



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

### HV gate valve, Series 140, DN 100 (ID 4'')

### Ordering No. 14040-PE48

#### Description

Flange	ISO-F 100
Actuator	Pneumatic, with 3-position actuator – with solenoid valve – with position indicator
Feedthrough	Rotary feedthrough

#### Technical data

Leak rate	– Valve body – Valve seat	$< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup> $< 1 \cdot 10^{-9}$ mbar ls <sup>-1</sup>
Pressure range		$1 \cdot 10^{-8}$ mbar to 2 bar (abs)
Differential pressure on the gate		$\leq 2$ bar
Differential pressure at opening		$\leq 30$ mbar
Conductance (molecular flow)	– Nominal – Min. adjustable	1'740 ls <sup>-1</sup> 5 ls <sup>-1</sup>
Cycles until first service	– Unheated and under clean conditions	200'000
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Actuator – Solenoid – Position indicator	$\leq 150$ °C $\leq 50$ °C $\leq 50$ °C $\leq 80$ °C
Heating and cooling rate		50 °C h <sup>-1</sup>
Material (main components)	– Valve body – Mechanism	AISI 304 (1.4301) AISI 304 (1.4301), AISI 301 (1.4310)
Seal	– Bonnet – Gate – Actuator	FKM (Viton®), vulcanized FKM (Viton®), O-ring FKM (Viton®), NBR
Mounting position		any
Volume of pneumatic actuator		0.53 l / 0,019 ft <sup>3</sup>
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G $\frac{1}{8}$ " ( $\frac{1}{8}$ " NPT for USA)
Actuation time	– closing – opening	$\leq 2.5$ s $\leq 2.5$ s
Weight		17 kg / 37 lbs

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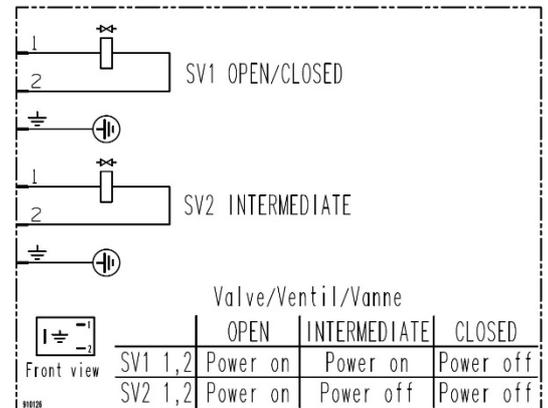
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Behavior in case of compressed air pressure drop	– Valve closed – Valve open – Middle position	valve remains closed undefined undefined
Behavior in case of power failure	– Valve closed – Valve open – Middle position	valve remains closed valve closes valve closes
Valve position indication		visual (mechanical)

**Electrical connections**

**Solenoid valve (2x)**

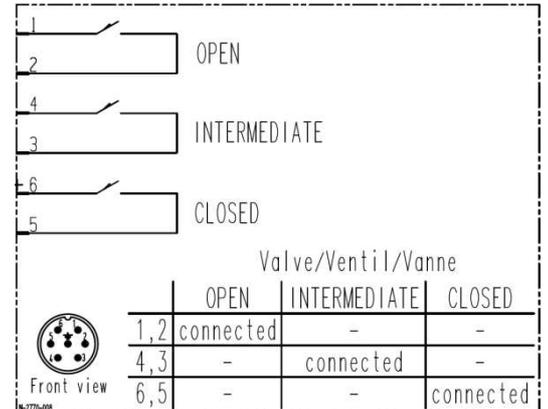
Type	5/2 way
Voltage	Defined by order
Power consumption	2.5 W



Wiring diagram

**Position indicator**

Type	Micro switch
Voltage	≤ 250 V AC    ≤ 50 V DC
Current max.	≤ 5 A            ≤ 3 A



Wiring diagram