FILTER MONITOR

FFM Series

Applications

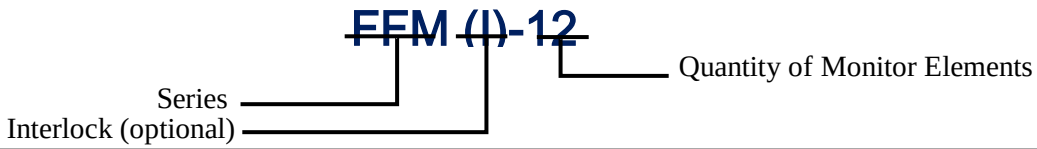
K-FLOW Aviation Filter Monitors are simple compact units which can easily be installed and serviced. They are developed in particular for mobile fueling installation and can be delivered in two versions. Type FFM without and type FFMI with interlock system.

The K-FLOW Aviation interlock system is an additional safety device designed to prevent closure of the cover should the full amount of monitor elements not be fitted. The interlock prevents unfiltered fuel being delivered if an element is missing.

Technical Details

- For mobile and/or stationary applications
- According to EI 1583 6th Edition
- Suitable for Jet A1, etc .
- Vessel material acc. to customer request (carbon steel, stainless steel or aluminum)
- Maximal flow rate up to 4,600 l/min (higher flow rates on request)
- Max. 15 ppm free water in outlet stream
- Max. 0.26 mg/l (average) particles in outlet stream
- Outer diameter of monitor elements: 2 inch
- Nominal micron rating of monitor elements: 1 µm

Sample Identification



Type	Monitor Element		Element Length		Max. Flow Rate		Volume	Weight* (FFM)	Weight* (FFMI)
	Model	Q'ty	Mm	Inch	l/min	USGPM	≈ l	≈ kg	≈ kg
FFM- 3	M.2-770/6	3	770	30	345	91	≈ 22	≈ 50	n.a.
FFM- 5	M.2-770/6	5	770	30	575	151	≈ 22	≈ 50	n.a.
FFM-10	M.2-770/6	10	770	30	1,150	303	≈ 60	≈ 105	n.a.
FFM-12	M.2-770/6	12	770	30	1,380	364	≈ 60	≈ 120	n.a.
FFM(I)-20	M.2-770/6	20	770	30	2,300	607	≈ 85	≈ 138	≈ 145
FFM(I)-30	M.2-770/6	30	770	30	3,450	911	≈ 135	≈ 190	≈ 200
FFM(I)-36	M.2-770/6	36	770	30	4,140	1,093	≈ 170	≈ 235	≈ 248
FFM(I)-40	M.2-770/6	40	770	30	345	1,215	≈ 210	≈ 270	≈ 285

* Design in carbon or stainless steel

K-Flow Engineering Co., LTD
1F., No.120-1, Niaosong 3rd St., Yongkang Dist.,
Tainan City 71042, Taiwan (R.O.C.)
TEL：+886-6-2423111 FAX：+886-6-2425699
E-mail：kflow@seed.net.tw Website：www.kffilters.com.tw

FILTER MONITOR

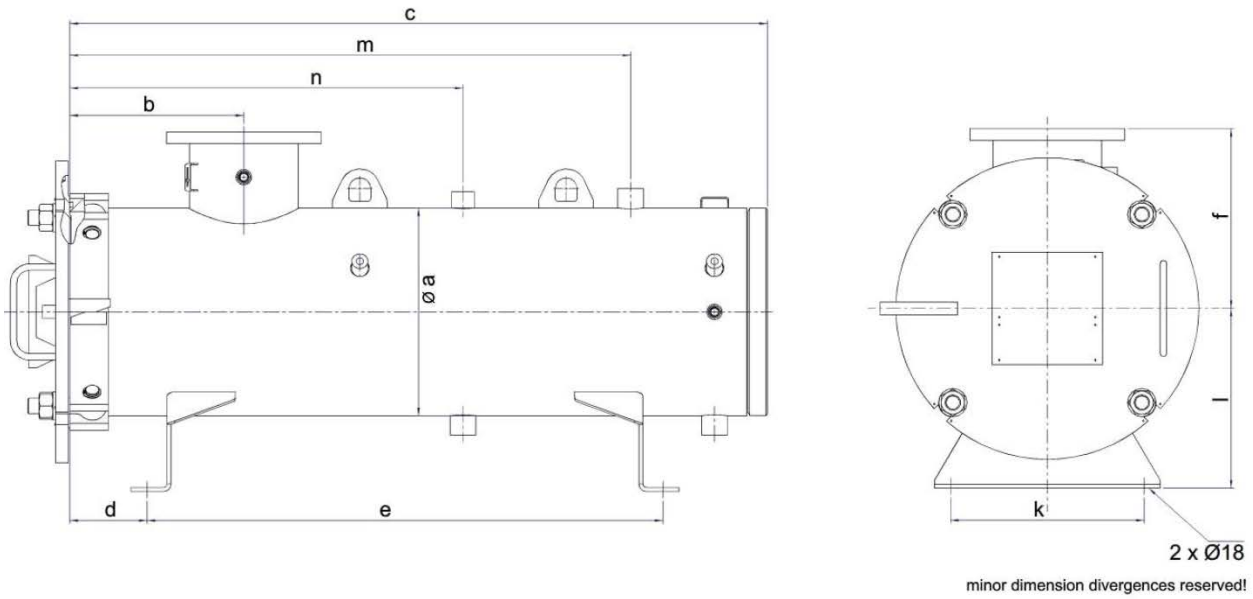
FFM Series

Standard Design

- Material in carbon- or stainless steel
- Cover installation with hinge (left) and swing bolts
- ASME Sec. VIII construction ,with or without stamped and certified
- Design pressure: 150 Psig
- Connections for:

Automatic air eliminator	Differential pressure measuring device (2-point)
Pressure relief valve	Sample probe connections on outlet and inlet
Manual drain valve	Interlock device

Dimensions in mm for carbon steel vessel standard



minor dimension divergences reserved!

Type	In-/Outlet		Dimensions in mm											
					FFM	FFM(I)						FFM	FFM(I)	
	DIN	ANSI	Φ a	b	c	c	d	e	f	k	l	m	m	n
FFM- 3	DN 50	2”	168	200	1,050	n.a.	290	606	170	150	170	830	n.a.	520
FFM- 5	DN 50	2”	168	200	1,050	n.a.	290	606	170	150	170	830	n.a.	520
FFM-10	DN100	4”	273	250	1,100	n.a.	100	820	250	250	250	870	n.a.	560
FFM-12	DN100	4”	273	250	1,100	n.a.	100	820	250	250	250	870	n.a.	560
FFM(I)-20	DN150	6”	324	270	1,085	1,100	120	800	280	300	280	870	890	610
FFM(I)-30	DN150	6”	406	270	1,100	1,125	120	800	320	350	350	870	890	610
FFM(I)-36	DN150	6”	457	270	1,100	1,135	120	800	340	450	400	870	890	610
FFM(I)-40	DN150	6”	508	270	1,120	1,145	120	800	370	450	400	880	890	610

K-Flow Engineering Co., LTD

1F., No.120-1, Niaosong 3rd St., Yongkang Dist.,
Tainan City 71042, Taiwan (R.O.C.)
TEL：+886-6-2423111 FAX：+886-6-2425699
E-mail：kflow@seed.net.tw Website：www.kffilters.com.tw

2” Monitor Element

For removing Water and Solids from Aviation Fuels according to EI 1583 6th Edition.

Qualified and witnessed acc. to the EI 1583 (Specifications and Qualification Procedures for Aviation Fuel Filter Monitors with Absorbend Type Elements).
Filter monitor vessels are fitted with monitor elements and used on aircraft refuelling vehicles, hydrant dispensers and other mobile fuelling equipment.

This element is not suitable for using with Aviation fuels containing anti-icing additives (FSII) and therefore it should not be applied!

Features

- Completely new development
- Improved salt water resistance
- Nearly no media migration
- Lower initial differential pressure
- Improved conductivity, thereby significant reduction in the risk of electrostatic charging
- Interchangeable with all approved filter monitor element on the market
- Useable in all approved filter monitor vessels

Technical Details

Nominal filter efficiency:	acc. to EI 1583, 6th ed.	**Sealing material:**	NBR (Buna-N©)
Change-out dp:	1.7 bar / 25 psi[1,2]	**Collapse strength:**	12 bar / 175 psi
Maximum service time:	12 Months[3]	**Maximum storage time:**	24 Months[3,4]
Operating temperature:	-30℃ bis +80℃	**Outside diameter:**	50 mm (2”)
Flow direction:	Out to in	**Inner tube:**	Coated carbon steel
Endcaps:	Polyamid/ reinforced glass fibre (flat based elements)		
	Epoxy coated carbon steel (screw base elements)		
Labeling:	Date of manufacturing, ID-Number etc.. on the end cap (acc. to EI 1583)		

[1] *1.5 bar/22 psi according to JIG Issue 11/JIG 1*

[2] *1.0 bar/15 psi according to ATA 103*

[3] *Manufacturer recommendation*

[4] *Original packaging, 20 ℃ and max. 50% humidity after date of shipment our of K-FLOW Aviation stock*

K-Flow Engineering Co., LTD
1F., No.120-1, Niaosong 3rd St., Yongkang Dist.,
Tainan City 71042, Taiwan (R.O.C.)
TEL：+886-6-2423111 FAX：+886-6-2425699
E-mail：kflow@seed.net.tw Website：www.kffilters.com.tw