VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

UHV gate valve, Series 108, DN 320 (ID 12'')
Ordering No. 10850-TE48

Description

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

Technical data

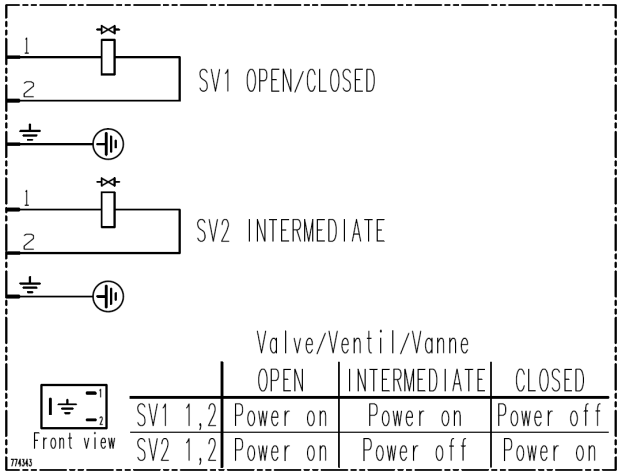
Leak rate	– Valve body	$< 5 \cdot 10^{-10}$ mbar ls^{-1}
	– Valve seat	$< 1 \cdot 10^{-9}$ mbar ls^{-1}
Pressure range		$1 \cdot 10^{-10}$ mbar to 1.2 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)		27 450 ls^{-1}
Cycles 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		100 kg / 220 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

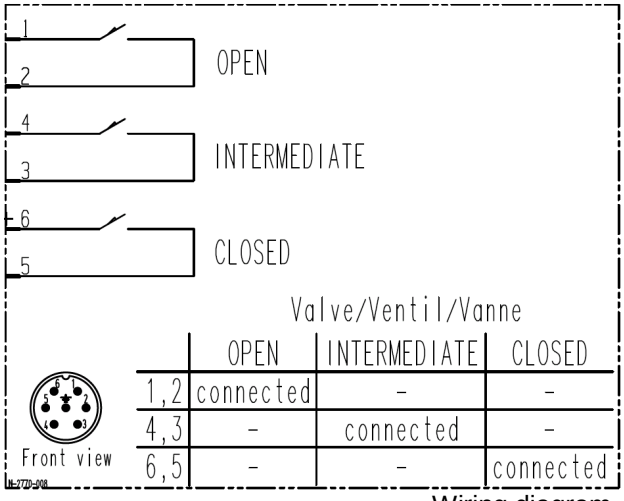


	OPEN	INTERMEDIATE	CLOSED
SV1 1,2	Power on	Power on	Power off
SV2 1,2	Power on	Power off	Power on

Wiring diagram

Position indicator

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



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

Wiring diagram