



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**HV gate valve**  
**Series 091, DN 200 (8")**  
**Ordering No. 09146-PE24-0001**

### Description

|             |   |
|-------------|---|
| Flange      | ISO-F 200   |
| Actuator    | Pneumatic, double acting<br>– with position indicator |
| Feedthrough | Bellows   |

### Technical data

|   |                      |   |
|---|----------------------|---|
| Leak rate   | – Valve body         | $< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>                         |
|   | – Valve seat         | $< 1 \cdot 10^{-7}$ mbar ls <sup>-1</sup>                         |
| Pressure range  |                      | $1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)                           |
| Differential pressure on the plate  |                      | $\leq 1.2$ bar  |
| Differential pressure at actuation  | In opening direction | $\leq 1$ bar <sup>1</sup>   |
|   | In closing direction | $\leq 30$ mbar [1 bar with reduced number of cycles] <sup>2</sup> |
| Conductance (molecular flow)  |                      | 9 500 ls <sup>-1</sup>  |
| Cycles until first service  |                      | 5 000 (unheated and under clean conditions)                       |
| Temperature   | – Valve body         | $\leq 180$ °C   |
| (Maximum values: depending on operating conditions and sealing materials) | – Actuator           | $\leq 100$ °C   |
|   | – Position indicator | $\leq 70$ °C  |
| Heating and cooling rate  |                      | 50 °C h <sup>-1</sup>   |
| Material  | – Valve body         | AISI 304 (1.4301),  |
|   | – Gate               | AISI 304 (1.4301)   |
|   | – Bellows            | AISI 633 (AM350)  |
|   | – Small Parts        | A2 Ni-PTFE coated, PEEK   |
| Seal  | – Bonnet             | FKM   |
|   | – Gate               | FKM   |
|   | – Actuator           | FKM, PU   |
| Mounting position   |                      | any   |
| Volume of pneumatic actuator  |                      | 1.18 l / 0.0042 ft <sup>3</sup>                                   |
| Compressed air min. – max. overpressure                                   |                      | 4 – 7 bar / 58 – 102 psi  |
| Compressed air connection   |                      | G 1/8" (NPT for USA)  |
| Actuation time  |                      | $\leq 1.1$ s  |

<sup>1</sup> Differential pressure supports gate to open

<sup>2</sup> Differential pressure supports gate to stay closed. Therefore cycle life reduced due to increased wear of gate seal

|                 |                          |                  |
|-----------------|--------------------------|------------------|
| Created by: RAL | Release date: 12.06.2023 | 1/3              |
| Modified by:    | Release date:            | <b>1232044EA</b> |



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|  |  |  |
|--|--|--|
| Weight   |  | 33 kg / 72.7 lbs   |
| Behavior in case of compressed air pressure drop | <ul style="list-style-type: none"> <li>- Valve closed</li> <li>- Valve open</li> <li>- During actuation</li> </ul> | valve remains closed ( $\geq 24h$ )<br>undefined<br>undefined  |
| Behavior in case of power failure                | <ul style="list-style-type: none"> <li>- Valve closed</li> <li>- Valve open</li> <li>- During actuation</li> </ul> | depending on customer installation<br>depending on customer installation<br>depending on customer installation |

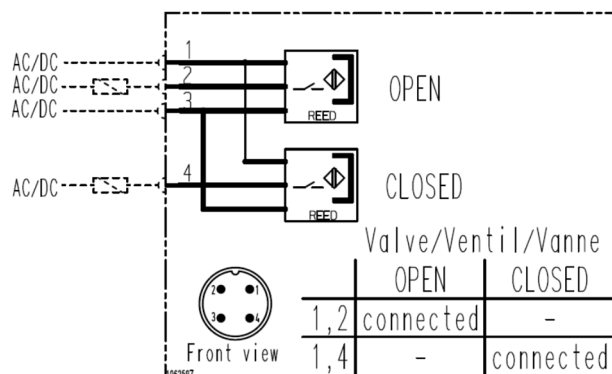
### Related documents

Dimensional drawing No. 961280EA

### Electrical connections

#### Position indicator

Type REED (NO with LED)  
Voltage 24 V AC/DC  
Current max.  $\leq 0.5 A$



Wiring diagram

|                 |                          |                  |
|-----------------|--------------------------|------------------|
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[Kundenanforderungen gemäss Lenkungsmatrixen CP00 (wie beispielsweise ASML).]

[Kundenanforderungen gemäss Kundenwünschen]

### [Installation]

[if required]

### [Special risks]

[if desired by customer]

|                 |                          |                  |
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