VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

Vacuum gate valve, Series 121, DN 100 (ID 4'')
Ordering No. 12140-JA44

Description

Flange	JIS 100
Actuator	Pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Shaft feedthrough

Technical data

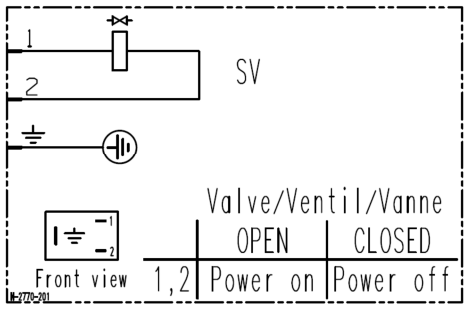
Leak rate	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls^{-1} $< 1 \cdot 10^{-9}$ mbar ls^{-1}
Pressure range		$1 \cdot 10^{-7}$ mbar to 1.6 bar (abs)
Differential pressure on the gate		≤ 1.6 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)		2 000 ls^{-1}
Cycles until first service		200 000 (unheated and under clean conditions)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Actuator – Solenoid valve – Position indicator	≤ 120 °C ≤ 80 °C ≤ 50 °C ≤ 80 °C
Heating and cooling rate		30 °C h^{-1}
Material	– Valve body – Mechanism	EN AW-5083 (3.3547), -6061 (3.3211) AISI 304 (1.4301)
Seal	– Bonnet – Gate – Actuator	FKM (Viton®) FKM (Viton®), O-ring FKM (Viton®), NBR (BUNA N®)
Mounting position		any
Volume of pneumatic actuator		0.22 l / 0.008 ft^3
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G ⅛" (⅛" NPT for USA)
Actuation time	– closing – opening	2.0 s 2.0 s
Weight		5.4 kg / 11.9 lbs

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

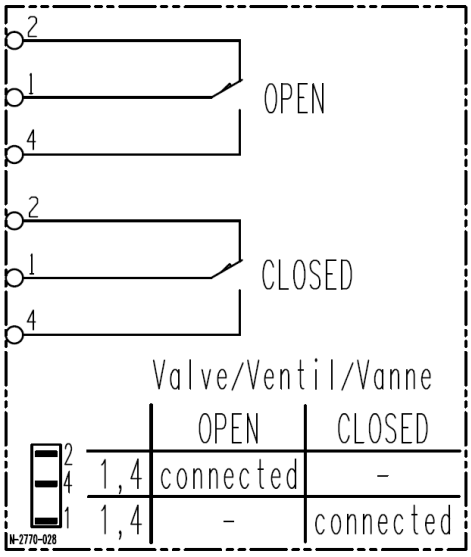
Type	4/2 way
Voltage	Defined by order



Wiring diagram

Position indicator

Type	Micro Switch	
Voltage	≤ 250 V AC	≤ 50 V DC
Current max.	≤ 2.0 A	≤ 1.2 A



Wiring diagram