



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

UHV gate valve, Series 108, DN 320 (ID 12")
Ordering No. 10850-JE44

Description

Flange	JIS 320
Actuator	pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Bellows

Technical data

Leak rate	– Valve body	$< 5 \cdot 10^{-10}$ mbar ls ⁻¹
	– Valve seat	$< 1 \cdot 10^{-9}$ mbar ls ⁻¹
Pressure range		$1 \cdot 10^{-10}$ mbar to 1.2 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)		29 130 ls ⁻¹
Cycles until first service		50 000 (unheated and under clean conditions)
Temperature	– Valve Body	≤ 250 °C open / ≤ 200 °C closed (bake-out max. 24h)
(Maximum values: depending on operating conditions and sealing materials)	– Actuator	≤ 200 °C
	– Solenoid valve	≤ 50 °C
	– Position indicator	≤ 80 °C
Heating and cooling rate		50 °C h ⁻¹
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 ³
Compressed air		5 – 7 bar / 73 – 102 psi
min. – max. overpressure		
Compressed air connection		G $\frac{1}{2}$ " (1 $\frac{1}{8}$ " NPT for USA)

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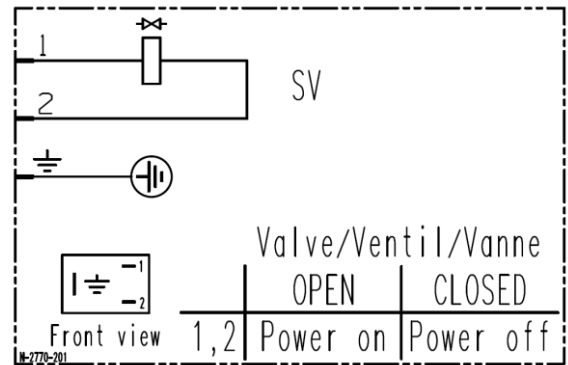
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Actuation time	- closing	5 s
	- opening	5 s
Weight		95 kg / 210 lbs
Behavior in case of compressed air pressure drop	- Valve closed	valve remains closed
	- Valve open	undefined
Behavior in case of power failure	- Valve closed	valve remains closed
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

Electrical connections

Solenoid valve

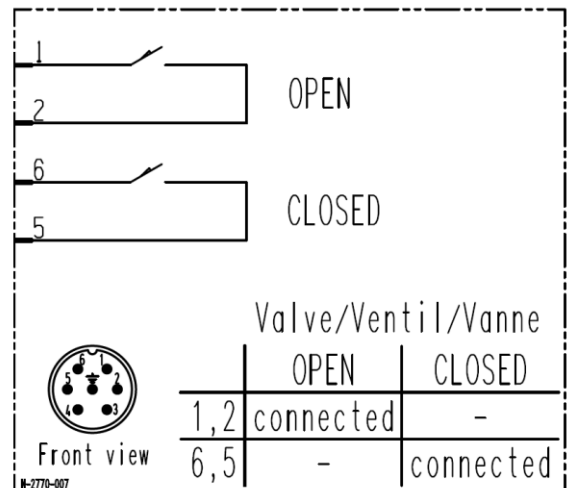
Type	4/2 way
Voltage	Defined by order



Wiring diagram

Position indicator

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



Wiring diagram