



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

Low particle UHV gate valve, Series 152, DN 100 (ID 4")  
Ordering No. 15240-CE44

### Description

|             |  |
|-------------|--|
| Flange      | CF-F 100   |
| Actuator    | Pneumatic, double acting<br>– with solenoid valve<br>– with position indicator |
| Feedthrough | Bellows  |

### Technical data

|  |  |  |
|--|--|--|
| Leak rate  | – Valve body<br>– Valve seat   | $< 5 \cdot 10^{-10}$ mbar ls <sup>-1</sup><br>$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>                        |
| Pressure range   |  | $1 \cdot 10^{-10}$ mbar to 1 bar (abs)   |
| Differential pressure on the gate  |  | $\leq 1.2$ bar   |
| Differential pressure at opening   |  | $\leq 30$ mbar   |
| Conductance (molecular flow)   |  | 1 700 ls <sup>-1</sup>   |
| Cycles until first service   |  | 500 000 (unheated and under clean conditions)  |
| Temperature<br>(Maximum values: depending on operating conditions and sealing materials) | – Valve Body<br>– Actuator<br>– Solenoid valve<br>– Position indicator | $\leq 250$ °C open / $\leq 200$ °C closed (bake-out max. 24h)<br>$\leq 200$ °C<br>$\leq 50$ °C<br>$\leq 80$ °C |
| Heating and cooling rate   |  | 50 °C h <sup>-1</sup>  |
| Material (main components)   | – Valve Body<br>– Gate<br>– Bellows                                    | AISI 304 (1.4301)<br>AISI 304 (1.4301)<br>AISI 633 (AM350)   |
| Seal   | – Bonnet<br>– Gate<br>– Actuator                                       | metal<br>FKM (Viton®), vulcanized<br>FKM (Viton®)  |
| Mounting position  |  | Any  |
| Volume of pneumatic actuator   |  | 0.32 l / 0.011 ft <sup>3</sup>   |
| Compressed air<br>min. – max. overpressure   |  | 4 – 7 bar / 58 – 102 psi   |
| Compressed air connection  |  | G1/8" (1/8" NPT for USA)   |

|                 |                          |                 |
|-----------------|--------------------------|-----------------|
| Created by: MAY | Release date: 27.10.2014 | 1/2             |
| Modified by:    | Release date:            | <b>756200EA</b> |



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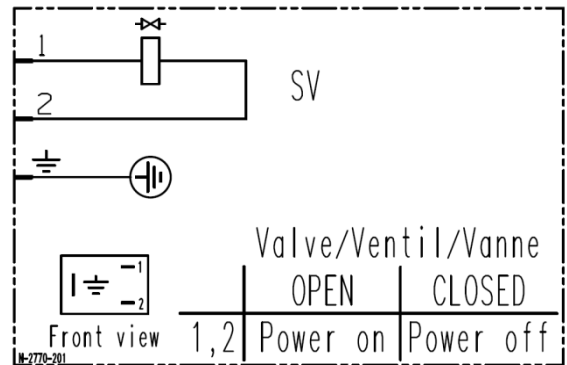
**Low particle UHV gate valve, Series 152, DN 100 (ID 4'')**  
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|  |                |                                       |
|--|----------------|---------------------------------------|
| Actuation time                                   | - closing      | ≤ 2.8 s                               |
|  | - opening      | ≤ 2.8 s                               |
| Weight   |                | 16.2 kg / 35.7 lbs                    |
| Behavior in case of compressed air pressure drop | - Valve closed | - Undefined (not mechanically locked) |
|  | - Valve open   | - Undefined (not mechanically locked) |
| Behavior in case of power failure                | - Valve closed | - Valve remains closed                |
|  | - Valve open   | - Valve closes                        |

### Electrical connections

#### Solenoid valve

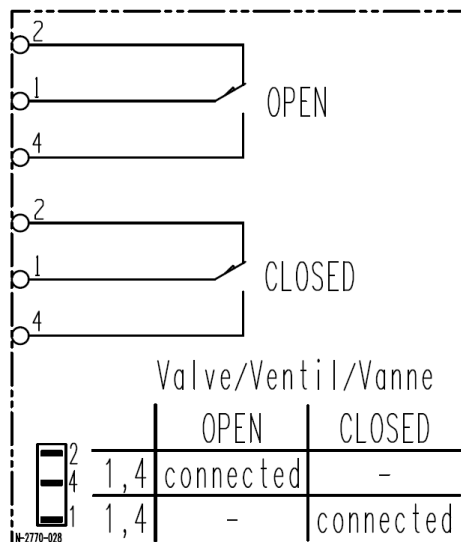
|         |                  |
|---------|------------------|
| Type    | 4/2 way          |
| Voltage | Defined by order |



Wiring diagram

#### Position indicator

|              |                          |
|--------------|--------------------------|
| Type         | Micro switch             |
| Voltage      | ≤ 250 V AC    ≤ 50 V DC  |
| Current max. | ≤ 2 A            ≤ 1.2 A |



Wiring diagram

|                 |                          |          |
|-----------------|--------------------------|----------|
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| Modified by:    | Release date:            | 756200EA |