



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

HV gate valve, Series 140, DN 400 (16")
Ordering No. 14052-PE48

Description

Flange	ISO-F 400
Actuator	Pneumatic, double acting, 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 ⁻¹ $< 1 \cdot 10^{-9}$ mbar ls ⁻¹
Pressure range		$1 \cdot 10^{-8}$ mbar to 1.2 bar (abs)
Differential pressure on the gate		≤ 1.2 bar
Differential pressure at opening		≤ 30 mbar
Conductance (molecular flow)	– Nominal – Min. adjustable	52'050 ls ⁻¹ 20 ls ⁻¹
Cycles until first service	– Unheated and under clean conditions	200'000 (valve in horizontal position) 50'000 (valve in vertical position)
Temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Pneumatic actuator – Solenoid valve – Position indicator	≤ 150 °C ≤ 50 °C ≤ 50 °C ≤ 80 °C
Heating and cooling rate		50 °C h ⁻¹
Material (main components)	– Valve body – Mechanism	AISI 304 (1.4301) AISI 304 (1.4301), AISI 301 (1.4310)
Seal	– Bonnet – Gate – Actuator	FKM (Viton®), O-ring FKM (Viton®), O-ring FKM (Viton®), NBR
Mounting position		any
Volume of pneumatic actuator		2.6 l / 0.093 ft ³
Compressed air min. – max. overpressure		4 – 7 bar / 58 – 102 psi
Compressed air connection		G $\frac{1}{8}$ " (½" NPT for USA)
Actuation time	– closing – opening	≤ 10 s ≤ 10 s
Weight		164 kg / 360 lbs

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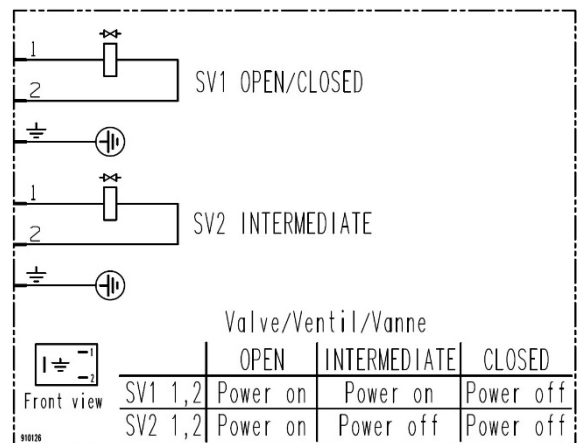
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Behavior in case of compressed air pressure drop	– Valve closed – Valve open – Middle position	valve remains closed undefined undefined
Behavior in case of power failure	– Valve closed – Valve open – Middle position	valve remains closed valve closes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

Electrical connections

Solenoid valve (2x)

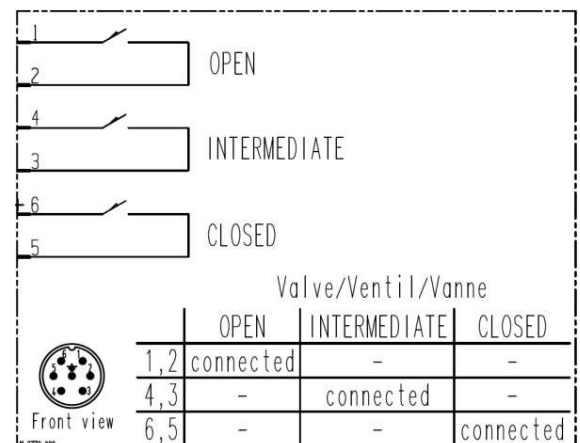
Type	5/2 way
Voltage	Defined by order
Power consumption	2.5 W



Wiring diagram

Position indicator

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



Wiring diagram