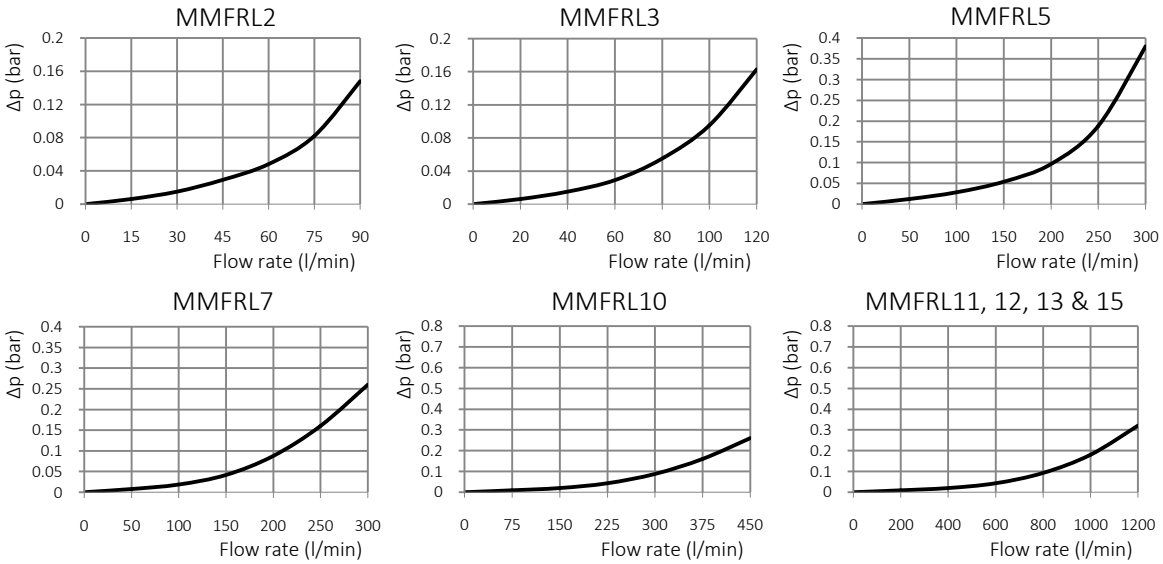
MMFRL Series

Technical specification

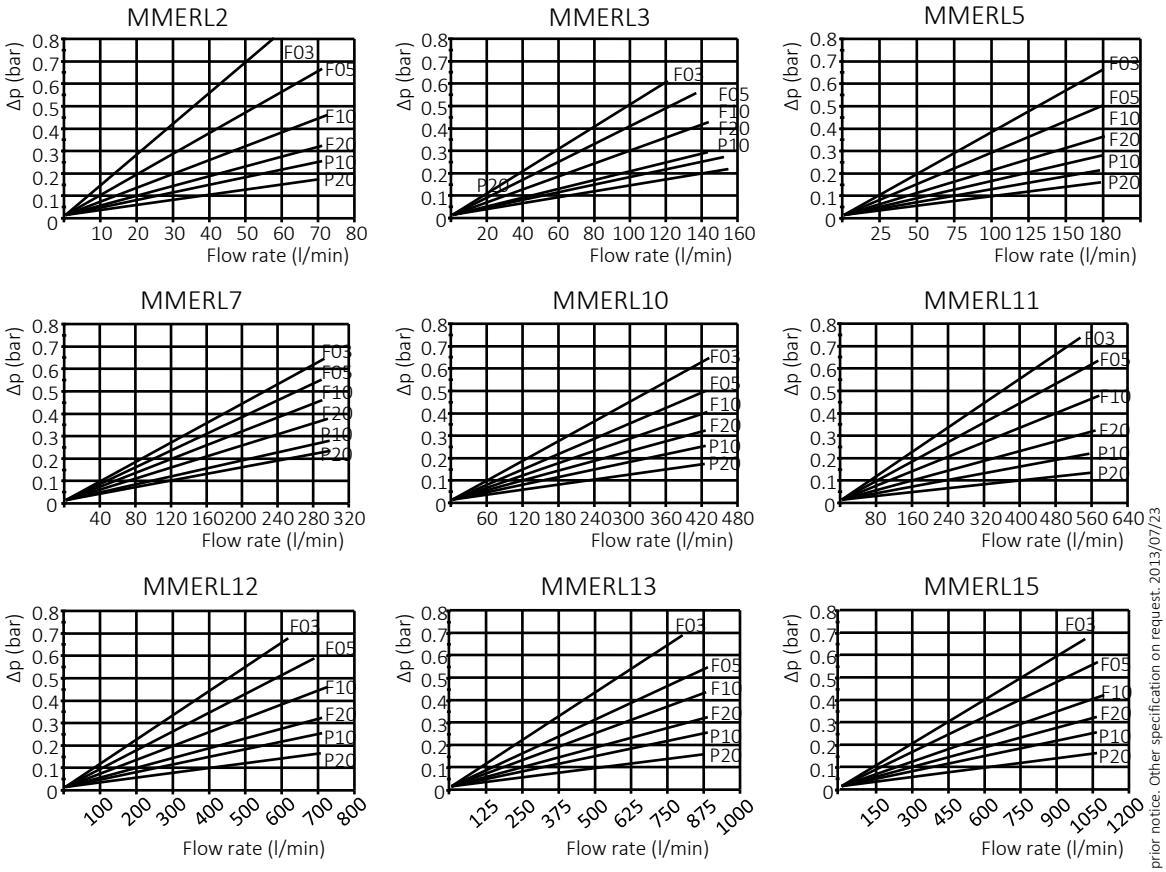
Application	Tank-top return filter
Ports:	G1”, G1¼”, G1½” M33x2, M42x2, M48x2 SAE DN40 3000 psi, SAE DN65 3000 psi, SAE DN80 3000 psi
Flow rate:	max. 1000 l/min
Working pressure:	max. 16 bar
Burst pressure:	min. 48 bar
Element collapse pressure:	10 bar
By-pass opening pressure:	Δp 4 bar ± 10%
Seals:	Perbunan (NBR, -10°C to 100°C) Viton (FPM, -30°C to 110°C)
Material:	Aluminium head & steel bowl
Compatibility	Suitable for mineral oils, lubrication oils, non-flam fluids, synthetic and rapidly biodegradable oils according to ISO2943 (for use with water, please contact our technical dept.)
Tested according to ISO standards:	ISO2941 Collapse/burst resistance ISO2942 FabricaĀon integrity ISO2943 Material compatibilit integrity ISO3723 Method for end load test ISO3724 Flow fatigue characteristics ISO3968 Pressure drop vs. Flow ISO16889 Multi-pass (filtration performance

Pressure drop graphs (Δp)

Pressure drop of filter housing (mainly depending on port size)

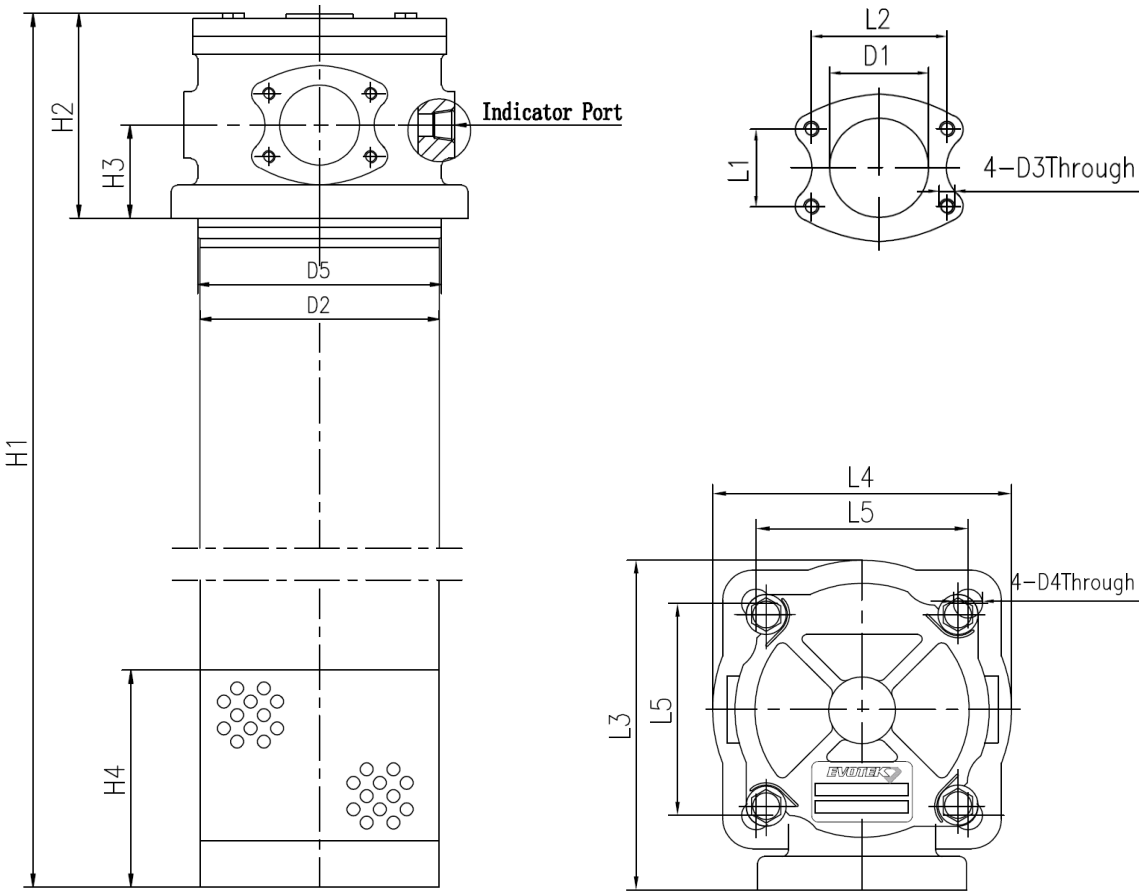


Pressure drop of clean filter elements (by filter media)



The test fluid has a density of 0.86 kg/dm³ and a kinematic viscosity of 30 mm²/s.

Dimensional drawings



Type	D1	D2	D3	D4	D5	H1	H2	H3	H4	L1	L2	L3	L4	L5	ØQ
MMFRL2	G1" M33x2	90	-	9	94	185	93	33	60	-	-	113	120	85	-
MMFRL3	G1¼" M42x2	90	-	9	94	245	93	33	60	-	-	113	120	85	-
MMFRL5	G1½" M48x2	104	-	13	110	319	102	40	80	-	-	152	134	95	-
MMFRL7	SAE DN40 3000 psi	104	M10	13	110	419	102	40	80	35.7	69.9	152	134	95	57
MMFRL10	SAE DN65 3000 psi	124	M10	13	130	463	127	55	90	50.8	88.9	169	158	110	65
MMFRL11	SAE DN80 3000 psi	154	M10	13	160	456	164	70	100	61.9	106.4	206	192	140	102
MMFRL12	SAE DN80 3000 psi	154	M10	13	160	484	164	70	100	61.9	106.4	206	192	140	102
MMFRL13	SAE DN80 3000 psi	154	M10	13	160	594	164	70	100	61.9	106.4	206	192	140	102
MMFRL15	SAE DN80 3000 psi	154	M10	13	160	774	164	70	100	61.9	106.4	206	192	140	102

Please note that the input flange will be supplied by Micro-Mesh.

The user has to prepare weld tube ØQ only.

Order information

Filter assembly part number

	Housing						Element		Accessories	
	Type	Size	Connectio	By-pass	Seal		Media		Indicator	Special
	MMFRL	Table 1	Table 2	Table 3	Table 4		Table 5		Table 6	X
Example	MMFRL	2	BD	10	B	-	P10	-	R35R	X

Element part number

	Element			
	Type	Size	Seal	Media
	MMERL	Table 1	Table 4	Table 5
Example	MMERL	2	B	P10

Tables

Table 1

Size	Flow rate (l/min)
MMFRL2	60
MMFRL3	110
MMFRL5	160
MMFRL7	250
MMFRL10	400
MMFRL11	500
MMFRL12	660
MMFRL13	850
MMFRL15	990

Table 2

Connectio									Size
BD	MG	BE	MH	BF	MI	FE	FG	FH	
G1"	M33x2	G1¼"	M42x2	G1½"	M48x2	SAE DN40 3000 psi	SAE DN65 3000 psi	SAE DN80 3000 psi	
•	•								MMFRL2
		•	•						MMFRL3
				•	•				MMFRL5
						•			MMFRL7
							•		MMFRL10
								•	MMFRL11
								•	MMFRL12
								•	MMFRL13
								•	MMFRL15

Table 3

By-pass	Open pressure
10	4 bar
X	Special

Table 4

Seal	Material
B	Buna
V	Viton

Table 5

Media	Material	Filtration	Collapse
P10	Cellulose	10 µm	10 bar
P20	Cellulose	20 µm	10 bar
F03	Fibreglass	3 µm	10 bar
F05	Fibreglass	5 µm	10 bar
F10	Fibreglass	10 µm	10 bar
F20	Fibreglass	20 µm	10 bar
W25	Wire mesh	25 µm	10 bar
W60	Wire mesh	60 µm	10 bar
W90	Wire mesh	90 µm	10 bar
W125	Wire mesh	125 µm	10 bar

Table 6

Indicator	Pressure	Type
00	-	None
PAR	0 – 10 bar	Pressure gauge, right
PAL	0 – 10 bar	Pressure gauge, left
R35R	3.5 bar	Pressure switch, right
R35L	3.5 bar	Pressure switch, left