FDD315 SERIES

Duplex high pressure filters

Inline filters for operating pressure up to 315 bar, flow rate up to 280 l/min. Duplex construction for uninterrupted service. Change over valve on upstream side, ergonomic switch-over handle with safety lock and pressure compensation. Filter elements sizes according to DIN 24550

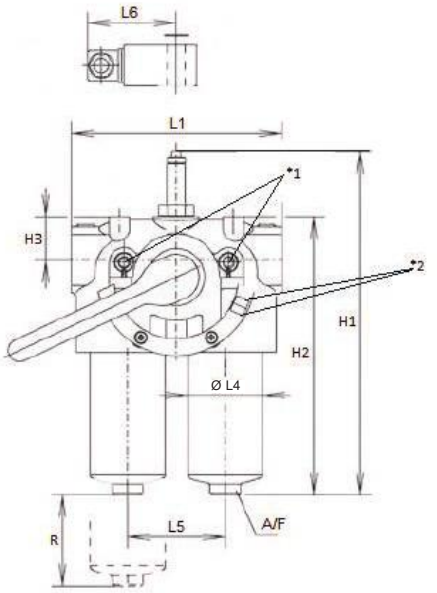
TECHNICAL INFORMATION

HOUSING	
PRESSURE:	max operating 315 bar sizes 040 to 100 max operating 200 bar sizes 160 to 400
CONNECTION PORTS:	G1 sizes 040 to 100 G1 ½ sizes 160-250 DN38 (SAE Flange 1"1/2 3000 psi/M) size 400
MATERIALS:	Filter head: cast iron Filter bowl : steel seals: NBR
BYPASS	setting 7 bar
ELECTRICAL CLOGGING INDICATOR:	setting 5 bar

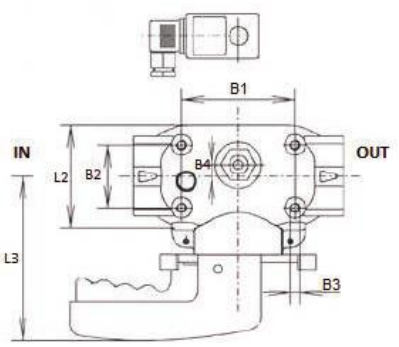
ELEMENT	
FILTER MEDIA:	glassfiber G03 - G06 - G10 - G25
DIFFERENTIAL COLLAPSE PRESSURE:	20 bar or 210 bar

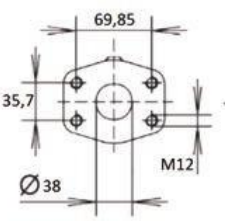
OPERATING TEMPERATURE RANGE:	-25°C +100°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV (acc. To ISO 2943). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS



*1 Venting screws
*2 Lever locking and arresting





Connection DN 38

MODEL	B1	B2	B3	B4	D	L1	L2	L3	L4	L5	L6	H1	H2	H3	A/F	R	kg
FDD315XD040	100	55	M8	10	G 1"	182	90	140	66	86	78	285	228	38	27	80	10,5
FDD315XD063												345	288				12
FDD315XD100												427	370				14
FDD315XD160	210	62	M12	28	G 1 1/2"	280	140	160	110	136		363	311	50	30	110	30
FDD315XD250												463	412				35
FDD315XD400					DN 38							614	562		20		41

ORDERING INFORMATION

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
FDD315	**XD**	**100**	**G10**	**A**	**B**	**B5**	**B**	**W**	**FG5**
SPARE ELEMENT	**XD**	**100**	**G10**	**A**					

1. FILTER SERIES	FDD315		
2. FILTER ELEMENT SERIES	XD		
3. FILTER SIZE	040-063-100		
	160-250-400		
4. FILTER MEDIA	000	no element	
	G03	glassfiber $ß_{4,5\mu m(c)} > 1.000$	
	G06	glassfiber $ß_{7\mu m(c)} > 1.000$	
	G10	glassfiber $ß_{12\mu m(c)} > 1.000$	
	G25	glassfiber $ß_{22\mu m(c)} > 1.000$	
5. ELEMENT COLLAPSE	A	21 bar	recommended with by-pass option
	B	210 bar	
6. SEALS	B	NBR	
7. CONNECTIONS	B5	G 1"	for sizes 040-063-100
	B7	G 1 1/2"	for sizes 160-250
	38	1" 1/2 SAE 3000 psi/m	for sizes 400
8. BYPASS VALVE	0	no by-pass	
	B	7 bar	
9. INDICATOR PORT OPTION	W	standard	
10. INDICATOR	FV5	differential visual 5 bar	
	FG5	differential electrical 5 bar	

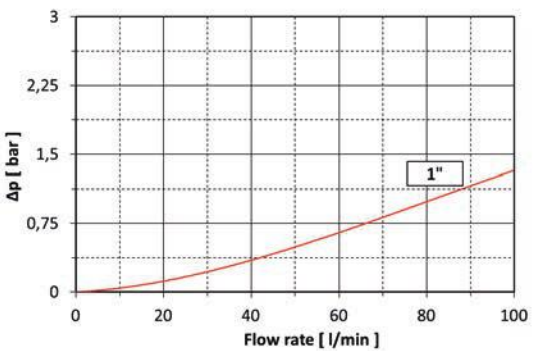
PRESSURE DROP (Δp) INFORMATION FOR FILTER SIZING

The total Delta P through a filter assembly is given from Housing Δp + Element Δp.
N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity and density 0,875 Kg/dm^3.

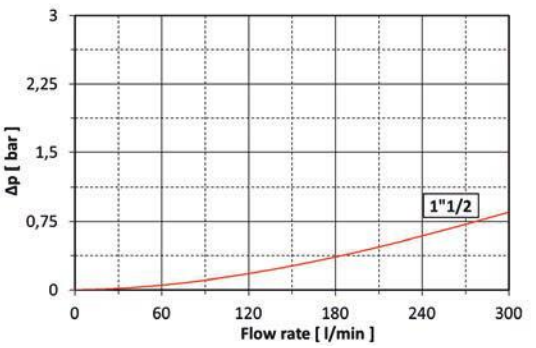
HOUSING PRESSURE DROP

The housing Δp is given by the curve of the considered model and port, in correspondence of the flow rate value.

FDD315 XD040-063-100



FDD315 XD160-250-400



ELEMENT PRESSURE DROP

The element Δp (bar) is given by the flow rate (l/min) multiplied by the factor in the table here below corresponding to the selected media and divided by 1000.
If the oil has a viscosity Vx different than 32 cSt a corrective factor Vx/32 must be applied.
Example: 40 l/min with XD040G10A and oil viscosity 46 cSt > 40 x 8,75/1000 x 46/32 = 0,50 bar

	G03A	G06A	G10A	G25A
XD040	22,00	15,00	8,75	6,25
XD063	16,15	10,00	6,15	4,62
XD100	12,00	6,50	4,00	3,00
XD160	7,81	4,96	2,92	1,66
XD250	5,20	2,90	1,86	0,96
XD400	3,25	1,69	1,24	0,64

EXAMPLE OF TOTAL Δp CALCULATION
FDD315XD040G10ABB5BWFG5 with **40** l/min and oil **46** cSt:
Housing Δp 0,38 bar + element Dp 0,50 bar (40 x 8,75/1000 x 46/32) = total assembly Δp 0,88 bar

ELEMENT PRESSURE DROP (filter elements 210 bar collapse)

The element Δp (bar) is given by the flow rate (l/min) multiplied by the factor in the table here below corresponding to the selected media and divided by 1000.
If the oil has a viscosity Vx different than 32 cSt a corrective factor Vx/32 must be applied.
Example: 40 l/min with XD040G10B and oil viscosity 46 cSt > 40 x 16,25/1000 x 46/32 = 0,93 bar

	G03B	G06B	G10B	G25B
XD040	34,97	25,00	16,25	11,25
XD063	29,23	18,46	11,54	7,69
XD100	19,00	11,50	7,50	5,50
XD160	8,13	5,00	3,75	2,50
XD250	5,40	3,40	2,80	2,00
XD400	3,38	2,16	1,75	1,13

EXAMPLE OF TOTAL Δp CALCULATION

FDD315XD040G10BBB5BWFG5 with **40** l/min and oil **46** cSt:
Housing Δp 0,38 bar + element Dp 0,93 bar (40 x 16,25/1000 x 46/32) = total assembly Δp 1,31 bar

N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity and density 0,875 Kg/dm^3.

USER TIPS

The filter element that can be replaced is in the side opposite to the switch-over handle (a label on the handle show it).

When the indicator shows and the filter element must be replaced, the flow must be diverted to the clean element acting with the switch-over handle.

Follow carefully the instructions given in the User Handbook.

N.B. in case of cold start the indicator could give a false alarm: wait for the operating temperature to be reached and press down the red pop-up button. If at this stage the red button pops up again and the electrical signal does not switch off the filter element must be replaced.

The electrical indicator is supplied with normally closed contacts. The switching function may be changed to normally open contacts by turning the electric upper part by 180°.

For any further information please contact our Customer Service (info@filtrec.it)