



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

All-Metal RF Gate Valve, Series 47.2, DN 100 (ID 4")

Ordering No. 47240-CE44-0002

Description

Flange	DN 100 CF-F
Actuator	extended, pneumatic double acting, with position indicator, with solenoid
Feedthrough	bellows
RF - contact	circular ID 100 mm

Technical data

Leak rate	
- To the outside	$\leq 1 \cdot 10^{-10} \text{ mbar ls}^{-1}$
- Seat	$\leq 1 \cdot 10^{-10} \text{ mbar ls}^{-1}$
Molecular flow conductance	1400 ls^{-1}
Pressure range	UHV to 2 bar (abs)
Test pressure	1 bar
Differential pressure on the gate	
- in closing and opening direction	1 bar
Max. differential pressure at opening	
- in closing and opening direction	500 mbar, 1 bar with reduced lifetime
Cycles until first service	10'000
Bake-out temperature	
- Valve	$\leq 300^\circ\text{C}$
- Actuator	$\leq 200^\circ\text{C}$ (for app. 100h)
- Solenoid	$\leq 80^\circ\text{C}$
- Position indicators	$\leq 80^\circ\text{C}$
Heating and cooling rate	$\leq 50^\circ\text{C h}^{-1}$
Material	
- Body	1.4435, AISI 316 L
- Flange	1.4435 ESU
- Gate	1.4435, AISI 316 L
- Mechanism (in contact with media)	1.4435, AISI 316 L
- Bellows	1.4435, AISI 316 L
- RF-contact	1.4310, AISI 301 silver plated
Seal	
- Bonnet	metal
- Gate	metal
- Actuator	Viton [®]
Radiation resistance	
- Valve	$10^8 \text{ Gy (} 10^{10} \text{ rad)}$
- Actuator	$10^5 \text{ Gy (} 10^7 \text{ rad)}$
- Position indicator	$10^5 \text{ Gy (} 10^7 \text{ rad)}$
- Solenoid	$10^4 \text{ Gy (} 10^6 \text{ rad)}$

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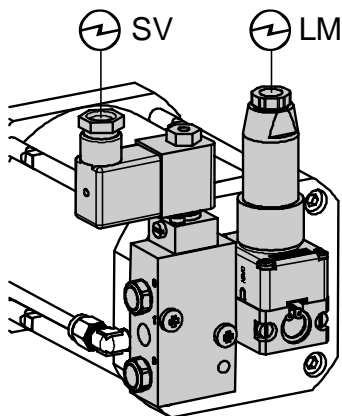
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Mounting position	any with beam tube horizontal
Position indicator	
- Contact rating	≤ 50 VAC/DC; ≤ 1.2 A
Solenoid valve	
- voltage	according P.O.
- power consumption	2.5 W
Compressed air pressure min. - max.	4 - 8 bar / 55 - 110 psig
Volume of air cylinder	1.7 l / 0.060 ft ³
Compressed air connection	R 1/8"
Action at power failure	
- Valve closed	no change
- Valve open	valve closes
Action at compressed air failure	
- Valve closed	no change
- Valve open	no change
Closing time	4 s
Opening time	4 s
Weight	app. 36 kg / 80 lbs

Attachments

Dimensional drawing No. 346512A

Wiring diagram:



⊕ SV Electrical connection for solenoid

⊕ LM Electrical connection for position indicator

