



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

UHV gate valve, Series 108, DN 320 (ID 12")
Ordering No. 10850-JE44

Description

| | |
|-------------|--|
| Flange | JIS 320 |
| Actuator | pneumatic, double acting – with solenoid valve – with position indicator |
| Feedthrough | Bellows |

Technical data

| | | |
|---|----------------------|---|
| Leak rate | – Valve body | $< 5 \cdot 10^{-10}$ mbar ls ⁻¹ |
| | – Valve seat | $< 1 \cdot 10^{-9}$ mbar ls ⁻¹ |
| Pressure range | | $1 \cdot 10^{-10}$ mbar to 1.2 bar (abs) |
| Differential pressure on the gate | | ≤ 1.2 bar |
| Differential pressure at opening | | ≤ 30 mbar |
| Conductance (molecular flow) | | 29 130 ls ⁻¹ |
| Cycles until first service | | 50 000 (unheated and under clean conditions) |
| Temperature | – Valve Body | ≤ 250 °C open / ≤ 200 °C closed (bake-out max. 24h) |
| (Maximum values: depending on operating conditions and sealing materials) | – Actuator | ≤ 200 °C |
| | – Solenoid valve | ≤ 50 °C |
| | – Position indicator | ≤ 80 °C |
| Heating and cooling rate | | 50 °C h ⁻¹ |
| Material (main components) | – Valve Body | AISI 304 (1.4301) |
| | – Mechanism | AISI 316L (1.4404), AISI 304 (1.4301) |
| | – Bellows | AISI 316L (1.4404, 1.4435) |
| Seal | – Bonnet | metal |
| | – Gate | FKM (Viton®), O-ring |
| | – Actuator | FKM (Viton®), NBR |
| Mounting position | | any |
| Volume of pneumatic actuator | | 0.48 l / 0.0167 ft ³ |
| Compressed air | | 5 – 7 bar / 73 – 102 psi |
| min. – max. overpressure | | |
| Compressed air connection | | G $\frac{1}{8}$ " (1/8" NPT for USA) |

| | | |
|-----------------|--------------------------|-----------------|
| Created by: SON | Release date: 2013-01-15 | 1 of 2 |
| Modified by: | Release date: | 299155EA |



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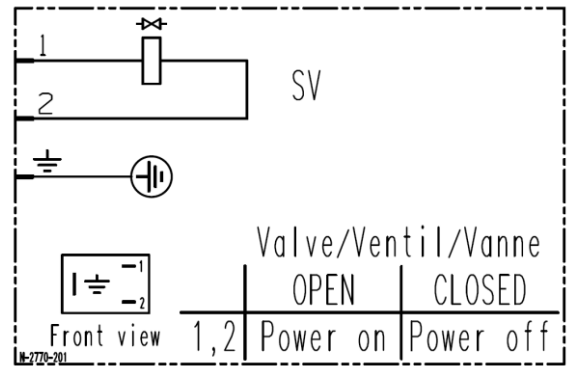
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| | | |
|--|----------------|----------------------|
| Actuation time | - closing | 5 s |
| | - opening | 5 s |
| Weight | | 95 kg / 210 lbs |
| Behavior in case of compressed air pressure drop | - Valve closed | valve remains closed |
| | - Valve open | undefined |
| Behavior in case of power failure | - Valve closed | valve remains closed |
| | - Valve open | valve closes |

Electrical connections

Solenoid valve

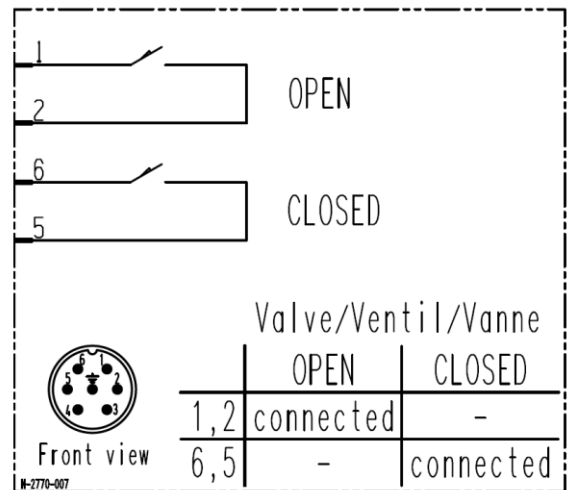
| | |
|---------|------------------|
| Type | 4/2 way |
| Voltage | Defined by order |



Wiring diagram

Position indicator

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



Wiring diagram