



### FDD040 SERIES

Duplex low pressure filters

Sizes 630 to 1000 according to DIN 24550

Inline filters for operating pressure up to 40 bar, flow rate up to 1000 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

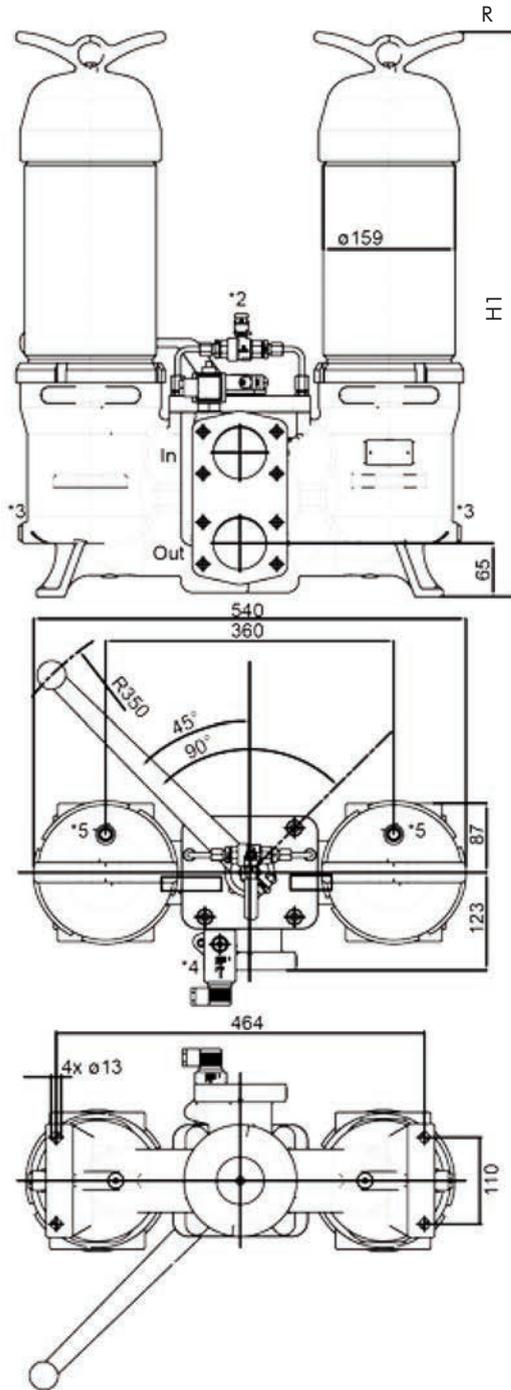
### HOUSING

PRESSURE:	max operating 40 bar
CONNECTION PORTS:	DN 64 (SAE fl. 2 1/2" 3000 psi)
MATERIALS:	filter head : cast iron GGG filter bowl : steel seals: NBR
BYPASS	setting 3,5 bar
ELECTRICAL CLOGGING INDICATOR:	setting 2,2 bar

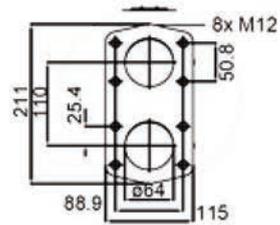
### ELEMENT

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 Filtrac Customer Service (info@filtrac.it).

**OVERALL DIMENSIONS**



IN & OUT ports  
DN 64 (SAE fl. 2 1/2" 3000 psi)



- \*1 R element removal
- \*2 Pressure equalization valve
- \*3 Drain screw G<sup>1</sup>/<sub>4</sub>
- \*4 Clogging indicator
- \*5 Vent screw

MODEL	D	H1	R	kg
FDD040XD630	DN 64 (SAE fl. 2 1/2" 3000 psi)	690	300	80
FDD040XD1000		920	530	100

## ORDERING INFORMATION

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
	<b>FDD040</b>	<b>XD</b>	<b>1000</b>	<b>G10</b>	<b>A</b>	<b>B</b>	<b>64</b>	<b>D</b>	<b>W</b>	<b>FG2</b>
SPARE ELEMENT	<b>XD</b>	<b>1000</b>	<b>G10</b>	<b>A</b>						

1. FILTER SERIES	FDD040	
2. FILTER ELEMENT SERIES	XD	
3. FILTER SIZE	630 - 1000	
4. FILTER MEDIA	000	no element
	G03	glassfiber $\beta_{4,5\mu\text{m(c)}} > 1.000$
	G06	glassfiber $\beta_{7\mu\text{m(c)}} > 1.000$
	G10	glassfiber $\beta_{12\mu\text{m(c)}} > 1.000$
	G25	glassfiber $\beta_{22\mu\text{m(c)}} > 1.000$
5. ELEMENT COLLAPSE	A	21 bar <span style="float: right;">recommended with by-pass option</span>
	B	210 bar
6. SEALS	B	NBR
7. CONNECTIONS	64	DN 64 (SAE fl. 2 1/2" 3000 psi)
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

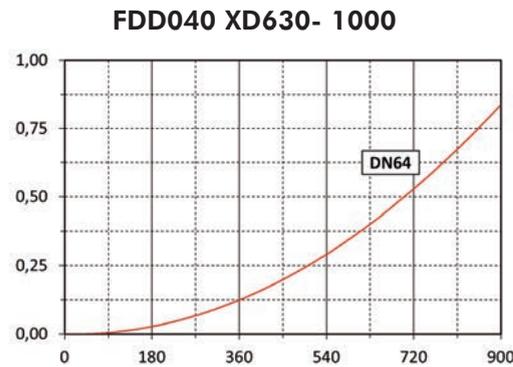
## PRESSURE DROP ( $\Delta p$ ) INFORMATION FOR FILTER SIZING

The total Delta P through a filter assembly is given from Housing  $\Delta p$  + Element  $\Delta p$ .

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<sup>3</sup>.

### HOUSING PRESSURE DROP

The housing  $\Delta p$  is given by the curve of the considered model and port, in correspondence of the flow rate value.



### ELEMENT PRESSURE DROP (filter elements 20 bar collapse)

The element  $\Delta p$  (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  $V_x$  different than 32 cSt a corrective factor  $V_x/32$  must be applied.

Example: 400 l/min with XD1000G10A and oil viscosity 46 cSt >  $400 \times 1,00/1000 \times 46/32 = 0,58$  bar

	<b>G03A</b>	<b>G06A</b>	<b>G10A</b>	<b>G25A</b>
<b>XD630</b>	2,14	1,32	0,87	0,63
<b>XD1000</b>	1,46	0,91	0,60	0,43

### EXAMPLE OF TOTAL $\Delta p$ CALCULATION

FDD040XD1000G10ABB5BWF2 with 400 l/min and oil 46 cSt:

Housing  $\Delta p$  0,15 bar + element  $\Delta p$  0,58 bar ( $400 \times 1,00/1000 \times 46/32$ ) = total assembly  $\Delta p$  0,73 bar

### ELEMENT PRESSURE DROP (filter elements 210 bar collapse)

The element  $\Delta p$  (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  $V_x$  different than 32 cSt a corrective factor  $V_x/32$  must be applied.

Example: 400 l/min with XD1000G10B and oil viscosity 46 cSt  $> 400 \times 1,20/1000 \times 46/32 = 0,69$  bar

	<b>G03B</b>	<b>G06B</b>	<b>G10B</b>	<b>G25B</b>
<b>XD630</b>	2,65	1,63	1,08	0,78
<b>XD1000</b>	1,81	1,13	0,74	0,53

### EXAMPLE OF TOTAL $\Delta p$ CALCULATION

FDD040XD1000G10BBB5BWFG2 with 400 l/min and oil 46 cSt:

Housing  $\Delta p$  0,15 bar + element  $D_p$  0,69 bar ( $400 \times 1,20/1000 \times 46/32$ ) = total assembly  $\Delta p$  0,84 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<sup>3</sup>.

## USER TIPS

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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 (after having equalized the pressure through the manual valve, as described in detail in the user handbook).

**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](mailto:info@filtrec.it))



