

# FZX series

Maximum working pressure up to 100 MPa (1000 bar) - Flow rate up to 10 l/min



## INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS



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## 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

### Pressure

- Test pressure: 150 MPa (1500 bar)
- Min. Burst pressure: 300 MPa (3000 bar)
- Pulse pressure fatigue test: 1 000 000 cycles with pressure from 0 to 10 MPa (1000 bar)

### Filter element features

| Filter<br>FZX  |  | Filter element<br>HP |         |
|--|--|----------------------|---------|
| <b>Δp Element type</b>   |  |                      |         |
| Element media  | Construction                               | Δp Series            | Δp      |
| A - Microfiber   | High Δp                                    | H                    | 210 bar |
|  | High Δp<br>with stainless steel components | U                    | 210 bar |
| <i>Please see ordering code tables to check element Δp series availability based on filter features.</i> |  |                      |         |
| <b>Flow direction through the filter element:</b>  |  |                      |         |
| From OUT to IN   |  |                      |         |
| Filter element components materials  | Δp Series                                  |                      |         |
|  | H  | U                    |         |
| End cap  | Tinned Steel                               | Stainless steel      |         |
| Core tube  | Tinned Steel                               | Stainless steel      |         |
| External support   | Wire mesh epoxy painted                    | Stainless steel      |         |
| Internal support   | Stainless steel                            | Stainless steel      |         |
| Pre-filter   | Synthetic                                  | Synthetic            |         |

### 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

## 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>FZX 011</b> | -            | - | 6.5 | - | - | -                          | - | 0.15 | - | - |

Flow rates [l/min]

| Filter series  | Length   | Filter element design - H-U Series |      |      |      |      |
|----------------|----------|------------------------------------|------|------|------|------|
|                |          | A03                                | A06  | A10  | A16  | A25  |
| <b>FZX 011</b> | <b>3</b> | 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.

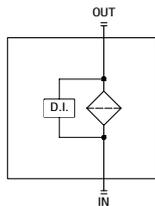
The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

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.

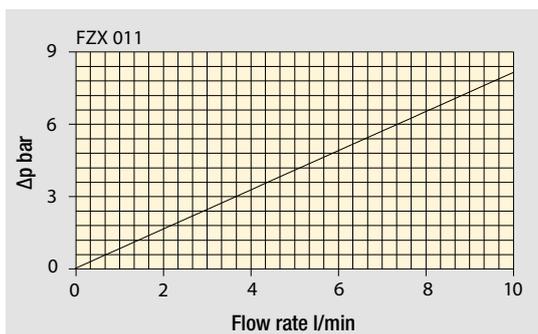
Hydraulic symbols

| Filter series  | Style S |
|----------------|---------|
| <b>FZX 011</b> | •       |



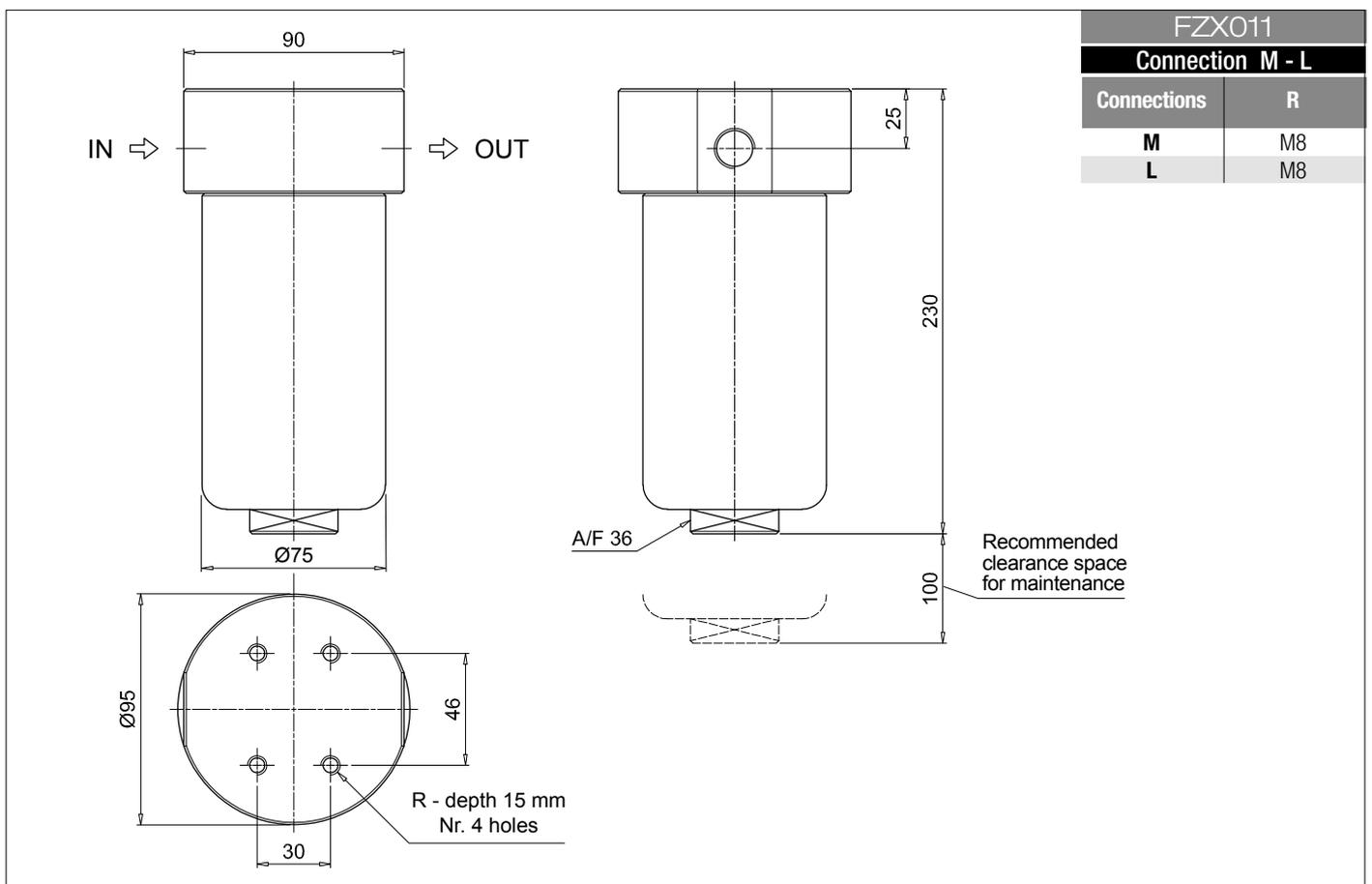
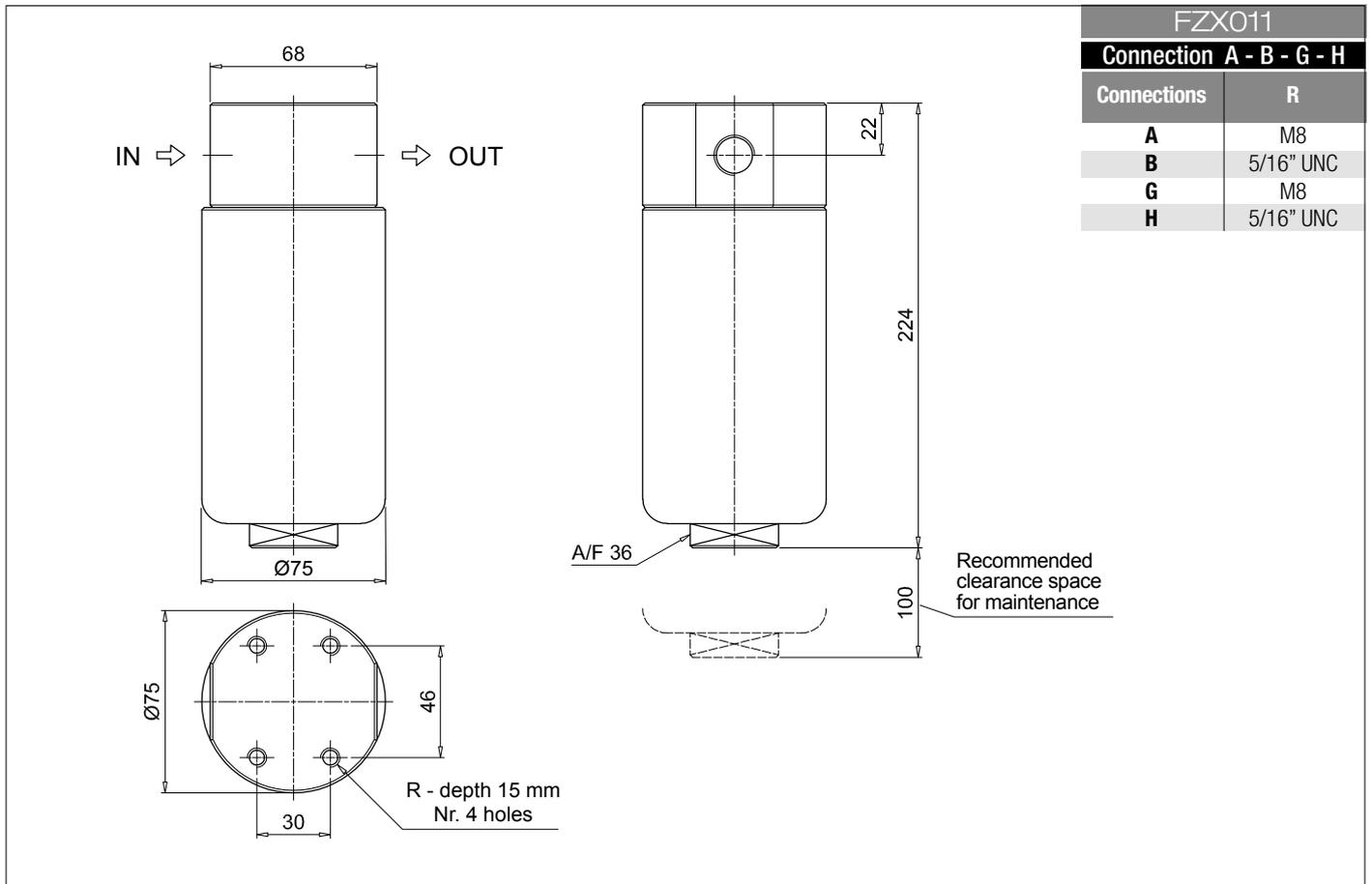
Pressure drop

Filter housings  $\Delta p$  pressure drop



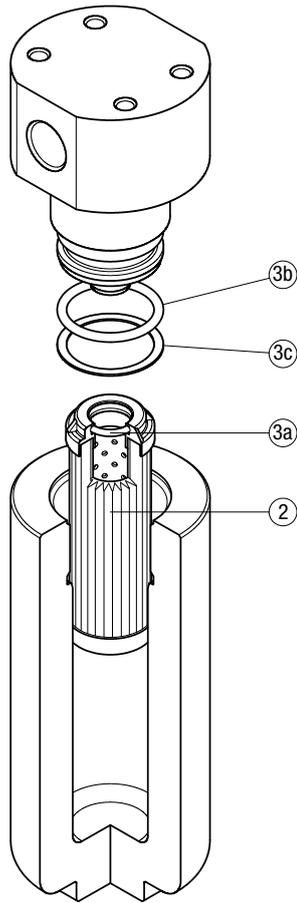
The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.





Order number for spare parts

**FZX 011**



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