

DBV 20

Vacuum safety valve



- ♦ Medium : inert gases / rare gases / O₂ / CO₂ / air, other media on request
- ♦ This valve is suitable for high-pressure oxygen service
- ♦ Pressure sensor ports available
- ♦ Approval : CTE

The valve type DBV 20 is a vacuum safety valve. This valve has been specifically designed to protect the vacuum unit against pressure strokes. The valve opens (depending on version) at 0,015 / 0,02 / or 0,05 bar relative pressure.

Technical data

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| <ul style="list-style-type: none"> ♦ Pressure range ♦ Standard connection A ♦ Standard connection B ♦ Standard connection C ♦ Nominal diameter ♦ Media temperature ♦ Ambient temperature ♦ Vacuum leak rate ♦ Opening ♦ Flow direction ♦ Sensor Port Connection ♦ Weight | <p>PN 420
 SW 1/2", SW 3/4"
 KF40 small flange
 Pipe connection Ø42,4 x 2 (butt welding)
 DN 20
 from -40 °C to +80 °C
 from -40 °C to +60 °C
 1,0⁻⁴ mbar l/s
 at 0,015 / 0,02 / 0,05 bar relative pressure
 A > B at Normal operation, Vacuum / A > C at overpressure, safety function
 G 1/4
 7,65 kg (Connection adapter included)</p> |
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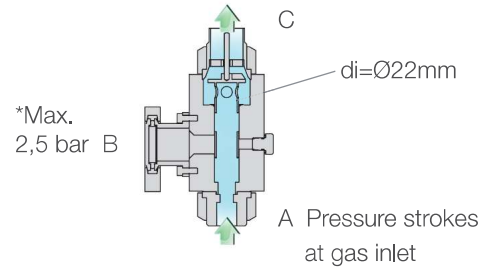
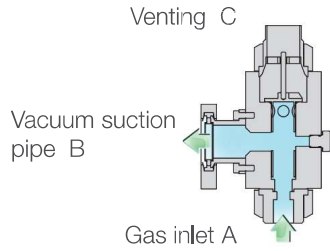
Material specification

♦ Installation of RDK (Residual pressure valve) as an option

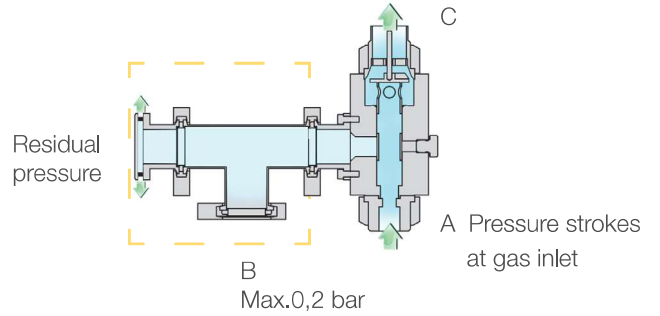
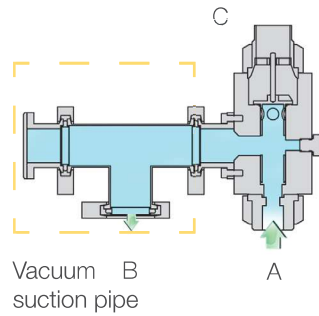
Position	Description	Material
1	Body	Brass
2	Connection piece	Stainless steel, Brass
3	Lower cover plate	Brass
4	Upper cover plate	Brass
5	Spring adapter	Brass
6	Connection piece	Stainless steel, Monel
7	Cartridge	Stainless steel, Monel
8	Connection piece KF40	Stainless steel
9	T-piece	Stainless steel
10	Centering ring KF40	Stainless steel, NBR

Function without or with RDK 40

- Without RDK 40 (without Residual pressure valve)



- With RDK 40 (with Residual pressure valve)



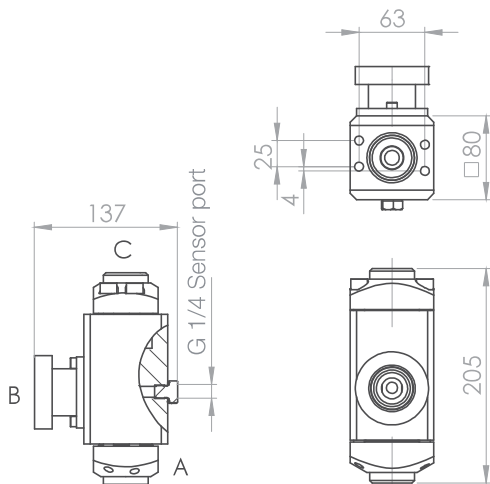
Execution

- Without spring: Vertical mounting. Continuous operation of the vacuum pump.
- With 1 spring: Vertical mounting. Continuous operation of the vacuum pump. Valve moves back to the normal position when slight pressure strokes occur during the process.
- With 2 springs: For any mounting position (overhead). Continuous operation of the vacuum pump. Valve moves back to the normal position when slight pressure strokes occur during the process.

Options with this valve type

- Connection types
 - Gas inlet: connection A, welding end (stainless steel, Monel) : SW 1/2", SW 3/4"
 - Vacuum suction pipe: connection B, welding end (stainless steel) : KF40 small flange
 - Venting line: connection C, welding end (Stainless Steel, Brass): BW 1 1/4", (pipe connection Ø42.4 x 2 (butt welding))
- Sensor Port Connection G 1/4 pressure acquisition / measurement
- Installation of residual pressure valve. This option allows residual pressure to escape from the valve body, avoiding to damage the pump during a pressure surge.
- Other options on request

Dimensions



- DBV 20 with RDK 40 (Residual pressure valve)

