



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**Vacuum angle valve**  
**Series 244, DN 160 (ID 6'')**  
**Ordering No. 24444-QA41-0001**

### Description

Flange	ISO-K 160
Actuator	Pneumatic, single acting with closing spring – with solenoid valve – with position indicator
Feedthrough	Shaft feedthrough

### Technical data

Leak rate (static)	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup> $< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
Pressure range		$1 \cdot 10^{-7}$ mbar to 2 bar (abs)
Differential pressure on the plate	– In opening direction – In closing direction	$\leq 1.2$ bar $\leq 2$ bar
Differential pressure at opening		$\leq 1$ bar [1 bar with reduced number of cycles]
Conductance (molecular flow)		1000 ls <sup>-1</sup>
Actuation time	– Closing – Opening	$\leq 1.5$ sec. $\leq 1.5$ sec.
Cycles until first service (Tmax 80°C, under clean conditions)		1 million
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Actuator – Solenoid valve – Position indicator	$\leq 150$ °C $\leq 120$ °C $\leq 50$ °C $\leq 80$ °C
Material	– Valve body – Actuator – Plate – Shaft feedthrough – Spring – Snap ring for axle	Aluminum (EN AC-42000) Aluminum Aluminum (EN AW 6082) Aluminum (EN AW 6082) AISI 301 (1.4310) AISI 301 (1.4310)
Seal	– Bonnet O-ring – Plate O-ring – Feedthrough O-ring – Actuator O-ring	FKM (Viton®) FKM (Viton®) FKM (Viton®) FKM (Viton®)
Weight		16 kg / 35 lbs
Mounting position		any
Volume of pneumatic actuator		0.65 l / 0.023 ft <sup>3</sup>
Compressed air min. – max. overpressure		4.5 – 7 bar / 65 – 102 psi
Compressed air connection		G $\frac{1}{8}$ " female
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

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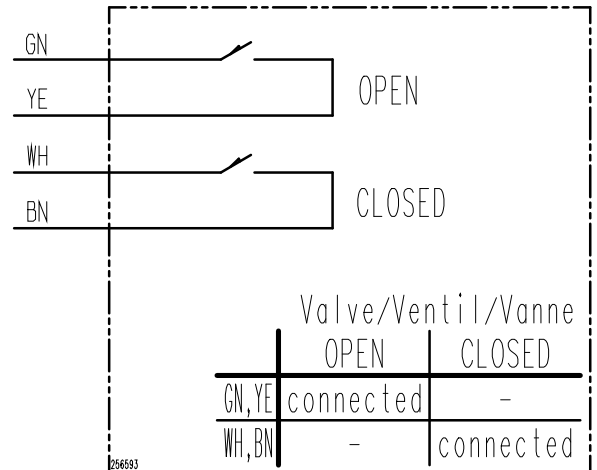
**Vacuum angle valve**  
**Series 244, DN 160 (ID 6'')**  
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Behavior in case of power failure – Valve closed      Valve remains closed and leaktight  
– Valve opened      Valve closes leaktight  
– During actuation      Valve closes leaktight

### Electrical connection

#### Position indicator

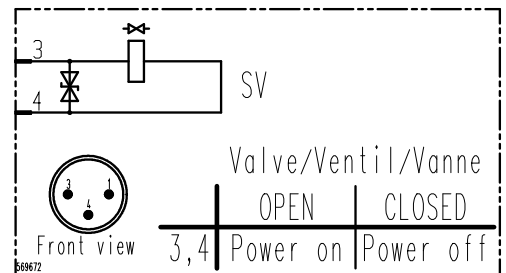
Type      Micro switch  
Voltage      ≤ 50 V AC / DC  
Current      5...100 mA  
Short circuit protected      No  
Connection      cable, 4 wire  
Cable length      500 mm  
Wire cross section      0.25 mm<sup>2</sup>



Wiring diagram

#### Solenoid valve

Type      3/2 way  
Voltage      See label on solenoid  
Connection type      plug, male M8x1  
Additional feature      LED orange; overvoltage protection; adjustable emergency operation; silencer



Wiring diagram

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