



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet
HV gate valve, Series 091, DN 160 (ID 6 ")
Ordering No. 09144-PE14

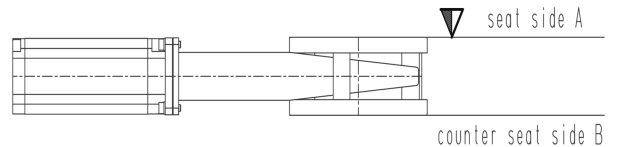
Description

Flange	ISO-F 160
Actuator	pneumatic, double acting
Feedthrough	Bellows

Technical data

Leak rate	
– Valve body	$< 1 \cdot 10^{-9} \text{ mbar ls}^{-1}$
– Valve seat	$< 1 \cdot 10^{-7} \text{ mbar ls}^{-1}$
Pressure range	$1 \cdot 10^{-8} \text{ mbar to } 1.2 \text{ bar (abs)}$
Differential pressure on the gate	$\leq 1.2 \text{ bar}$
Conductance (molecular flow)	5000 ls^{-1}

Max. differential pressure at opening in closing and opening direction with influence to the cycle life



– Higher pressure on seat side A, the differential pressure acts in opening direction	$\leq 1.0 \text{ bar with full cycle life}$
– Higher pressure on counter seat side B, the differential pressure acts in closing direction	$\leq 30 \text{ mbar with full cycle life}$
– Higher pressure on counter seat side B, the differential pressure acts in closing direction	$\leq 1.0 \text{ bar with reduced cycle life}$
Cycles until first service	5 000 (unheated and under clean conditions)
Bellows cycles	100 000 (unheated and under clean conditions)
Bake-out temperature	
– Valve body	$\leq 150 \text{ }^\circ\text{C (bake-out max. 24h)}$
– Actuator	$\leq 100 \text{ }^\circ\text{C}$

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Heating and cooling rate		50 °C h ⁻¹
Material		
– Valve body		AISI 304 (1.4301)
– Gate		AISI 304 (1.4301), (1.4308)
– Parts (in contact with media)		A2 Ni-Teflon coated, PEEK
– Bellows		AISI 633, (AM350)
Seal		
– Bonnet		FKM (Viton [®])
– Gate		FKM (Viton [®])
– Actuator		FKM (Viton [®])
Mounting position		any
Volume of pneumatic actuator		0.53 l / 0.019 ft ³
Compressed air		
min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		M5 (10-32 UNF suitable)
Actuation time	– closing	< 3.0 s
	– opening	< 3.0 s
Behavior in case of compressed air pressure drop	– Valve closed	Valve remains closed (≥ 24h)
	– Valve open	undefined
	– During actuation	undefined
Behavior in case of power failure	– Valve closed	valve remains closed
	– Valve open	valve closes
	– During actuation	valve closes
Weight		approx. 15.1 kg / 33.3 lbs

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