

MMFRS Series



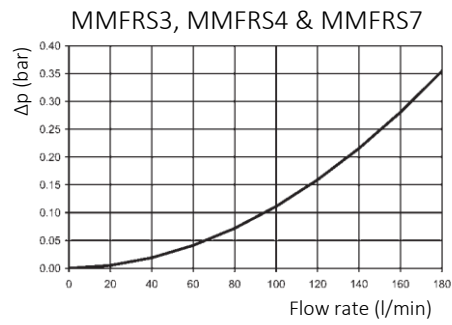
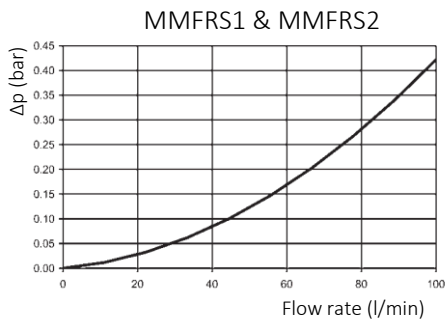
Technical specification

Application:	Return line spin-on filter
Port size:	3/4" BSP & NPT to 1 1/4" BSP & NPT
Flow rate:	max. 250 l/min
Working pressure:	max. 12 bar
Burst pressure:	min. 25 bar
Element collapse pressure:	4 bar
By-pass opening pressure:	Δp 1.7 bar \pm 10%
Seals:	Perbunan (NBR, -10°C to 100°C)
Material:	Aluminium head, Steel bowl
Compatibility:	Suitable for mineral oils, lubrication oils, non-flam fluids, synthetic and rapidly biodegradable oils (for use with water, please contact our technical dept.
Tested according to ISO standards:	ISO2941 Collapse/burst resistance
	ISO2942 Fabrication integrity
	ISO2943 Material compatibility integrity
	ISO3723 Method for end load test
	ISO3724 Flow fatigue characteristics
	ISO3968 Pressure drop vs. Flow
	ISO16889 Multi-pass (filtration performance)

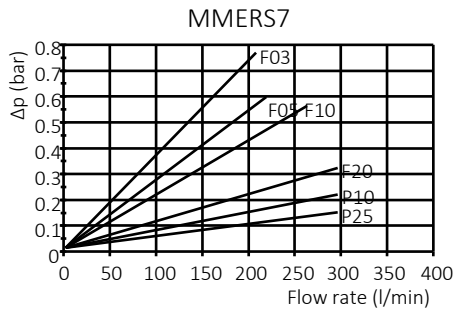
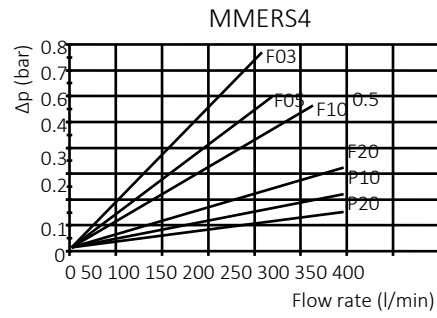
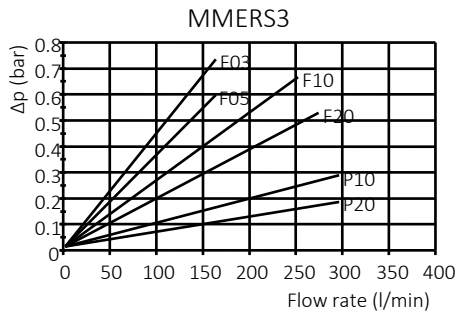
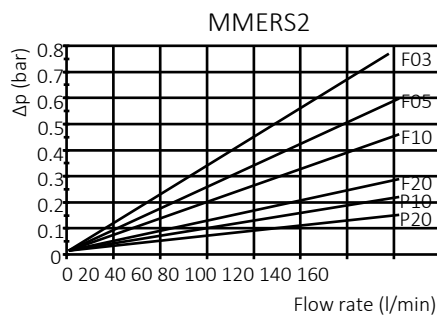
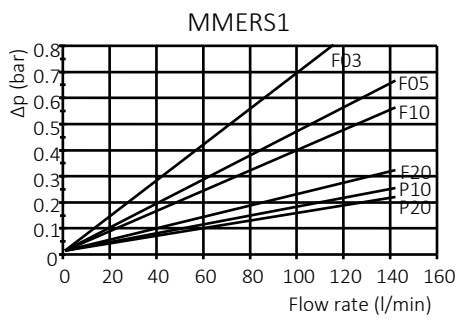
Technical specification subject to change without prior notice. Other specification on request 013/07/23

Pressure drop graphs (Δp)

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



Pressure drop of clean filter elements (by filter media)



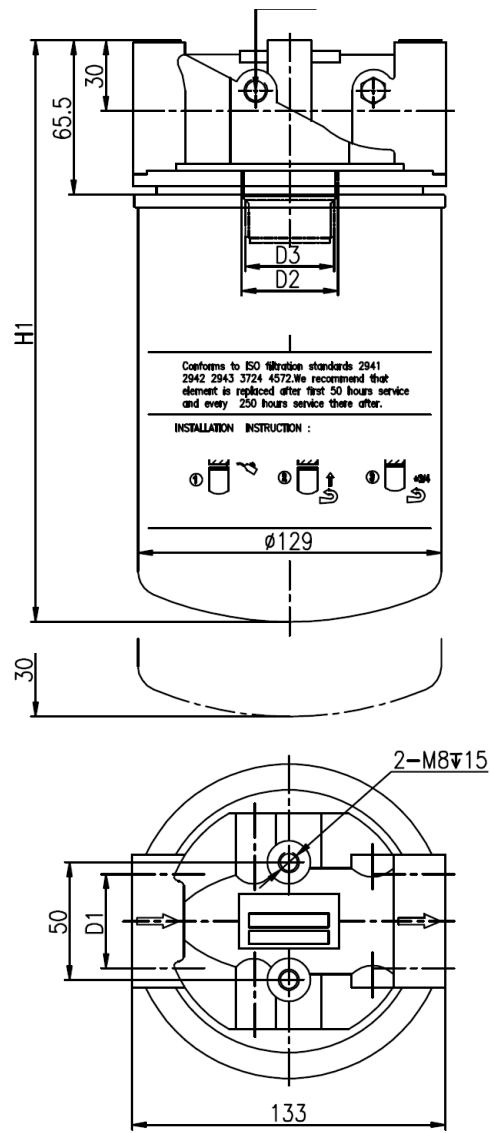
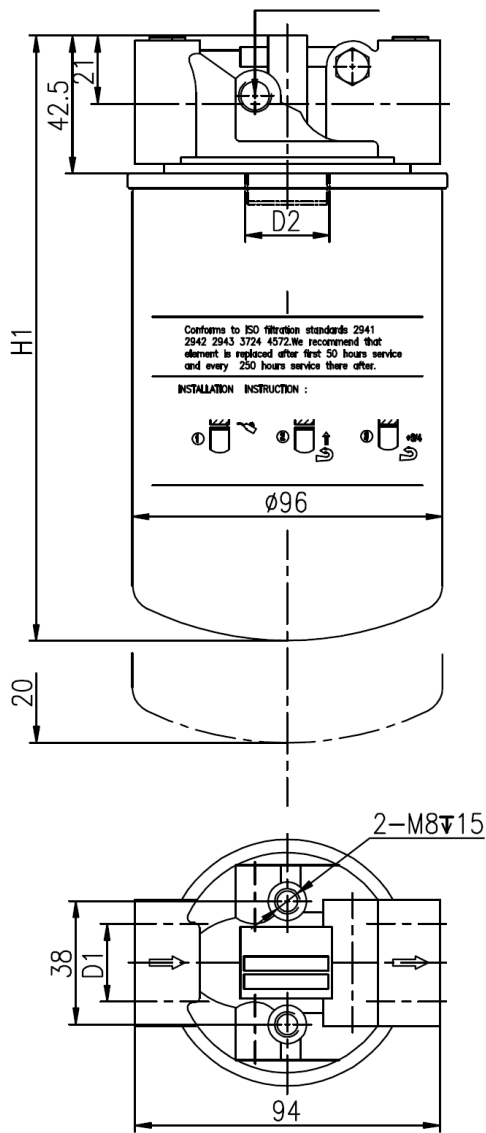
The test fluid has a density of 0.86 kg/dm³ and a kinematic viscosity of 30 mm²/s.

Technical specification subject to change without prior notice. Other specification on request. 2013/07/23

Dimensional drawings

MMFRS1 & MMFRS2

MMFRS3, MMFRS4 & MMFRS7



Type	D1	D2	D3	H1
MMFRS1BC	¾" BSP	¾" BSP	-	188
MMFRS1NC	¾" NPT	1" - 12UNF	-	188
MMFRS2BC	¾" BSP	¾" BSP	-	234
MMFRS2NC	¾" NPT	1" - 12UNF	-	234
MMFRS3BE	1¼" BSP	1¼" BSP	-	248
MMFRS3NE	1¼" NPT	-	1½" - 16UN	241
MMFRS4BE	1¼" BSP	1¼" BSP	-	293
MMFRS4NE	1¼" NPT	-	1½" - 16UN	335
MMFRS7BE	1¼" BSP	1¼" BSP	-	375

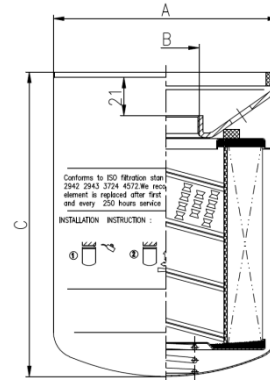
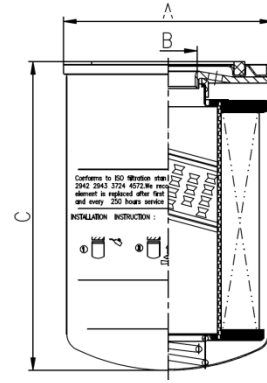
Technical specification subject to change without prior notice. Other specification on request. 2013/07/23

Dimensional drawings

Spin-on elements

Type	A	B	C
MMERS1-B	96	¾" BSP	146
MMERS2-B	96	¾" BSP	191
MMERS1-U	96	1" - 12UNF	146
MMERS2-U	96	1" - 12UNF	191
MMERS3-B	129	1¼" BSP	181
MMERS4-B	129	1¼" BSP	226
MMERS7-B	129	1¼" BSP	308

Type	A	B	C
MMERS3-U	128	1½" - 16UN	170
MMERS4-U	128	1½" - 16UN	270



Technical specification subject to change without prior notice. Other specification on request. 2013/07/23

Order information

Filter assembly part number

	Housing				Element		Accessories	
	Type	Size	Connection	By-pass	Seal	Media	Gauge	Special
	MMFRS	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6	X
Example	MMFRS	1	BC	6	B	P10	PAR	X

Element part number

	Element				
	Type	Size	Port	Media	Seal
	MMERS	Table 1	See prev. page	Table 5	Table 4
Example	MMERS	2	B (BSP) / U (UN)	P10	B

Tables

Table 1	
Size	Flow rate (l/min)
MMFRS1	80
MMFRS2	100
MMFRS3	180
MMFRS4	210
MMFRS7	250

Table 4	
Seal	Material
B	Buna
V	Viton

Table 2				
Connection				Size
BC	NC	BE	NE	
¾" BSP	¾" NPT	1 ¼" BSP	1 ¼" NPT	
•	•			MMFRS1
•	•			MMFRS2
		•	•	MMFRS3
		•	•	MMFRS4
		•		MMFRS7

Table 5			
Media	Material	Filtration	Collapse
P10	Cellulose	10 µm	4 bar
P20	Cellulose	20 µm	4 bar
F03	Fibreglass	3 µm	4 bar
F05	Fibreglass	5 µm	4 bar
F10	Fibreglass	10 µm	4 bar
F20	Fibreglass	20 µm	4 bar
W60	Wire mesh	60 µm	4 bar
W90	Wire mesh	90 µm	4 bar
W125	Wire mesh	125 µm	4 bar

Table 3	
By-pass	Open pressure
00	No by-pass
6	1.7 bar
X	Special

Table 6		
Gauge	Pressure	Type
00	-	No
R15R	1.5 bar	Pressure switch, right
R15L	1.5 bar	Pressure switch, left

Technical specification subject to change without prior notice. Other specification on request 013/07/23

Notes

Technical specification subject to change without prior notice. Other specification on request. 2013/07