VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

UHV gate valve, Series 108, DN 320 (ID 12'')
Ordering No. 10850-PE48

Description

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

Technical data

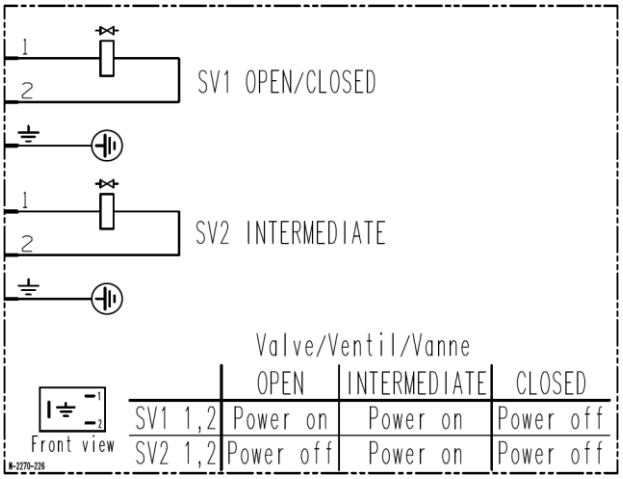
Leak rate	– Valve body	$< 5 \cdot 10^{-10}$ mbar ls^{-1}
	– Valve seat	$< 1 \cdot 10^{-9}$ mbar ls^{-1}
Pressure range		$1 \cdot 10^{-10}$ mbar to 1.2 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)		29 130 ls^{-1}
Cycles 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	– Actuator	≤ 200 °C
on operating conditions and	– Solenoid valve	≤ 50 °C
sealing materials)	– 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 min. – max. overpressure		5 – 7 bar / 73 – 102 psi
Compressed air connection		G⅛'' (⅛'' NPT for USA)
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
	– Middle position	undefined
Behavior in case of power failure	– Valve closed	valve remains closed
	– Valve open	valve closes
	– Middle position	valve closes

Electrical connections

Solenoid valve

Type	4/2 way
Voltage	Defined by order



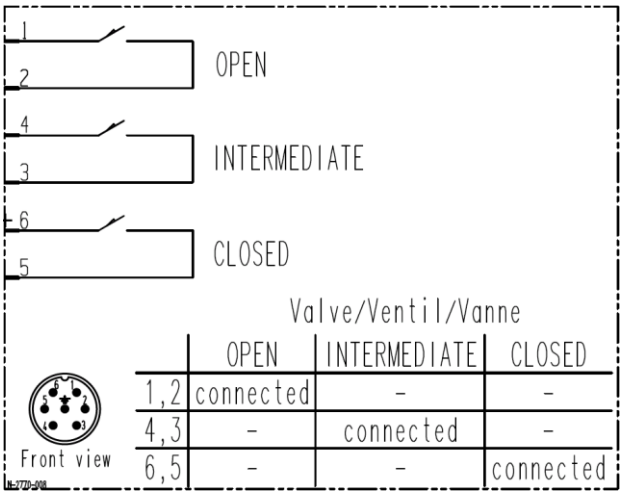
Valve/Ventil/Vanne

	OPEN	INTERMEDIATE	CLOSED
SV1 1,2	Power on	Power on	Power off
SV2 1,2	Power off	Power on	Power off

Wiring diagram

Position indicator

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



Valve/Ventil/Vanne

	OPEN	INTERMEDIATE	CLOSED
1,2	connected	-	-
4,3	-	connected	-
6,5	-	-	connected

Wiring diagram