



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**UHV gate valve, Series 108, DN 200 (ID 8'')**  
**Ordering No. 10846-TE48-0007**

### Description

|             |                                                                                                          |
|-------------|----------------------------------------------------------------------------------------------------------|
| Flange      | ASA-LP 200                                                                                               |
| Actuator    | pneumatic, double acting, with 3-position actuator<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 1.6 bar (abs)                                                                       |
| Differential pressure on the gate                                                        |                                                                        | $\leq 1.6$ bar                                                                                                 |
| Differential pressure at opening                                                         |                                                                        | $\leq 30$ mbar                                                                                                 |
| Conductance (molecular flow)                                                             |                                                                        | 12 200 ls <sup>-1</sup>                                                                                        |
| Cycles until first service                                                               |                                                                        | 50 000 (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>– Mechanism<br>– Bellows                               | AISI 304 (1.4301)<br>AISI 316L (1.4404), AISI 304 (1.4301)<br>AISI 316L (1.4404, 1.4435)                       |
| Seal                                                                                     | – Bonnet<br>– Gate<br>– Actuator                                       | metal<br>FKM (Viton®), vulcanized<br>FKM (Viton®), NBR                                                         |
| Mounting position                                                                        |                                                                        | any                                                                                                            |
| Volume of pneumatic actuator                                                             |                                                                        | 0.25 l / 0.0087 ft <sup>3</sup>                                                                                |
| Compressed air<br>min. – max. overpressure                                               |                                                                        | 4 – 7 bar / 58 – 102 psi                                                                                       |
| Compressed air connection                                                                |                                                                        | G $\frac{1}{8}$ " (1/8" NPT for USA)                                                                           |
| Actuation time                                                                           | – closing<br>– opening                                                 | 2 s<br>2 s                                                                                                     |
| Weight                                                                                   |                                                                        | 36 kg / 79.5 lbs                                                                                               |
| Behavior in case of compressed air pressure drop                                         | – Valve closed<br>– Valve open<br>– Middle position                    | valve remains closed<br>undefined<br>undefined                                                                 |
| Behavior in case of power failure                                                        | – Valve closed<br>– Valve open<br>– Middle position                    | valve remains closed<br>valve closes<br>valve closes                                                           |

|                   |                          |                 |
|-------------------|--------------------------|-----------------|
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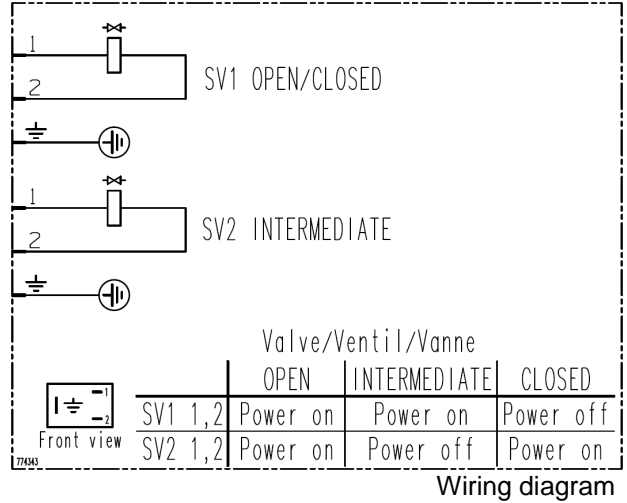
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### Electrical connections

#### Solenoid valve

Type 4/2 way  
Voltage Defined by order



#### Position indicator

Type Micro switch  
Voltage  $\leq 50$  V AC / DC  
Current max.  $\leq 1.2$  A

