

CARTRIDGE FILTERS

Type FA and FAG



FA and FAG Filters

Cartridge Filters

Filters are intended to screen out larger pieces of foreign particles, often present in the gases or particularly during the initial stages of operation of newly laid pipes, to minimize damage to valves, pressure regulators, meters and other equipment used in regulating and metering stations.

Our filters can be used with natural gas and other non-aggressive gases.

They come in several versions to meet all application demands.

They have threaded connections for the mounting of the drain cock (supplied on request) and other accessories.

All our filters can be fitted upon request with a differential pressure gauge as clog detector.

The filters are of sturdy manufacture in special steel and are very easy to install and service.

The cloth filter element can handle particles as small as 5μ and can be used for both dry and wet gas.

The main features are as follows:

- *Versatility*
- *Easy maintenance*
- *Axial and right-angle connections*
- *Filtering degree 5μ*

Available Versions

FA Series: High pressure filters

FAG Series: Mid and low pressure filters

FG/07 Type: Mid and low pressure filters with threaded connections



FA Series • High Pressure Filters

Technical Features

Type	Rating	Design Pressure PS (bar)	Hydrostatic Test PT (bar)
FA/ • FA-11/	ANSI 150	17	25.5
FA/ • FA-12/	ANSI 300	30	45
FA-AP/ • FA-12-AP/	ANSI 600	90	135

Flanged Connections

ANSI 150 - 300 - 600

DN 50 - 65 - 80 - 100 - 150 - 200 - 250 - 300 - 350 - 400

Temperature

Standard version: Working -10 °C +100 °C

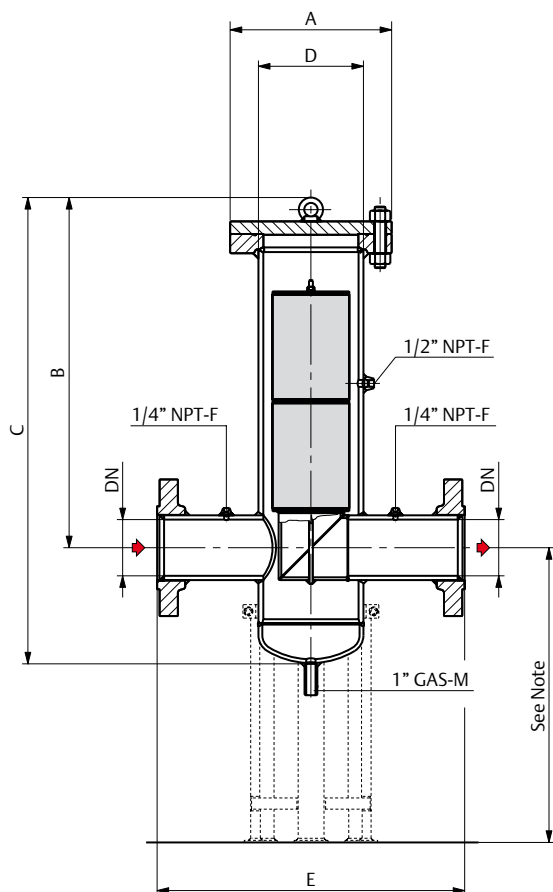
Low temperature version: Working -20 °C +100 °C



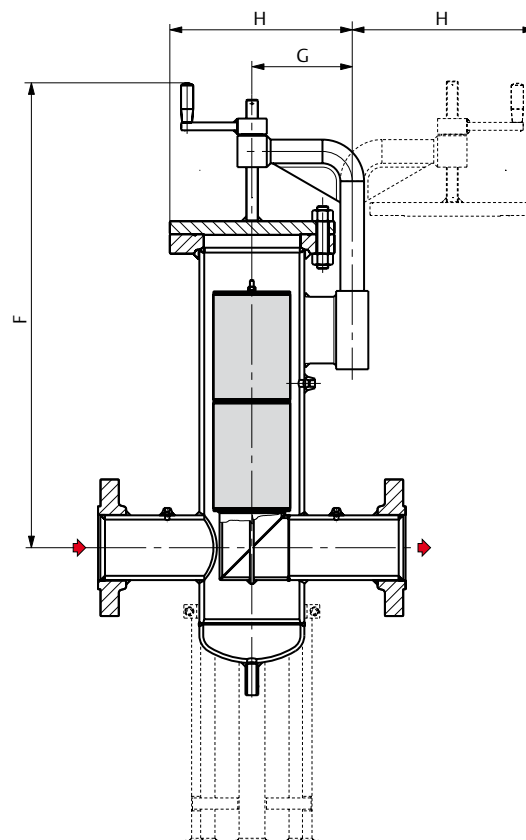
FA and FAG Filters

FA-11, FA-12 and FA-12-AP Series • Flanged Opening • Dimensions and Weights

Standard Flanged Opening System



Flanged Opening System with Davit Lifting System

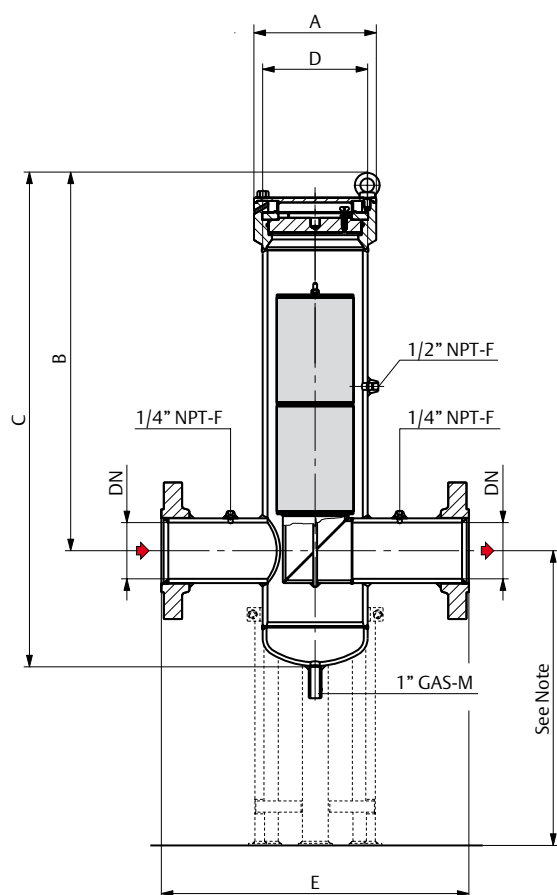


DN	Dimensions (mm)								Volume (l)	Filtering Surface (m²)	Cartridge		Weight (kg)	
	A	B	C	D	E	F	G	H			Type	Qty	FA/11	FA/12
50	225	470	660	141.3	450	-	-	-	8.5	0.250	G 1	2	35	44
65	260	510	715	168.3	500	-	-	-	14.5				40	50
80	300	594	855	194	600	-	-	-	23	0.460	G 1.5		46	80
100	300	594	855	194	600	-	-	-	24.5				50	94
100S	380	730	1030	219.1	700	-	-	-	32	0.940	G 2		-	170
150	410	920	1310	273	800	1200	255	470	80	1.450	G 2.5		190	300
200	480	1026	1360	356	900	1326	300	540	130	1.900	G 3		260	400
250	570	1140	1553	406.4	1000	1477	335	630	189	2.900	G 4		450	690
300	660	1436	1980	508	1200	1685	387	727	390	4.600	G 5		650	980
350	Available on request									4.600	G 5			
400										8.40	G 6			
Note: Starting from DN 150 the filters are supplied with support (recommended height 800 mm, other heights are available for different installations).														

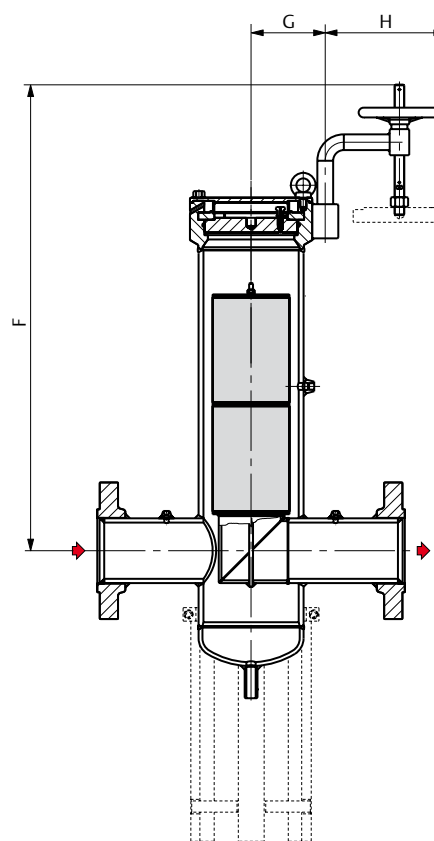
Note: Starting from DN 150 the filters are supplied with support (recommended height 800 mm, other heights are available for different installations).

FA and FA-AP Series • Quick Opening • Dimensions and Weights

Standard Quick Opening System



Quick Opening System with Davit Lifting System



Type	DN	Dimensions (mm)								Volume (l)	Filtering Surface (m ²)	Cartridge		Weight (kg)	
		A	B	C	D	E	F	G	H			Type	Qty	Std	Davit
FA/10	50	168	577	738	141	450	-	-	-	7.5	0.250	G 1	2	44	-
FA/15	80	194	737	933	168	500	-	-	-	14	0.460	G 1.5		80	-
FA/20	100	270	892	1146	219	600	-	-	-	36	0.940	G 2		140	-
FA/25	125	300	948	1275	273	750	-	-	-	59	1.450	G 2.5		258	-
FA/30	150	375	1051	1401	324	800	1403	227	370	94	1.900	G 3		-	420
FA/40	200	460	1312	1742	406	1000	1653	270	447	179	2.900	G 4		-	595
FA/50	300	565	1546	2046	508	1100	1989	322	538	330	4.600	G 5		-	1205

Note: Starting from model FA/25 the filters are supplied with support (recommended height 800 mm, other heights are possible for different installations).

FA and FAG Filters

FA Series • Capacity Tables (Stm³/h)

Δp Pressure loss in mbar - pu Inlet pressure in bar

FA-11, FA-12, FA-12-AP DN 50 • FA/10, FA-AP/10

pu Δp	10	25	50	75	100	150	250	500
0.5	300	350	350	350	-	-	-	-
1	360	450	450	450	-	-	-	-
2	440	700	700	700	700	-	-	-
5	650	800	1000	1250	1250	1250	-	-
10	900	1300	2000	2400	2500	2500	2500	-
25	1700	2000	3000	3600	4200	5000	5500	5500
40	-	-	-	-	-	-	8000	9000
70	-	-	-	-	-	-	12000	15000

FA-11, FA-12, FA-12-AP DN 65

pu Δp	10	25	50	75	100	150	250	500
0.5	300	440	600	600	-	-	-	-
1	360	550	800	800	-	-	-	-
2	440	700	1000	1200	1200	-	-	-
5	650	1000	1400	1700	2000	2400	-	-
10	900	1300	2000	2400	2800	3200	4400	-
25	1300	2000	3000	3600	4200	5000	6400	10000
40	-	-	-	-	-	-	8000	12000
70	-	-	-	-	-	-	12000	16000

FA-11, FA-12, FA-12-AP DN 80 • FA/15, FA-AP/15

pu Δp	10	25	50	75	100	150	250	500
0.5	600	750	750	750	-	-	-	-
1	700	1000	1000	1000	-	-	-	-
2	800	1300	1700	1700	1700	-	-	-
5	1200	1800	2600	3000	3000	3000	-	-
10	1700	2400	3600	4500	5000	5000	5000	-
25	2500	4000	6000	7000	8000	10000	12000	13000
40	-	-	-	-	-	-	16000	21000
70	-	-	-	-	-	-	21000	30000

FA-11, FA-12, FA-12-AP DN 100 • FA/20, FA-AP/20

pu Δp	10	25	50	75	100	150	250	500
0.5	600	900	1300	1300	-	-	-	-
1	700	1000	1500	1900	-	-	-	-
2	800	1300	1700	2200	2600	-	-	-
5	1200	1800	2600	3200	3500	4500	-	-
10	1700	2400	3600	4500	5000	6000	8000	-
25	2500	4000	6000	7000	8000	10000	12000	17500
40	-	-	-	-	-	-	16000	21000
70	-	-	-	-	-	-	21000	30000

FA-11, FA-12, FA-12-AP DN 150 • FA/30, FA-AP/30

pu Δp	10	25	50	75	100	150	250	500
0.5	1800	2800	2800	2800	-	-	-	-
1	2100	3200	4000	4000	-	-	-	-
2	2600	4000	5500	5500	5500	-	-	-
5	3000	4400	8000	11000	11000	11000	-	-
10	4500	6500	10000	12000	16000	20000	20000	-
25	6500	10000	14000	18000	20000	26000	35000	46000
40	-	-	-	-	-	-	42000	62000
70	-	-	-	-	-	-	60000	90000

FA-11, FA-12, FA-12-AP DN 200 • FA/40, FA-AP/40

pu Δp	10	25	50	75	100	150	250	500
0.5	2400	3600	5000	5000	-	-	-	-
1	2800	4330	6300	6500	-	-	-	-
2	3500	5500	8000	10000	10000	-	-	-
5	5000	7500	11000	15000	20000	20000	-	-
10	7000	10000	16000	18000	22000	26000	35000	-
25	10000	16000	24000	30000	34000	40000	50000	72000
40	-	-	-	-	-	-	65000	90000
70	-	-	-	-	-	-	90000	125000

FA-11, FA-12, FA-12-AP DN 250

pu Δp	10	25	50	75	100	150	250	500
0.5	4500	7000	8000	8000	-	-	-	-
1	5500	8000	10000	10000	-	-	-	-
2	6500	10000	15000	15000	15000	-	-	-
5	9500	14000	20000	30000	30000	30000	-	-
10	13000	20000	30000	36000	40000	45000	55000	-
25	20000	30000	45000	46000	64000	76000	90000	130000
40	-	-	-	-	-	-	120000	175000
70	-	-	-	-	-	-	170000	250000

FA-11, FA-12, FA-12-AP DN 300 • FA/50, FA-AP/50

pu Δp	10	25	50	75	100	150	250	500
0.5	8000	11500	11500	11500	-	-	-	-
1	9000	15000	15000	15000	-	-	-	-
2	12000	18000	23000	23000	23000	-	-	-
5	17000	26000	35000	45000	45000	45000	-	-
10	24000	36000	54000	64000	70000	85000	85000	-
25	35000	54000	80000	100000	110000	140000	170000	200000
40	-	-	-	-	-	-	200000	300000
70	-	-	-	-	-	-	300000	350000

FA-11, FA-12, FA-12-AP DN 350 (Available on request)

pu Δp	10	25	50	75	100	150	250	500
0.5	8000	12500	15000	15000	-	-	-	-
1	9000	15000	20000	20000	-	-	-	-
2	12000	18000	25000	25000	25000	-	-	-
5	17000	26000	35000	50000	60000	60000	-	-
10	24000	36000	54000	64000	70000	90000	110000	-
25	35000	54000	80000	100000	110000	140000	170000	240000
40	-	-	-	-	-	-	200000	300000
70	-	-	-	-	-	-	300000	350000

FA-11, FA-12, FA-12-AP DN 400 (Available on request)

pu Δp	10	25	50	75	100	150	250	500
0.5	12500	20000	20000	20000	-	-	-	-
1	15000	24000	26000	26000	-	-	-	-
2	18000	26000	40000	40000	40000	-	-	-
5	27000	40000	60000	75000	80000	80000	-	-
10	38000	55000	84000	100000	115000	140000	140000	-
25	56000	84000	130000	160000	180000	220000	260000	350000
40	-	-	-	-	-	-	350000	500000
70	-	-	-	-	-	-	500000	650000

Attention: In the grey-marked areas, capacity is restricted by gas speed (max 30 m/s) in the filter's tubes. It is recommended that these values not be exceeded.

FAG Series • Mid and Low Pressure Filters

Technical Features

Type	Rating	Design Pressure PS (bar)	Hydrostatic Test PT (bar)
FAG/ FAG-A/	PN16 ANSI 150	6	9
FAG-AP/ FAG-A-AP/	ANSI 150	19	30

Flanged Connections

PN 16 - ANSI 150

DN 50 - 65 - 80 - 100 - 125 - 150 - 200 - 250 - 300

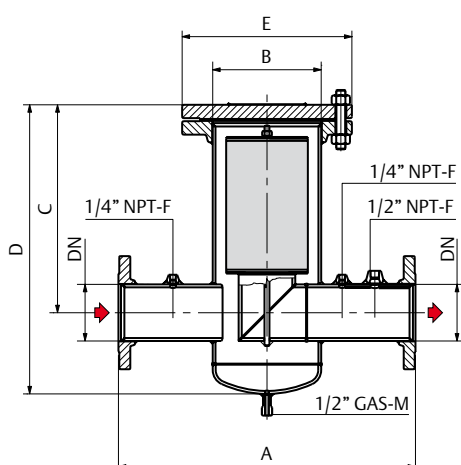
Temperature

Standard version: Working -10 °C +60 °C

Low temperature version: Working -20 °C +60 °C



FAG-A and FAG-A-AP Series Dimensions and Weights

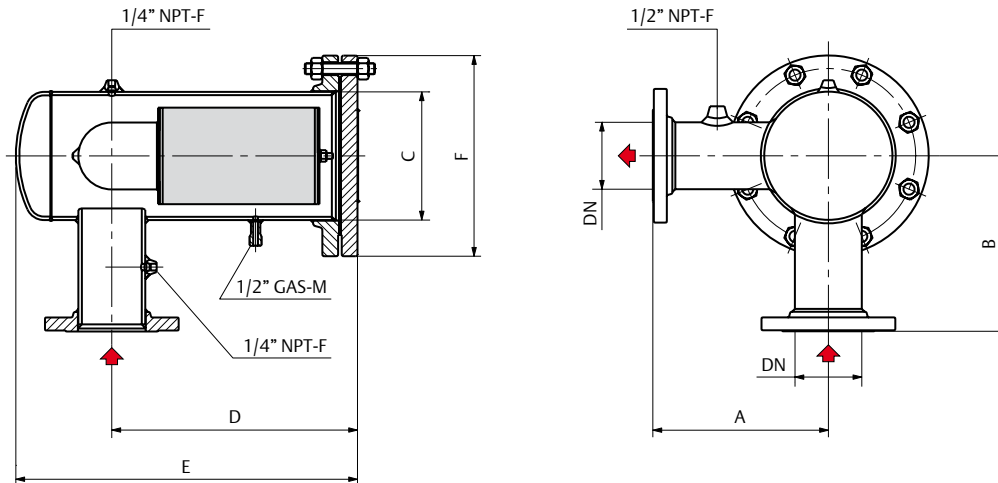


Type	DN	Dimensions (mm)					Volume (l)	Filtering Surface (m²)	Cartridge		Weight (kg)
		A	B	C	D	E			Type	Qty	
0.5	50	450	114.3	214	343	210	3.6	0.06	G 0.5	1	23
0.5-AP				218	339	228.6	3.5				25
1	65	450	141.3	266	414	240	6	0.125	G 1	1	30
1-AP				273	420	254					40
1.5	80	600	168.3	349	533	265	12	0.23	G 1.5	1	40
1.5-AP				359	542	279.4					40
2	100	600	219.1	428	618	320	19	0.47	G 2	1	64
2-AP				420	627	342.9	23				80
2.5	125	800	273	454	694	375	42	0.725	G 2.5	1	93
2.5-AP				454	694	406.4	40				137
3	150	900	323.8	495	777	440	66	0.95	G 3	1	130
3-AP				505	787	482.6	64				191
3.5	150	900	406.4	440	760	540	90	0.95	G 3.5	1	205
3.5-AP				460	780	595	92				258
4	200	1000	406.4	648	998	540	132	1.45	G 4	1	228
4-AP				672	1022	595	131				318
5	250	1200	508	737	1181	645	246	2.30	G 5	1	340
5-AP				742	1178	700	242				485
6	300	1200	610	925	1348	750	393	4.20	G 6	1	500
6-AP				925	1348	750	386				645

Note: Filters can be ordered with smaller DN than those listed in the table and with greater A length.

FA and FAG Filters

FAG and FAG-AP Series • Dimensions and Weights



Type	DN	Dimensions (mm)						Volume (l)	Filtering Surface (m²)	Cartridge		Weight (kg)
		A	B	C	D	E	F			Type	Qty	
0.5	50	225	225	114.3	214	343	210	3.6	0.06	G 0.5	1	23
0.5-AP					218	339	228.6	3.5				25
1	65	225	225	141.3	266	414	240	6	0.125	G 1		30
1-AP					273	420	254					40
1.5	80	300	300	168.3	349	533	265	12	0.23	G 1.5		40
1.5-AP					359	542	279.4					40
2	100	300	300	219.1	428	618	320	19	0.47	G 2		64
2-AP					420	627	342.9	23				80
2.5	125	400	400	273	454	694	375	42	0.725	G 2.5		93
2.5-AP					454	694	406.4	40				137
3	150	450	450	323.8	495	777	440	66	0.95	G 3		130
3-AP					505	787	482.6	64				191
3.5	150	450	450	406.4	440	760	540	90	0.95	G 3.5		205
3.5-AP					460	780	595	92				258
4	200	500	500	406.4	648	998	540	132	1.45	G 4		228
4-AP					672	1022	595	131				318
5	250	600	600	508	737	1181	645	246	2.30	G 5		340
5-AP					742	1178	700	242				485
6	300	600	600	610	925	1348	750	393	4.20	G 6		500
6-AP					925	1348	750	386				645

Note: Filters can be ordered with smaller DN (nominal diameters) than those listed in the table and with greater A and B lengths.

FAG Series • Capacity Tables (Stm³/h)

Δp Pressure loss in mbar - pu Inlet pressure in bar

FAG-A and FAG Type 0.5 • DN 50

pu \ Δp	10	25	50	75	100	150	250	500
0.5	75	110	120	120	-	-	-	-
1	90	140	170	170	-	-	-	-
2	110	170	250	250	250	-	-	-
5	-	-	350	375	500	500	-	-
10	-	-	-	-	650	700	700	-
16	-	-	-	-	-	-	1000	1000

FAG-A and FAG Type 3 • DN 150

pu \ Δp	10	25	50	75	100	150	250	500
0.5	1600	2500	3000	3000	-	-	-	-
1	1900	3000	3750	3750	-	-	-	-
2	2500	4000	4500	4750	5500	-	-	-
5	3000	4500	7500	9000	10000	11000	-	-
10	3500	5200	8000	10000	12000	15000	18000	-
16	4000	6500	9000	12000	13000	16000	22000	31000

FAG-A and FAG Type 1 • DN 65

pu \ Δp	10	25	50	75	100	150	250	500
0.5	150	220	340	400	-	-	-	-
1	180	280	400	450	-	-	-	-
2	220	340	500	600	700	-	-	-
5	320	500	700	750	1000	1200	-	-
10	450	650	1000	1200	1300	1600	2200	-
16	550	800	1200	1500	1700	2000	2750	3800

FAG-A and FAG Type 3.5 • DN 150

pu \ Δp	10	25	50	75	100	150	250	500
0.5	1900	2800	3500	3500	-	-	-	-
1	2200	3500	4000	4000	-	-	-	-
2	2750	4250	6000	6000	6000	-	-	-
5	4000	6000	9000	10000	11500	12000	-	-
10	5500	8000	13000	15000	17000	20000	22000	-
16	6500	10000	15000	18000	22000	26000	31000	31000

FAG-A and FAG Type 1.5 • DN 80

pu \ Δp	10	25	50	75	100	150	250	500
0.5	300	430	650	800	-	-	-	-
1	340	550	750	900	-	-	-	-
2	400	650	950	1100	1300	-	-	-
5	600	900	1300	1600	1900	2200	-	-
10	850	1200	1800	2200	2500	3000	3750	-
16	1000	1400	2200	2800	3200	4000	4500	6000

FAG-A and FAG Type 4 • DN 200

pu \ Δp	10	25	50	75	100	150	250	500
0.5	2250	3400	5000	5000	-	-	-	-
1	2500	4000	5500	7000	-	-	-	-
2	3000	5000	7000	9000	10000	-	-	-
5	4500	7000	10000	12500	15000	17500	-	-
10	6500	10000	15000	18000	19500	22000	30000	-
16	8000	12000	18000	22000	25000	31000	35000	50000

FAG-A and FAG Type 2 • DN 100

pu \ Δp	10	25	50	75	100	150	250	500
0.5	600	900	1300	1300	-	-	-	-
1	700	1100	1500	1700	-	-	-	-
2	850	1300	1900	2200	2200	-	-	-
5	850	1300	2750	3200	3750	4750	-	-
10	1200	1800	3000	3500	5000	6250	8500	-
16	1400	2200	3200	4000	5500	6500	10000	12000

FAG-A and FAG Type 5 • DN 250

pu \ Δp	10	25	50	75	100	150	250	500
0.5	3500	5500	8000	8000	-	-	-	-
1	3750	7000	11000	11000	-	-	-	-
2	6500	8500	12500	16000	16000	-	-	-
5	8500	13000	17500	21000	26000	32000	-	-
10	12000	18000	27000	32000	35000	40000	57000	-
16	14000	22000	32000	40000	45000	55000	65000	90000

FAG-A and FAG Type 2.5 • DN 125

pu \ Δp	10	25	50	75	100	150	250	500
0.5	900	1300	2000	2000	-	-	-	-
1	1000	1600	2750	2750	-	-	-	-
2	1250	2000	2800	3000	3500	-	-	-
5	1500	2200	4000	5000	5500	6000	-	-
10	2200	3200	5000	6000	7500	8500	10000	-
16	2500	4000	6000	7000	8000	10000	12000	18000

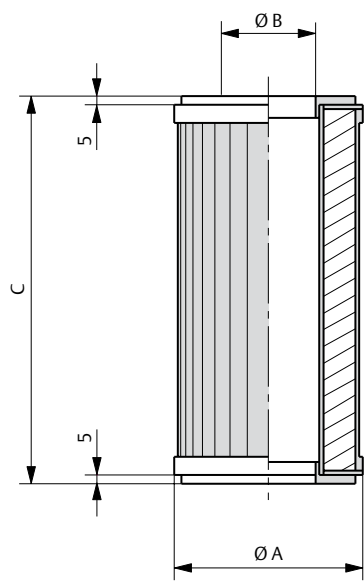
FAG-A and FAG Type 6 • DN 300

pu \ Δp	10	25	50	75	100	150	250	500
0.5	6000	9000	11000	11500	-	-	-	-
1	7000	10000	15000	15000	-	-	-	-
2	8000	13000	19000	23000	23000	-	-	-
5	13500	20000	25000	30000	35000	45000	-	-
10	19000	28000	42000	48000	50000	60000	85000	-
16	22000	35000	50000	62000	70000	85000	90000	130000

Attention: In the grey-marked areas, capacity is restricted by gas speed (max 30 m/s) in the filter's tubes. It is recommended that these values not be exceeded.

FA and FAG Filters

Cloth Filter Cartridges • Dimensions (mm)



Type	Filtering Degree (µm)	Filtering Surface (m²)	Dimensions		
			Ø A	Ø B	C
G 0.5	5	0.06	80	35	120
G 1		0.125	95	50	165
G 1.5		0.23	120	69	210
G 2		0.47	165	86	270
G 2.5		0.725	200	110	283
G 3		0.95	252	138	320
G 3.5		0.95	299	186	250
G 4		1.45	299	186	415
G 5		2.30	390	246	470
G 6		4.20	475	320	625

Type FG/07 • Mid and Low Pressure Filters with Threaded Connections

- Applications

Non-corrosive gases for temperatures up to 60 °C. Vertical installation.
- Technical Features

Design Pressure PS:

16 bar

Threaded connections:

1" gas

Cartridge type:

G 0.7 - Filtering degree 5 µm, magnetic elements are built-in to trap metal dirt
- Materials

Closure

Aluminium

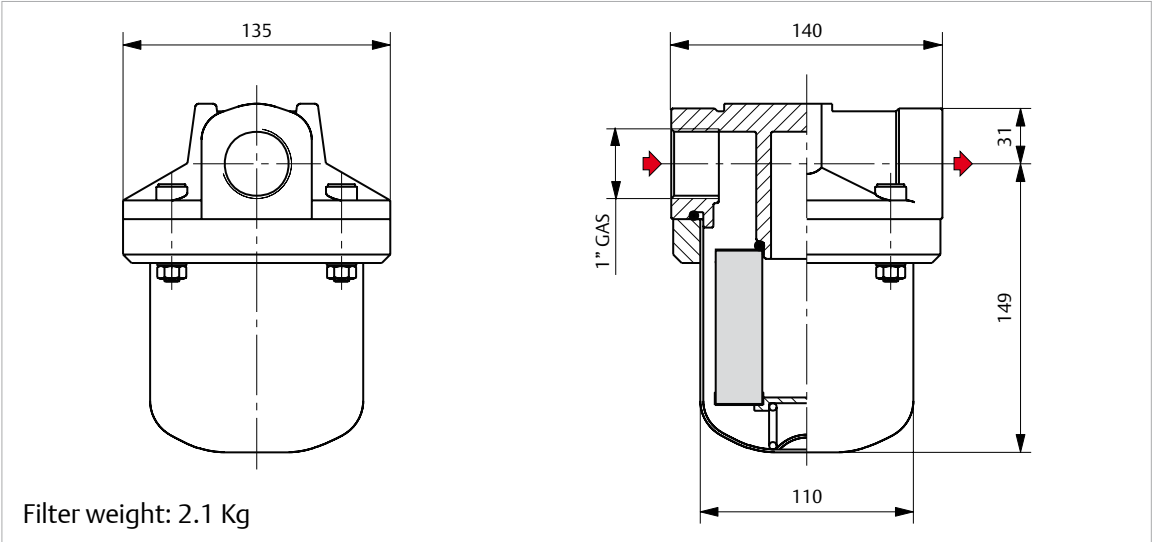
Body

Pressed steel

Gaskets

NBR rubber

Dimensions (mm)



Filter weight: 2.1 Kg

PG Series • Differential Pressure Gauge and Clogging Indicator

The PG series clogging indicator is ideal for application in systems operating at high and low pressures. The instrument has been specially designed so as not to require general maintenance; only the diaphragm and the seal need to be periodically replaced. The connections are marked with the “+” sign for the inlet side and with the “-” sign for the outlet side.

The instrument features a maximum pressure differential slave pointer and a dial marked off in both millibar and psid. The last quarter of the dial, the range normally indicating cartridge clogging, is marked off in a different color.

Manifold Version

To operate this version, which is fitted with three valves for cut-off and reset, proceed as follows:

- Open inlet and outlet valves and close the by-pass valve to activate the instrument.
- Close inlet and outlet valves and open the by-pass valve in order to deactivate the instrument so as to check zero-setting.

Proximity Switch "S" Version

The proximity switch, which is factory set to 75% of the full scale range, is designed for remote transmission of the maximum differential pressure signal. This version is intrinsically safe and has been constructed in accordance with current standards and regulations.

This clogging indicator requires the installation of a "Zener" safety barrier within a maximum distance of 100 metres from the indicator itself.

Technical Features

Type	Scale (mbar)	Maximum Working Pressure (bar)
PG/150 - PG/150-S	0 ÷ 150	100
PG/300 - PG/300-S	0 ÷ 300	
PG/600 - PG/600-S	0 ÷ 600	
PG/1000 - PG/1000-S	0 ÷ 1000	
PG/2000 - PG/2000-S	0 ÷ 2000	

Threaded Connections

1/4" Rp

Temperature

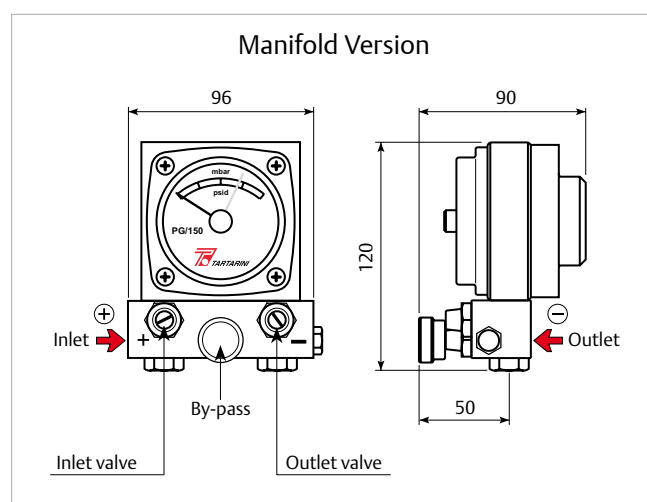
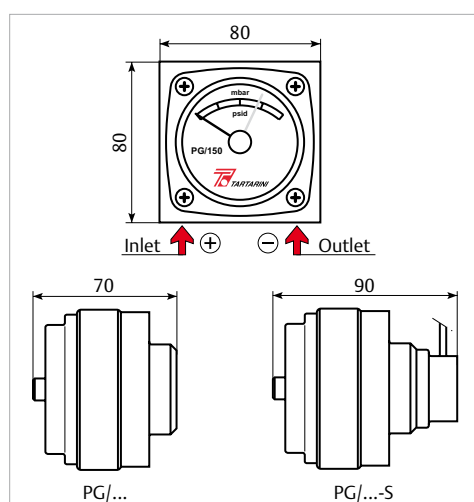
Working -20 °C +60 °C

Materials

Body Aluminium
Cover Aluminium
Manifold Steel



Dimensions (mm)



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