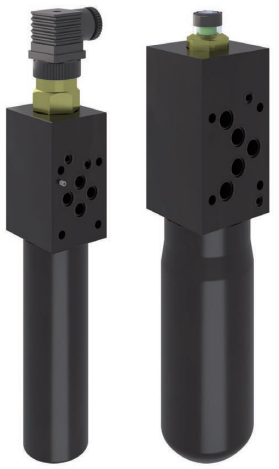


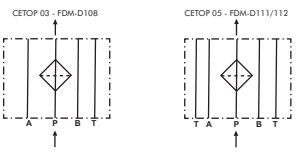
FDM SERIES

Modular in-line high pressure filters

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

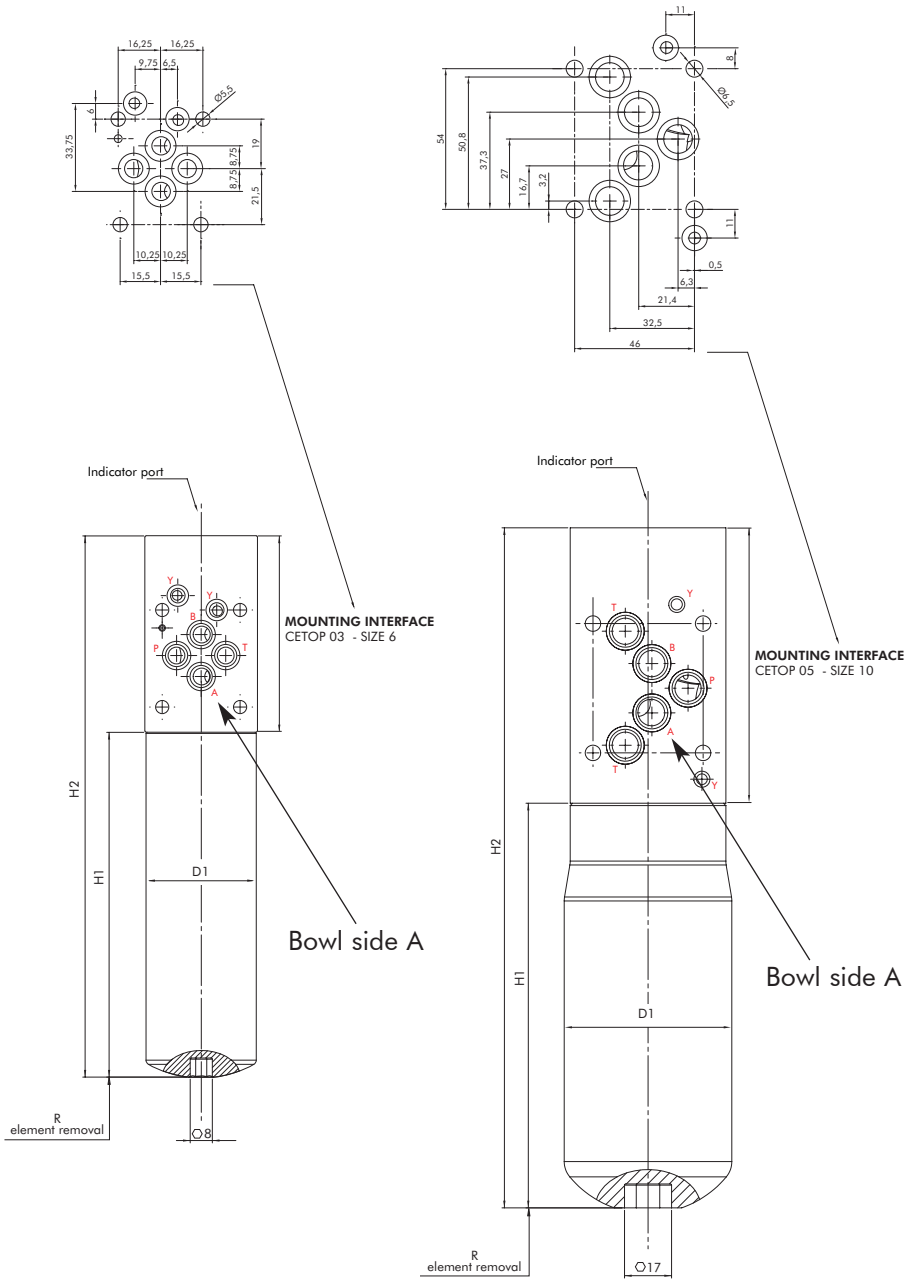
Indicator port is a standard option to fit a visual or electrical differential indicator.

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).

OVERALL DIMENSIONS



NOMINAL SIZE

MODEL	D1	H1	H2	R	WEIGHT
FDM-D1-08	Ø 46	144	226	60	2,5 Kg
FDM-D1-11	Ø 70	169	284	80	4,0 Kg
FDM-D1-12		265	380		5,4 Kg

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 $ß_{4,5\mu m(c)} > 1.000$	
	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	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

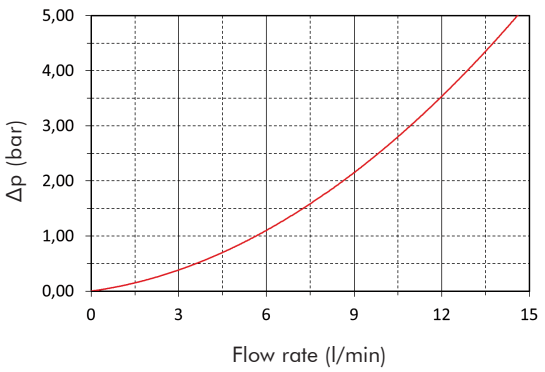
PRESSURE DROP (Δp) INFORMATION FOR FILTER SIZING

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/dm^3.

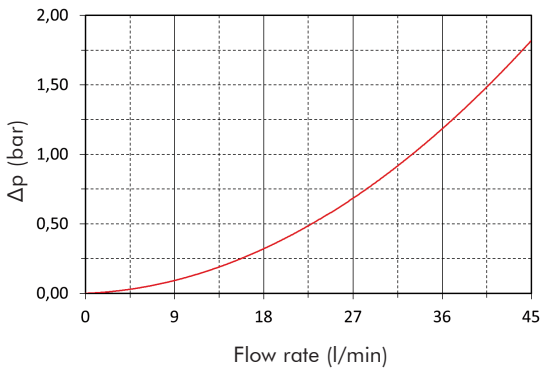
HOUSING PRESSURE DROP

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

FDM D108



FDM D110/11



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: 22 l/min with D112G06B and oil viscosity 46 cSt > 22 x 13,00/1000 x 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 Dp 0,41 bar (22 x 13,00/1000 x 46/32) = total assembly Δp 0,91 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

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

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

OPERATION

⚠ 1. the filter must work within the operating conditions of pressure, temperature and compatibility given in the first page of this data sheet
2. 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)
3. If no clogging indicator is mounted, replace the element according to the system manufacturer's recommendations

MAINTENANCE

⚠ 1. make sure that the system is switched off and there is no residual pressure in the filter
2. unscrew the bowl (5) by turning it anti-clockwise and remove it
3. remove the dirty element (4)
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
5. clean carefully the bowl; check the O-rings (6) conditions and replace if necessary
6. lubricate the bowl's thread (5) and screw it by hand in the filter head (1) by turning it clockwise
7. screw in the bowl to stop
8. ⚠ the used filter elements cannot be cleaned and re-used

CT37-rev.00-05/20