



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**HV gate valve, Series 091, DN 100 (ID 4")**  
**Ordering No. 09140-UE24**

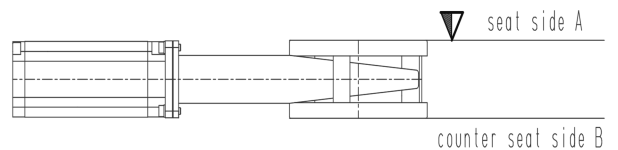
### Description

Flange	CF-F (UNF-threads) 100
Actuator	pneumatic, double acting – with position indicator
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	$\leq 100 \text{ }^\circ\text{C}$
– Position indicator	$\leq 60 \text{ }^\circ\text{C}$

Created by: LOO	Release date: 02.02.2015	1/2
Modified by:	Release date:	<b>785598EA</b>



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Heating and cooling rate

50 °C h<sup>-1</sup>

### Material

- Valve body
- Gate
- Parts (in contact with media)
- Bellows

AISI 304 (1.4301)  
AISI 304 (1.4301), (1.4308)  
A2 Ni-Teflon coated, PEEK  
AISI 633, (AM350)

### Seal

- Bonnet
- Gate
- Actuator

FKM (Viton®)  
FKM (Viton®)  
FKM (Viton®)

Mounting position

any

Volume of pneumatic actuator

0.24 l / 0.008 ft<sup>3</sup>

Compressed air  
min. – max. overpressure

4 – 7 bar / 58 – 102 psi

Compressed air connection

M5 (10-32 UNF suitable)

### Actuation time

- closing
- opening

≤ 2 s  
≤ 2 s

Behavior in case of compressed  
air pressure drop

- Valve closed
- Valve open
- During actuation

Valve remains closed (≥ 24h)  
undefined  
undefined

Behavior in case of power failure

- Valve closed
- Valve open
- During actuation

depending on customer installation  
depending on customer installation  
depending on customer installation

Weight

approx. 7.8 kg / 17.2 lbs

### Position indicator

Type

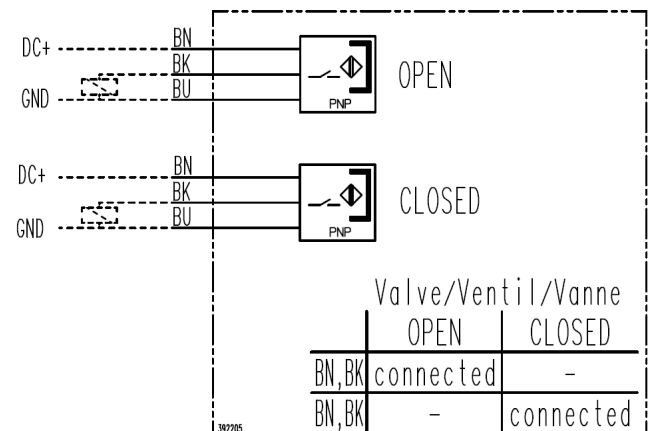
PNP (NO with LED)

Voltage

10-30 V DC

Current max.

≤ 0.2 A



Wiring diagram

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