



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**RF all-metal gate valve**  
**Series 472, DN 100 (ID 4")**  
**Ordering No. 47240-CE74-0002**

### Description

Flange		DN 100 CF-F
Actuator		Pneumatic double acting, extended - with solenoid valve - with position indicator
Feed through		Bellows
RF - contact		Circular ID 100 mm
Option	0002	VAT - Standard

### Technical data

Leak rate	- Valve body	$< 1 \cdot 10^{-10}$ mbar ls <sup>-1</sup>
	- Valve seat	$< 1 \cdot 10^{-10}$ mbar ls <sup>-1</sup>
Molecular flow conductance		1 400 ls <sup>-1</sup>
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	≤ 200 °C
	- Actuator	≤ 200 °C (for max. 100h)
	- Position indicator	≤ 80 °C
	- solenoid	≤ 80 °C
Heating and cooling rate		≤ 50 °C h <sup>-1</sup>
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 <sup>8</sup> Gy (10 <sup>10</sup> rad)
	- Actuator	10 <sup>5</sup> Gy (10 <sup>7</sup> rad)
	- Position indicators	10 <sup>5</sup> Gy (10 <sup>7</sup> rad)
	- solenoid	10 <sup>4</sup> Gy (10 <sup>6</sup> rad)

Created by: Martin Greuter	Release date: 02.06.2015	1/2
Modified by:	Release date:	<b>799476EA</b>



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**RF all-metal gate valve**  
**Series 472, DN 100 (ID 4")**  
**Ordering No. 47240-CE74-0002**

Volume of pneumatic actuator		1.7 l / 0.06 ft <sup>3</sup>
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	≤ 4.0 sec
	– Opening	≤ 4.0 sec
Weight		app. 36 kg / 80 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

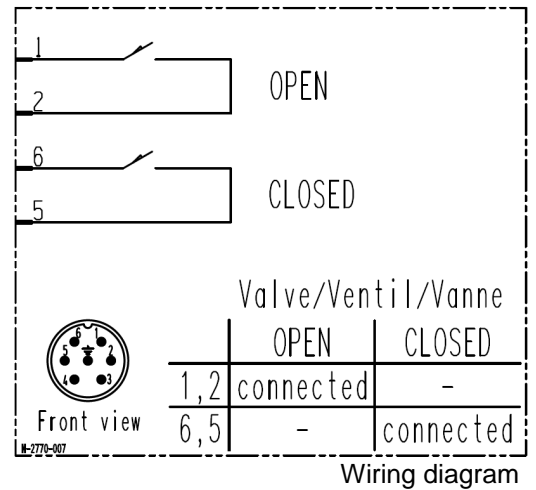
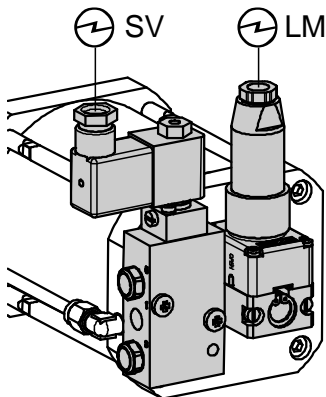
### Related documents

Dimensional drawing No. 384163B

### Electrical connections

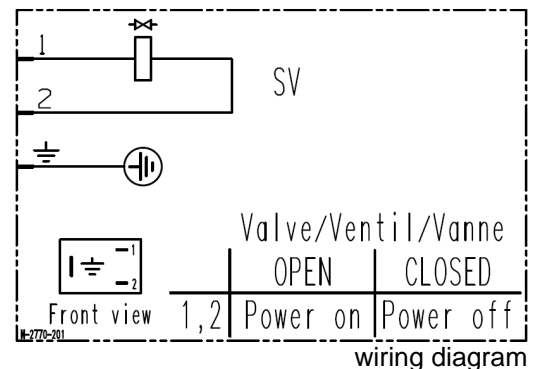
#### Position indicator - LM

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



#### Solenoid - SV

Voltage	according to PO
Power consumption	≤ 2.5 W



Created by: Martin Greuter	Release date: 02.06.2015	2/2
Modified by:	Release date:	<b>799476EA</b>