



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

### HV gate valve

Series 091, DN 100 (4")

Ordering No. 09140-CE44-0004

### Description

Flange	CF-F 100
Actuator	Pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Bellows

### Technical data

Leak rate	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup> $< 1 \cdot 10^{-7}$ 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 – In closing direction	$\leq 1$ bar <sup>1</sup> $\leq 30$ mbar (1 bar with reduced cycle life) <sup>2</sup>
Conductance (molecular flow)		1 700 ls <sup>-1</sup>
Cycles until first service		5 000 (unheated and under clean conditions)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Actuator – Solenoid valve – Position indicator	$\leq 180$ °C $\leq 100$ °C $\leq 50$ °C $\leq 70$ °C
Heating and cooling rate		50 °C h <sup>-1</sup>
Material	– Valve body – Gate – Bellows – Small parts	AISI 304 (1.4301) AISI 304 (1.4301, 1.4308) AISI 633 (AM350) A2 Ni-PTFE coated, PEEK
Seal	– Bonnet – Gate – Actuator	FKM FKM FKM, PU
Mounting position		any
Volume of pneumatic actuator		0.25 l / 0.009 ft <sup>3</sup>
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G1/8" (NPT for USA)
Actuation time		$\leq 0.5$ 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

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Weight		7.3 kg / 16.1 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 ( $\geq 24h$ ) undefined 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>	valve remains closed ( $\geq 24h$ ) valve closes valve closes

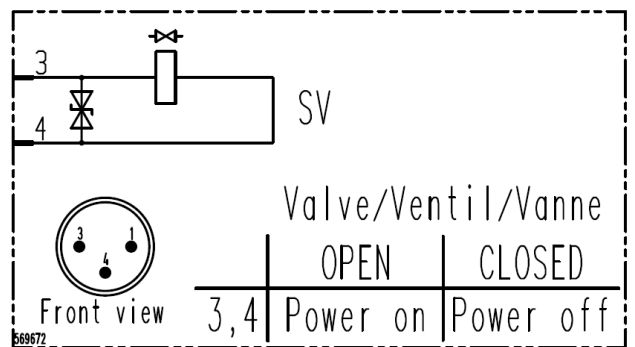
### Related documents

Dimensional drawing No. 1096161

### Electrical connections

#### Solenoid valve

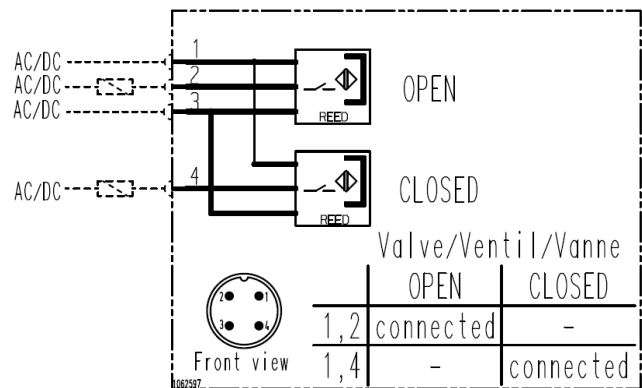
Type 5/2 way  
Voltage 24 V DC



Wiring diagram

#### Position indicator

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



Wiring diagram

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