



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**UHV gate valve, Series 108, DN 320 (ID 12'')**  
**Ordering No. 10850-PE28**

### Description

Flange	ISO-F 320,
Actuator	pneumatic double acting, with 3-position actuator – with position indicator
Feedthrough	Bellows

### Technical data

Leak rate	– Valve body	$< 5 \cdot 10^{-10}$ mbar ls <sup>-1</sup>
	– Valve seat	$< 1 \cdot 10^{-9}$ 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	– Valve body	$\leq 250$ °C open / $\leq 200$ °C closed (bake-out max. 24h)
(Maximum values: depending on operating conditions and sealing materials)	– Actuator	$\leq 200$ °C
	– Position indicator	$\leq 80$ °C
Heating and cooling rate		50 °C h <sup>-1</sup>
Material (main components)	– Valve body	AISI 304 (1.4301)
	– Mechanism	AISI 316L (1.4404), AISI 304 (1.4301)
	– Bellows	AISI 316L (1.4404, 1.4435)
Seal	– Bonnet	metal
	– Gate	FKM (Viton®), O-ring
	– Actuator	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		1/8" ISO / NPT
Actuation time	– closing	5 s
	– opening	5 s
Weight		95 kg / 210 lbs

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

valve remains closed  
 undefined  
 undefined

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

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

### Position indicator

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

