



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

Rectangular gate valve TwinVAT
Series 061, DN 100x1000-300x3800mm
Ordering No. 061..-.....-...1

Description

Flange	According to dimensional drawing
Actuator	Pneumatic, double acting, with position indicator PNP (standard)
Feedthrough	O-ring shaft seal (standard)
Gate	TwinVAT configuration with FKM (Viton [®]) seal

Technical data

Leak rate			
- Body (static) (standard)	$< 1 \times 10^{-7} \text{ mbar l s}^{-1}$	$[1 \times 10^{-8} \text{ Pa m}^3 \text{ s}^{-1}]$	
- Seat / gate (dynamic) (standard)	$< 1 \times 10^{-7} \text{ mbar l s}^{-1}$	$[1 \times 10^{-8} \text{ Pa m}^3 \text{ s}^{-1}]$	
- Body (static) – hard anodized *) (optional)	$< 1 \times 10^{-5} \text{ mbar l s}^{-1}$	$[1 \times 10^{-6} \text{ Pa m}^3 \text{ s}^{-1}]$	
- Seat / gate (dynamic) – hard anodized *) (optional)	$< 1 \times 10^{-4} \text{ mbar l s}^{-1}$	$[1 \times 10^{-5} \text{ Pa m}^3 \text{ s}^{-1}]$	
Differential pressure on the gate(s)			
- In closing direction	$\leq 1 \text{ bar}$		
- In opening direction	$\leq 50 \text{ mbar}$		
Differential pressure at opening			
- In closing and opening direction	$\leq 5 \text{ mbar}$		
Cycles until first service (unheated and under clean conditions)	Actuator downward / upward: 1 million (standard)		
Actuation time (valid for standard version)	Opening height	Closing time	Opening time
	101 - 150 mm	$< 2.5 \text{ s}$	$< 2.5 \text{ s}$
	151 - 200 mm	$< 3 \text{ s}$	$< 3 \text{ s}$
	201 - 250 mm	$< 3.5 \text{ s}$	$< 3.5 \text{ s}$
	251 - 300 mm	$< 3.5 \text{ s}$	$< 4 \text{ s}$
			*) (optional)
Operating temperature	Aluminium (standard)		
- Body	$< 120^\circ\text{C}$		
- Gate	$< 120^\circ\text{C}$		
- Actuator	$< 60^\circ\text{C}$		
- Solenoid valve	$< 50^\circ\text{C}$		
Temperature specifications			
- Heating and cooling rate	$\leq 40^\circ\text{C h}^{-1}$		
- Temperature difference between seat and gate	$\leq 40^\circ\text{C}$		
Material of construction	EN AW-5083 / EN AW-6082		
- Body, gate	AISI 316		
- Shafts	FKM (Viton [®]) (standard)		
- Feedthrough O-ring	FKM (Viton [®])		
- Actuator and top cover flange seal	FKM (Viton [®])		
- Gate seal	FKM (Viton [®])		
- Actuator pneumatic seals	FKM (Viton [®])		
Mounting position	Actuator downward (standard) / upward *) (optional)		
Service position	Shaft in extended position (standard)		
Weight			
- complete valve	tbd	kg	
- insert (included gate)	tbd	kg	
- body	tbd	kg	
- gate	tbd	kg	

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Air volume (according to the matrix)

- vertical actuator tbd.....l at 1 bar
- horizontal actuator tbd.....l at 1 bar

Closing force

tbd.... N

Compressed air connection

- Air quality Filtered (40µm), oiled or unoled air
- Pneumatic connection According to dimensional drawing
- Required air pressure 5 – 6 bar / 73 – 86 psig / 0.5 - 0.6 MPa
- Required air flow > 700 slm per valve

Air connection

061...-AA49-...: quick air connect ∅ 10 mm

Electrical connection

see last page

Behaviour in case of compressed air pressure drop

- Valve closed Gate remains in closed position (pneumatically locked)
- Valve open Gate remains in open position (pneumatically locked)
- During actuation Gate will remain on actual position

Behaviour in case of power failure

- Valve closed Gate remains in closed position (pneumatically locked)
- Valve open Gate remains in open position (pneumatically locked)
- During actuation Gate will remain on actual position



¹⁾ Above statement is only valid if the valve is supplied with solenoid valve
(VAT ordering number 061 **44** – **and** 061 **49** –)

If the valve is supplied without a solenoid valve (VAT ordering number 061 **24** –)

VAT is not accountable for the behavior of the valve if power fails as customers use their own solenoid valves.

Attention: To reach the specified operating time, it's necessary to keep the length at the air supply line (Tube min. I.D. 8mm / max. length from solenoid valve to the valve = 10m) to a minimum!

Attention: The horizontal movement must be activated only when the vertical cylinders are in upper position (in front of the gate opening)

*) (optional):

Specifications for optional features are provided on the dimensional drawing of the product.

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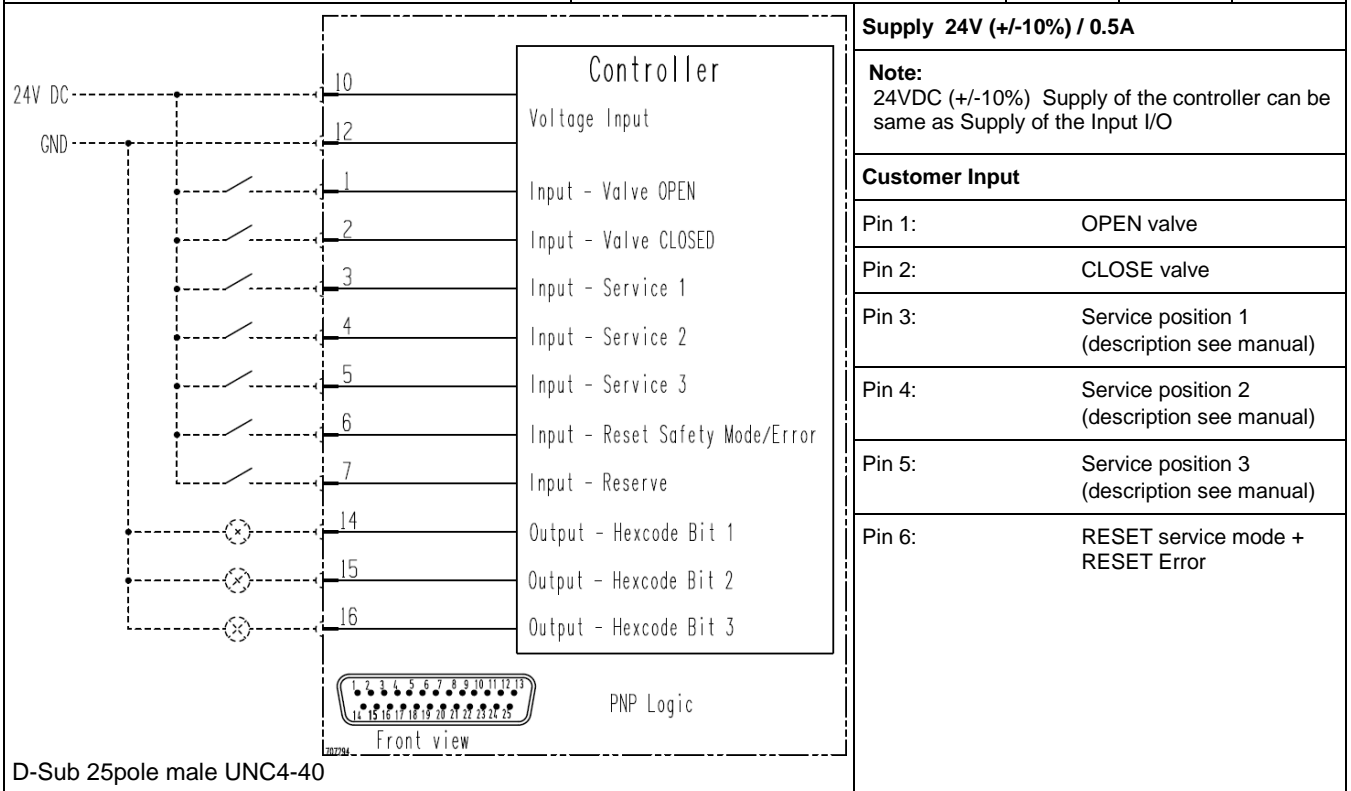


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Signal specification	Output signal / HexCode definition (see pin assignment in below table)			
Input <ul style="list-style-type: none"> Switching level Signal 0 ≤5VDC Signal 1 ≥15VDC Switch-on debounce time 3ms Switching logic positive logic (PNP) Input current per channel typical 9 mA Output <ul style="list-style-type: none"> Current per channel max. 100 mA Reverse voltage protection yes for PNP type Short circuit protection yes for PNP type Switching logic positive logic (PNP) Maximum current 500 mA 	Signal description	Pin 14 (Bit 1)	Pin 15 (Bit 2)	Pin 16 (Bit 3)
	Undefined situation	0	0	0
	Valve OPEN	1	0	0
	Valve CLOSE	0	1	0
	Service position 1 (description see manual)	1	1	0
	Service position 2 (description see manual)	0	0	1
	Service position 3 (description see manual)	1	0	1
	ERROR 1 – two signals	0	1	1
	ERROR 2 – time delay	1	1	1



D-Sub 25pole male UNC4-40

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