

FDM SERIES

Modular in-line high pressure filters

Modular filters with CETOP interface, operating pressure up to 315 bar, flow rate up to 40 l/min.

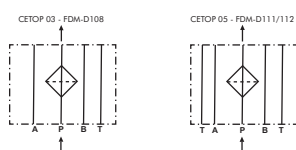
Indicator port is a standard option to fit a visual or electrical differential indicator.

TECHNICAL INFORMATION

HOUSING

tested according to NFPA T3.10.5.1 , ISO3968

HYDRAULIC SYMBOL:



PRESSURE:

Max operating: 315 bar
Burst: 945 bar

CONNECTION PORTS:

CETOP 03 - CETOP 05

MATERIALS:

Head: steel
Bowl: steel
Seal: NBR (FKM on request)

BYPASS:

No by-pass

ELEMENT

tested according to ISO 2941, 2942, 2943, 3968, 16889, 23181

FILTER MEDIA:

Inorganic microfiber: G03 - G06 - G10 - G25

DIFFERENTIAL COLLAPSE PRESSURE:

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).

ORDERING INFORMATION

	1.	2.	3.	4.	5.	6.	7.	8.	9.
	FDM	D1	11	G10	B	B	D	W	EX5
SPARE ELEMENT		D1	11	G10	B				

1. FILTER SERIES	FDM	
2. FILTER ELEMENT SERIES	D1	
3. FILTER SIZE	08-11-12	
4. FILTER MEDIA	000	no element
	G03	glassfiber $\beta_{4,5\mu m(c)} > 1.000$
	G06	glassfiber $\beta_{7\mu m(c)} > 1.000$
	G10	glassfiber $\beta_{12\mu m(c)} > 1.000$
	G25	glassfiber $\beta_{22\mu m(c)} > 1.000$
5. ELEMENT COLLAPSE	B	210 bar
6. SEALS	B	NBR
	V	FKM
7. BOWL POSITION	D	bowl side A - (standard)
	S	bowl side B - (optional)
8. INDICATOR PORT OPTION	S	with metal plug
	W	with plastic plug
		when using an indicator
9. INDICATOR	000	no indicator
	VX5	differential visual 5 bar
	EX5	differential electrical 5 bar
	VX8	differential visual 8 bar
	EX8	differential electrical 8 bar
ACCESSORIES	LC24	LED connector

The accessories must be ordered separately

PRESSURE DROP (Δp) INFORMATION FOR FILTER SIZING

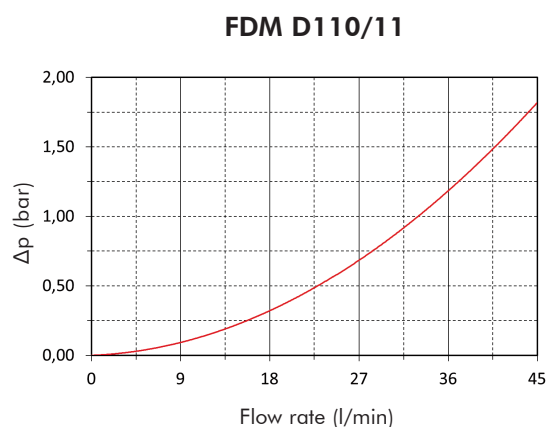
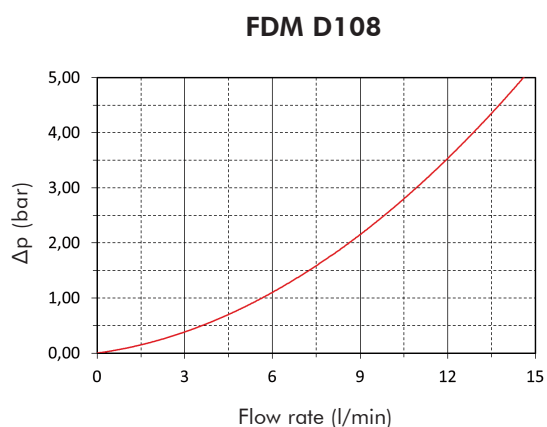
The total Delta P through a filter assembly is given from Housing Δp + Element Δp .

This ideally should not exceed 1,5 bar with clean element.

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/dm³.

HOUSING PRESSURE DROP

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



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 V_x different than 32 cSt a corrective factor $V_x/32$ must be applied.

Example: 22 l/min with D112G06B and oil viscosity 46 cSt $> 22 \times 13,00/1000 \times 46/32 = 0,41$ bar

	G03B	G06B	G10B	G25B
D108	120,86	63,61	28,34	15,93
D111	51,28	31,81	19,00	9,54
D112	28,51	13,00	9,25	5,30

EXAMPLE OF TOTAL Δp CALCULATION

FDMD112G06BBDWVX5 with 22 l/min and oil 46 cSt:

Housing Δp 0,5 bar + element Δp 0,41 bar ($22 \times 13,00/1000 \times 46/32$) = total assembly Δp 0,91 bar

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USER TIPS



- 1 FILTER HEAD
- 2 INDICATOR PORT
- 3 MOUNT. INTERFACE
- 4 FILTER ELEMENT
- 5 FILTER BOWL
- 6 SEAL KIT
- 7 IDENTIFICATION LABEL

INDICATOR TIGHTENING TORQUE

VX5-VX8-EX5-EX8

50 Nm

BOWL TIGHTENING TORQUE

FDM D108

50 Nm

FDM D111-12

60 Nm

SPARE SEAL KIT PART NUMBER

	NBR	FKM
FDM D108	06.021.00154	06.021.00124
FDM D111-12	06.021.00155	06.021.00125

WARNING



Make sure that Personal Protective Equipment (PPE) is worn during installation and maintenance operation.

DISPOSAL OF FILTER ELEMENT



The used filter elements and the filter parts dirty of oil are classified as "Dangerous waste material": they must be disposed according to the local laws by authorized Companies.

INSTALLATION



- the filter head (1) must be properly mounted, facing correctly the corresponding components' interface
- secure the filter head (1) between valve and block, through the dedicated fixing holes
- enough space must be available for filter element replacement
- the visual clogging indicator must be in a easily viewable position
- when a electrical indicator is used, make sure that it is properly wired
- never run the system with no filter element fitted
- keep in stock a spare FILTREC filter element for timely replacement when required



OPERATION



- the filter must work within the operating conditions of pressure, temperature and compatibility given in the first page of this data sheet
- the filter element must be replaced as soon as the clogging indicator signals at working temperature (in cold start conditions, oil temperature lower than 30°C, a false alarm can be given due to oil viscosity)
- If no clogging indicator is mounted, replace the element according to the system manufacturer's recommendations

MAINTENANCE



- make sure that the system is switched off and there is no residual pressure in the filter
- unscrew the bowl (5) by turning it anti-clockwise and remove it
- remove the dirty element (4)
- fit a new FILTREC element (4), verifying the part number, particularly concerning the micron rating; open its plastic protection on the open end side and insert it onto the spigot in the filter head, then remove completely the plastic protection
- clean carefully the bowl; check the O-rings (6) conditions and replace if necessary
- lubricate the bowl's thread (5) and screw it by hand in the filter head (1) by turning it clockwise
- screw in the bowl to stop
- the used filter elements cannot be cleaned and re-used



Distribuidor Autorizado:



megafilter
Filtros e sistemas de Filtragem

Fone: +55 41 3081 3050

E-mail: vendas@megafilter.com.br

Site: <https://www.megafilter.com.br/>

**Rua Silvio Pinto Ribeiro, 1625 – Quississana, São José dos Pinhais – PR
CEP 83085-400**

