



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**Angle valve with soft-pump function**  
**Series 290, DN 40 (ID 1 1/2")**  
**Ordering No. 29032-KE31-0001**

### Description

Flange		ISO-KF 40
Actuator		Pneumatic, single acting with closing spring – with solenoid valve – without position indicator
Feedthrough	– Main	Bellows
	– Soft-pump	Shaft feedthrough

### Technical data

Leak rate	– Valve Body	$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
	– Valve seat	$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
Pressure range		$1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)
Differential pressure on the plate	– In opening direction	$\leq 1.2$ bar
	– In closing direction	$\leq 1.2$ bar
Differential pressure at opening		$\leq 1$ bar
Conductance (molecular flow)		45 ls <sup>-1</sup>
Cycles until first service (Tmax 80 °C, under clean conditions)		2 million
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve Body	$\leq 150$ °C
	– Actuator	$\leq 120$ °C
	– Solenoid valve	$\leq 80$ °C
Material	– Valve body	AISI 304 (1.4301)
	– Actuator	Aluminum
	– Plate	AISI 316L (1.4435 ESU)
	– Bellows	AISI 316L (1.4404, 1.4435) AISI 316 Ti (1.4571)
Seal	– Bonnet O-ring	FKM (Viton®)
	– Plate O-ring	FKM (Viton®)
	– Feedthrough O-ring	FKM (Viton®)
	– Actuator O-ring	FKM (Viton®)
Mounting position		any
Volume of pneumatic actuator		0.035 l / 0.0012 ft <sup>3</sup>
Compressed air min. – max. overpressure		4 – 8 bar / 58 – 116 psi
Compressed air connection		M5 female (10-32 UNF suitable)
Actuation time	– Closing	$\leq 0.55$ sec.
Weight		1.45 kg / 3.20 lbs

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Behavior in case of compressed air pressure drop

- Valve closed
- Valve opened
- During actuation

valve remains closed and leaktight  
valve closes leaktight  
valve closes leaktight

Behavior in case of power failure

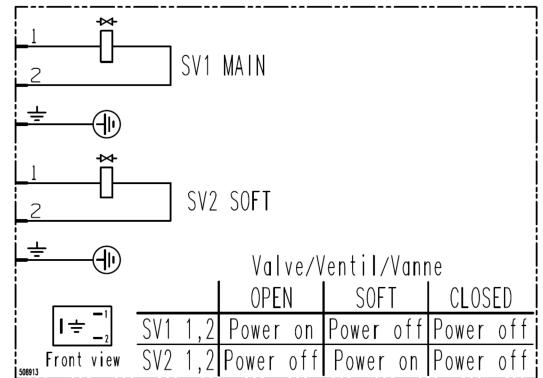
- Valve closed
- Valve opened
- During actuation

valve remains closed and leaktight  
valve closes leaktight  
valve closes leaktight

### Electrical connections

#### Solenoid valve

Type: 3/2-way  
Voltage: See solenoid  
Power: See solenoid  
Connector: Rectangle plug, Type B (DIN standard)  
Cable: Ø6 – 8 mm



Wiring diagram

### conductance diagram

