Pre-filter

Micro-filter

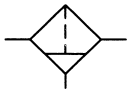
Activated carbon filter

Fine filters

Size 3

FV 33 / FM 33 / FA 33

Pre-filter	**0.3 µm**
Micro-filter	**0.01 µm**



Additional charge for differential pressure gauge

Characteristics

Type	FV 33	FM 33	FA 33
Port	G 1/2		
Type of construction	**Pre-filter** 0.3 µm	**Micro-filter** 0.01 µm	**Activated carbon filter**
Mounting position	Vertical, drain plug at bottom		
Input pressure p_1	**Min. 0.5 bar** **Min. 1.5 bar** with fully automatic drain **Max. 16 bar** **Max. 16 bar** with fully automatic drain		
Dust separation	>0.3 µm / 99.999%	>0.01 µm / 99.999%	
Residual oil content		0.01 mg/m^3	0.005 mg/m^3
Temperature Ambient / medium	Max. 60 °C (other temperature ranges on request)		
Nominal flow Q_n	500 l/min	720 l/min	1500 l/min
Δp*	0.02 bar	0.09 bar	0.2 bar
Bowl capacity	Max. 25 cm^3		
Condensate drain	Semi-automatic Fully-automatic on request		
Mounting type	Two through holes, bracket		
Weight [g]	0.800		

***See overleaf for flow rate equation**

Ordering information

Options	
K(-HA)	Plastic bowl
S	Bowl guard
M	Metal bowl with sight glass
A	Automatic drain valve

Order example:

F**V** 33 **K-HA**

→ Pre-filter with plastic bowl and semi-automatic condensate drain valve

Description

- Block design
- Simple block mounting of several devices with conical clamps **(no tools required)**
- Joiner sets (**KP 05**) are required for block mounting with other devices
- Flow direction indicated by arrows
- **Entry in direction of arrow**
- Bowl guard can be mounted without tools

Materials

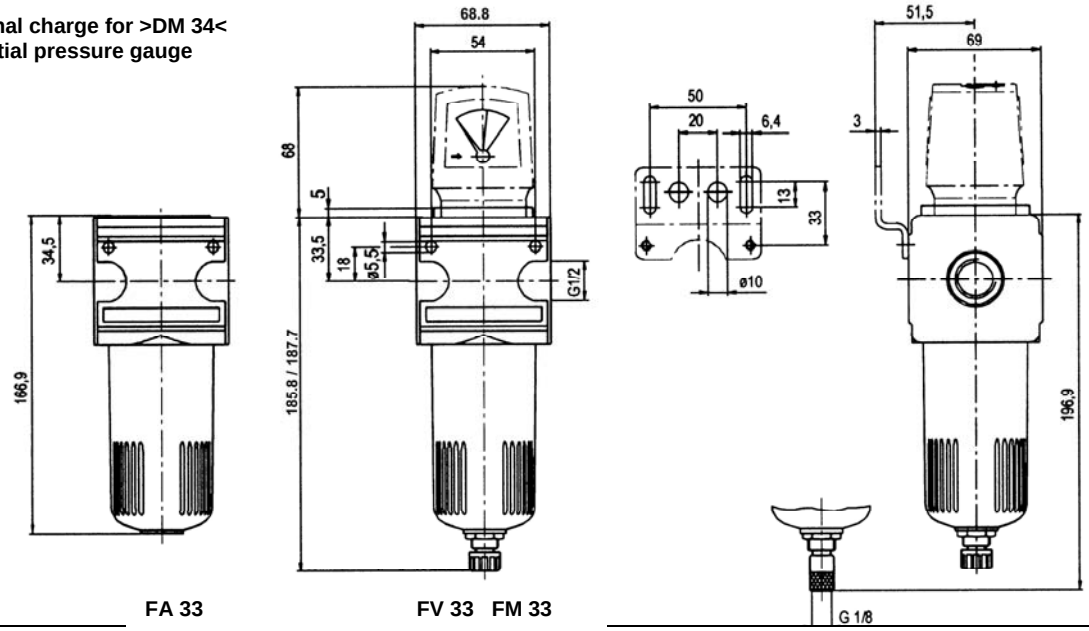
Designation	Material
Head piece	Zinc – Z 410
Cover	Zinc – Z 410
O-ring 50 x 2	NBR
O-ring 29.87 x 1.78	NBR
Pre-filter element	Paper – POM
Micro-filter element	Borosilicate – POM
Activated carbon element	Activated carbon – POM
Condensate bowl	Polycarbonate
Oil bowl	Polycarbonate

Filter elements

Designation	Part No.
Pre-filter element	**V 38/60**
Micro-filter element	**M 38/60**
Activated carbon element	**A 38/90**

Dimensions [mm]

Additional charge for >DM 34< differential pressure gauge



FA 33 FV 33 FM 33

Typical applications

Pre-filter FV 33

For compliance with **strict** compressed air purity requirements.
Fine particles larger than 0.3 µm, which are able to pass through the sintered filter elements unhindered, are separated in the **FV 33** filter.

Typical applications include:
- Chemical industry
- Paint spraying plants
- Food processing industry
- Pharmaceutical industry
- Precision instruments

Micro-filter FM 33

For compliance with **very strict** compressed air purity requirements.
Very fine particles larger than 0.01 µm and oil mist are separated in the **FM 33** filter.

Typical applications include:
- Paint spraying plants
- Food processing industry
- Pharmaceutical industry
- Precision instruments

Activ. carbon filter FA 33

For **filtering odours** out of compressed air. The activated carbon absorbs the oil vapour molecules contained in the air. A separate filter route prevents activated carbon particles from entering the air flow.

Typical applications include:
- Food processing industry
- Medical equipment
- Pharmaceutical industry

Flow rates

Required flow **Q** = nominal flow Q_n x correction factor **f** → **$Q = Q_n$ x f**

p [bar]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
f	0.46	0.6	0.68	0.77	0.85	0.93	1	1.07	1.11	1.17	1.23	1.28	1.32	1.36	1.4	1.46

Accessories

Designation	Part No.		Designation	Part No.
Bracket kit	ZW 33		Polycarbonate bowl with semi-automatic drain valve (**FV / FM**)	KS 33 F-HA
Joiner set for block mounting with other devices	KP 33		Polycarbonate bowl (**FA**)	KS 33 N
Joiner set for narrow manifolds	KP 33 Z		Metal bowl with sight glass (**FV / FM**)	MS 33 FS
Automatic drain valve	655.6.900		Metal bowl with sight glass (**FA**)	MS 33 NS
			Differential pressure gauge	DM 34

Art. No.	Ident No.
FV 33 K-HA	100528
FV 33 S	100530
FV 33 M	100532
FV 33 K-A	121295
FV 33 S-A	121297
FV 33 M-A	121296
FM 33 K-HA	100534
FM 33 S	100536
FM 33 M	100538
FM 33 K-A	121078
FM 33 S-A	121080
FM 33 M-A	121079
FA 33 K	100540
FA 33 S	100542
FA 33 M	100544

Art. No.	Ident No.
V 38/60	100545
M 38/60	100546
A 38/90	100550
ZW 33	100441
KP 33	100442
KP 33 Z	100443
655.6.900	100362
KS 33 F-HA	100504
KS 33 N	100548
MS 33 FS	100502
MS 33 NS	100549
DM 34	100172