VAG DUOJET®-P Air Valve
High Performance

PN 16/25 - DN 50...150

KAT-A 1921

Product characteristics and benefits

- Resilient seated
- With flange end acc. to EN 1092-2
- Single chamber air valve in compact design
- 40% higher performance than standard air valves: desigh according to full bore ensures higher performance
- Very high discharge capacity up to sonic velocity due to stabilised floater
- Triple function air valve
- Venting function:
  - Large orifice to vent high quantities of air during draining the pipeline
  - Large orifice to release high quantities of air during filling the pipeline
  - Small orifice to release low quantities of air during operation under pressure
- Outlet female threaded acc. to DIN ISO 228
- Minimum operation pressure: 0.3 bar

Materials

- Body: Ductile iron EN-GJS-400-15 (GGG-40)
- Bonnet: Stainless steel 1.4308
- Bonnet bolts: Stainless steel A2 (DIN EN ISO 3506)
- Inner parts: Stainless steel 1.4541
- Float: Plastic polypropylene
- Sealing: EPDM

Corrosion protection

- Internally and externally epoxy coated acc. to GSK guidelines

Versions

- Standard version as described
- For pressures of 0.1...1 bar special seal (with special sealing). Please specify operating pressure when inquiring/ordering.
- Floater stainless steel 1.4571
- Bonnet ductile iron EN-GJS-400-15 (GGG-40)
- Anti-Surge with integrated shut-offvalve and individual calculated orifice acc. to KAT-A 1918
- With integrated shut-offvalve
- DUOJET®-S with VAG CEREX® 300-L Butterfly valve with hand lever acc. to KAT-A 1912-S
- With insect protection

Field of application

- Chamber installation
- Installation in plants

Tests and approvals

- Final inspection test acc. to EN 12266
- DVGW tested and registered

Note

For valve dimensioning the free VAG UseCAD® software is available on request.

For proper installation and safe operation please follow the installation and operation instructions:
KAT-B 1912

Field of application

DN	PN	Maximum operating pressure [bar]	Maximum operating temperature for neutral liquids [°C]
50...150	25	25	50
50...150	16	16	50

Pressure test acc. to EN 12266

Test pressure body with water [bar]	Test pressure seat with water [bar]
37.5	37.5
24	24

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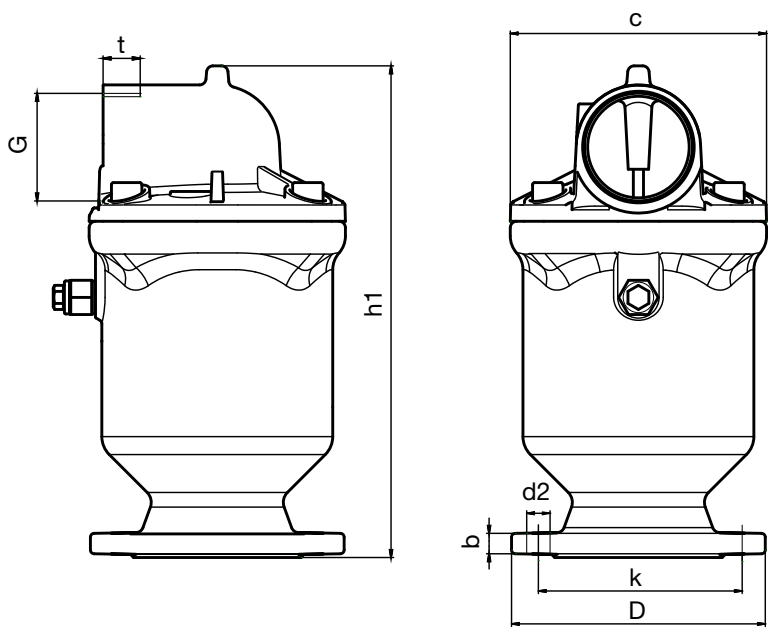
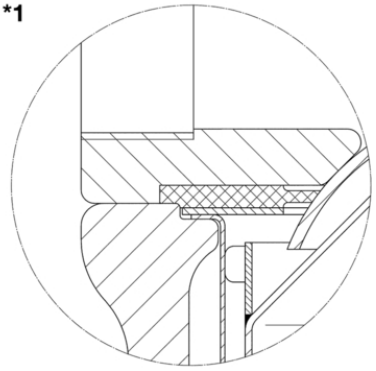
Drawing





*1: Special seal for operating pressures of 0.1….1 bar (no standard version)

Technical data

PN 16

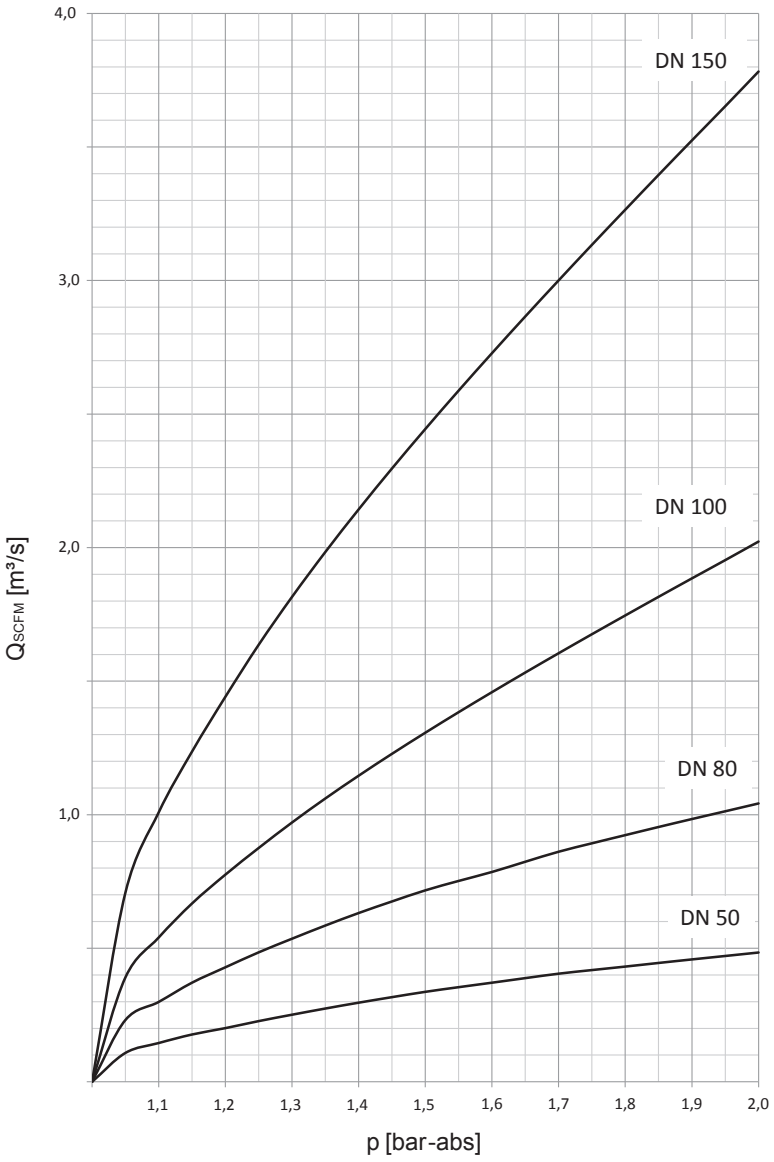
DN		50	80	100	150
G Screw connection	[inch]	2	3	4	6
D	[mm]	165	200	227	285
b	[mm]	19	19	19	19
k	[mm]	125	160	180	240
c	[mm]	185	202	260	325
d2	[mm]	19	19	19	23
h1	[mm]	340	388	505	594
t	[mm]	28	27	46	60
Weight approx.	[kg]	20.00	24.00	49.50	79.00

PN 25

DN		50	80	100	150
G Screw connection	[inch]	2	3	4	6
D	[mm]	165	200	227	300
b	[mm]	19	19	19	20
k	[mm]	125	160	190	250
c	[mm]	185	202	260	325
d2	[mm]	19	19	23	28
h1	[mm]	340	388	505	594
t	[mm]	28	27	46	60
Weight approx.	[kg]	20.00	24.00	49.50	79.00

Further information

Rate of air release in dependence of the operating pressure
large orifice



x: Internal pressure p [bar - absolute]
y: Air flow rate Q_n [m^3/s]

The actual volumetric flow rate through the valve depends on the site conditions and is mandatory not equal with the standard flow rate (SCFM). To determine the actual volumetric flow rate passing through the valve, the prevailing site conditions have to be known. The actual flow rate can be calculated as follows:

$$Q = \frac{Q_n * P_n * T}{P * T_n}$$

P_n = 1bar
T_n = 20° C

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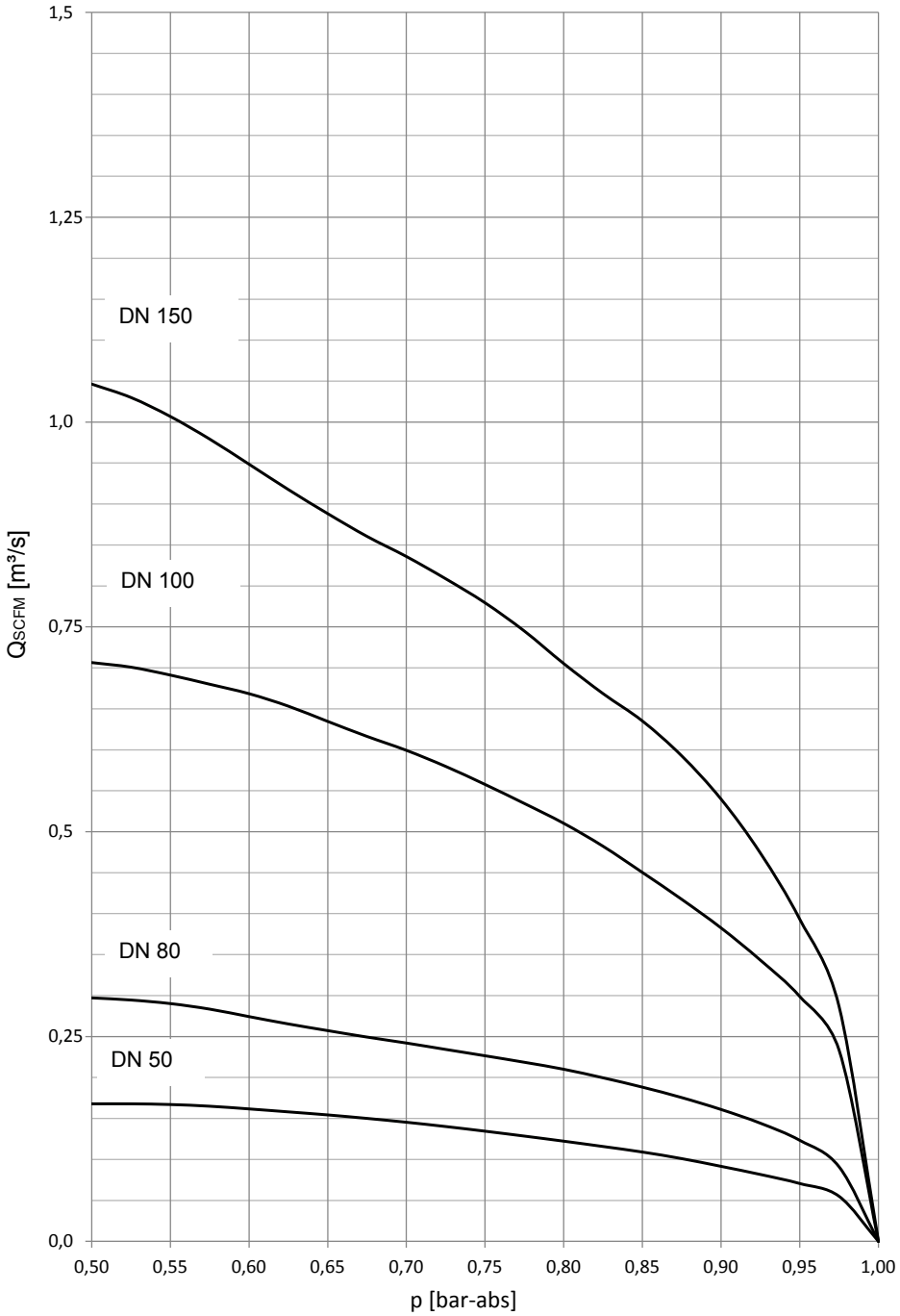
Further information

Rate of air intake in dependence of the operating pressure

large orifice

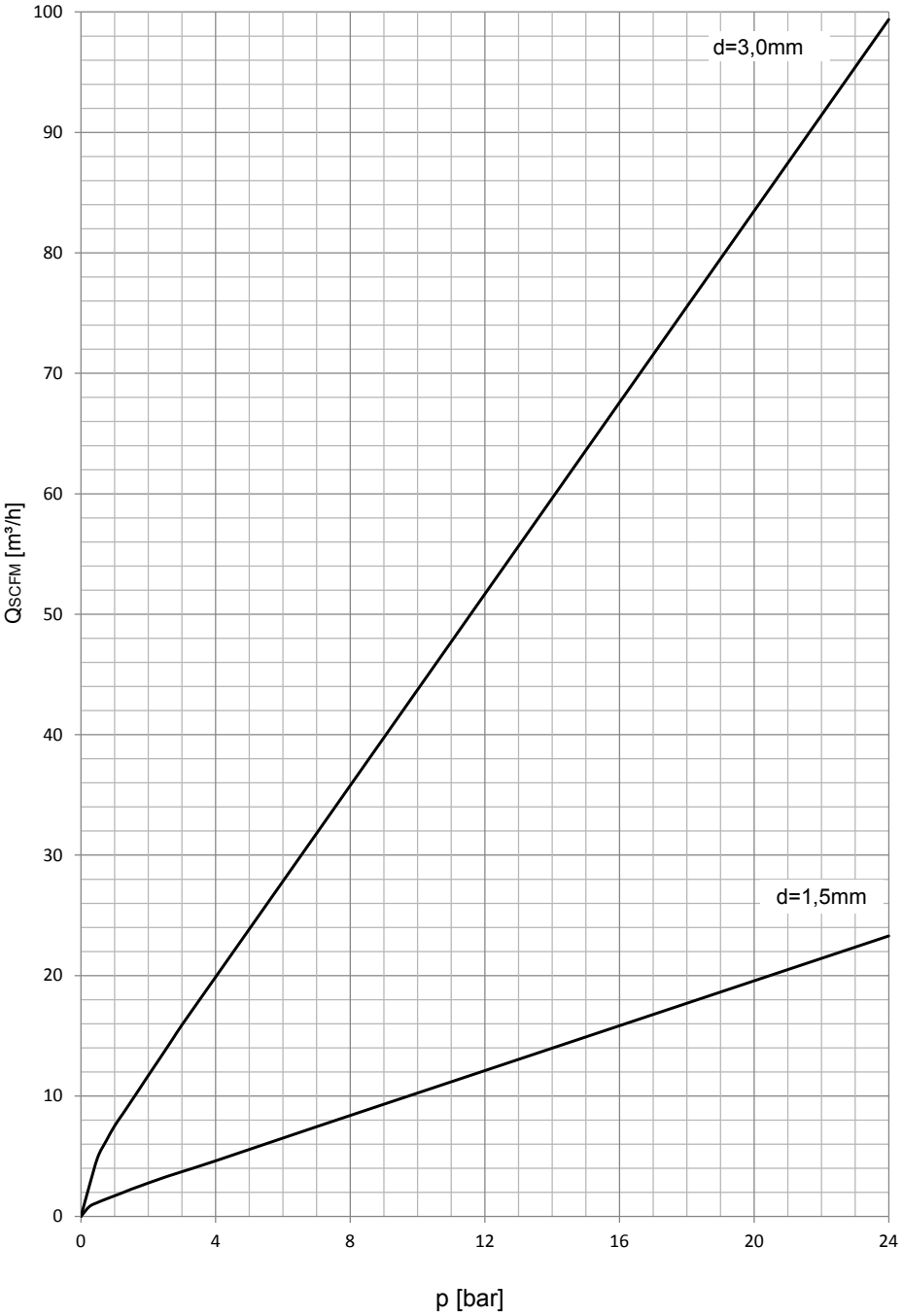


x: Internal pressure p [bar - absolute]
y: Air flow rate Q_n [m^3/s]

Further information

Rate of air release at full internal operating pressure

small orifice



x: Operating pressure p in pipeline [bar]
y: Air release rate Q_{SCFM} [m^3/h]

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