



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

HV gate valve, Series 091, DN 100 (ID 4'')
Ordering No. 09140-JE14

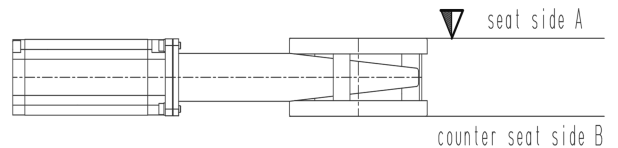
Description

| | |
|-------------|--------------------------|
| Flange | JIS 100 |
| Actuator | pneumatic, double acting |
| Feedthrough | Bellows feedthrough |

Technical data

| | |
|-----------------------------------|---|
| Leak rate | |
| – Valve body | $< 1 \cdot 10^{-9} \text{ mbar ls}^{-1}$ |
| – Valve seat | $< 1 \cdot 10^{-7} \text{ mbar ls}^{-1}$ |
| Pressure range | $1 \cdot 10^{-8} \text{ mbar}$ to 1.2 bar (abs) |
| Differential pressure on the gate | $\leq 1.2 \text{ bar}$ |
| Conductance (molecular flow) | $1\,700 \text{ ls}^{-1}$ |

Max. differential pressure at opening in closing and opening direction with influence to the cycle life



| | |
|---|---|
| – Higher pressure on seat side A, the differential pressure acts in opening direction | $\leq 1.0 \text{ bar}$ with full cycle life |
| – Higher pressure on counter seat side B, the differential pressure acts in closing direction | $\leq 30 \text{ mbar}$ with full cycle life |
| – Higher pressure on counter seat side B, the differential pressure acts in closing direction | $\leq 1.0 \text{ bar}$ with reduced cycle life |
| Cycles until first service | 5 000 (unheated and under clean conditions) |
| Bellows cycles | 100 000 (unheated and under clean conditions) |
| Bake-out temperature | |
| – Valve body | $\leq 150 \text{ }^\circ\text{C}$ (bake-out max. 24h) |
| – Actuator | $\leq 100 \text{ }^\circ\text{C}$ |

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| Created by: HDE | Release date: 2014-06-12 | 1 of 2 |
| Modified by: | Release date: | 604056EA |



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| | |
|---|---|
| Heating and cooling rate | 50 °C h ⁻¹ |
| Material | |
| – Valve body | AISI 304 (1.4301) |
| – Gate | AISI 304 (1.4301), (1.4308) |
| – Parts (in contact with media) | A2 Ni-Teflon coated, PEEK |
| – Bellows | AISI 633, (AM350) |
| Seal | |
| – Bonnet | FKM (Viton [®]) |
| – Gate | FKM (Viton [®]) |
| – Actuator | FKM (Viton [®]) |
| Mounting position | any |
| Volume of pneumatic actuator | 0.24 l / 0.008 ft ³ |
| Compressed air min. – max. overpressure | 4 – 7 bar / 58 – 102 psi |
| Compressed air connection | M5 (10-32 UNF suitable) |
| Actuation time | |
| – closing | ≤ 2 s |
| – opening | ≤ 2 s |
| Behavior in case of compressed air pressure drop | – Valve closed Valve remains closed (≥ 24h) – Valve open undefined – During actuation undefined |
| Behavior in case of power failure | – Valve closed – Valve open – During actuation |
| Weight | approx. 7.8 kg / 17.2 lbs |

| | | |
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