

FZD series

Maximum working pressure up to 35 Mpa (350 bar) - Flow rate up to 60 l/min



INSTALLATION, SERVICE AND MAINTENANCE MANUAL AND SAFETY INSTRUCTIONS

Please scan or click the QR codes to get updated electronic version of the related document:







FZD010

FZD021

FZD051

For all the QR codes: Scan or click me!



GENERAL INFORMATION

Description

Technical data

Stainless steel high pressure filters

Maximum working pressure up to 35 Mpa (350 bar) Flow rate up to 60 I/min

FZD is a range of stainless steel high pressure duplex filter with integrated changeover function to allow the filter element replacement without the system shut-down. They are directly connected to the lines of the system through the hydraulic fittings.

Available features:

- Female threaded connections up to 3/4", for a maximum flow rate of 60 I/min
- Fine filtration rating, to get a good cleanliness level into the system
- Balancing valve, available for FZD051, to equalize the housing pressure before the switch.
- Bypass valve, to relieve excessive pressure drop across the filter media
- Vent ports, to avoid air trapped into the filter going into the system
- Drain ports, to remove the fluid from the housing prior the maintenance work
- 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:

- System where shut-down causes high costs
- System where shut-down causes safety issues

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

FZD 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 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	Weight	Weights [kg]			Volumes [dm³]							
	Length						Length					4
FZD 010		-	7.9	-	-	-		-	0.10	-	-	-
FZD 021		-	9.6	9.8	10.3	-		-	0.06	0.12	0.22	-
FZD 051		-	17.4	18.0	19.0	20.3		-	0.31	0.41	0.53	0.83



Flow rates [I/min]

			Filter elem	ent design	- H Series			Filter elem	ent design	- U Series	
Filter series	Length	A03	A06	A10	A16	A25	A03	A06	A10	A16	A25
FZD 010	2	4	5	7	8	11	4	5	7	8	11
	2	5	6	11	12	16	5	6	11	12	16
FZD 021	3	9	11	16	18	20	9	11	16	18	20
	4	10	12	17	19	21	10	12	17	19	21

		Filter	r elemei	nt desig	n - RS	eries	Filter	r eleme	nt desig	n - SS	eries	Filte	r elemei	nt desig	n - US	Series
Filter series	Length	A03	A06	A10	A16	A25	A03	A06	A10	A16	A25	A03	A06	A10	A16	A25
	2	39	41	51	54	59	35	37	48	51	58	35	37	48	51	58
E7D 0E1	3	45	46	54	56	61	41	43	52	54	60	41	43	52	54	60
FZD 051	4	50	52	58	58	62	47	49	56	56	61	47	49	56	56	61
	5	56	57	61	62	63	53	53	57	59	63	53	53	57	59	63

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.

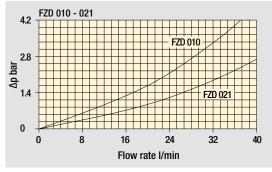
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

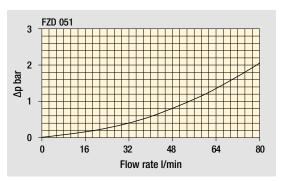
Hydraulic symbols

Filter series	Style S	Style B
FZD 010	•	-
FZD 021	•	-
FZD 051	•	•
	OUT D.I.	OUT TO THE PART OF

Pressure drop

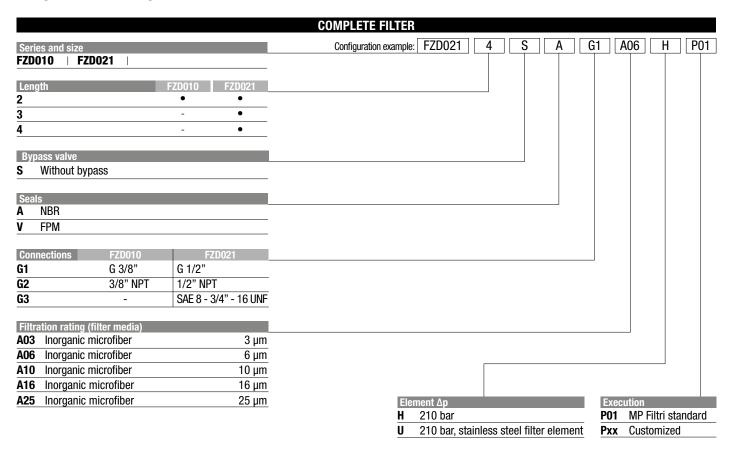
Filter housings Δp pressure drop

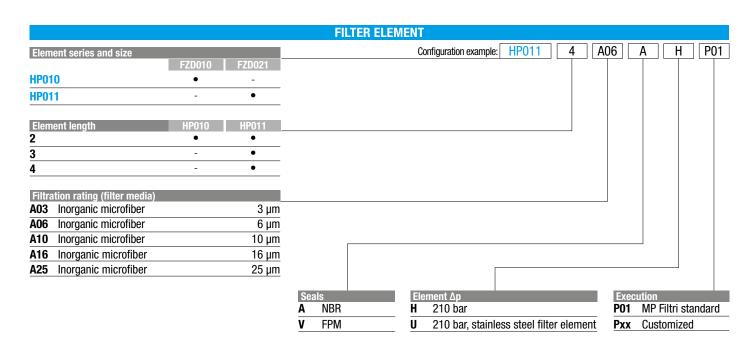




The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

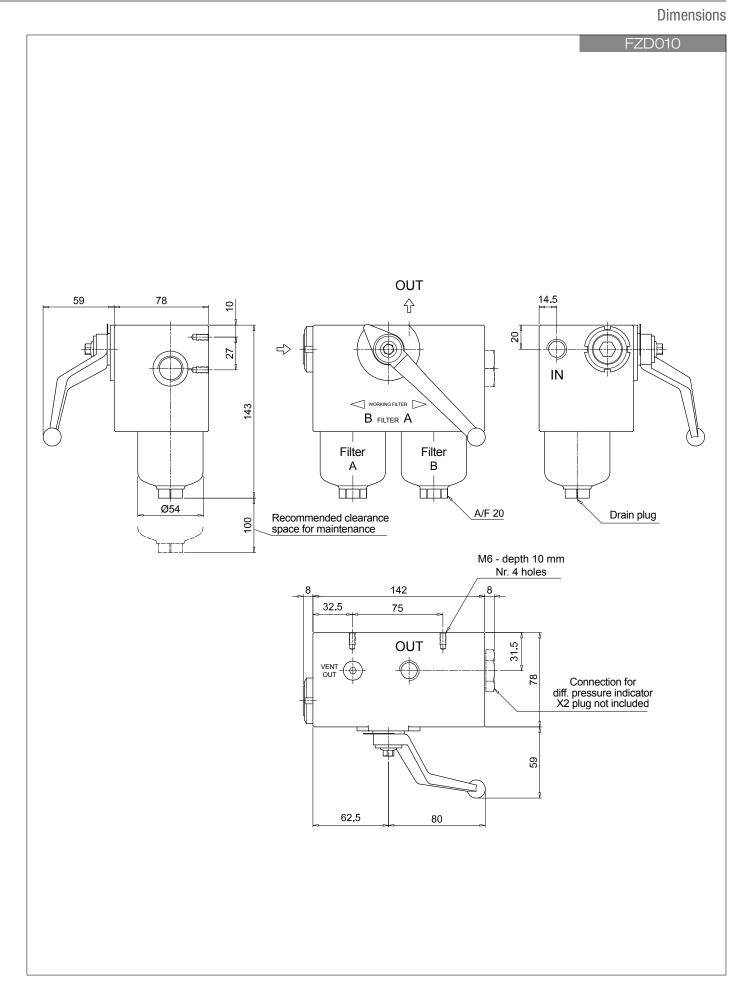
Designation & Ordering code

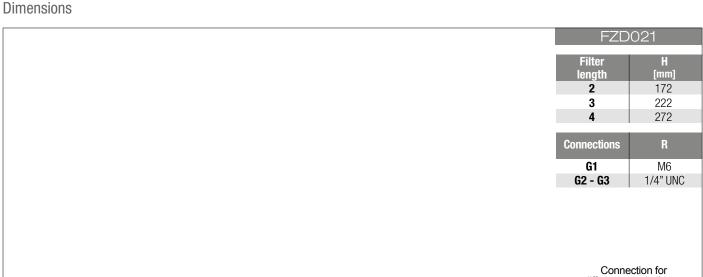


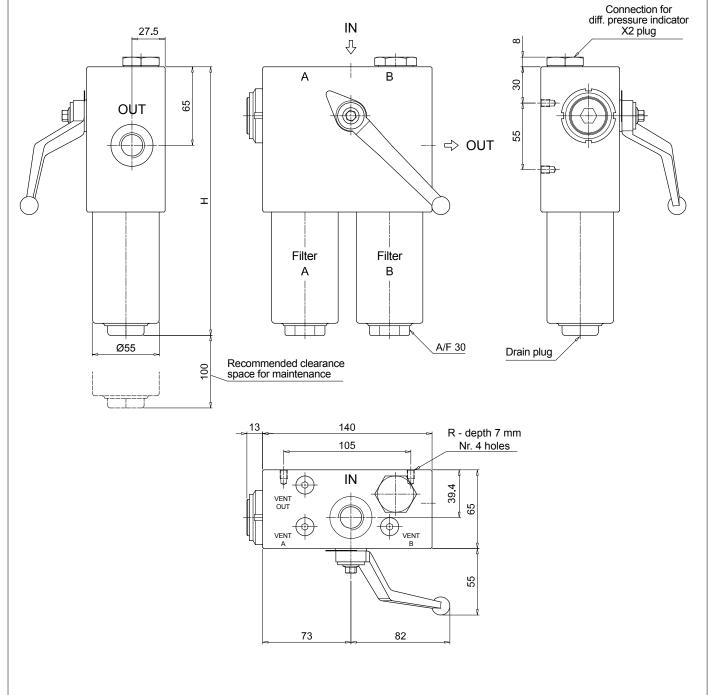


CLOGGING INDICATORS					
DEX	Electrical differential pressure indicator		DVX	Visual differential pressure indicator	
DLX	Electrical/visual differential pressure indicator		DVY	Visual differential pressure indicator	
		PLUGS			See page 747
X2	Stainless steel plug (not included)				

(()) MPFILTRI



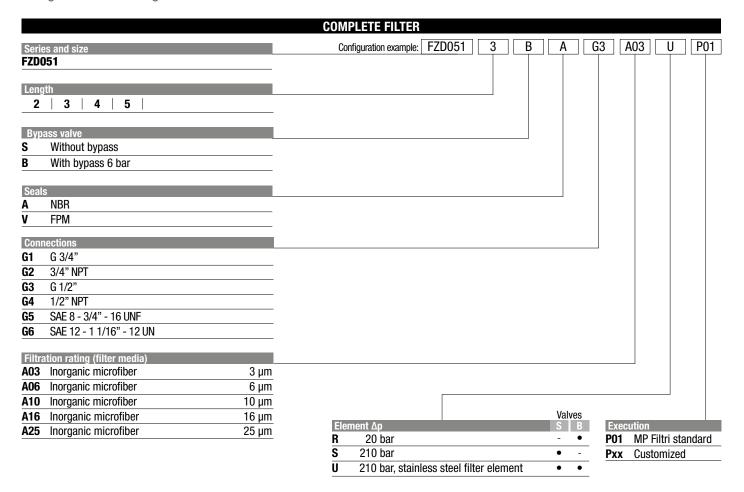


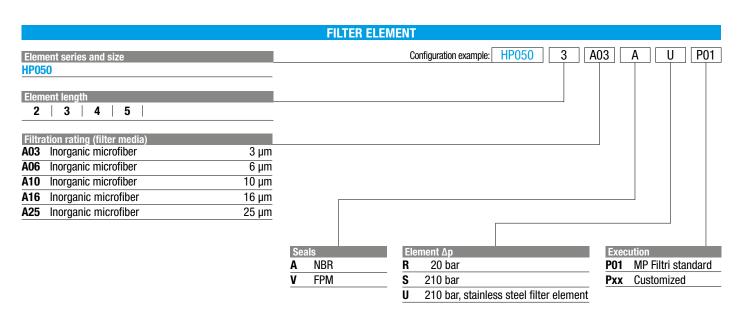






Designation & Ordering code





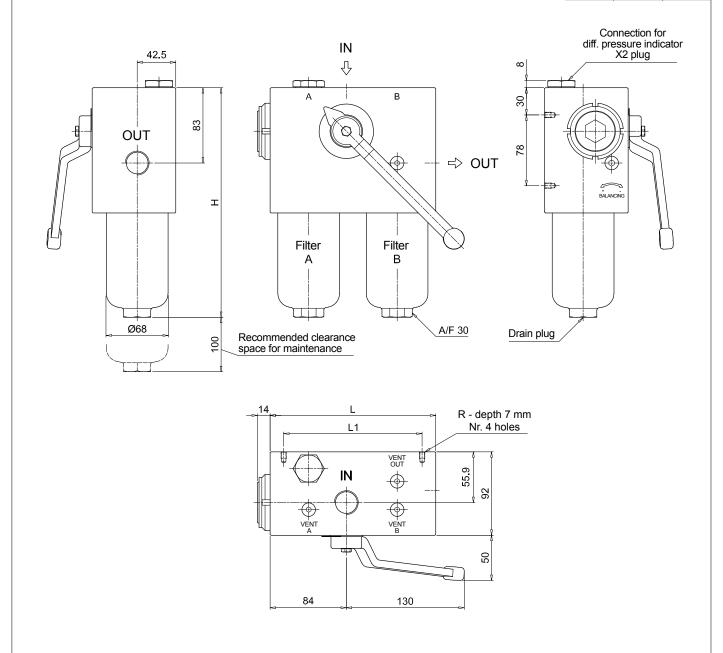
	CLOGGING INDICATORS					
DEX	Electrical differential pressure indicator	!	DVX	Visual differential pressure indicator		
DLX	Electrical/visual differential pressure indicator		DVY	Visual differential pressure indicator		
		PLUGS			See page 747	
X2	Stainless steel plug (not included)	_				

Dimensions



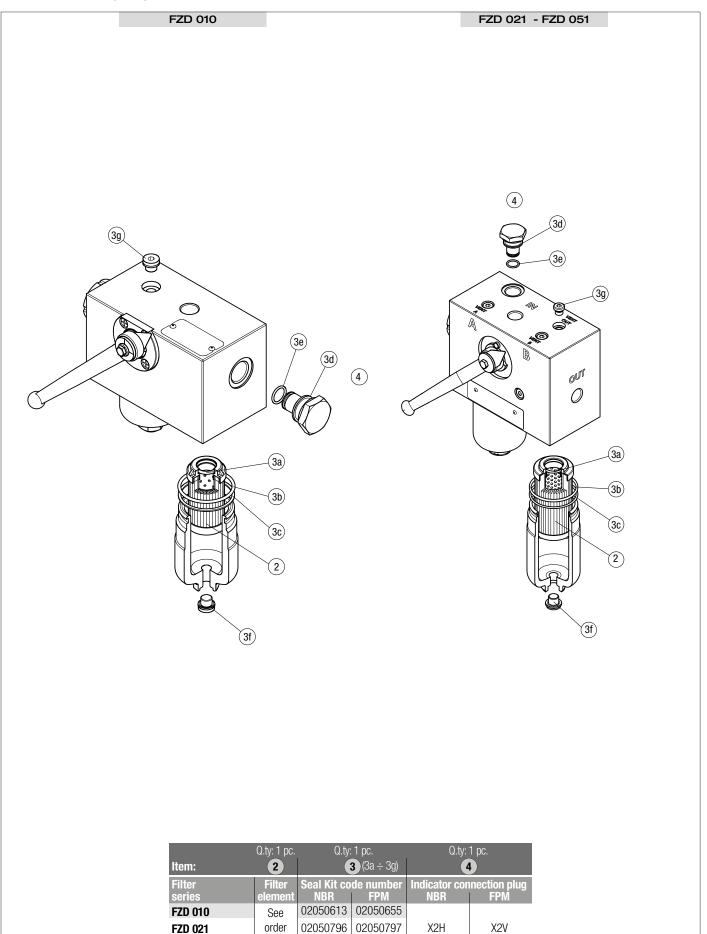
Connections	R
G1	M6
G2	1/4" UNC
G3	M6
G4-G5-G6	1/4" UNC

Valves	L [mm]	L1 [mm]
S	168	138
В	182.5	152.5



FZD SPARE PARTS

Order number for spare parts



02050800 02050801

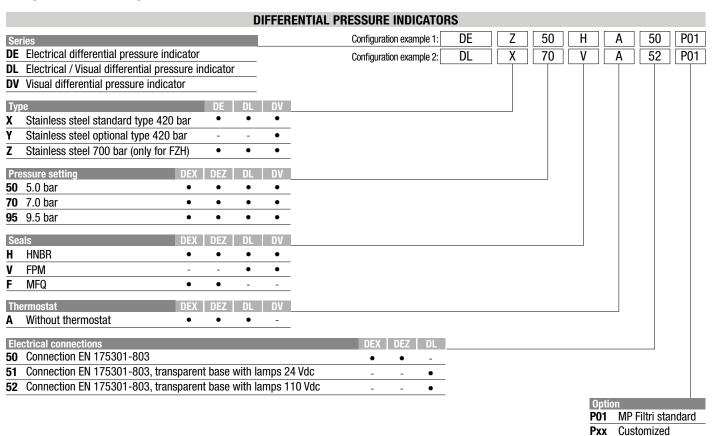
table

FZD 051

CLOGGING INDICATORS

STAINLESS STEEL HIGH PRESSURE FILTERS

Designation & Ordering code



	PLUGS			
Series	Configuration example	X2	H	1
X2 Stainless Steel plug 420 bar				
X3 Stainless Steel plug 700 bar (only for FZH)	- -			
Seals				
H HNBR				
V FPM	_			
F MFO	_			