



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

HV gate valve, Series 091, DN 100 (4")
Ordering No. 09140-JE44-0003

Description

Flange	JIS 100
Actuator	Pneumatic, double acting – with solenoid valve – with position indicator
Feedthrough	Bellows

Technical data

Leak rate	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls ⁻¹ $< 1 \cdot 10^{-7}$ 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 – In closing direction	≤ 1 bar ¹ ≤ 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 (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Actuator – Solenoid valve – Position indicator	≤ 180 °C ≤ 100 °C ≤ 50 °C ≤ 70 °C
Heating and cooling rate		50 °C h ⁻¹
Material	– Valve body – Gate – Bellows – Small parts	AISI 304 (1.4301) AISI 304 (1.4301, 1.4308) AISI 633 (AM350) A2 Ni-PTFE coated, PEEK
Seal	– Bonnet – Gate – Actuator	FKM FKM 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

Created by: NIW	Release date: 18.10.2022	1/2
Modified by:	Release date:	1190776EA



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Behavior in case of compressed air pressure drop	– Valve closed – Valve open – During actuation	valve remains closed ($\geq 24h$) undefined undefined
Behavior in case of power failure	– Valve closed – Valve open – During actuation	valve remains closed ($\geq 24h$) valve closes valve closes

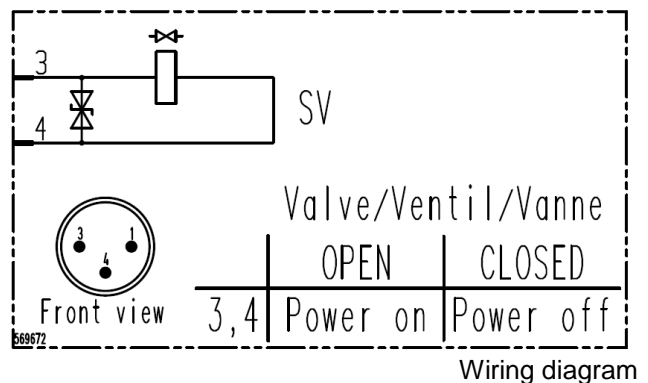
Related documents

Dimensional drawing No. 1190209

Electrical connections

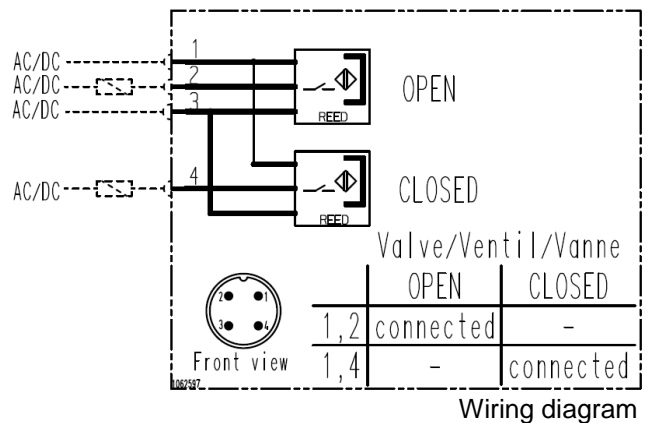
Solenoid valve

Type 5/2 way
Voltage 24 V DC



Position indicator

Type Reed (NO with LED)
Voltage 24 V AC/DC
Current max. ≤ 0.5 A



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