



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**HV gate valve, Series 140, DN 400 (ID 16'')**  
**Ordering No. 14052-PE44**

### Description

Flange	ISO-F 400
Actuator	Pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Rotary feedthrough

### Technical data

Leak rate	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup> $< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
Pressure range		$1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)
Differential pressure on the gate		$\leq 1.2$ bar
Differential pressure at opening		$\leq 30$ mbar
Conductance (molecular flow)		52 000 ls <sup>-1</sup>
Cycles until first service	– Unheated and under clean conditions	200 000 (valve in horizontal position) 50 000 (valve in vertical position)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Pneumatic actuator – Solenoid valve – Position indicator	$\leq 150$ °C $\leq 50$ °C $\leq 50$ °C $\leq 80$ °C
Heating and cooling rate		50 °C h <sup>-1</sup>
Material (main components)	– Valve body – Mechanism	AISI 304 (1.4301) AISI 304 (1.4301)
Seal	– Bonnet – Gate – Actuator	FKM (Viton®), O-ring FKM (Viton®), O-ring FKM (Viton®), NBR
Mounting position		horizontal (vertical with restriction)
Volume of pneumatic actuator		0.75 l / 0.025 ft <sup>3</sup>
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G $\frac{1}{8}$ '' (1/8'' NPT for USA)
Actuation time	– closing – opening	5.5 s 5.5 s
Weight		140 kg / 309 lbs

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Behavior in case of compressed air pressure drop – Valve closed  
– Valve open

valve remains closed  
undefined

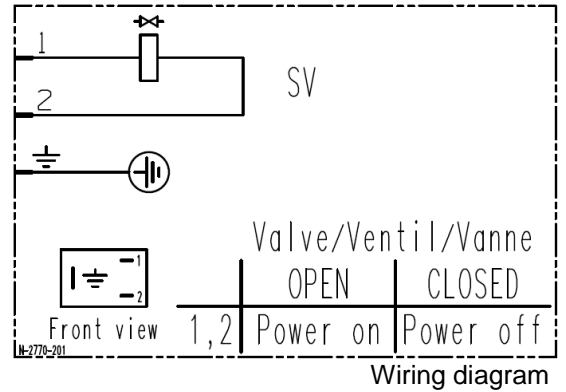
Behavior in case of power failure – Valve closed  
– Valve open

valve remains closed  
valve closes

### Electrical connections

#### Solenoid valve

Type 5/2 way  
Voltage Defined by order



#### Position indicator

Type Micro switch  
Voltage  $\leq 250$  V AC  $\leq 50$  V DC  
Current max.  $\leq 5$  A  $\leq 3$  A

