

MAXIMUM PROTECTION AGAINST AMMONIA, LONGER LIFETIME

MICRONAIR FUEL CELL FILTERS TYPE N AND Q

Significant improvement of

- protection against ammonia
- hazardous gas absorption capacity
- particulate filtration efficiency

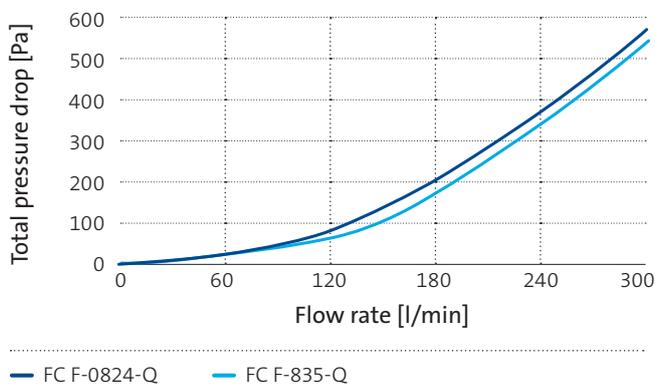
The customer benefits

- longer filter life time
- better fuel cell protection
- lower costs of ownership

FUEL CELL FILTERS – CARTRIDGE FILTERS

KEY DATA		FC F-0824-Q	FC F-0835-Q
Size (D×H), approx.	mm	84×93	84×193
Performance			Q
Number of filter elements			1
Nominal volume flow rate	m ³ /h	0–5	0–10
Attachment port, tube	mm		31
Max. operation/storage temperature	°C		50
PARTICULATE EFFICIENCY (AC-FINE DUST, FOLLOWING DIN 71460)			
0.2 µm	%		> 98
0.3 µm	%		> 98
0.5 µm	%		> 98
1 µm	%		> 98
3 µm	%		> 98
5 µm	%		> 98
10 µm	%		> 98
ADSORPTION PERFORMANCE @ 70 m³/h (FOLLOWING DIN 71460)			
SO ₂ @ 30 ppm	g	1.2	3.1
NH ₃ @ 30 ppm	g	–	–
NO _x @ 30 ppm	g	0.8	2.2
Toluene @ 80 ppm	g	2.2	5.8
n-Butane @ 80 ppm	g	0.3	0.8

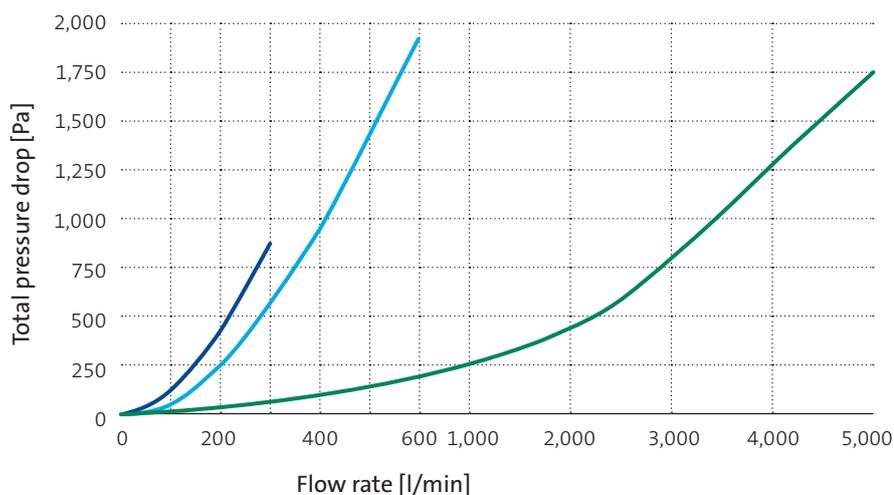
Pressure Drop (Begin of Life, following ISO 5011)



FUEL CELL FILTERS – HALF OPEN

KEY DATA		FC F-0314-N	FC F-0424-N	FC F-0514-N
Size (L×W×H), approx.	mm	149×133×80	203×200×79	301×256×122
Performance		N	N	N
Number of filter elements		1	1	1
Nominal volume flow rate	m ³ /h	0–5	0–20	0–50
Attachment port Hose connector (OD)	mm	22	30	G2" internal thread (screw-in hose connector by request)
Max. screws fastening	Nm		1.5	
Max. operation/storage temperature	°C		80	
PARTICULATE EFFICIENCY (AC-FINE DUST, FOLLOWING DIN 71460)				
0.2 µm	%		> 98	
0.3 µm	%		> 98	
0.5 µm	%		> 98	
1 µm	%		> 98	
3 µm	%		> 98	
5 µm	%		> 98	
10 µm	%		> 98	
ADSORPTION PERFORMANCE @ 70 m³/h (FOLLOWING DIN 71460)				
SO ₂ @ 30 ppm	g	3.3	7.7	16.7
NH ₃ @ 30 ppm	g	>1.0	>2.3	>5.0
NO _x @ 30 ppm	g	2.4	5.5	11.9
Toluene @ 80 ppm	g	6.2	14.3	31.0
n-Butane @ 80 ppm	g	0.8	1.9	4.0

Pressure Drop (Begin of Life, following ISO 5011)

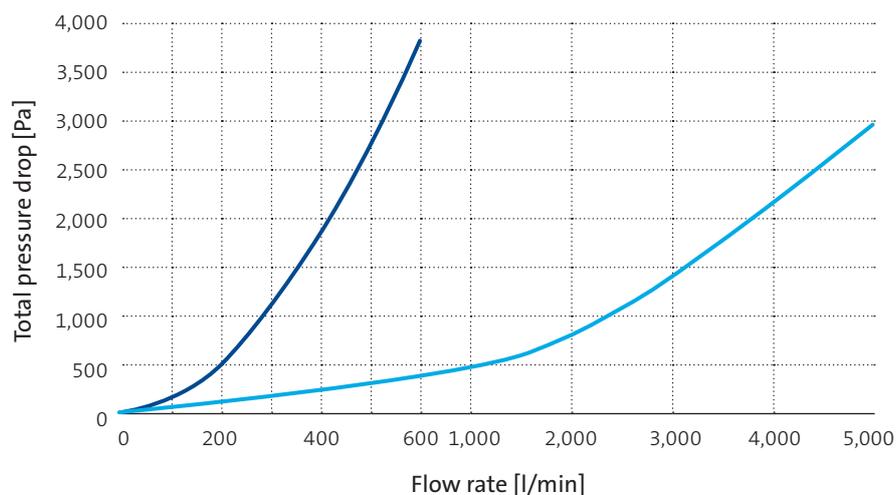


— FC F-0314-N — FC F-0424-N — FC F-0514-N

FUEL CELL FILTERS – CLOSED

KEY DATA		FC F-0423-N	FC F-0513-N
Size (L×W×H), approx.	mm	217×200×158	314×256×244
Performance		N	N
Number of filter elements		2	2
Nominal volume flow rate	m ³ /h	0–40	0–100
Attachment port Hose connector (OD)	mm	30	G2" internal thread (screw-in hose connector by request)
Housing burst pressure	mbar	300	120
Max. screws fastening	Nm		1.5
Max. operation / storage temperature	°C		80
PARTICULATE EFFICIENCY (AC-FINE DUST, FOLLOWING DIN 71460)			
0.2 µm	%		>98
0.3 µm	%		>98
0.5 µm	%		>98
1 µm	%		>98
3 µm	%		>98
5 µm	%		>98
10 µm	%		>98
ADSORPTION PERFORMANCE @ 70 m³/h (FOLLOWING DIN 71460)			
SO ₂ @ 30 ppm	g	15.3	33.4
NH ₃ @ 30 ppm	g	>4.6	>10.0
NO _x @ 30 ppm	g	10.9	23.7
Toluene @ 80 ppm	g	28.5	62.0
n-Butane @ 80 ppm	g	3.7	8.1

Pressure Drop (Begin of Life, following ISO 5011)



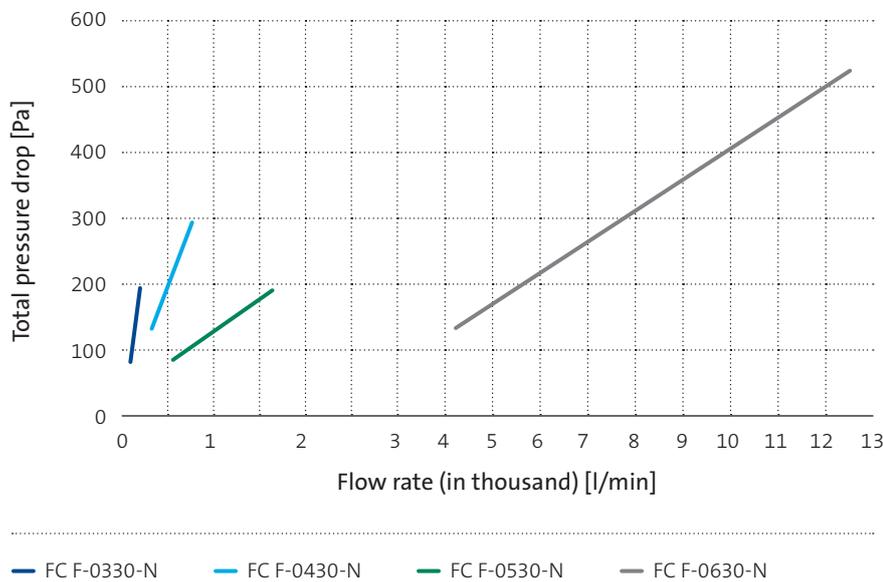
— FC F-0423-N — FC F-513-N



FUEL CELL FILTERS – PANEL FILTER WITH SEAL

KEY DATA		FC F-0330-N	FC F-0430-N	FC F-0530-N	FC F-0630-N
Size (L × W × H), approx.	mm	105 × 105 × 35	168 × 158 × 29	256 × 224 × 30	608 × 307 × 51
Performance		N			
Number of filter elements		1			
Nominal volume flow rate	m ³ /h	0–5	0–20	0–50	250–750
Max. operation / storage temperature	°C	80			
PARTICULATE EFFICIENCY (FOLLOWING EN 779)					DEHS@250 m ³ /h
0.2 µm	%	> 98			
0.3 µm	%	> 98			
0.5 µm	%	> 98			
1 µm	%	> 98			
3 µm	%	> 98			
5 µm	%	> 98			
10 µm	%	> 98			
ADSORPTION PERFORMANCE @ 70 m ³ /h (FOLLOWING DIN 71460)					
SO ₂ @ 30 ppm	g	3.3	7.7	16.7	85.0
NH ₃ @ 30 ppm	g	> 1.0	> 2.3	> 5.0	> 6.0
NO _x @ 30 ppm	g	2.4	5.5	11.9	60.0
Toluene @ 80 ppm	g	6.2	14.3	31.0	160.0
n-Butane @ 80 ppm	g	0.8	1.9	4.0	20.0

Pressure Drop (Begin of Life, following DIN ISO 71460)



Secure attaching is a customer responsibility, screw locking to be used if needed. The Filter should not be used as a supporting element or primary structure. All values represent averages which are subject to usual production tolerances. The individual filtration performance of our filter does not only depend on the quality of the respective supplied part but also on local environmental conditions such as air quality as well as temperature and relative humidity. Each customer should adequately test any product before regular use in the field. Since we are currently optimizing our products, we reserve the right to modify our product portfolio, production facilities or locations, products and respective processing procedures and respective information without prior information. The values do not represent specifications. Any warranty and liability is subject to our General Terms of Delivery and Payment applicable at the delivery date. Please note that the measured values stated refer to reference levels. This document provides non-binding information. Freudenberg Filtration Technologies SE & Co. KG cannot accept any liability for the completeness and correctness of the statements made. Liability and warranty questions shall be governed solely by the provisions of the delivery relationships involved.