



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**UHV gate valve, Series 108, DN 320 (ID 12")**  
**Ordering No. 10850-PE44**

### Description

Flange	ISO-F 320
Actuator	pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Bellows

### Technical data

Leak rate	– Valve body – Valve seat	$< 5 \cdot 10^{-10}$ mbar ls <sup>-1</sup> $< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
Pressure range		$1 \cdot 10^{-10}$ 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)		29 130 ls <sup>-1</sup>
Cycles until first service		50 000 (unheated and under clean conditions)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve Body – Actuator – Solenoid valve – Position indicator	$\leq 250$ °C open / $\leq 200$ °C closed (bake-out max. 24h) $\leq 200$ °C $\leq 50$ °C $\leq 80$ °C
Heating and cooling rate		50 °C h <sup>-1</sup>
Material (main components)	– Valve Body – Mechanism – Bellows	AISI 304 (1.4301) AISI 316L (1.4404), AISI 304 (1.4301) AISI 316L (1.4404, 1.4435)
Seal	– Bonnet – Gate – Actuator	metal FKM (Viton®), O-ring FKM (Viton®), NBR
Mounting position		any
Volume of pneumatic actuator		0.48 l / 0.0167 ft <sup>3</sup>
Compressed air min. – max. overpressure		5 – 7 bar / 73 – 102 psi
Compressed air connection		G $\frac{1}{2}$ " (1 $\frac{1}{8}$ " NPT for USA)

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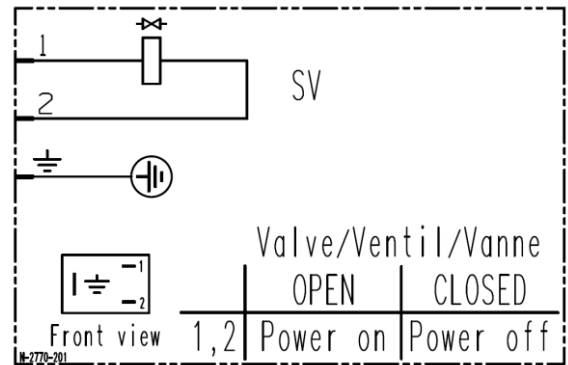
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Actuation time	- closing	5 s
	- opening	5 s
Weight		95 kg / 210 lbs
Behavior in case of compressed air pressure drop	- Valve closed	valve remains closed
	- Valve open	undefined
Behavior in case of power failure	- Valve closed	valve remains closed
	- Valve open	valve closes

### Electrical connections

#### Solenoid valve

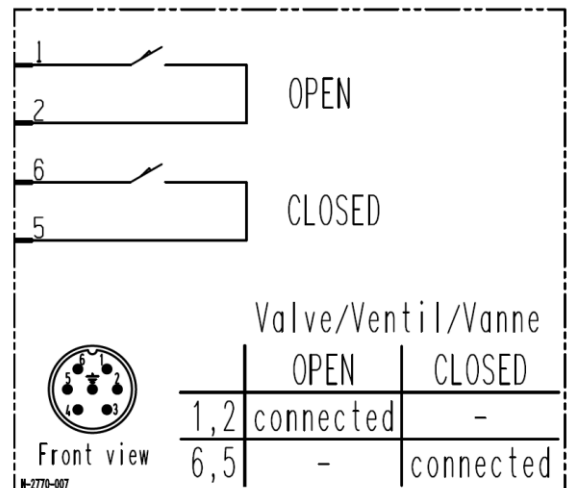
Type	4/2 way
Voltage	Defined by order



Wiring diagram

#### Position indicator

Type	Micro switch
Voltage	≤ 50 V AC / DC
Current max.	≤ 1.2 A



Wiring diagram