VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

Angle valve with soft-pump function
Series 290, DN 25 (ID 1”)
Ordering No. 29028-KA31-0001

Description

Flange		ISO-KF 25
Actuator		Pneumatic, single acting with closing spring – with solenoid valve – without position indicator
Feedthrough	– Main	Bellows
	– Soft-pump	Shaft feedthrough

Technical data

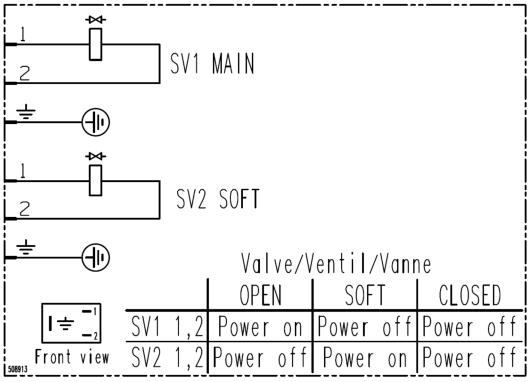
Leak rate	– Valve Body	$< 1 \cdot 10^{-9}$ mbar ls^{-1}
	– Valve seat	$< 1 \cdot 10^{-9}$ mbar ls^{-1}
Pressure range		$1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)
Differential pressure on the plate	– In opening direction	≤ 1.2 bar
	– In closing direction	≤ 1.2 bar
Differential pressure at opening		≤ 1 bar
Conductance (molecular flow)		14 ls^{-1}
Cycles until first service (Tmax 80 °C, under clean conditions)		2 million
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve Body	≤ 150 °C
	– Actuator	≤ 120 °C
	– Solenoid valve	≤ 80 °C
Material	– Valve body	Aluminum (EN AW-6082)
	– 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		0.011 l / 0.0004 ft^3
Compressed air min. – max. overpressure		4 – 8 bar / 58 – 116 psi
Compressed air connection		M5 female (10-32 UNF suitable)
Actuation time	– Closing	≤ 0.20 sec.
Weight		0.80 kg / 1.76 lbs

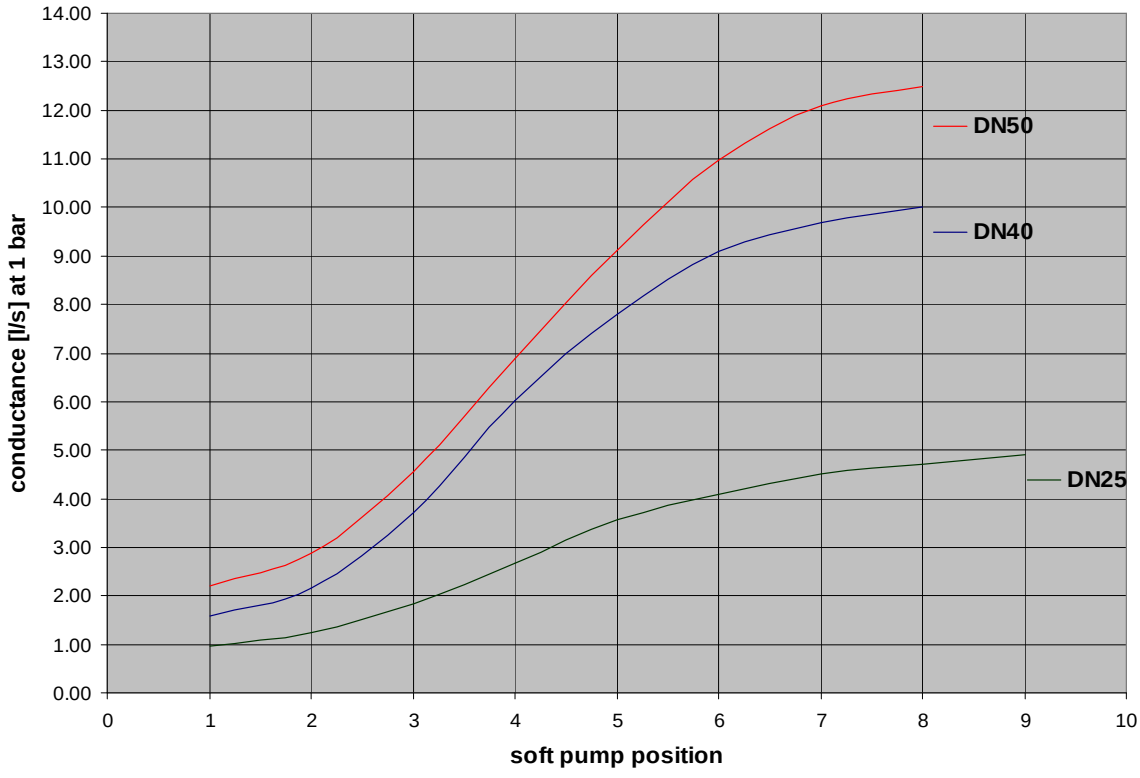
Behavior in case of compressed air pressure drop	– Valve closed	valve remains closed and leaktight
	– Valve opened	valve closes leaktight
	– During actuation	valve closes leaktight
Behavior in case of power failure	– Valve closed	valve remains closed and leaktight
	– Valve opened	valve closes leaktight
	– During actuation	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