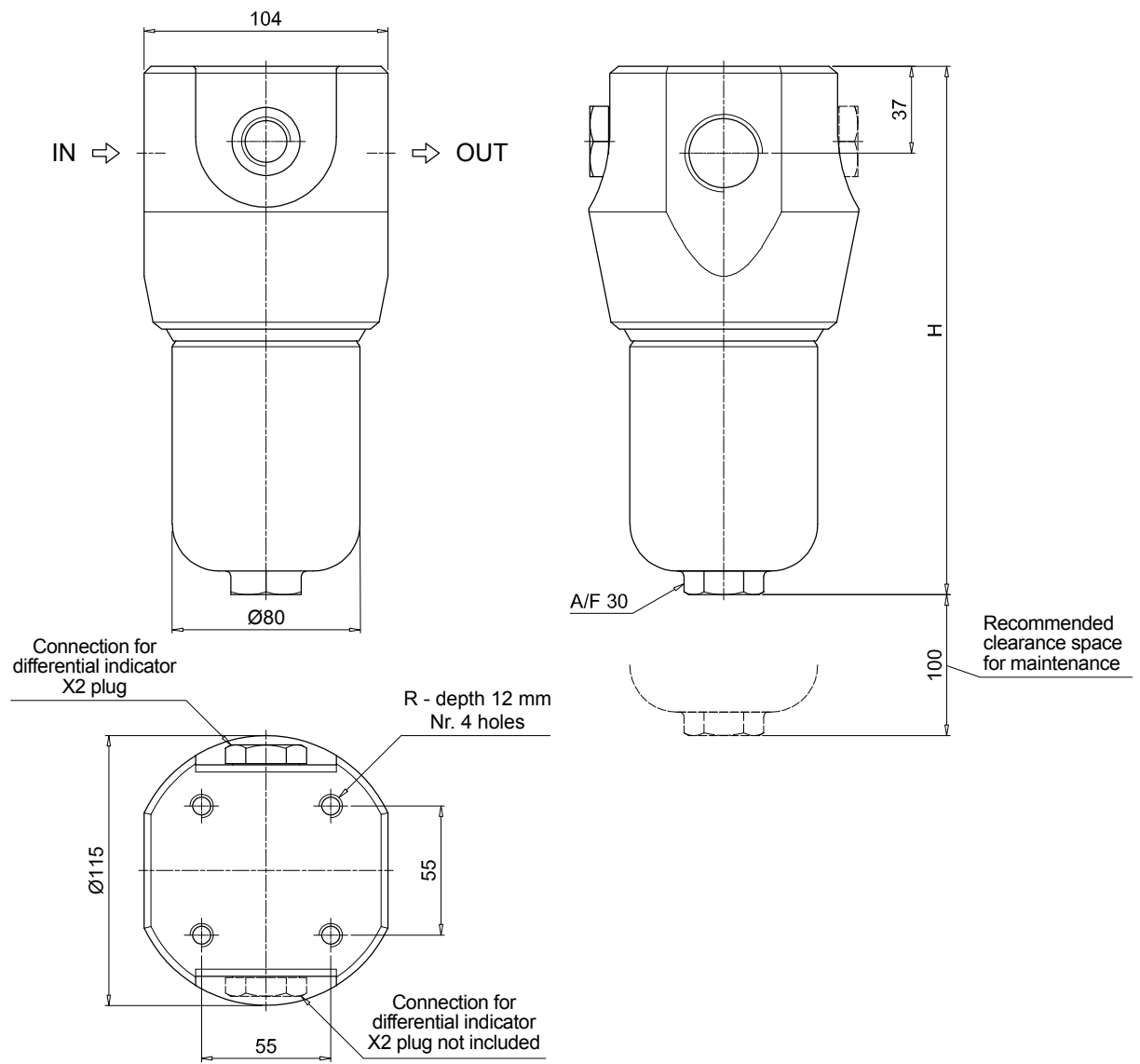
DVY Visual differential indicator

PLUGS

See page 706

- X2** Differential indicator plug (not included)

| FZP136 | |
|---------------|----------|
| Filter length | H [mm] |
| 1 | 222 |
| 2 | 335 |
| 3 | 410 |
| Connections | R |
| A | M10 |
| B - C | 3/8" UNC |
| D | M10 |
| E - F | 3/8" UNC |
| G | M10 |
| H - I | 3/8" UNC |



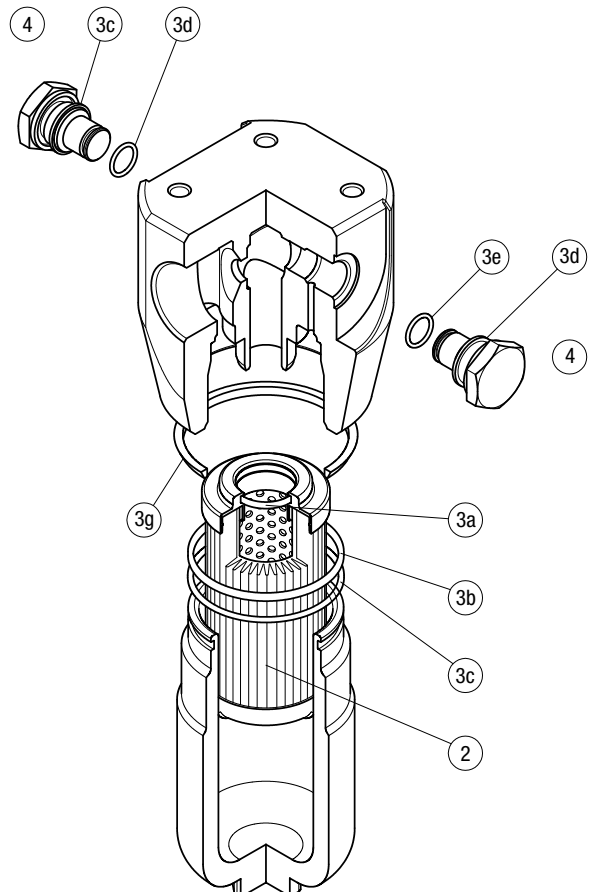
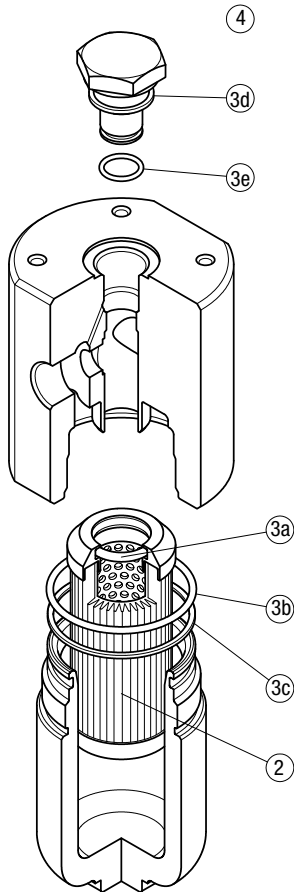
The position of the X2 plug is reversible

FZP SPARE PARTS

Order number for spare parts

FZP 039

FZP 136



| Item: | Q.ty: 1 pc. | | Q.ty: 1 pc. | | Q.ty: 1 pc. | |
|----------------|-----------------|----------------------|-------------|---------------------------|-------------|--|
| Filter series | Filter element | Seal Kit code number | | Indicator connection plug | | |
| FZP 039 | See order table | NBR | FPM | NBR | FPM | |
| | | 02050299 | 02050300 | X2H | X2V | |
| FZP 136 | | 02050636 | 02050637 | | | |