



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

All-metal gate valve, Series 472, DN 160 (ID 6")

Ordering No. 47244-CE44-0001

Description

Flange		DN 160 CF-F
Actuator		Pneumatic double acting, extended - with solenoid valve - with position indicator
Feed through		Bellows
RF - contact		Circular ID 150 mm
Option	0002	VAT - Standard

Technical data

Leak rate	- Valve body	$< 1 \cdot 10^{-10}$ mbar ls ⁻¹
	- Valve seat	$< 1 \cdot 10^{-10}$ mbar ls ⁻¹
Molecular flow conductance		3700 ls ⁻¹
Pressure range		XUHV to 2 bar (abs)
Test pressure		1 bar
Differential pressure on the gate		≤ 1 bar
Differential pressure at opening		≤ 500 mbar, 1 bar with reduced cycle life
Cycles until first service		10 000
Bake-out temperature (Maximum values: depending on operating conditions and sealing materials)	- Valve body	≤ 300 °C
	- Actuator	≤ 200 °C (for max. 100h)
	- Position indicator	≤ 80 °C
	- solenoid	≤ 80 °C
Heating and cooling rate		≤ 50 °C h ⁻¹
Material	- Valve body	1.4435, AISI 316 L
	- Flange	1.4435 ESU, AISI 316 L ESR
	- Gate	1.4435, AISI 316 L
	- Mechanism	1.4435, AISI 316 L
	- Bellows	1.4435, AISI 316 L
	- RF contact	1.4310, AISI 301 silver plated
Seal	- Bonnet	metal, silver plated
	- Gate	metal, silver plated
	- Actuator	Viton®
Mounting position		Any with beam tube horizontal
Radiation resistance	- Valve body	10 ⁸ Gy (10 ¹⁰ rad)
	- Actuator	10 ⁵ Gy (10 ⁷ rad)
	- Position indicators	10 ⁵ Gy (10 ⁷ rad)
	- solenoid	10 ⁴ Gy (10 ⁶ rad)

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Volume of pneumatic actuator		5.0 l / 0.18 ft ³
Compressed air min. – max. overpressure		4 - 8 bar / 58 - 116 psig
Compressed air connections		R 1/8" (USA: 1/8" NPT)
Actuation time (valid for RT, Ø6mm tubing at 4 bar with flow rate of 400 l/min)	– Closing	≤ 9.0 sec
	– Opening	≤ 9.0 sec
Weight		app. 59 kg / 130 lbs
Behavior in case of compressed air pressure drop	– Valve closed	Valve remains in closed position
	– Valve open	Valve remains in open position
Behavior in case of power failure	– Valve closed	Valve remains in closed position
	– Valve open	Valve closes

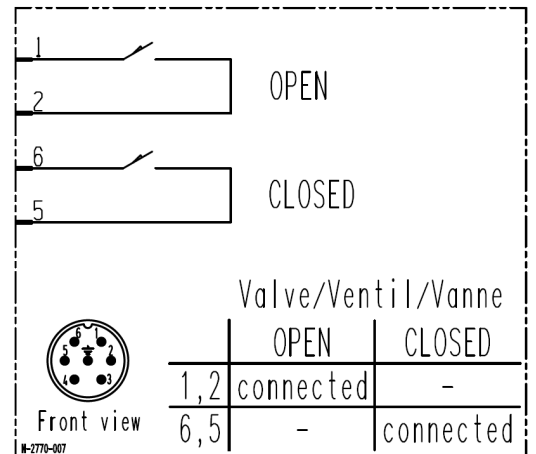
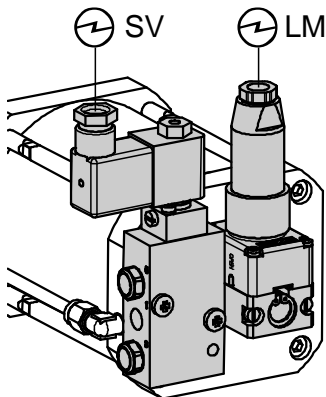
Related documents

Dimensional drawing No. 207013

Electrical connections

Position indicator - LM

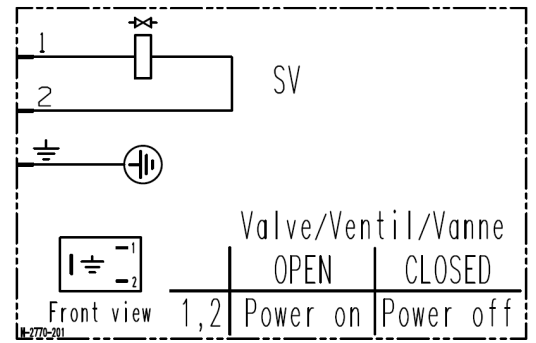
Type	micro switch
Voltage	≤ 50 V AC / DC
Current max.	≤ 1.2 A



Wiring diagram

Solenoid - SV

Voltage	according to PO
Power consumption	≤ 2.5 W



wiring diagram