

Проточные фильтры из нержавеющей стали

Технические характеристики

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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 | 8.3 | 10.2 | 11.5 | - | 0.45 | 0.78 | 1.00 | - | - |

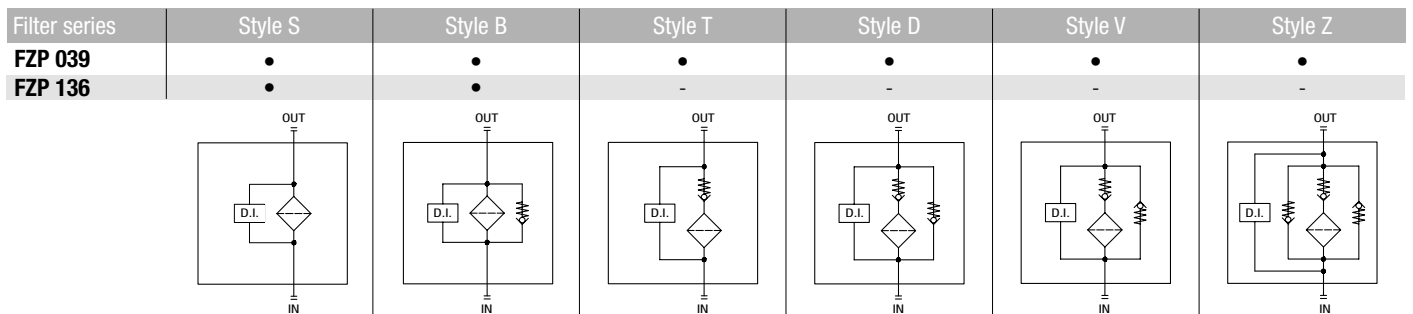
Flow rates [l/min]

| 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.

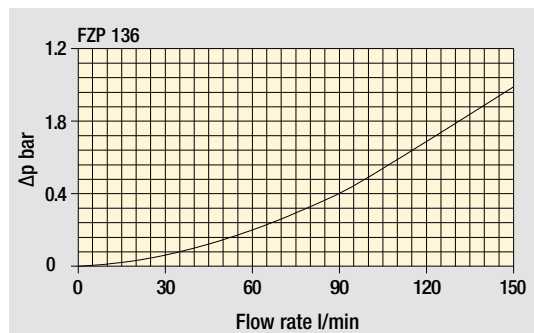
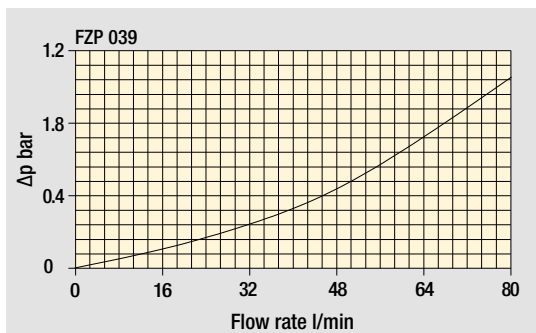
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

Hydraulic symbols



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 pressure 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 728

DEX Electrical differential pressure indicator
DLX Electrical/visual differential pressure indicator

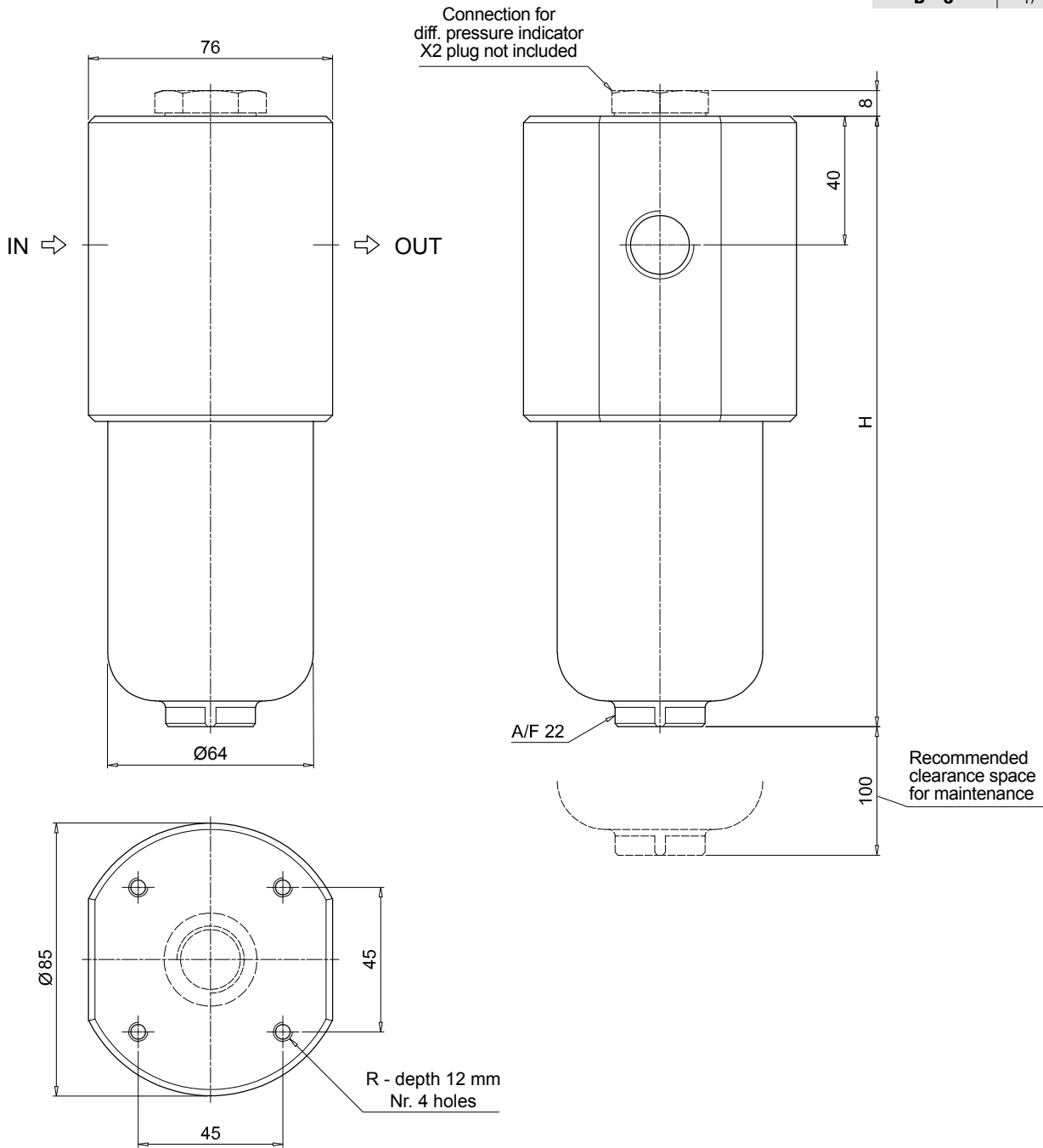
DVX Visual differential pressure indicator
DVY Visual differential pressure indicator

PLUGS

See page 747

X2 Stainless steel 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 pressure 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 728

DEX Electrical differential pressure indicator

DLX Electrical/visual differential pressure indicator

DVX Visual differential pressure indicator

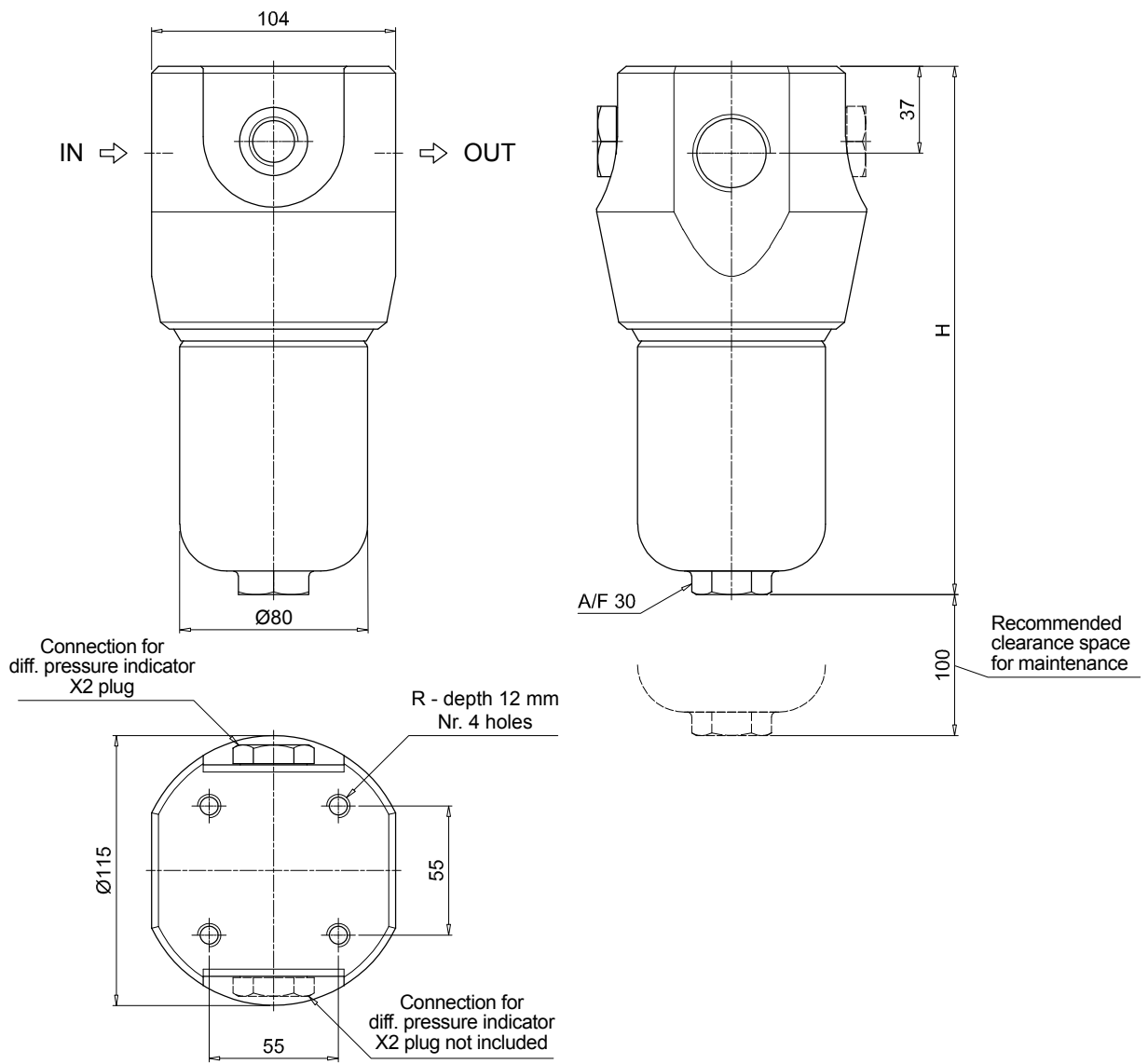
DVY Visual differential pressure indicator

PLUGS

See page 747

X2 Stainless steel 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 |



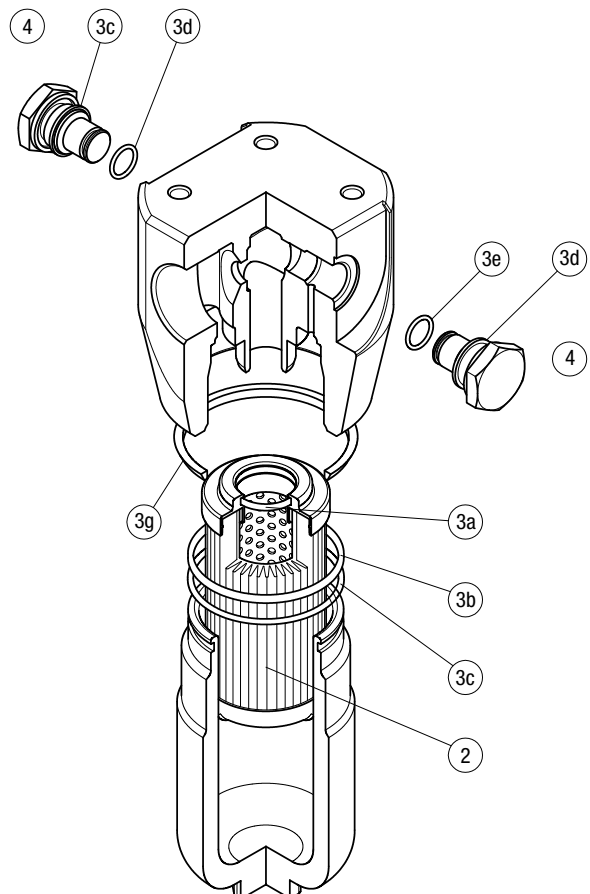
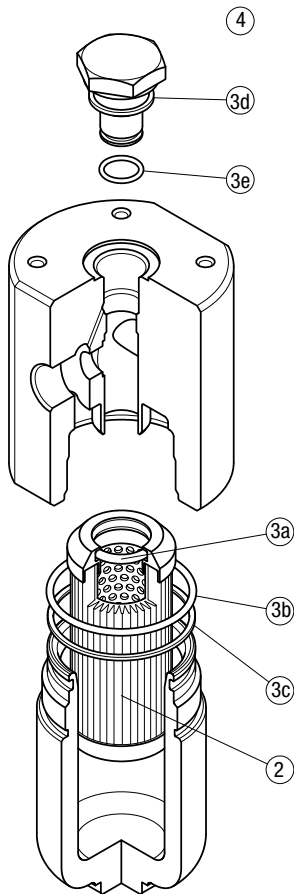
The position of the X2 plug is reversible

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 | | | |

CLOGGING INDICATORS

STAINLESS STEEL HIGH PRESSURE FILTERS

Designation & Ordering code

DIFFERENTIAL PRESSURE INDICATORS

| Series | | | | | Configuration example 1: | | | | | | | | |
|------------------------|---------------------------------------------------------------|--|--|--|--------------------------|----------|-----------|----------|----------|-----------|------------|--|--|
| DE | Electrical differential pressure indicator | | | | DE | Z | 50 | H | A | 50 | P01 | | |
| DL | Electrical / Visual differential pressure indicator | | | | Configuration example 2: | | | | | | | | |
| DV | Visual differential pressure indicator | | | | DL | X | 70 | V | A | 52 | P01 | | |
| Type | | | | | DE | DL | DV | | | | | | |
| X | Stainless steel standard type 420 bar | | | | • | • | • | | | | | | |
| Y | Stainless steel optional type 420 bar | | | | - | - | • | | | | | | |
| Z | Stainless steel 700 bar (only for FZH) | | | | • | • | • | | | | | | |
| Pressure setting | | | | | DEX | DEZ | DL | DV | | | | | |
| 50 | 5.0 bar | | | | • | • | • | • | | | | | |
| 70 | 7.0 bar | | | | • | • | • | • | | | | | |
| 95 | 9.5 bar | | | | • | • | • | • | | | | | |
| Seals | | | | | DEX | DEZ | DL | DV | | | | | |
| H | HNBR | | | | • | • | • | • | | | | | |
| V | FPM | | | | - | - | • | • | | | | | |
| F | MFQ | | | | • | • | - | - | | | | | |
| Thermostat | | | | | DEX | DEZ | DL | DV | | | | | |
| A | Without thermostat | | | | • | • | • | - | | | | | |
| Electrical connections | | | | | DEX | DEZ | DL | | | | | | |
| 50 | Connection EN 175301-803 | | | | • | • | - | | | | | | |
| 51 | Connection EN 175301-803, transparent base with lamps 24 Vdc | | | | - | - | • | | | | | | |
| 52 | Connection EN 175301-803, transparent base with lamps 110 Vdc | | | | - | - | • | | | | | | |

| Option | |
|------------|--------------------|
| P01 | MP Filtri standard |
| Pxx | Customized |

PLUGS

| Series | | Configuration example | |
|-----------|---------------------------------------------|-----------------------|----------|
| X2 | Stainless Steel plug 420 bar | X2 | H |
| X3 | Stainless Steel plug 700 bar (only for FZH) | | |
| Seals | | | |
| H | HNBR | | |
| V | FPM | | |
| F | MFQ | | |

Description

Technical data

Stainless steel high pressure filters

In-line

Maximum working pressure up to 80 Mpa (700 bar)
Flow rate up to 80 l/min

FZH 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:

- 1/2" 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
- High collapse filter element "H", for use with filters not provided with bypass valve
- 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 \pm 10%

Temperature

From -50 °C to +120 °C

Note

FZH filters are provided for vertical mounting

Δp element type

Fluid flow through the filter element from OUT to IN

Microfibre filter elements - series N-R: 20 bar.

Element series "N - 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 H-S: 210 bar.

Element series "H - 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 |
| FZH 012 | | 2.1 | 2.2 | 2.7 | 3.3 | | 0.10 | 0.12 | 0.15 | 0.20 |
| FZH 040 | | - | 4.5 | 5.1 | 5.6 | | - | 0.19 | 0.26 | 0.34 |

Flow rates [l/min]

| Filter series | Length | Filter element design - N Series | | | | | Filter element design - H-U Series | | | | |
|----------------|----------|----------------------------------|-----|-----|-----|-----|------------------------------------|-----|-----|-----|-----|
| | | A03 | A06 | A10 | A16 | A25 | A03 | A06 | A10 | A16 | A25 |
| FZH 012 | 1 | 4 | 6 | 8 | 9 | 11 | 3 | 5 | 6 | 7 | 9 |
| | 2 | 7 | 9 | 17 | 20 | 26 | 5 | 7 | 14 | 17 | 23 |
| | 3 | 11 | 14 | 25 | 27 | 32 | 11 | 14 | 24 | 27 | 32 |
| | 4 | 17 | 20 | 29 | 31 | 34 | 13 | 16 | 26 | 29 | 33 |

| Filter series | Length | Filter element design - R Series | | | | | Filter element design - S-U Series | | | | |
|----------------|----------|----------------------------------|-----|-----|-----|-----|------------------------------------|-----|-----|-----|-----|
| | | A03 | A06 | A10 | A16 | A25 | A03 | A06 | A10 | A16 | A25 |
| FZH 040 | 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 |

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

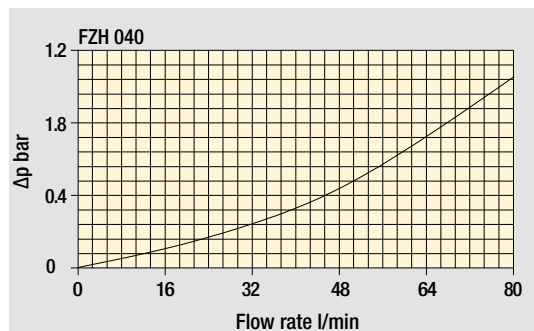
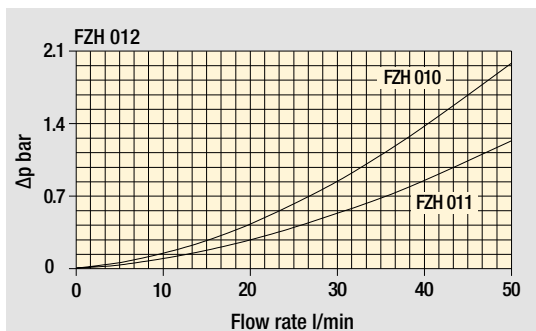
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

Hydraulic symbols

| Filter series | Style S | Style B | Style T | Style D | Style V | Style Z |
|----------------|---------|---------|---------|---------|---------|---------|
| FZH 012 | • | • | - | - | • | • |
| FZH 040 | • | • | • | • | • | • |

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: **FZH012** | **2** | **B** | **F** | **B** | **2** | **A03** | **U** | **P01**

Filter Series and size
FZH012

Filter length
1 | **2** | **3** | **4**

Valves
S Without bypass
B 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 1/4"
B 1/4" NPT
C SAE 5 - 1/2" - 20 UNF
D G 3/8"
E 3/8" NPT
F SAE 6 - 9/16" - 18 UNF

Connection for differential pressure indicator
1 Without connection
2 With connection

| Filtration rating (filter media) | Valves | | | |
|---------------------------------------|--------|---|---|---|
| | S | B | V | Z |
| 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 | S | B | V | Z | Execution |
|--------------------------------------------------|---|---|---|---|-------------------------------|
| N 20 bar | - | • | - | • | P01 MP Filtri standard |
| H 210 bar | • | - | • | - | Pxx Customized |
| U 210 bar, stainless steel filter element | • | • | • | • | |

FILTER ELEMENT

Configuration example: **HP011** | **2** | **A03** | **F** | **U** | **P01**

Element series and size
HP011

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

| Filtration rating (filter media) | Valves | | | |
|---------------------------------------|--------|---|---|---|
| | S | B | V | Z |
| 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 | S | B | V | Z | Execution |
|--------------------------------------------------|---|---|---|---|-------------------------------|
| N 20 bar | - | • | - | • | P01 MP Filtri standard |
| H 210 bar | • | - | • | - | Pxx Customized |
| U 210 bar, stainless steel filter element | • | • | • | • | |

CLOGGING INDICATORS

See page 728

DEZ Electrical differential pressure indicator

DLZ Electrical/visual differential pressure indicator

DVZ Visual differential pressure indicator

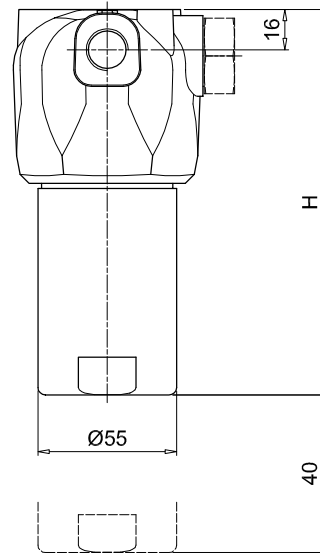
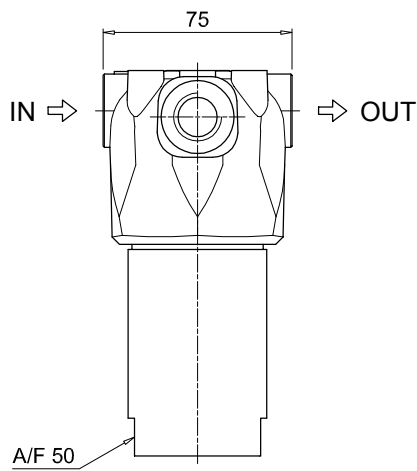
PLUGS

See page 747

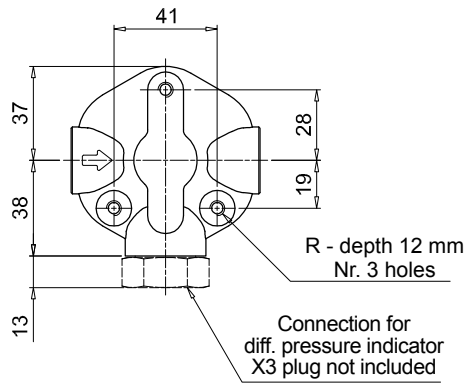
X3 Stainless steel plug (not included)

| FZH012 | |
|---------------|--------|
| Filter length | H [mm] |
| 1 | 93 |
| 2 | 104 |
| 3 | 154 |
| 4 | 204 |

| Connections | R |
|--------------|----------|
| A | M6 |
| B - C | 1/4" UNC |
| D | M6 |
| E - F | 1/4" UNC |



Recommended clearance space for maintenance



Designation & Ordering code

COMPLETE FILTER

Configuration example: **FZH040** **2** **T** **A** **A** **2** **A03** **S** **P01**

Filter Series and size
FZH040

Filter 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 **F** MFQ
V FPM

Connections
A G 1/2"
B 1/2" NPT
C SAE 8 - 3/4" - 16 UNF

Connection for differential pressure 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 |

| Element Δp | S | B | T | D | V | Z |
|--------------------------------------------------|---|---|---|---|---|---|
| R 20 bar | - | • | - | • | - | • |
| S 210 bar | • | - | • | - | • | - |
| U 210 bar, stainless steel filter element | • | • | • | • | • | • |

Valves

| Execution |
|-------------------------------|
| P01 MP Filtri standard |
| Pxx Customized |

FILTER ELEMENT

Configuration example: **HP039** **2** **A03** **A** **S** **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 |

| Element Δp | S | B | T | D | V | Z |
|--------------------------------------------------|---|---|---|---|---|---|
| R 20 bar | - | • | - | • | - | • |
| S 210 bar | • | - | • | - | • | - |
| U 210 bar, stainless steel filter element | • | • | • | • | • | • |

Valves

| Execution |
|-------------------------------|
| P01 MP Filtri standard |
| Pxx Customized |

Seals
A NBR **F** MFQ
V FPM

CLOGGING INDICATORS

See page 728

DEZ Electrical differential pressure indicator

DLZ Electrical/visual differential pressure indicator

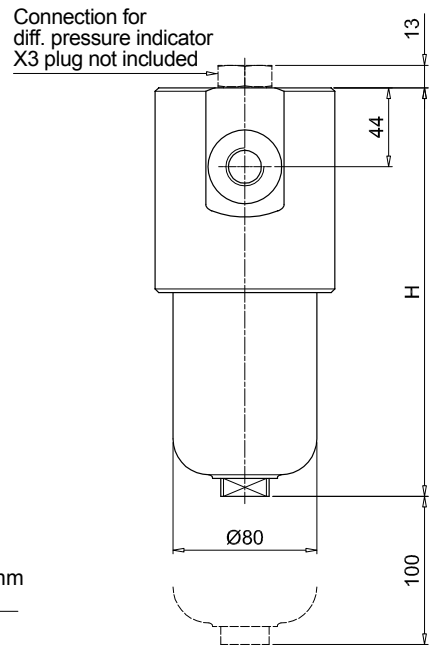
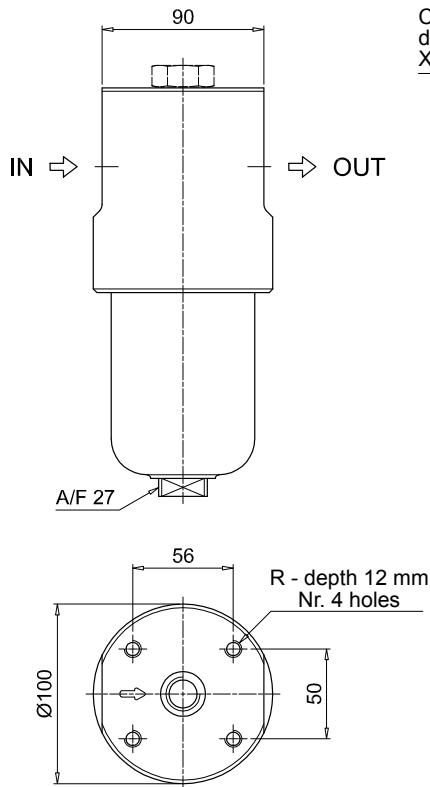
DVZ Visual differential pressure indicator

PLUGS

See page 747

X3 Stainless steel plug (not included)

Valves S - B - T - D

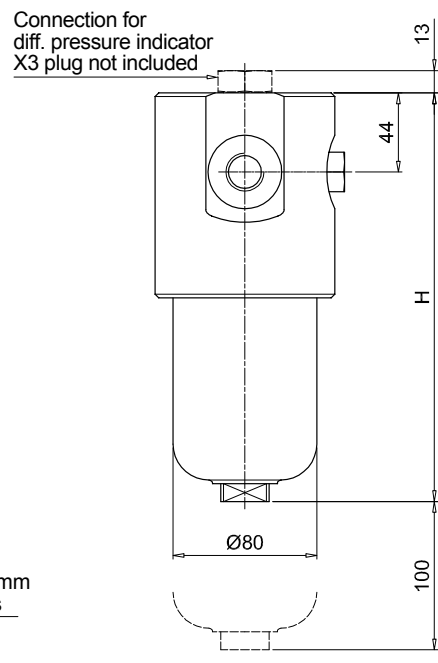
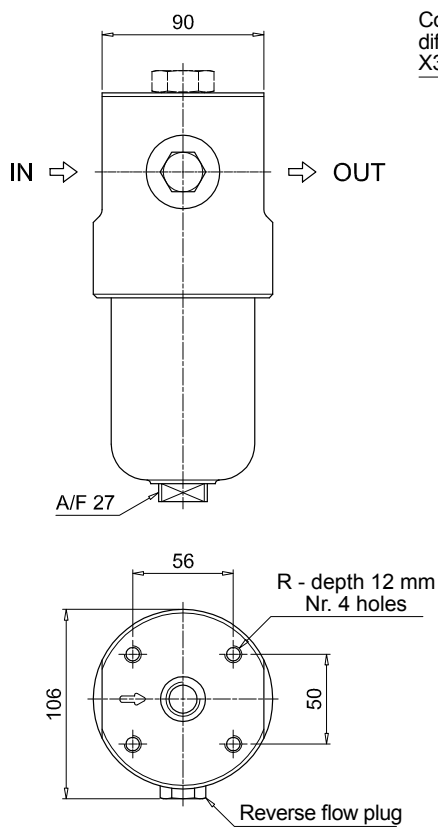


Recommended clearance space for maintenance

| FZH040 | |
|---------------|--------|
| Filter length | H [mm] |
| 2 | 204 |
| 3 | 247 |
| 4 | 291 |

| Connections | R |
|-------------|----------|
| A | M10 |
| B | 3/8" UNC |
| C | 3/8" UNC |

Valves V - Z



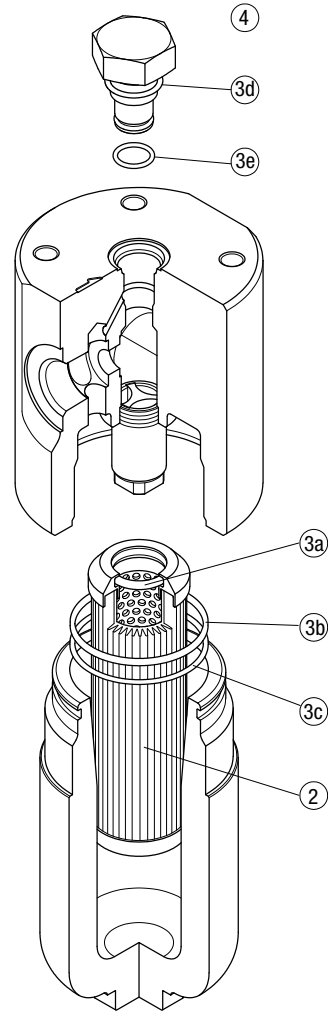
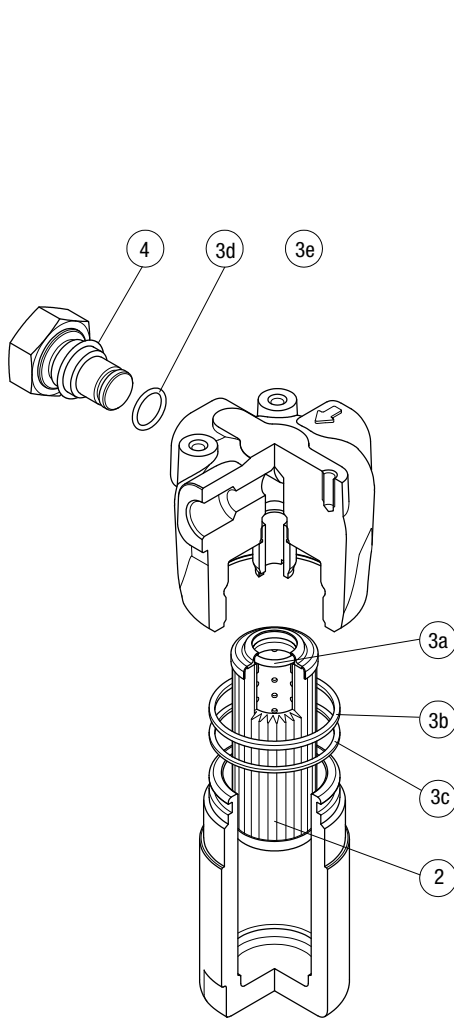
Recommended clearance space for maintenance

FZH SPARE PARTS

Order number for spare parts

FZH 012

FZH 040



| Item: | Q.ty: 1 pc. | Q.ty: 1 pc. | | Q.ty: 1 pc. | |
|---------------|-----------------|----------------------|----------|---------------------------|-----|
| Filter series | Filter element | Seal Kit code number | | Indicator connection plug | |
| FZH 012 | See order table | NBR | FPM | NBR | FPM |
| FZH 040 | See order table | 02050856 | 02050857 | X2H | X2V |
| | | 02050860 | 02050861 | | |

CLOGGING INDICATORS

STAINLESS STEEL HIGH PRESSURE FILTERS

Designation & Ordering code

DIFFERENTIAL PRESSURE INDICATORS

| Series | Configuration example 1: | | | | | | |
|-------------------------------------------------------------------------|--------------------------|-----|----|----|---|----|-----|
| DE Electrical differential pressure indicator | DE | Z | 50 | H | A | 50 | P01 |
| DL Electrical / Visual differential pressure indicator | Configuration example 2: | | | | | | |
| DV Visual differential pressure indicator | DL | X | 70 | V | A | 52 | P01 |
| Type | DE | DL | DV | | | | |
| X Stainless steel standard type 420 bar | • | • | • | | | | |
| Y Stainless steel optional type 420 bar | - | - | • | | | | |
| Z Stainless steel 700 bar (only for FZH) | • | • | • | | | | |
| Pressure setting | DEX | DEZ | DL | DV | | | |
| 50 5.0 bar | • | • | • | • | | | |
| 70 7.0 bar | • | • | • | • | | | |
| 95 9.5 bar | • | • | • | • | | | |
| Seals | DEX | DEZ | DL | DV | | | |
| H HNBR | • | • | • | • | | | |
| V FPM | - | - | • | • | | | |
| F MFQ | • | • | - | - | | | |
| Thermostat | DEX | DEZ | DL | DV | | | |
| A Without thermostat | • | • | • | - | | | |
| Electrical connections | DEX | DEZ | DL | | | | |
| 50 Connection EN 175301-803 | • | • | - | | | | |
| 51 Connection EN 175301-803, transparent base with lamps 24 Vdc | - | - | • | | | | |
| 52 Connection EN 175301-803, transparent base with lamps 110 Vdc | - | - | • | | | | |

| Option |
|-------------------------------|
| P01 MP Filtri standard |
| Pxx Customized |

PLUGS

| Series | Configuration example | |
|-------------------------------------------------------|-----------------------|---|
| X2 Stainless Steel plug 420 bar | X2 | H |
| X3 Stainless Steel plug 700 bar (only for FZH) | | |
| Seals | | |
| H HNBR | | |
| V FPM | | |
| F MFQ | | |

Description

Technical data

Stainless steel high pressure filters

In-line

Maximum working pressure up to 100 Mpa (1000 bar)

Flow rate up to 10 l/min

FZX 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:

- Female threaded connections up to 1/2", for a maximum flow rate of 10 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- High collapse filter element "H"
- High collapse filter element "U", for use with aggressive fluids

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

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)

Temperature

From -50 °C to +120 °C

Note

FZX filters are provided for vertical mounting

Δp element type

Fluid flow through the filter element from OUT to IN

Microfibre filter elements - series H: 210 bar.

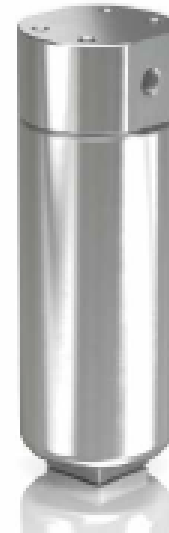
Element series "H":

- End cap: Polyamide
- Core tube: Stainless steel
- External support: Wire mesh Epoxy painted
- Internal support: Wire mesh Stainless steel
- Media/Support/Pre-filter: Microfibre/Synthetic

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/Synthetic



Weights [kg] and volumes [dm³]

| Filter series | Weights [kg] | | | | | Volumes [dm ³] | | | | |
|----------------|--------------|---|-----|---|---|----------------------------|---|------|---|---|
| | Length | 1 | 2 | 3 | 4 | Length | 1 | 2 | 3 | 4 |
| FZX 011 | - | - | 6.5 | - | - | - | - | 0.15 | - | - |

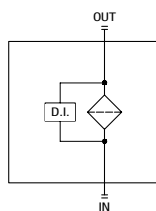
Flow rates [l/min]

| Filter series | Length | Filter element design - H-U Series | | | | |
|----------------|----------|------------------------------------|------|------|------|------|
| | | A03 | A06 | A10 | A16 | A25 |
| FZX 011 | 3 | 1.57 | 1.63 | 1.73 | 1.74 | 1.77 |

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

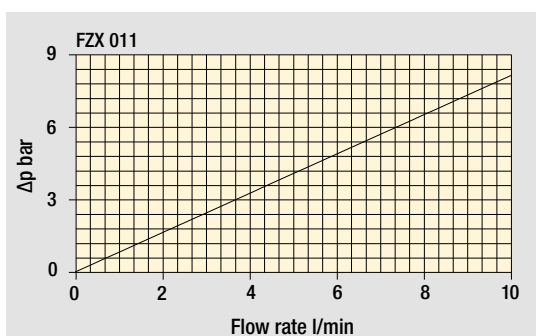
Hydraulic symbols

| Filter series | Style S |
|----------------|---------|
| FZX 011 | • |

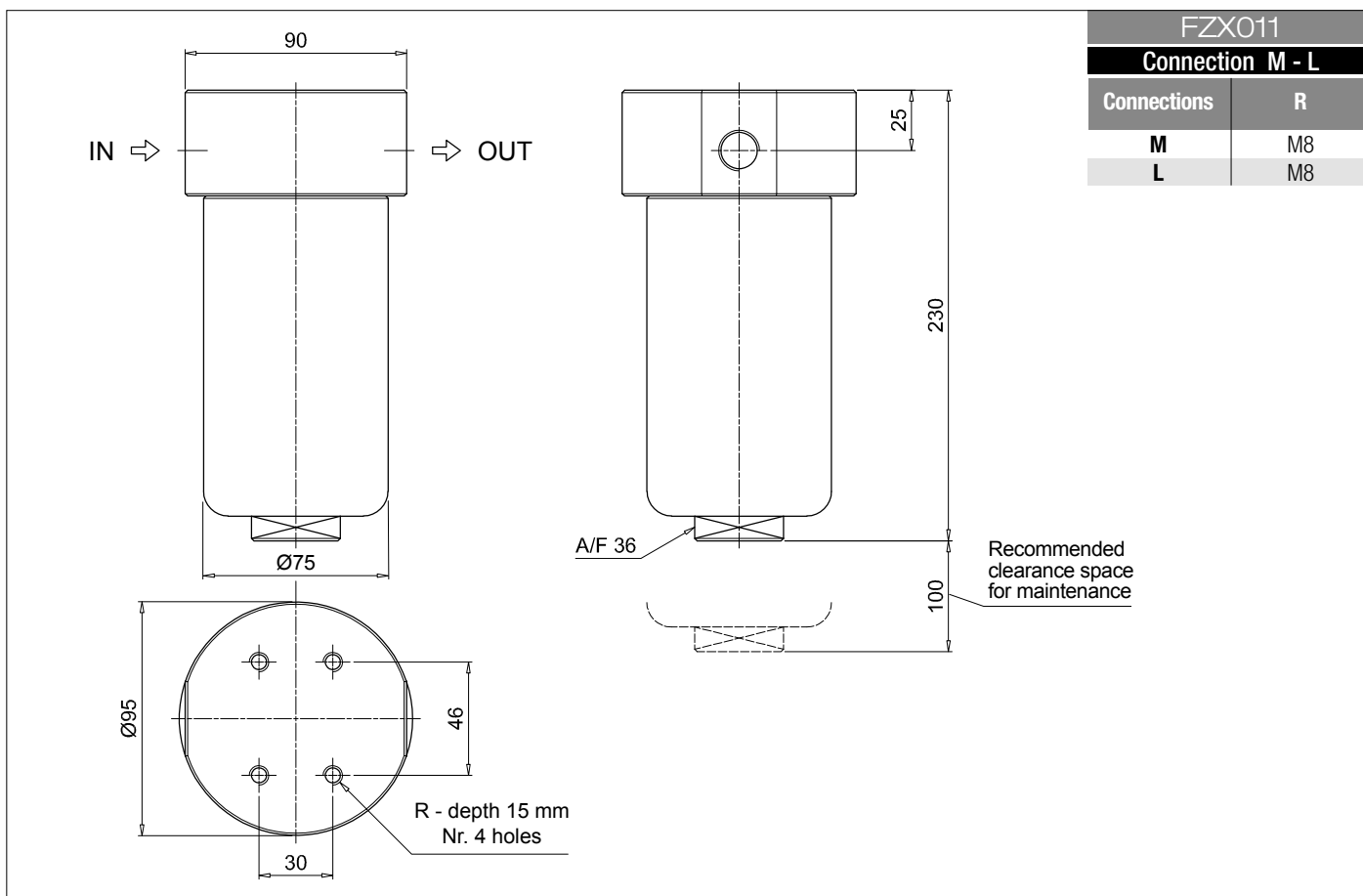
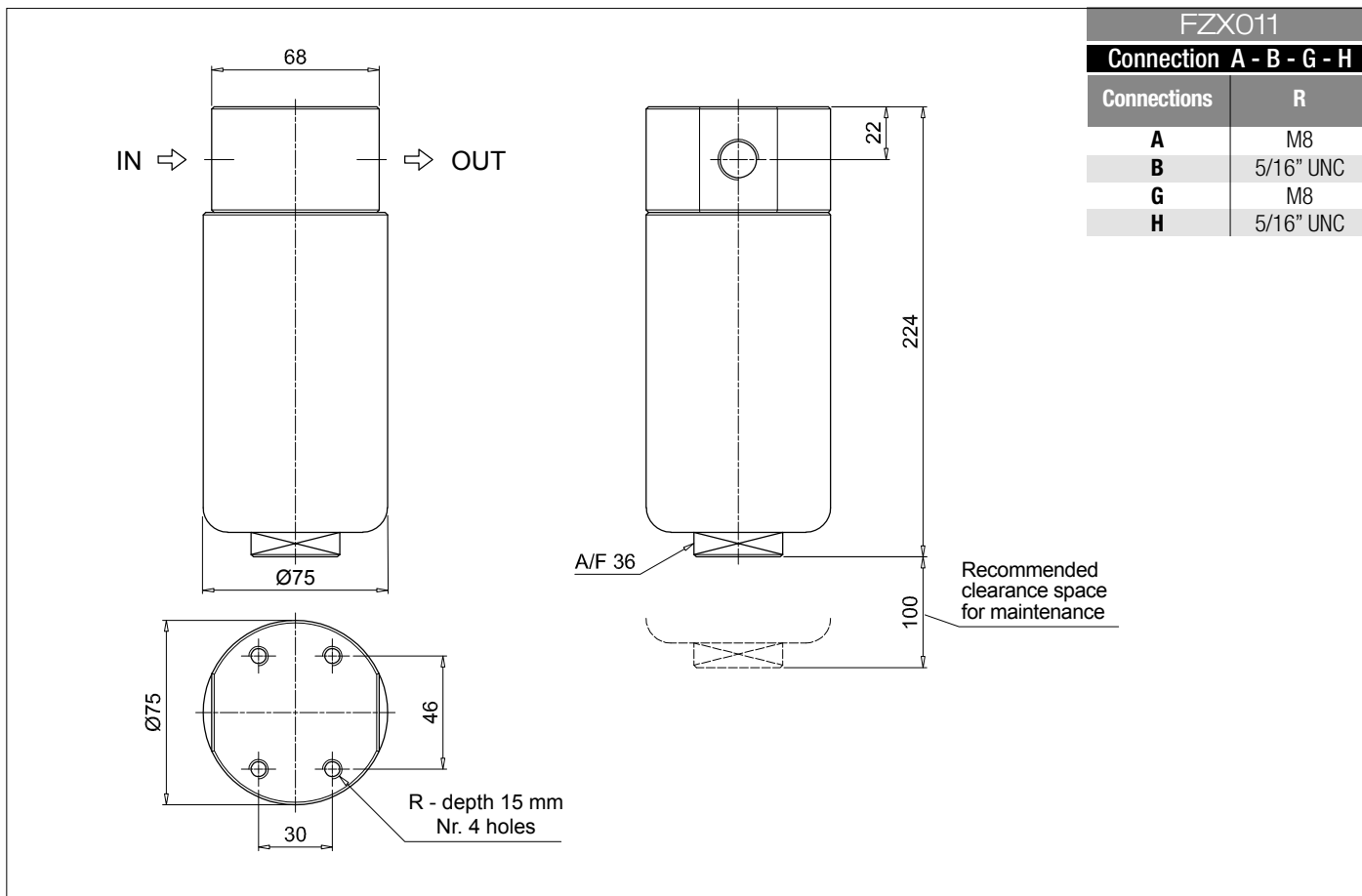


Pressure drop

Filter housings Δp pressure drop

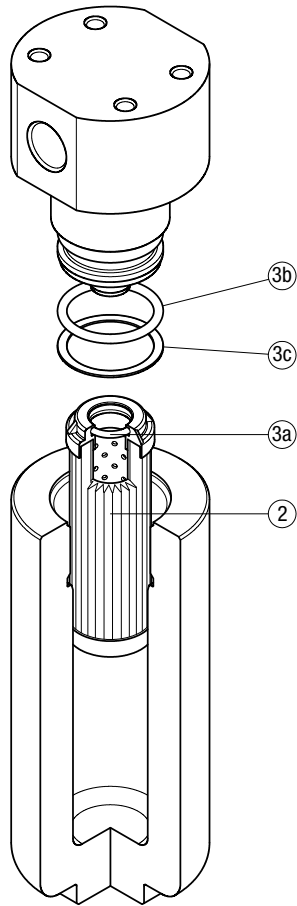


The curves are plotted using mineral oil with density of 0.86 kg/dm^3 in compliance with ISO 3968. Δp varies proportionally with density.



Order number for spare parts

FZX 011



| Filter series | Filter element | Seal Kit code number | | |
|----------------|-----------------|----------------------|----------|----------|
| | | NBR | FPM | MFQ |
| FZX 011 | See order table | 02050643 | 02050644 | 02050646 |

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