

# FILTERS G

## Cartridge filter type G



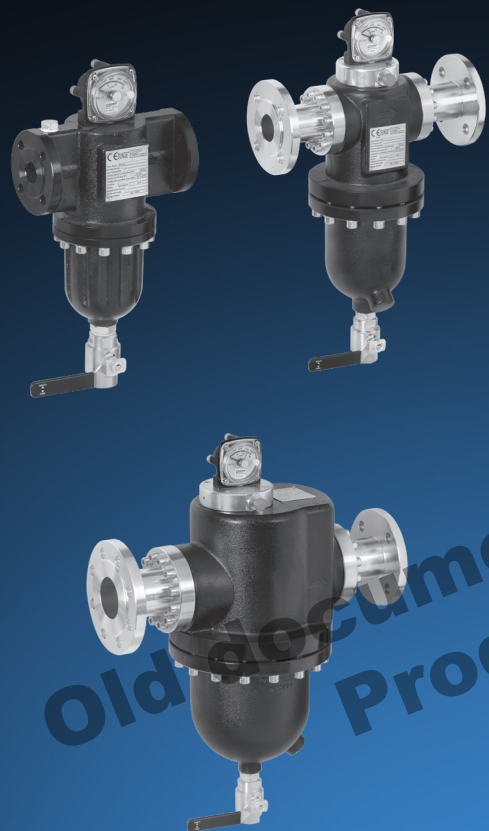
High pressure cartridge filters type G

Filter cartridge located inside the nodular cast iron body. It has interchangeable inlet and outlet flanged connections.

In compliance with UNE-EN 13445

- Inlet pressures up to 25 bar (2 500 kPa)
- Interchangeable flanged connections DIN / ANSI 150
- Supplied with purge valve and differential pressure gauge
- Assembled on manifold (no tubings needed)
- Maintenance-friendly
- Flange connections DN 25 - DN 80
- Low pressure loss

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Product is not available anymore!

## Filters G

G-type cartridge filters protect downstream equipment from small particles in the fluid.

## Applications

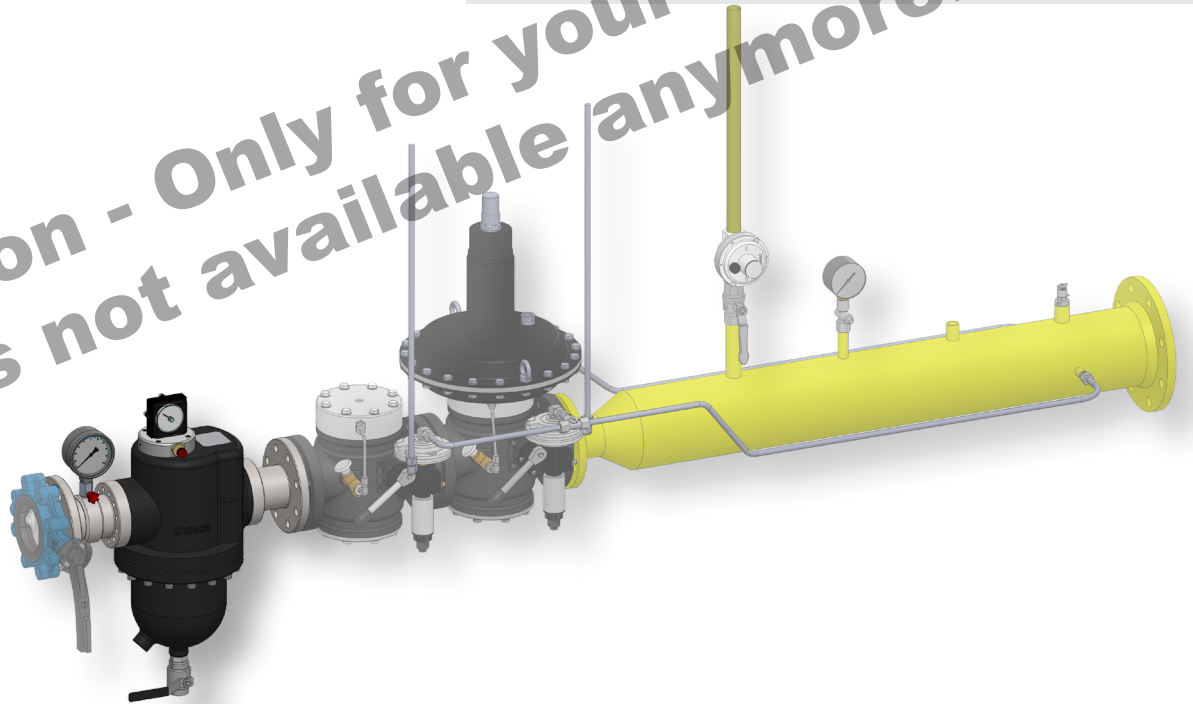
Suitable for high pressure regulation stations and those industrial gas installations where a very low pressure drop in the filter is desired.

Suitable for gases of gas families 1, 2, 3 and other neutral gases.

## Approval

EC type-examination certificate in accordance with:

- EU Pressure equipment Directive 2014/68





**Gas filter EN 13445**

Type	Cartridge filter G - 0.5
Order number	282557
Type of gas	Family 1+2+3 and other neutral gases
Nominal diameters	Connecting flange PN 25 in accordance with EN 1092-1 DN 25
Max. inlet pressure	25 bar (2 500 kPa)
Volume	1.5 litres
Filtering efficiency	98% particles > 3µ 99% particles > 5µ
Materials	Body: Casting from EN-GJS-400-18-LT Flanges: Casting from EN-GJS-400-18-LT Filter cartridge: Synthetic fibre with reinforced Al
Ambient temperature	-20 °C to +50 °C

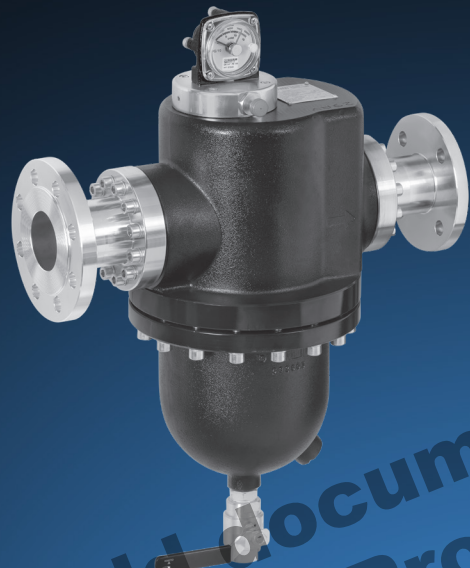
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### Gas filter EN 13445

Type	Cartridge filter G - 1		
Order number	282555		
Type of gas	Family 1+2+3 and other neutral gases		
Nominal diameters	Connecting flange PN 25 in accordance with EN 1092-1 or ANSI 150 lbs (B16.5) DN 25    40    50		
Max. inlet pressure	25 bar (2 500 kPa)*		
Volume (litres)	DN 25	DN 40	DN 50
Volume input	1.983	2.068	2.143
Volume output	0.586	0.671	0.746
Total volume	2.569	2.739	2.889
Filtering efficiency	98% particles > 3µ 99% particles > 5µ		
Materials	Body:	Casting from EN-GJS-400-18-LT	
	Flanges:	Steel S355J2	
	Filter cartridge:	Synthetic fibre with reinforced Al	
Ambient temperature	-20 °C to +50 °C		

\*19 bar (1 900 kPa) with ANSI 150 flanges

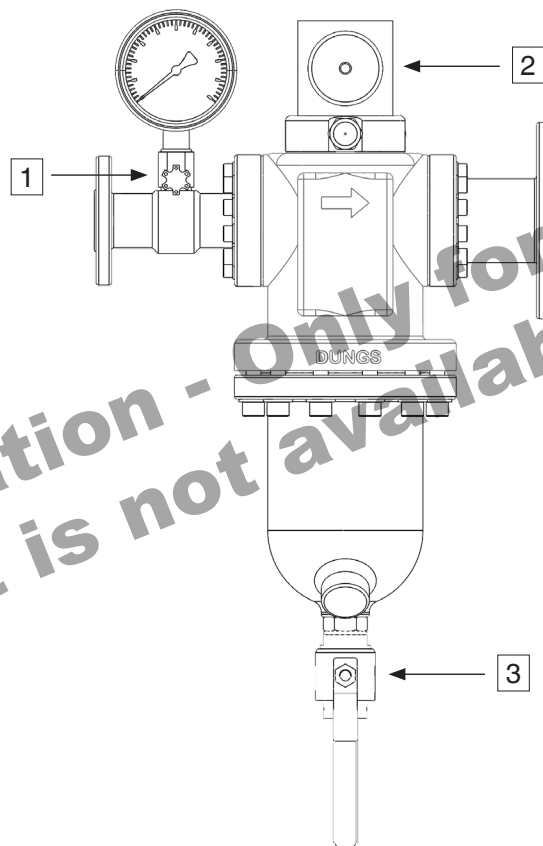
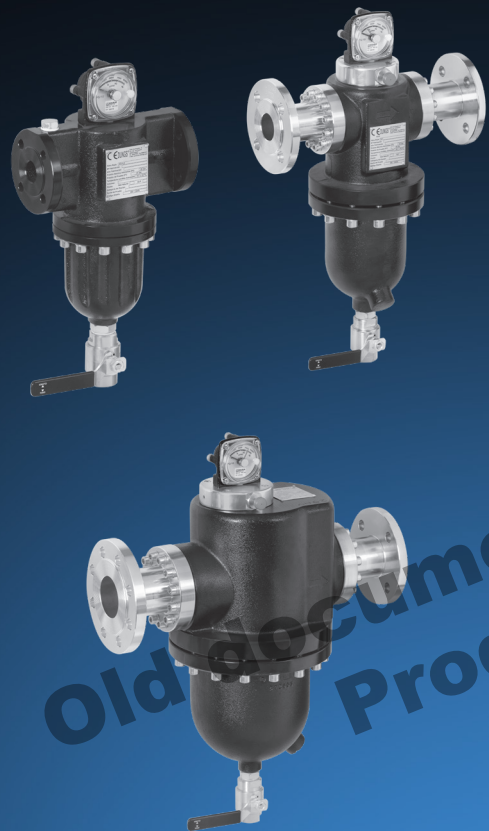


**Gas filter EN 13445**

Type	Cartridge filter G - 1.5		
Order number	282556		
Type of gas	Family 1+2+3 and other neutral gases		
Nominal diameters	Connecting flange PN 25 in accordance with EN 1092-1 or ANSI 150 lbs (B16.5) DN 50 65 80		
Max. inlet pressure	25 bar (2 500 kPa)*		
Volume (litres)	DN 50	DN 65	DN 80
Volume input	7.84	7.99	8.18
Volume output	1.63	1.78	1.97
Total volume	9.47	9.77	10.15
Filtering efficiency	98% particles > 3µ 99% particles > 5µ		
Materials	Body:	Casting from EN-GJS-400-18-LT	
	Flanges:	Steel S355J2	
	Filter cartridge:	Synthetic fibre with reinforced Al	
Ambient temperature	-20 °C to +50 °C		

\*19 bar (1 900 kPa) with ANSI 150 flanges

Filter components

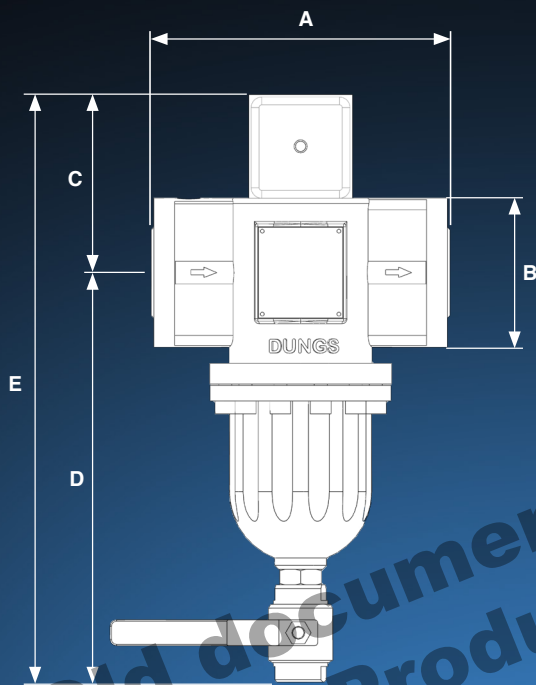


- 1 Threaded pressure gauge holder 1/2"
- 2 Differential pressure gauge 0-1 bar or 0-150 mbar / Input-output connection F 1/4"
- 3 FB Ball valve 1/2" BSP PN 100

Dimensions of filters G

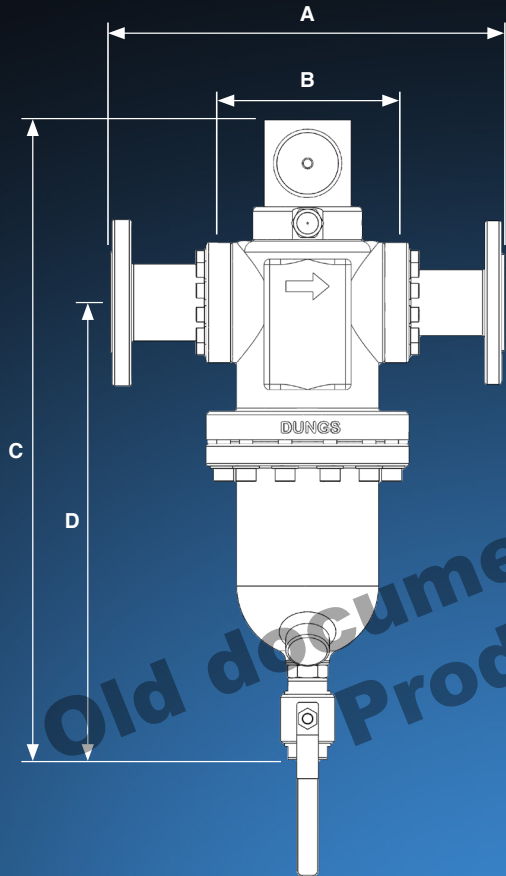
Cartridge filter G - 0.5

Type	Item N°	p <sub>max.</sub> [bar/kPa]	Connection	Dimensions [mm]					Wgt. [kg]
				A	B	C	D	E	
CARTRIDGE FILTER G - 0.5	282557	25 / 2 500	DN 25	230	115	138	316	454	13



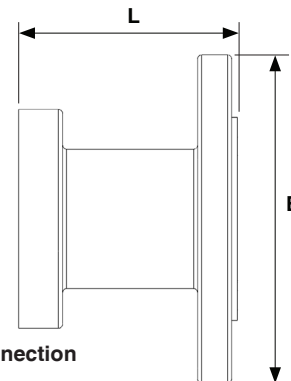
Dimensions of filters G

Cartridge filter G - 1.0

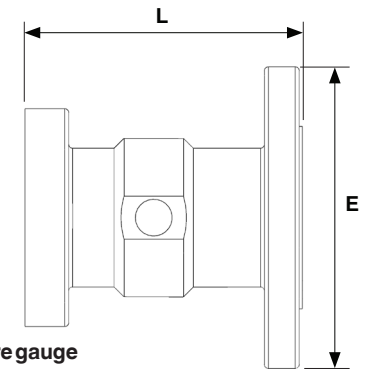


Type	Item N°	Flange standard	Dimensions [mm]						Flange weight [kg]	Weight filter with flanges [kg]
			A	B	C	D	E	L		
CARTRIDGE FILTER G - 1.0	282555	DN 25 PN 25	362	160	580	420	115	101	2.62	30.50
		DN 40 PN 25	362	160	580	420	150	101	3.47	32.20
		DN 50 PN 25	362	160	580	420	165	101	4.08	33.42
		DN 25 PN 25 W / PRESSURE GAUGE	422	160	580	420	115	131	3.11	31.48
		DN 40 PN 25 W / PRESSURE GAUGE	422	160	580	420	150	131	4.06	33.38
		DN 50 PN 25 W / PRESSURE GAUGE	422	160	580	420	165	131	4.85	34.96
		1" ANSI 150	362	160	580	420	107.9	101	2.28	29.82
		1.½" ANSI 150	362	160	580	420	127	101	3.03	31.32
		2" ANSI 150	362	160	580	420	152.4	101	3.76	32.78
		1" ANSI 150 W / PRESSURE GAUGE	422	160	580	420	107.9	131	2.73	30.72
		1.½" ANSI 150 W / PRESSURE GAUGE	422	160	580	420	127	131	3.62	32.5
		2" ANSI 150 W / PRESSURE GAUGE	422	160	580	420	152.4	131	4.44	34.14

Neck for Filter G - 1.0 without connection

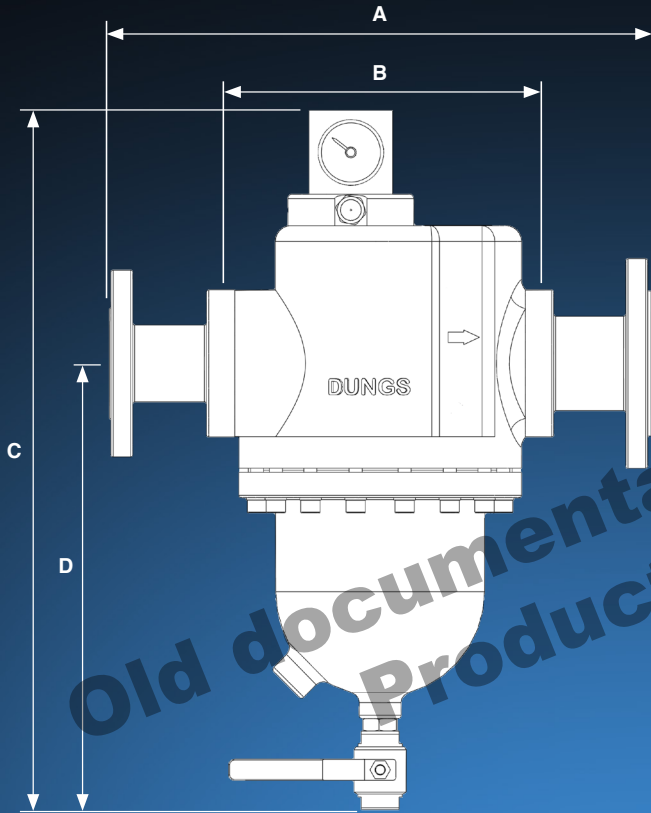


Neck for Filter G - 1.0 with pressure gauge connection



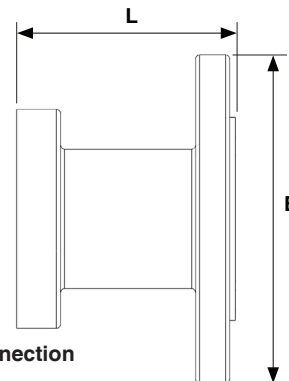
Dimensions of filters G

Cartridge filter G - 1.5

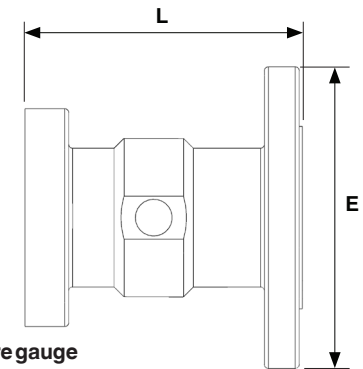


Type	Item N°	Flange standard	Dimensions [mm]						Flange weight [kg]	Weight filter with flanges [kg]
			A	B	C	D	E	L		
CARTRIDGE FILTER G - 1.5	282556	DN 50 PN 25	518	296	670	426	165	111	5.18	59.36
		DN 65 PN 25	518	296	670	426	185	111	5.58	60.16
		DN 80 PN 25	518	296	670	426	200	111	6.35	61.70
		DN 50 PN 25 W / PRESSURE GAUGE	578	296	670	426	165	141	5.83	60.66
		DN 65 PN 25 W / PRESSURE GAUGE	578	296	670	426	185	141	6.30	61.60
		DN 80 PN 25 W / PRESSURE GAUGE	578	296	670	426	200	141	7.24	63.48
		2" ANSI 150	518	296	670	426	152.4	111	4.43	57.86
		2½" ANSI 150	518	296	670	426	177.8	111	5.65	60.30
		3" ANSI 150	518	296	670	426	190.5	111	6.16	61.32
		2" ANSI 150 W / PRESSURE GAUGE	578	296	670	426	152.4	141	4.99	58.98
		2½" ANSI 150 W / PRESSURE GAUGE	578	296	670	426	177.8	141	6.22	61.44
		3" ANSI 150 W / PRESSURE GAUGE	578	296	670	426	190.5	141	6.91	62.82

Neck for Filter G - 1.5 without connection

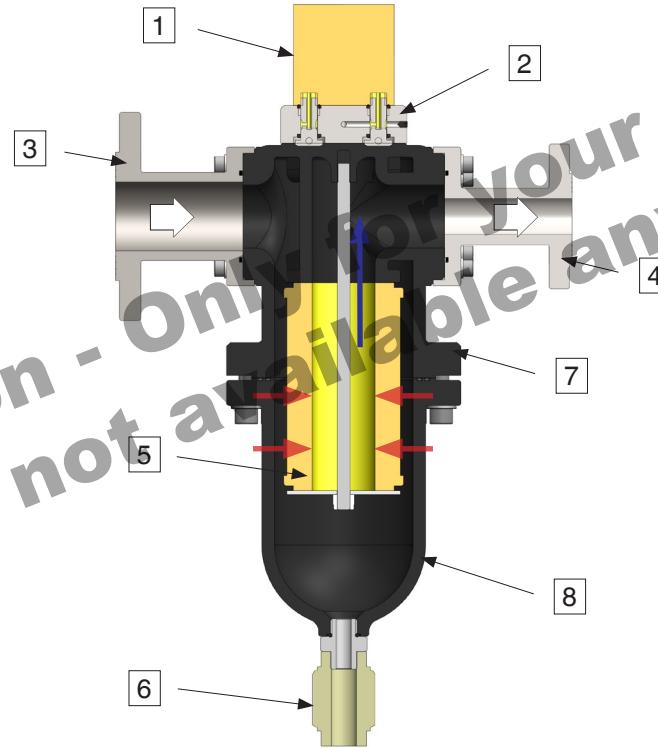
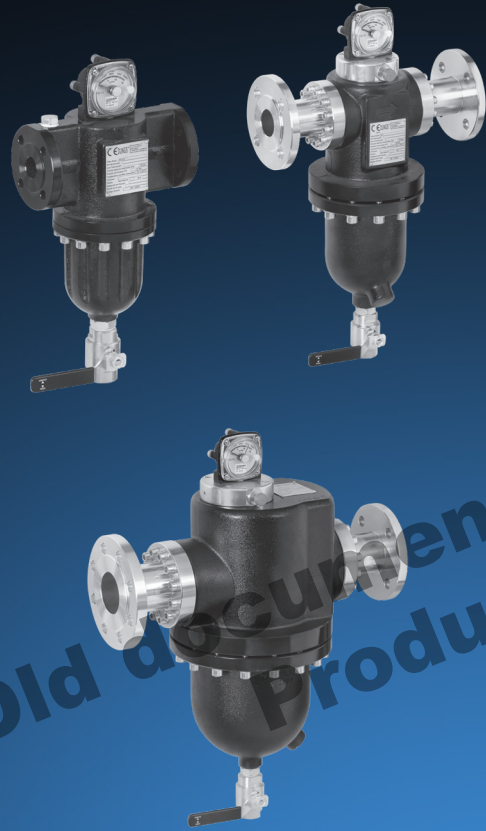


Neck for Filter G - 1.0 with pressure gauge connection



Function

Sectional drawing Filters G



- 1 Differential pressure gauge
- 2 Differential pressure gauge manifold
- 3 Inlet flange
- 4 Outlet flange
- 5 Filtering cartridge
- 6 Purge valve
- 7 Body
- 8 Bottom cover

Gas flows through the inlet flange into the filter housing. Particles are filtered out by gravity transfer and reduction of the gas velocity from the exterior to the interior of the filtering cartridge. Dust particles fall to the bottom cover. Clean gas flows through the outlet flange.

**Device selection**

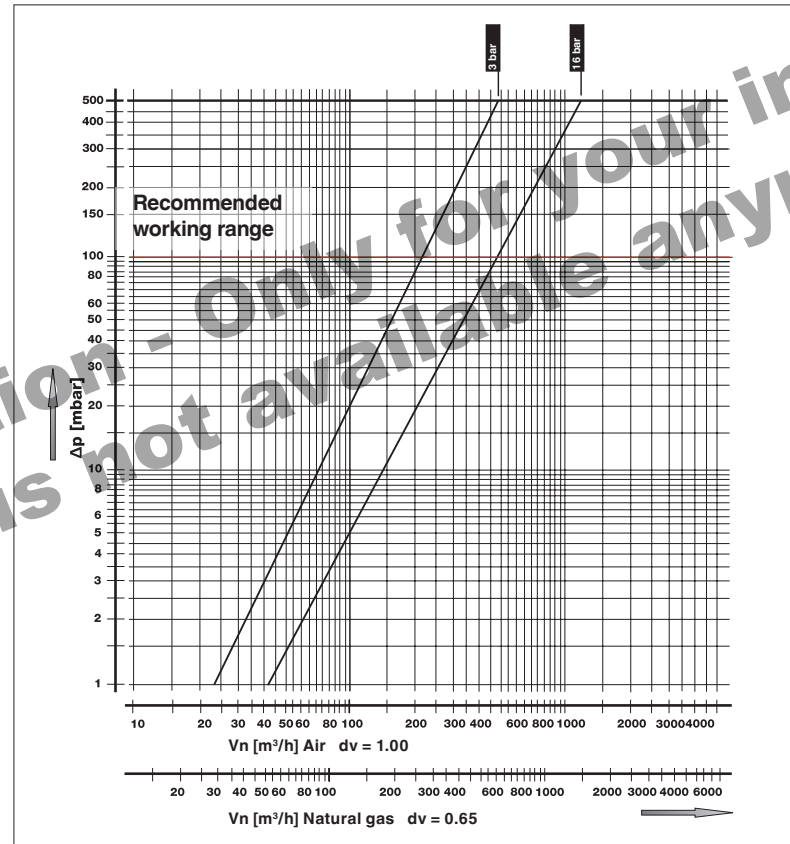
The following tables indicate the pressure drop with clean filter element, based on the flow rate, for each filter model.



**Flow diagrams**

**FILTER G - 0.5**

Factor Kg = 444



Max. flow speed = 30 m/s

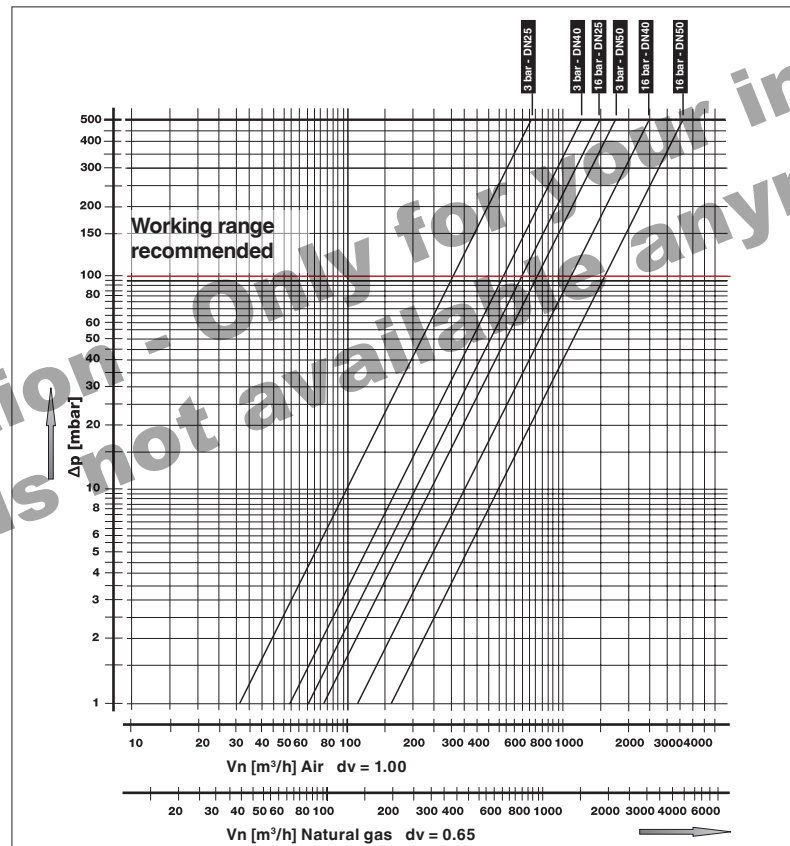
Flow diagram with inlet pressure 3 bar / 16 bar ef., for other pressures use the formula:

$$Q = K_g^* \cdot \sqrt{P_s \text{ (abs)} \cdot \Delta p}$$

\*Kg: Value for natural gas

**FILTER G - 1**

Factor Kg: DN 25 = 619 / DN 40 = 1 047 / DN 50 = 1 492



Max. flow speed = 30 m/s

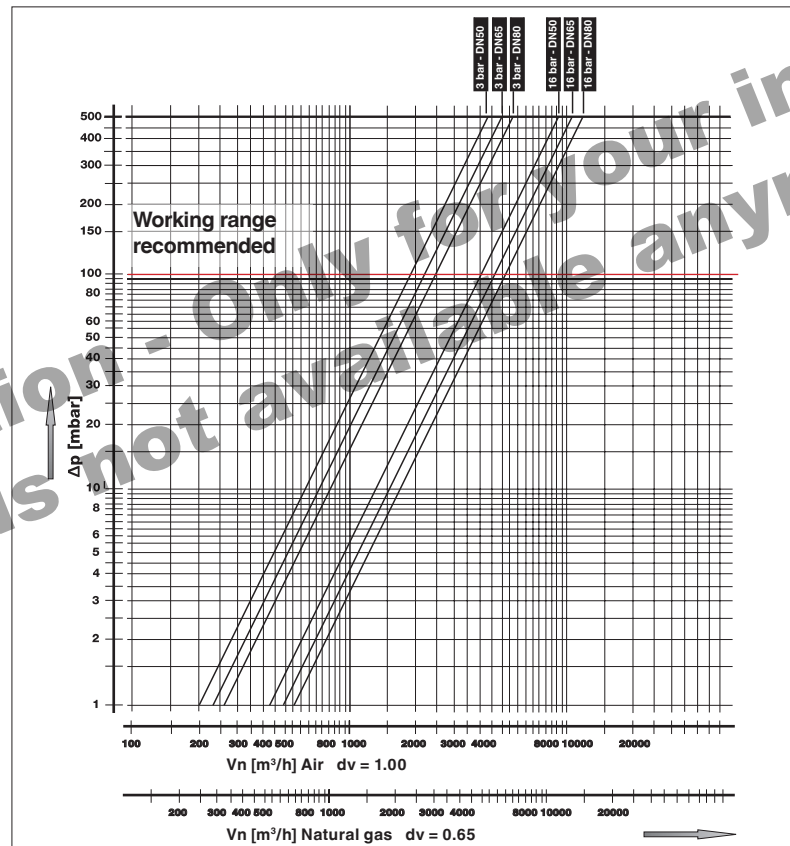
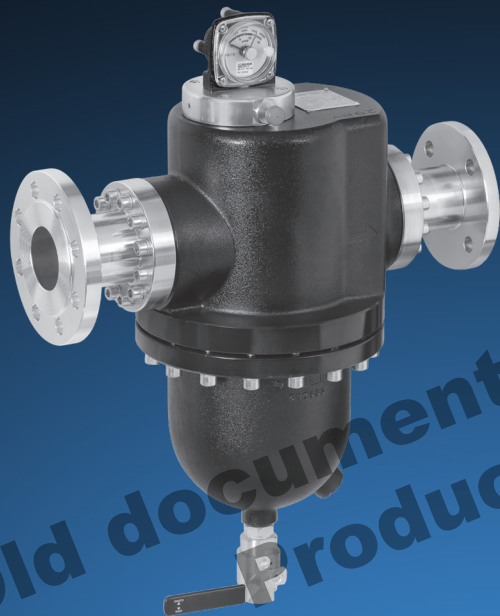
Flow diagram with inlet pressure  
3 bar / 16 bar ef., for other pres-  
sures use the formula:

$$Q = Kg^* \cdot \sqrt{Ps \text{ (abs)} \cdot \Delta p}$$

\*Kg: Value for natural gas

**FILTER G - 1.5**

Factor Kg: DN 50 = 3 811 / DN 65 = 4 420 / DN 80 = 4 960



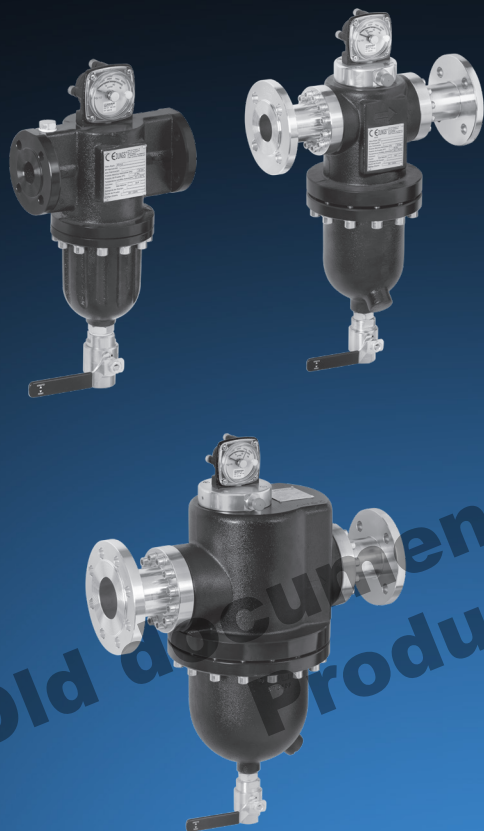
Max. flow speed = 30 m/s

Flow diagram with inlet pressure  
3 bar / 16 bar ef., for other pres-  
sures use the formula:

$$Q = K_g^* \cdot \sqrt{P_s \text{ (abs)} \cdot \Delta p}$$

\*Kg: Value for natural gas

Calculation of gas types

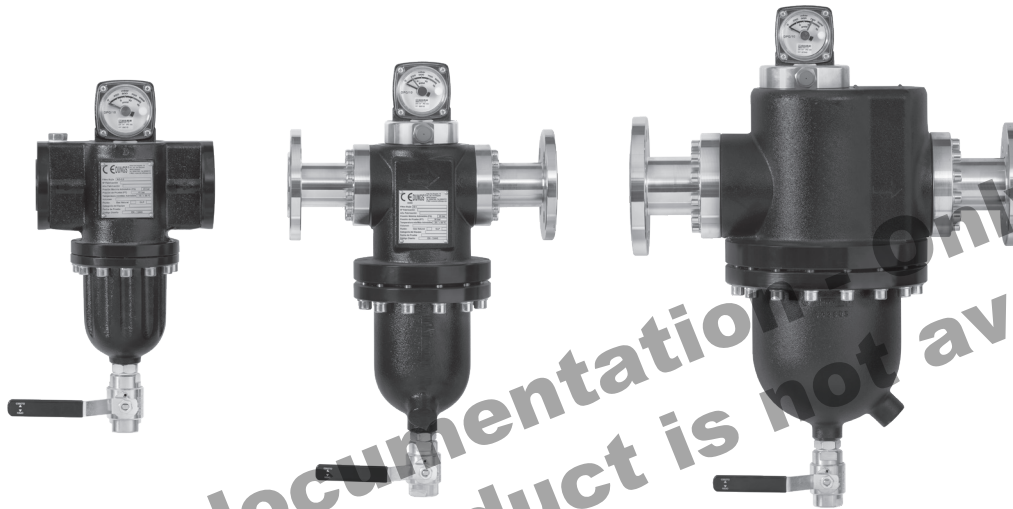


$$\dot{V}_{\text{gas used}} = \dot{V}_{\text{air}} \times f$$

f =

air density  
spec. weight of the gas used

Type of gas	Sp. weight	dv	f
	[kg/m <sup>3</sup> ]		
Natural gas	0.81	0.65	1.24
City gas	0.58	0.47	1.46
LPG	2.08	1.67	0.77
Air	1.24	1.00	1.00



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Product is not available anymore!

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Subject to technical amendments in the interest of technical development.