



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

UHV gate valve, Series 108, DN 100 (ID 4'')
Ordering No. 10840-JE44

Description

Flange	JIS 100
Actuator	pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Bellows

Technical data

Leak rate	– Valve body – Valve seat	$< 5 \cdot 10^{-10} \text{ mbar ls}^{-1}$ $< 1 \cdot 10^{-9} \text{ mbar ls}^{-1}$
Pressure range		$1 \cdot 10^{-10} \text{ mbar}$ to 1.6 bar (abs)
Differential pressure on the gate		$\leq 1.6 \text{ bar}$
Differential pressure at opening		$\leq 30 \text{ mbar}$
Conductance (molecular flow)		1740 ls^{-1}
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	$\leq 250 \text{ }^{\circ}\text{C}$ open / $\leq 200 \text{ }^{\circ}\text{C}$ closed (bake-out max. 24h) $\leq 200 \text{ }^{\circ}\text{C}$ $\leq 50 \text{ }^{\circ}\text{C}$ $\leq 80 \text{ }^{\circ}\text{C}$
Heating and cooling rate		$50 \text{ }^{\circ}\text{C h}^{-1}$
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 [®]), vulcanized FKM (Viton [®]), NBR
Mounting position		any
Volume of pneumatic actuator		0.11 l / 0.0038 ft ³
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G $\frac{1}{8}$ " (1/8" NPT for USA)

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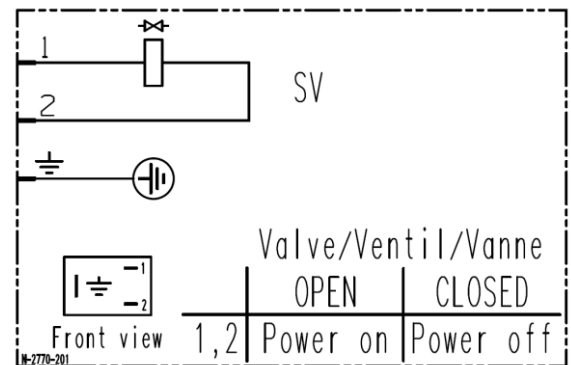
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Actuation time	– closing	1.2 s
	– opening	1.2 s
Weight		14.5 kg / 32 lbs
Behavior in case of compressed air pressure drop	– Valve closed	valve remains closed
	– Valve open	undefined
Behavior in case of power failure	– Valve closed	valve remains closed
	– Valve open	valve closes

Electrical connections

Solenoid valve

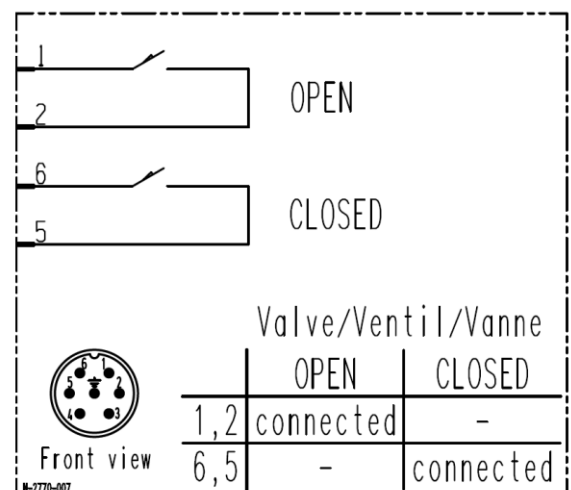
Type	4/2 way
Voltage	Defined by order



Wiring diagram

Position indicator

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



Wiring diagram