



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**Mini UHV gate valve, Series 010, DN 50 (ID 2")**  
**Ordering No. 01034-KE14**

### Description

|             |                          |
|-------------|--------------------------|
| Flange      | ISO-KF 50                |
| Actuator    | pneumatic, double acting |
| Feedthrough | Bellows                  |

### Technical data

|   |              |   |
|---|--------------|---|
| Leak rate   | – Valve body | $< 5 \cdot 10^{-10}$ mbar ls <sup>-1</sup>                    |
|   | – Valve seat | $< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>                     |
| Pressure range  |              | $1 \cdot 10^{-10}$ mbar to 2 bar (abs)                        |
| Differential pressure on the gate   |              | $\leq 2$ bar  |
| Differential pressure at opening  |              | $\leq 30$ mbar  |
| Conductance (molecular flow)  |              | 160 ls <sup>-1</sup>  |
| Cycles until first service  |              | 50 000  |
| Temperature   | – Valve Body | $\leq 250$ °C open / $\leq 200$ °C closed (bake-out max. 24h) |
| (Maximum values: depending on operating conditions and sealing materials) | – Actuator   | $\leq 200$ °C   |
| Heating and cooling rate  |              | $\leq 50$ °C h <sup>-1</sup>                                  |
| Material  | – Valve Body | AISI 304 (1.4301), AISI 316L (1.4435)                         |
|   | – Gate       | AISI 304 (1.4301)   |
|   | – Bellows    | AISI 316L (1.4404, 1.4435)                                    |
| Seal  | – Bonnet     | metal   |
|   | – Gate       | FKM (Viton®), vulcanized                                      |
|   | – Actuator   | FKM (Viton®)  |
| Mounting position   |              | any   |
| Volume of pneumatic actuator  |              | 0.06 l / 0.002 ft <sup>3</sup>                                |
| Compressed air  |              | 5 – 7 bar / 73 – 102 psi                                      |
| min. – max. overpressure  |              |   |
| Compressed air connection   |              | 1/8" ISO / NPT  |
| Actuation time  | – closing    | 0.7 s   |
|   | – opening    | 0.7 s   |
| Weight  |              | 2.2 kg / 4.85 lbs   |

|                 |                          |                 |
|-----------------|--------------------------|-----------------|
| Created by: SON | Release date: 2012-12-06 | 1 of 2          |
| Modified by:    | Release date:            | <b>298564EA</b> |



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|  |                                |  |
|--|--------------------------------|--|
| Behavior in case of compressed air pressure drop | – Valve closed<br>– Valve open | valve remains closed<br>depending on customer installation               |
| Behavior in case of power failure                | – Valve closed<br>– Valve open | depending on customer installation<br>depending on customer installation |

|                 |                          |                 |
|-----------------|--------------------------|-----------------|
| Created by: SON | Release date: 2012-12-06 | 2 of 2          |
| Modified by:    | Release date:            | <b>298564EA</b> |