



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**HV gate valve, Series 091, DN 160 (ID 6'')**  
**Ordering No. 09144-PE24**

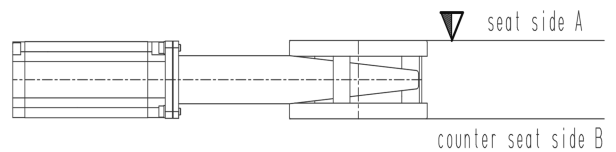
### Description

Flange	ISO-F 160
Actuator	pneumatic, double acting – 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	$\leq 100 \text{ }^\circ\text{C}$
– Position indicator	$\leq 60 \text{ }^\circ\text{C}$
Heating and cooling rate	$50 \text{ }^\circ\text{C h}^{-1}$

Created by: LOO	Release date: 19.01.2015	1/2
Modified by:	Release date:	<b>783610EA</b>



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### 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<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	< 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	depending on customer installation
- Valve open	depending on customer installation
- During actuation	depending on customer installation

### Weight

approx. 16,5 kg / 36.3 lbs

### Position indicator

#### Type

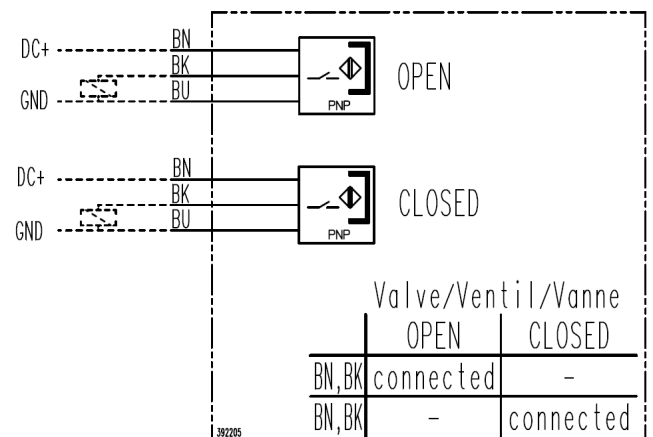
PNP (NO with LED)

#### Voltage

10..30 V DC

#### Current max.

≤ 0.2 A



Wiring diagram

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