VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet
Low particle UHV gate valve, Series 152, DN 100 (ID 4'')
Ordering No. 15240-UE44-AII

Description

Flange		DN 100 CF-F UNF
Actuator		Pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough		Bellows
Options		DN40 CF-F port in Pos. A1

Technical data

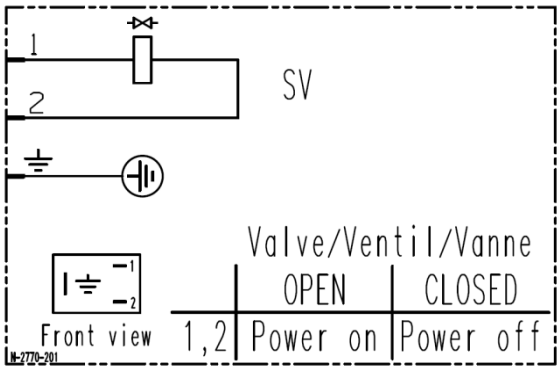
Leak rate	– Valve body – Valve seat	$< 5 \cdot 10^{-10}$ mbar ls^{-1} $< 1 \cdot 10^{-9}$ mbar ls^{-1}
Pressure range		$1 \cdot 10^{-10}$ mbar to 1 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)		1 700 ls^{-1}
Cycles until first service		500 000 (unheated and under clean conditions)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve Body – Actuator – Solenoid valve – Position indicator	≤ 250 °C open / ≤ 200 °C closed (bake-out max. 24h) ≤ 200 °C ≤ 50 °C ≤ 80 °C
Heating and cooling rate		50 °C h^{-1}
Material (main components)	– Valve Body – Gate – Bellows	AISI 304 (1.4301) AISI 304 (1.4301) AISI 633 (AM350)
Seal	– Bonnet – Gate – Actuator	metal FKM (Viton®), vulcanized FKM (Viton®)
Mounting position		Any
Volume of pneumatic actuator		0.32 l / 0.011 ft^3
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G⅛'' (⅛'' NPT for USA)

Actuation time	– closing	≤ 2.8 s
	– opening	≤ 2.8 s
Weight		16.2 kg / 35.7 lbs
Behavior in case of compressed air pressure drop	– Valve closed	- Undefined (not mechanically locked)
	– Valve open	- Undefined (not mechanically locked)
Behavior in case of power failure	– Valve closed	- Valve remains closed
	– Valve open	- Valve closes

Electrical connections

Solenoid valve

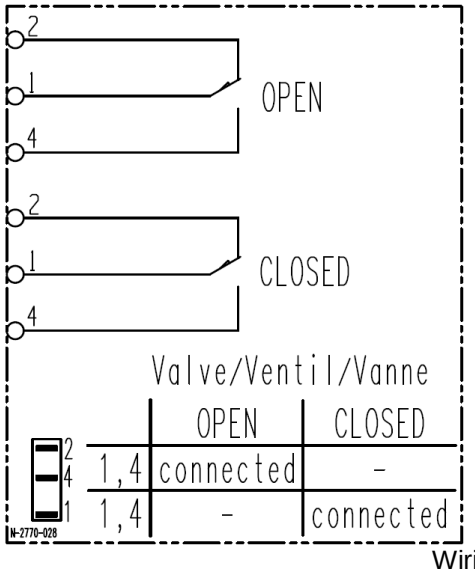
Type	4/2 way
Voltage	Defined by order



Wiring diagram

Position indicator

Type	Micro switch	
Voltage	≤ 250 V AC	≤ 50 V DC
Current max.	≤ 2 A	≤ 1.2 A



Wiring diagram