



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

Angle valve with soft-pump function Series 290, DN 50 (ID 2") Ordering No. 29034-KE41-0002

Description

| | | |
|-------------|-------------|--|
| Flange | | ISO-KF 50 |
| Actuator | | Pneumatic, single acting with closing spring – with solenoid valve – with 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) | | 80 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 |
| | – Position indicator | ≤ 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 | | 0.047 l / 0.0017 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 | ≤ 0.65 sec. |
| Weight | | 2.25 kg / 4.96 lbs |

| | | |
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| Created by: WARO | Release date: 25.08.2014 | 1/3 |
| Modified by: | Release date: | 765541EA |



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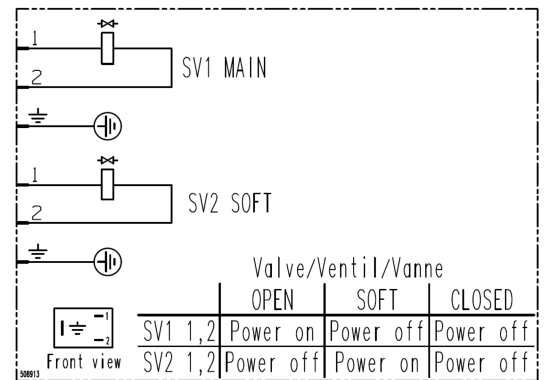
Angle valve with soft-pump function
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| | | |
|--|--|--|
| Behavior in case of compressed air pressure drop | <ul style="list-style-type: none"> - Valve closed - Valve opened - During actuation | <ul style="list-style-type: none"> valve remains closed and leaktight valve closes leaktight valve closes leaktight |
| Behavior in case of power failure | <ul style="list-style-type: none"> - Valve closed - Valve opened - During actuation | <ul style="list-style-type: none"> valve remains closed and leaktight valve closes leaktight valve closes leaktight |

Electrical connections

Solenoid valve

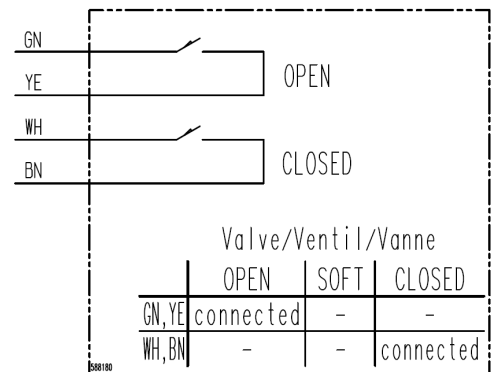
| | |
|-----------|---------------------------------------|
| Type | 3/2-way |
| Voltage | See solenoid |
| Power | See solenoid |
| Connector | Rectangle plug, Type B (DIN standard) |
| Cable | Ø6 – 8 mm |



Wiring diagram

Position indicator

| | |
|-------------------------|----------------------|
| Type | Micro switch |
| Voltage | ≤ 50 V AC / DC |
| Current | 5 – 100 mA |
| Short circuit protected | No |
| Connection | Cable, 4 wires |
| Cable length | 500 mm |
| Cable cross section | 0.25 mm ² |



Wiring diagram



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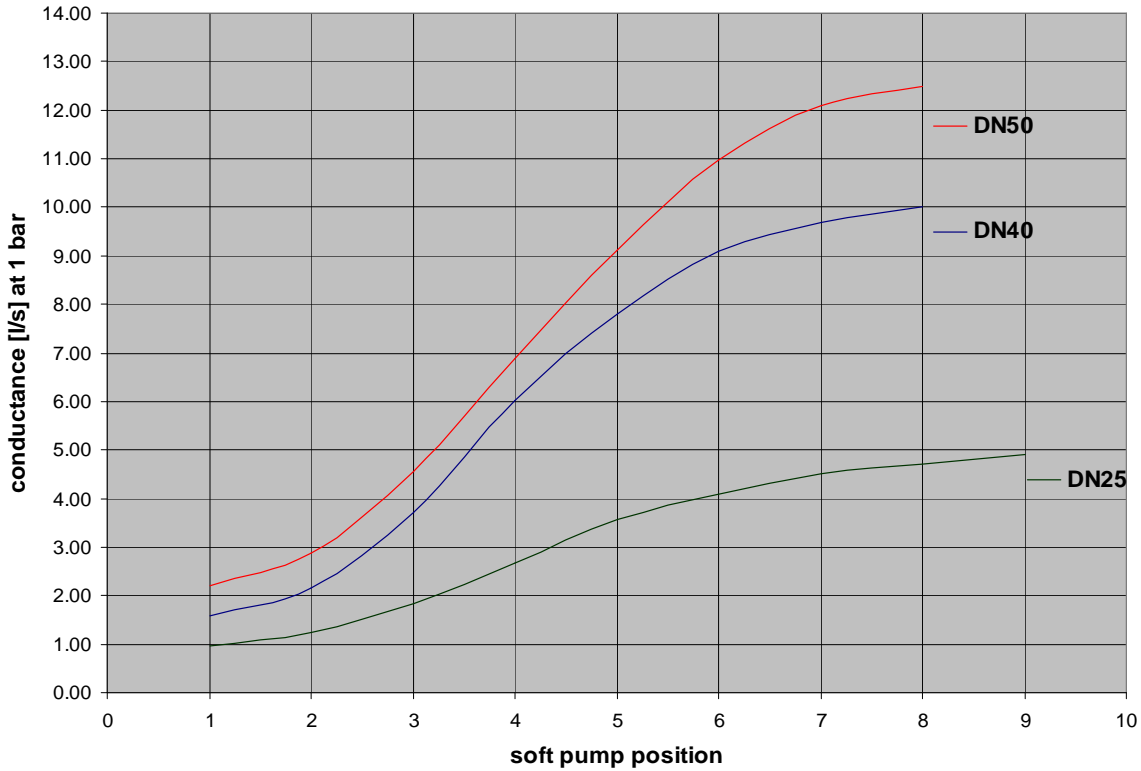
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conductance diagram



| | | |
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