

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

Filters for potentially explosive atmosphere

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:

- 1/2" female threaded connections, 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", for use with filters not provided with bypass valve
- 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
- Bypass valve: AISI 316L

Seals

- Standard NBR series A
- Optional FPM series V
- Optional MFQ series F

Bypass valve

Opening pressure 6 bar \pm 10%

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: 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

Temperature




Seals	Ambient Temperature	Max fluid Temperature	Temperature Class	Max surface temperature
NBR	-15 °C ÷ +80 °C	+80 °C	T6	T85 °C
FPM / MFQ	-15 °C ÷ +80 °C	+80 °C	T6	T85 °C
	-15 °C ÷ +95 °C	+95 °C	T5	T100 °C
	-15 °C ÷ +110 °C	+110 °C	T4	T115 °C

Filter with:

NBR seal in configuration **zerospark[®]**

   II 3G Ex h IIC T6 Gc X
 II 3D Ex h IIIC T85°C Dc X

FPM / MFQ seal in configuration **zerospark[®]**

   II 3G Ex h IIC T6... T4 Gc X
 II 3D Ex h IIIC T85°C...T115°C Dc X

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.

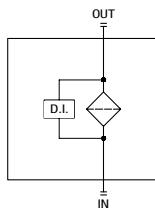
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

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.

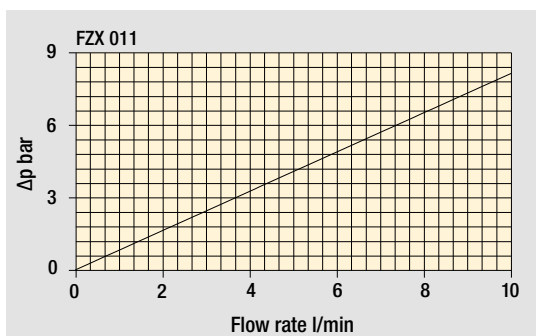
Hydraulic symbols

Filter series	Style S
FZX 011	•



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.

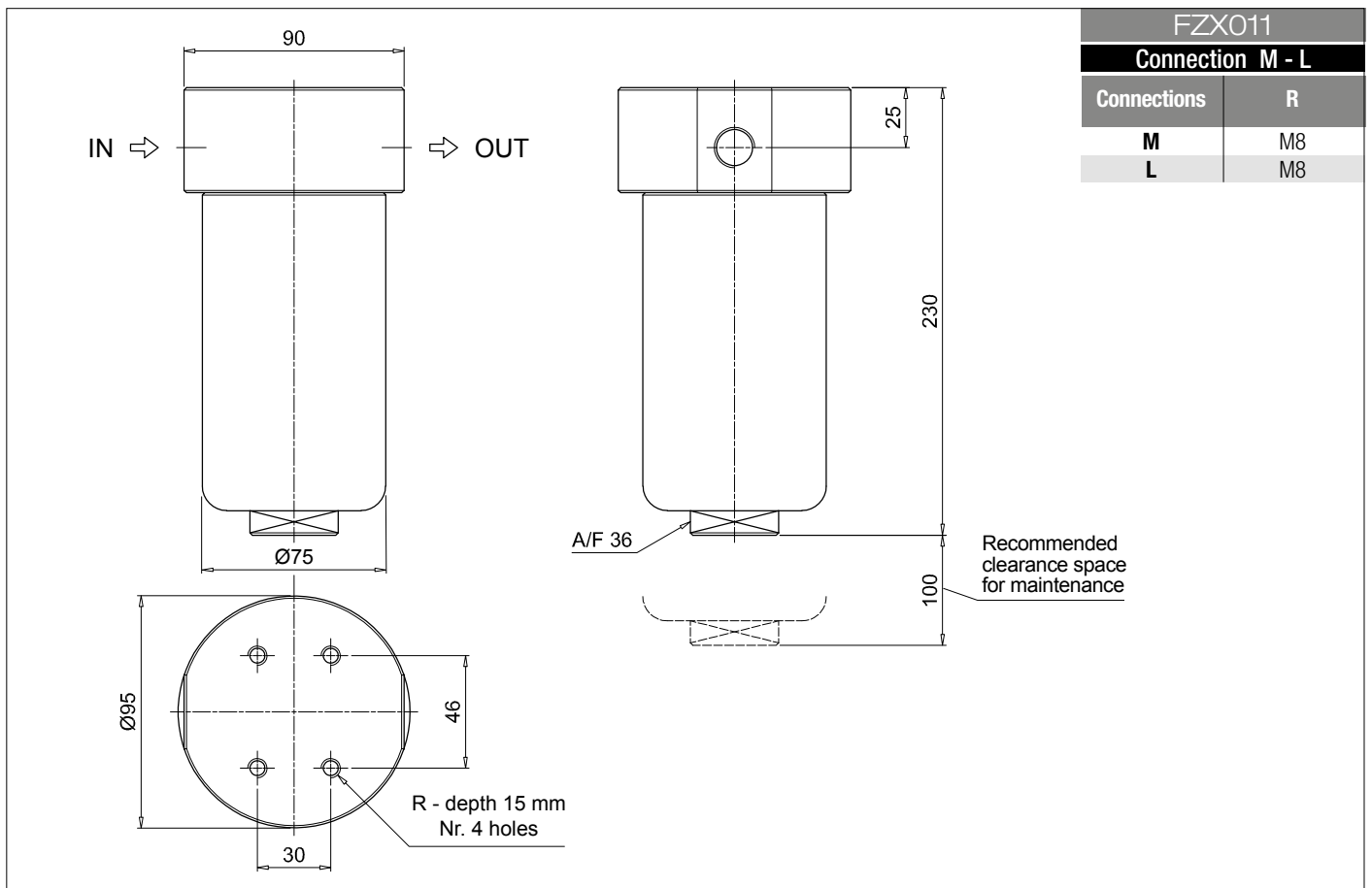
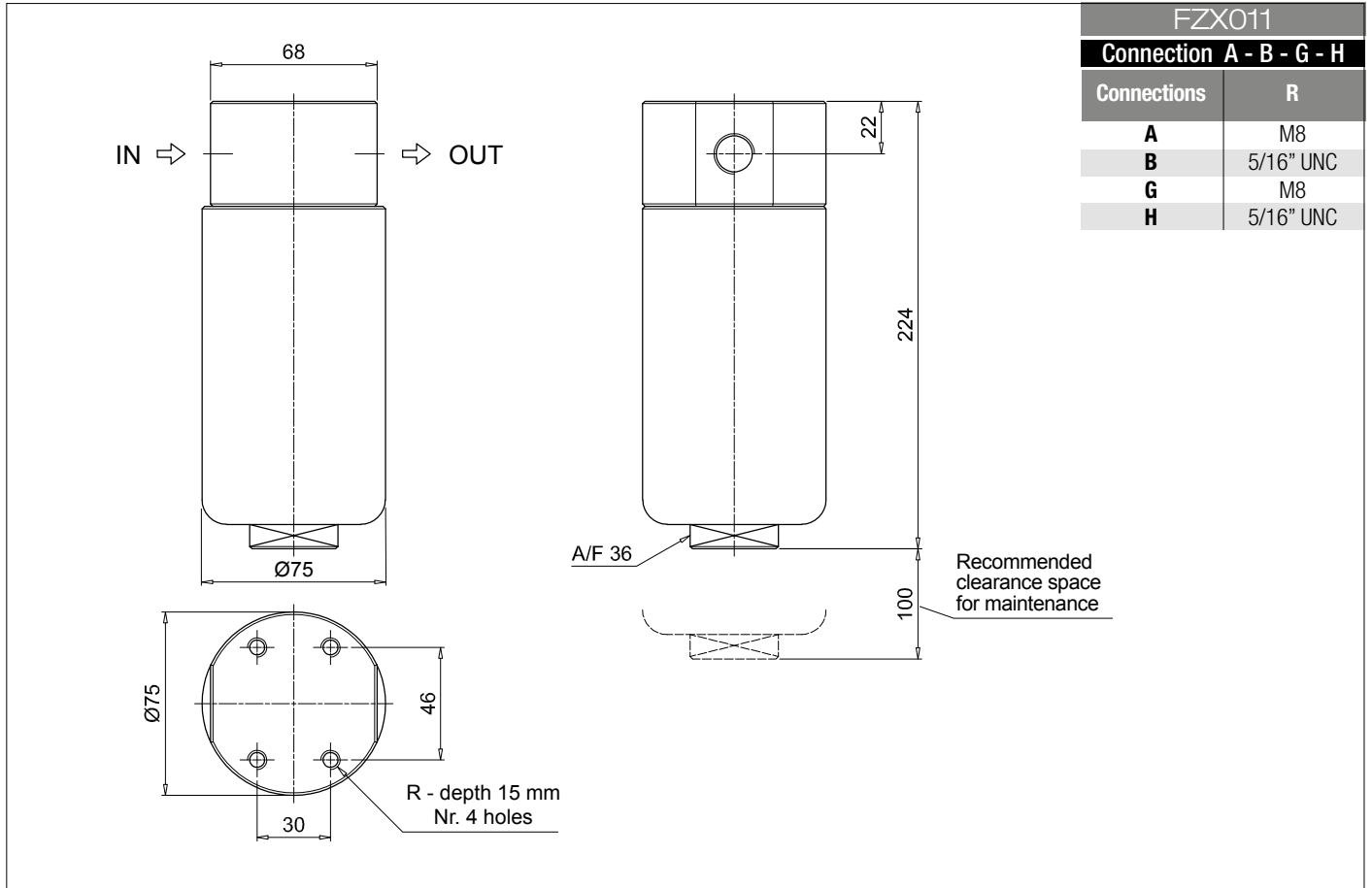
Designation & Ordering code

COMPLETE FILTER

Filter series and size	Configuration example: FZX011	3	S	V	B	1	A03	U	Z01	EX
FZX011										
Filter length										
3										
Bypass valve										
S Without bypass										
Seals										
A NBR										
V FPM										
F MFQ										
Connections										
700 bar										
A G 1/4"										
B 1/4" NPT										
G G 1/2"										
H 1/2" NPT"										
Autoclave 1000 bar										
M 9/16" - 18 UNF										
L 3/4" - 14 NPS										
Connection for differential pressure indicator										
1 Without 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										
H 210 bar										
U 210 bar, stainless steel filter element										
Execution										
zerospark®										
Z01 MP Filtri standard										
Zxx Customized										
Certifications										
EX ATEX certifications										

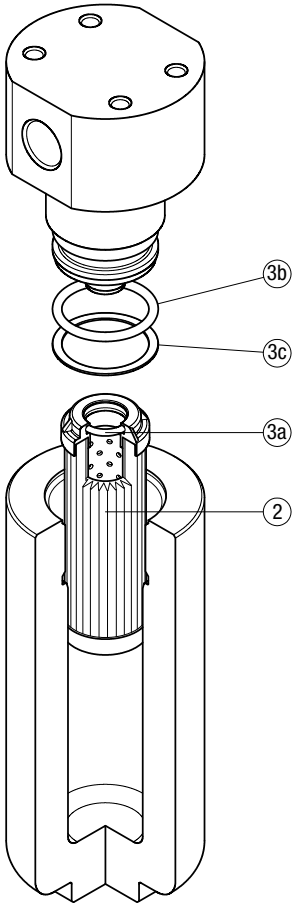
FILTER ELEMENT

Element series and size	Example: HP011	3	A03	V	U	Z01
HP011						
Element length						
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						
Seals						
A NBR						
V FPM						
F MFQ						
Element Δp						
H 210 bar						
U 210 bar, stainless steel filter element						
Execution						
zerospark®						
Z01 MP Filtri standard						
Zxx Customized						



Order number for spare parts

FZX 011



Item:	Q.ty: 1 pc.	Q.ty: 1 pc.	
Filter series	Filter element	Seal Kit code number	
FZX 011	See order table	NBR	FPM
	2	02050643	02050644
			3 (3a + 3c)

FILTERS FOR POTENTIALLY EXPLOSIVE ATMOSPHERE

Designation & Ordering code

DIFFERENTIAL PRESSURE INDICATORS

Series	Configuration example 1:						
DE Electrical differential pressure indicator	DE	H	50	F	A	48	P01
DV Visual differential pressure indicator	Configuration example 2:						
	DV	X	70	V			P01

Type	DE	DV
A With automatic reset	-	•
M With manual reset	-	•
H Stainless steel hazardous area 420 bar	•	-
X Stainless steel standard type 420 bar	-	•
Y Stainless steel optional type 420 bar	-	•

Pressure setting	DEH	DVA	DVM	DVX	DVY
50 5.0 bar	•	•	•	•	•
70 7.0 bar	•	•	•	•	•
95 9.5 bar	-	•	•	•	•

Seals	DEH	DVA	DVM	DVX	DVY
H HNBR	-	•	•	•	•
V FPM	•	•	•	•	•
F MFQ	•	-	-	-	-

Thermostat	DEH
A Without thermostat	•
T With thermostat	-

Electrical connections	DEH
48 Connection via three-core cable - fitting M20x1.5	•
49 Connection via four-core cable - fitting 1/2" NPT	•
70 Connection IEC 61076-2-101 D (M12)	•

Option
P01 MP Filtri standard
Pxx Customized

PLUGS

Series	Configuration example	
T2 Plug	X2	H
X2 Stainless Steel plug 420 bar		
X3 Stainless Steel plug 700 bar (only for FZH)		

Seals
H HNBR
V FPM
F MFQ