



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

HV gate valve

Series 091, DN 100 (4")

Ordering No. 09140-PE14-0003

Description

Flange	ISO-F 100
Actuator	Pneumatic, double acting
Feedthrough	Bellows

Technical data

Leak rate	– Valve body	$< 1 \cdot 10^{-9}$ mbar ls ⁻¹
	– Valve seat	$< 1 \cdot 10^{-7}$ mbar ls ⁻¹
Pressure range		$1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)
Differential pressure on the plate		≤ 1.2 bar
Differential pressure at actuation	– In opening direction	≤ 1 bar ¹
	– In closing direction	≤ 30 mbar (1 bar with reduced cycle life) ²
Conductance (molecular flow)		1 700 ls ⁻¹
Cycles until first service		5 000 (unheated and under clean conditions)
Temperature	– Valve body	≤ 180 °C
(Maximum values: depending on operating conditions and sealing materials)	– Actuator	≤ 100 °C
Heating and cooling rate		50 °C h ⁻¹
Material	– Valve body	AISI 304 (1.4301)
	– Gate	AISI 304 (1.4301, 1.4308)
	– Bellows	AISI 633 (AM350)
	– Small parts	A2 Ni-PTFE coated, PEEK
Seal	– Bonnet	FKM
	– Gate	FKM
	– Actuator	FKM, PU
Mounting position		any
Volume of pneumatic actuator		0.25 l / 0.009 ft ³
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G1/8" (NPT for USA)
Actuation time		≤ 0.5 s
Weight		7.3 kg / 16.1 lbs

¹ Differential pressure supports gate to open

² Differential pressure supports gate to stay closed. Therefore cycle life reduced due to increased wear of gate seal

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Behavior in case of compressed air pressure drop	<ul style="list-style-type: none">- Valve closed- Valve open- During actuation	valve remains closed ($\geq 24h$) undefined undefined
Behavior in case of power failure	<ul style="list-style-type: none">- Valve closed- Valve open- During actuation	depending on customer installation depending on customer installation depending on customer installation

Related documents

Dimensional drawing No. 1095852

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