



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

Angle valve with soft-pump function
Series 292, DN 100 (ID 4")
Ordering No. 29240-QA21-0001

Description

Flange		ISO-K 100
Actuator		without solenoid valve with position indicator
	- Main	Pneumatic, single acting with closing spring
	- Softpump	Pneumatic, single acting with closing spring
Feedthrough	- Main	Shaft feedthrough
	- Softpump	Bellows

Technical data

Leak rate (static)	- Valve body	$< 1 \cdot 10^{-9} \text{ mbar ls}^{-1}$
	- Valve seat	$< 1 \cdot 10^{-9} \text{ mbar ls}^{-1}$
Pressure range		$1 \cdot 10^{-7} \text{ mbar}$ to 2 bar (abs)
Differential pressure on the plate	- In opening direction	$\leq 1.2 \text{ bar}$
	- In closing direction	$\leq 2 \text{ bar}$
Differential pressure at opening		$\leq 1 \text{ bar}$ [1 bar with reduced number of cycles]
Conductance (molecular flow)		440 ls^{-1}
Actuation time main	- Closing	$\leq 1 \text{ sec.}$
	- Opening	$\leq 1 \text{ sec.}$
Actuation time softpump	- Closing	$\leq 0.2 \text{ sec.}$
	- Opening	$\leq 0.2 \text{ sec.}$
Cycles until first service (Tmax 80°C, under clean conditions)	- Main	1 million
	- Softpump	3 million
Temperature (Maximum values: depending on operating conditions and sealing materials)	- Valve body	$\leq 150 \text{ °C}$
	- Actuator	$\leq 120 \text{ °C}$
	- Position indicator	$\leq 80 \text{ °C}$
Material	- Body main	Aluminum (EN AC-42000)
	- Body softpump	Aluminum (EN AW-6060)
	- Actuator	Aluminum
	- Plate main	Aluminum (EN AW 6082)
	- Plate soft	AISI 316L (1.4404)
	- Feedthrough main	Aluminum (EN AW 6082)
	- Feedthrough soft	AISI 316L (1.4404, 1.4435), AISI 316 Ti (1.4571)
	- Spring	AISI 301 (1.4310)
	- Snap ring for axle	AISI 301 (1.4310)
Seal	- Bonnet O-ring	FKM (Viton®)
	- Plate O-ring	FKM (Viton®)
	- Feedthrough O-ring	FKM (Viton®)
	- Actuator O-ring	FKM (Viton®)
Weight		9.5 kg / 21 lbs
Mounting position		any

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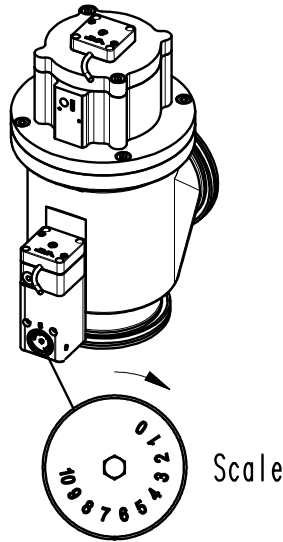
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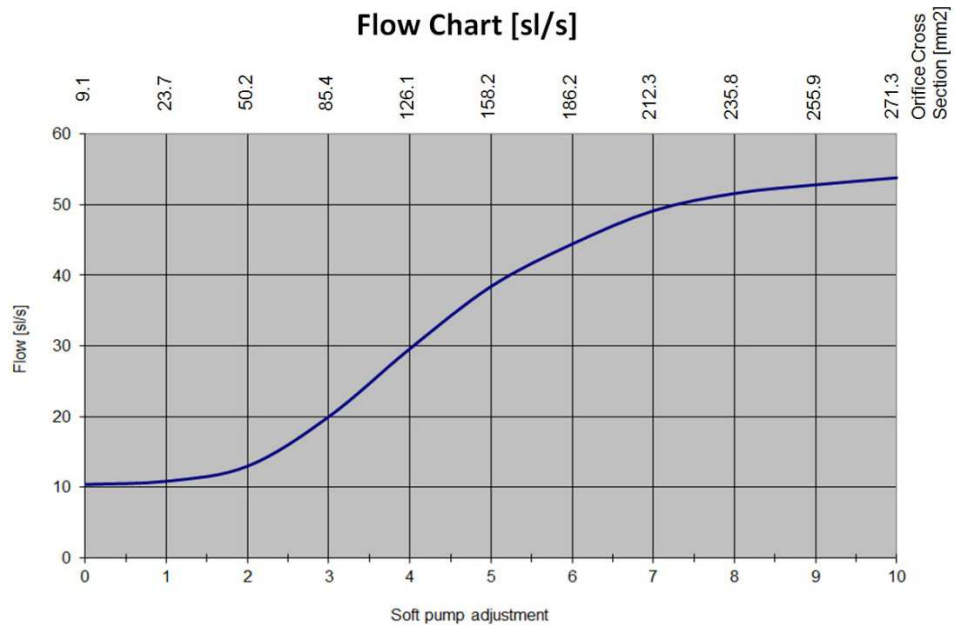
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Volume of pneumatic actuator	- Main	0.3 l / 0.01 ft ³
	- Softpump	0.011 l / 0.0004 ft ³
Compressed air	- Main	4.5 – 7 bar / 65 – 102 psi
min. – max. overpressure	- Softpump	4 – 8 bar / 58 – 115 psi
Compressed air connection	- Main	1/8" ISO/NPT female
	- Softpump	M5 (10-32 UNF suitable)
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	Depending on customer installation
	- During actuation	Depending on customer installation

Conductance diagram



Flow Chart [sl/s]



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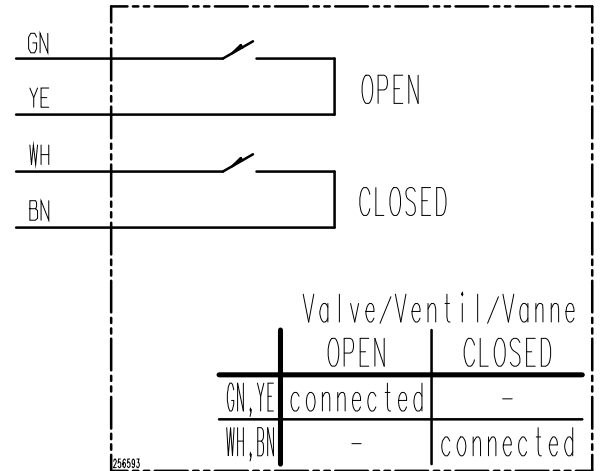
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Electrical connection

Position indicator

Type	Micro switch
Voltage	≤ 50 V AC / DC
Current	5...100 mA
Short circuit protected	No
Connection	cable, 4 wire
Cable length	500 mm
Wire cross section	0.25 mm ²



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