



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

HV gate valve, Series 091, DN 160 (ID 6'')
Ordering No. 09144-CE44

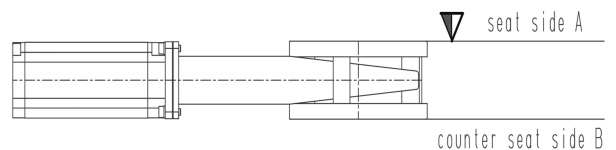
Description

| | |
|-------------|--|
| Flange | CF-F 160 |
| Actuator | pneumatic, double acting – with solenoid valve – with position indicator |
| Feedthrough | Bellow |

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) | $5\,000 \text{ ls}^{-1}$ |

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 | $\leq 100 \text{ }^\circ\text{C}$ |
| – Solenoid | $\leq 50 \text{ }^\circ\text{C}$ |
| – Position indicator | $\leq 60 \text{ }^\circ\text{C}$ |

| | | |
|-----------------|--------------------------|-----------------|
| Created by: LOO | Release date: 19.01.2015 | 1/3 |
| Modified by: | Release date: | 783617EA |



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| | | |
|---|--------------------|--------------------------------|
| Heating and cooling rate | | 50 °C h ⁻¹ |
| Material | | |
| – Valve body | | AISI 304 (1.4301) |
| – Bonnet | | EN AW-5083 (3.3547) |
| – 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 | | 0.53 l / 0.017 ft ³ |
| Compressed air min. – max. overpressure | | 4 – 7 bar / 58 – 101 psi |
| Compressed air connection | | G1/8" (NPT for USA) |
| Actuation time | – closing | < 3.0 s |
| | – opening | < 3.0 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 remains closed |
| | – Valve open | valve closes |
| | – During actuation | valve closes |
| Weight | | approx. 16,5 kg / 36.3 lbs |

| | | |
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Electrical connections

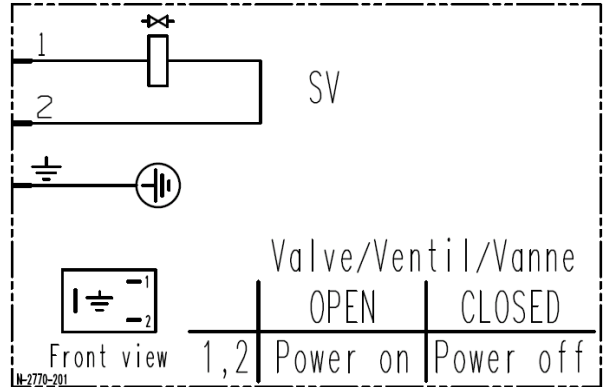
Solenoid valve

Type

4/2 way

Voltage

Defined by order



Wiring diagram

Position indicator

Type

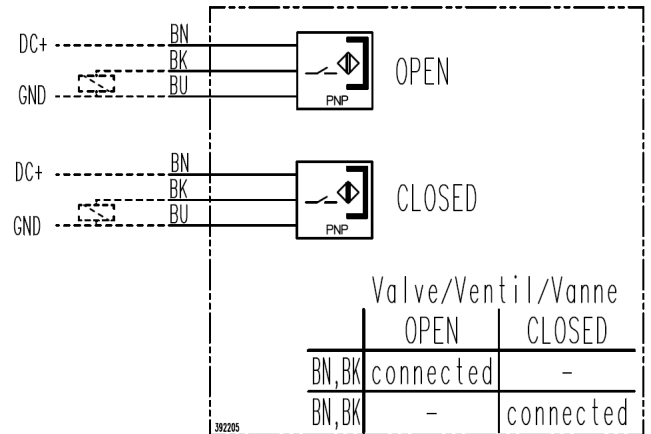
PNP (NO with LED)

Voltage

10..30 V DC

Current max.

≤ 0.2 A



Wiring diagram