FDD040 SERIES

Duplex low pressure filters
Sizes 040 to 400 according to DIN 24550

Inline filters for operating pressure up to 63 bar, flow rate up to 400 l/min.
Duplex construction for uninterrupted service. Change over valve on upstream side, ergonomic switch-over handle with safety lock and pressure compensation.

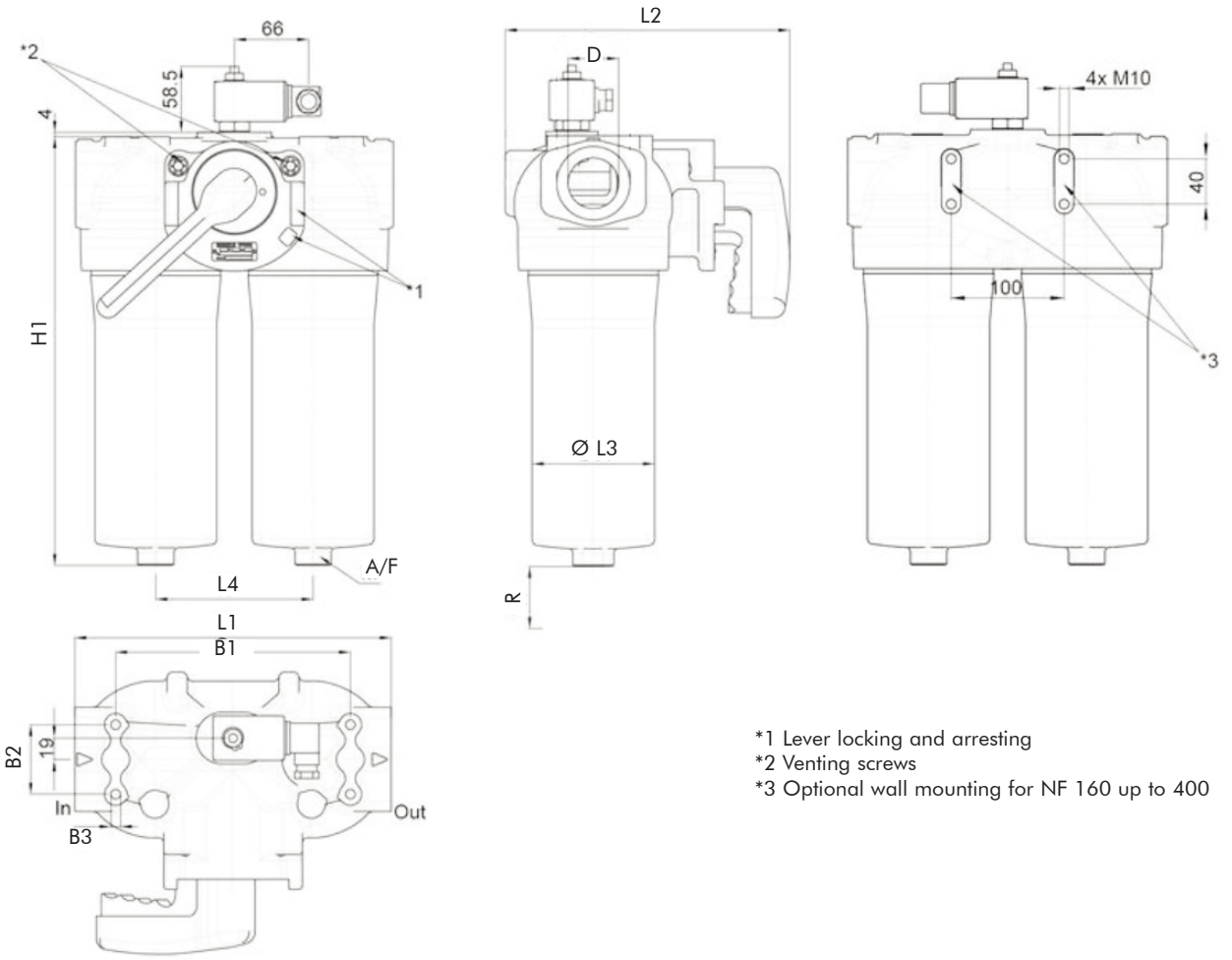
TECHNICAL INFORMATION

HOUSING	
PRESSURE:	max operating 63 bar sizes 040 to 100 max operating 32 bar sizes 160 to 400
CONNECTION PORTS:	G1 sizes 040 to 100 G1 ½ sizes 160-400
MATERIALS:	Filter head: aluminium alloy Filter bowl : aluminium alloy seals: NBR
BYPASS	setting 3,5 bar
ELECTRICAL CLOGGING INDICATOR:	setting 2,2 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 Lever locking and arresting
*2 Venting screws
*3 Optional wall mounting for NF 160 up to 400

MODEL	B1	B2	B3	D	L1	L2	L3	L4	H1	A/F	R	kg
FDD040XD040									203			2,6
FDD040XD063	100	52	M8	G 1"	172	189	66	85	261	27	80	2,9
FDD040XD100									351			3,3
FDD040XD160									288			8,6
FDD040XD250	210	62	M12	G 1 1/2"	283	252	109	140	389	32	110	9,5
FDD040XD400									531			19,0

ORDERING INFORMATION

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
FDD040	**XD**	**100**	**G10**	**A**	**B**	**B5**	**D**	**W**	**FG2**
SPARE ELEMENT	**XD**	**100**	**G10**	**A**					

1. FILTER SERIES	FDD040		
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 160-250-400
8. BYPASS VALVE	0	no by-pass	
	D	3,5 bar	
9. INDICATOR PORT OPTION	W	standard	
10. INDICATOR	FV2	differential visual 2,2 bar	
	FG2	differential electrical 2,2 bar	

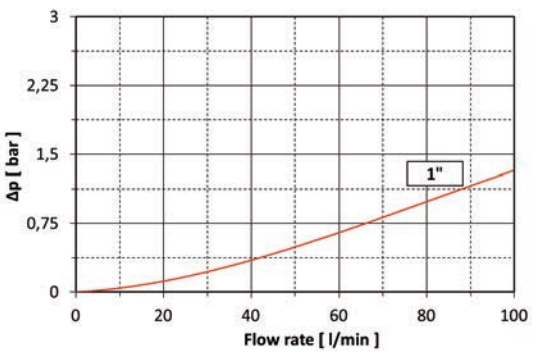
PRESSURE DROP (Δp) INFORMATION FOR FILTER SIZING

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.

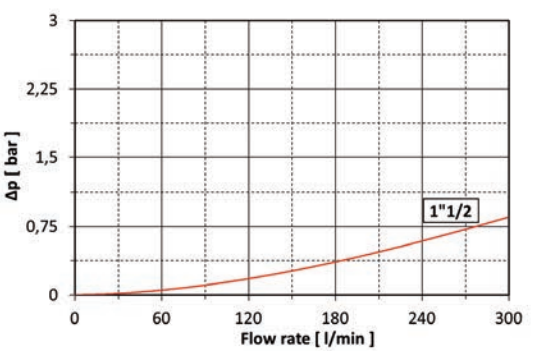
HOUSING PRESSURE DROP

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

FDD040 XD040-063-100



FDD040 XD160-250-400



ELEMENT PRESSURE DROP (filter elements 20 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 XD100G10A and oil viscosity 46 cSt > 40 x 4,00/1000 x 46/32 = 0,23 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
FDD040XD100G10ABB5BWFG2 with **40** l/min and oil **46** cSt:
Housing Δp 0,38 bar + element Dp 0,23 bar (40 x 4,00/1000 x 46/32) = total assembly Δp 0,61 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 XD100G10B and oil viscosity 46 cSt > 40 x 7,50/1000 x 46/32 = 0,43 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

FDD040XD100G10BBB5BWFG2 with **40** l/min and oil **46** cSt:
Housing Δp 0,38 bar + element Dp 0,43 bar (40 x 7,50/1000 x 46/32) = total assembly Δp 0,81 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)

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