VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

HV gate valve, Series 140, DN 320 (12")
Ordering No. 14050-TE48

Description

Flange	ASA-LP 320
Actuator	Pneumatic, double acting, with 3-position actuator – with solenoid valve – with position indicator
Feedthrough	Rotary feedthrough

Technical data

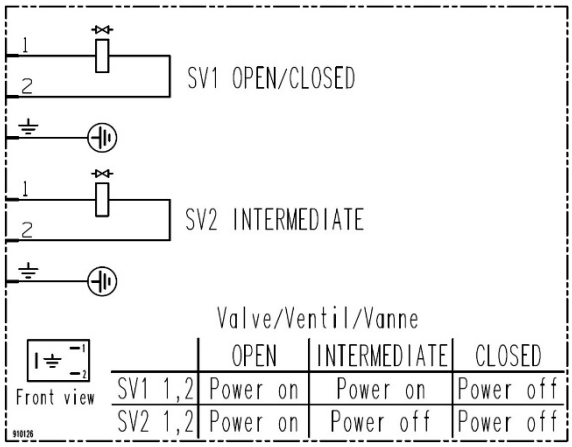
Leak rate	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls^{-1} $< 1 \cdot 10^{-9}$ mbar ls^{-1}
Pressure range		$1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)	– Nominal – Min. adjustable	32’690 ls^{-1} 16 ls^{-1}
Cycles until first service	– Unheated and under clean conditions	200’000 (valve in horizontal position) 50’000 (valve in vertical position)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Pneumatic actuator – Solenoid valve – Position indicator	≤ 150 °C ≤ 50 °C ≤ 50 °C ≤ 80 °C
Heating and cooling rate		50 °C h^{-1}
Material (main components)	– Valve body – Mechanism	AISI 304 (1.4301) AISI 304 (1.4301), AISI 301 (1.4310)
Seal	– Bonnet – Gate – Actuator	FKM (Viton®), O-ring FKM (Viton®), O-ring FKM (Viton®), NBR
Mounting position		any
Volume of pneumatic actuator		2.6 l / 0.093 ft^3
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G⅛’’ (⅛’’ NPT for USA)
Actuation time	– closing – opening	≤ 6 s ≤ 6 s
Weight		119 kg / 261 lbs

Behavior in case of compressed air pressure drop	– Valve closed – Valve open – Middle position	valve remains closed undefined undefined
Behavior in case of power failure	– Valve closed – Valve open – Middle position	valve remains closed valve closes valve closes
Valve position indication		visual (mechanical)

Electrical connections

Solenoid valve (2x)

Type	5/2 way
Voltage	Defined by order
Power consumption	2.5 W

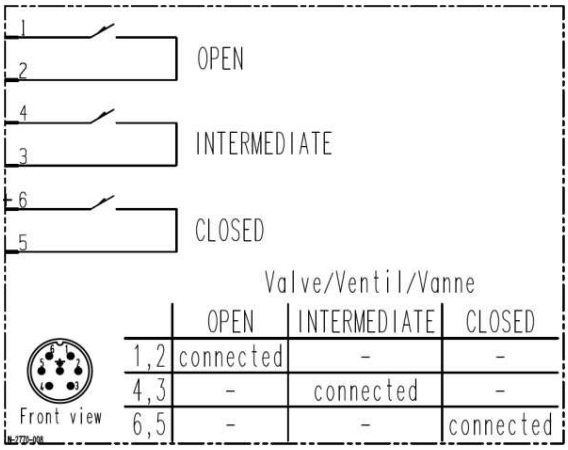


	OPEN	INTERMEDIATE	CLOSED
SV1 1,2	Power on	Power on	Power off
SV2 1,2	Power on	Power off	Power off

Wiring diagram

Position indicator

Type	Micro switch	
Voltage	≤ 250 V AC	≤ 50 V DC
Current max.	≤ 5 A	≤ 3 A



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

Wiring diagram