



VAT Vakuumventile AG  
CH-9469 Haag, Schweiz

## Product data sheet

**All-metal gate valve**  
**Series 482, DN 63 (ID 2½")**  
**Ordering No. 48236-RE24-APV1**

### Description

Flange		ITER style DN 63
Actuator		Pneumatic double acting - without solenoid valve - with position indicator
Feed through		Bellows
Option	APV =	Product: valve type ITER 1; Flange A+B: type ITER; Body: double wall body; Actuator: radiation resistant 10 <sup>6</sup> Gy; Position indicator: double; 200 °C; Glenair 6 pin connector; 125 °C; radiation resistant 10 <sup>6</sup> Gy; Bonnet flange: vacuum feedthrough double bellows; kind of seal double; VATSEAL; intermediate pumping between two bellows, double wall body and double bonnet seal; VCR ¼"

### Technical data

Leak rate (Test method acc. VAT Standard N-2100; He/air mix, ΔP = 1 bar)	- Valve body	< 1 · 10 <sup>-9</sup> mbar ls <sup>-1</sup>
	- Valve seat	< 1 · 10 <sup>-9</sup> mbar ls <sup>-1</sup>
Pressure range		XUHV to 2 bar (abs)
Test pressure		1 bar
Differential pressure on the gate		≤ 2 bar
Differential pressure at opening		≤ 1 bar
Conductance (molecular flow)		110 ls <sup>-1</sup>
Cycles until first service (Maximum values: depending on operating conditions and valve contamination)	- Normal conditions <sup>1</sup>	20 000
	- Extreme conditions <sup>2</sup>	1 000
Bake-out temperature (Maximum values: depending on operating conditions and sealing materials)	- Valve body	≤ 240 °C
	- Actuator	≤ 140 °C (for max. 100h)
	- Position indicator	≤ 200 °C
Heating and cooling rate		≤ 10 °C h <sup>-1</sup>
Material	- Valve body	AISI 316 L
	- Flange	AISI 316 L ESR
	- Weld neck	AISI 316 L
	- Gate	AISI 316 L
	- Mechanism	AISI 316 L
	- Bellows	AISI 316 L
	- Actuator	AISI 304; aluminium
Seal	- Bonnet	metal, silver plated
	- Gate	metal, silver plated
	- Actuator	EPDM

<sup>1</sup> Normal conditions: External pressure 0.1 MPa, pressure inside valve 0 MPa, bellows interspace pressure 0.05 MPa temperatures ambient.

<sup>2</sup> Extreme conditions: External pressure 0.2 MPa, pressure inside valve 0 MPa, bellows interspace pressure 0 MPa, temperature 100 °C

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Mounting position		any
Radiation resistance	– Valve body	10 <sup>8</sup> Gy (10 <sup>10</sup> rad)
	– Actuator	10 <sup>6</sup> Gy (10 <sup>8</sup> rad)
	– Position indicators	10 <sup>6</sup> Gy (10 <sup>8</sup> rad)
Maximum magnetic field levels		≤ 150 mT
Volume of pneumatic actuator		0.5 l / 0.018 ft <sup>3</sup>
Compressed air min. – max. overpressure		4 - 8 bar / 58 - 116 psig
Compressed air connections		½" ISO/NPT
Actuation time (valid for RT, Ø6mm tubing at 4 bar with flow rate of 400 l/min)	– Closing	≤ 2.0 sec
	– Opening	≤ 2.0 sec
Weight	– Valve complete	29 kg / 64 lbs
	– Actuator	2.4 kg / 5.1 lbs
Behavior in case of compressed air pressure drop	– Valve closed	Valve remains in closed position
	– Valve open	Undefined
Behavior in case of power failure		Depending on control

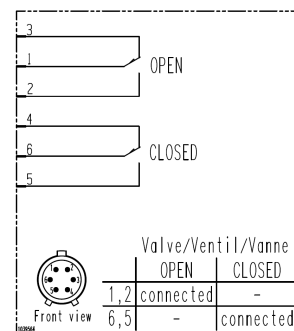
### Related documents

Dimensional drawing No.	748818	Rev C
STEP file No.	748817	Rev C

### Electrical connections

#### Position indicator (2x)

Type	micro switch
Voltage	≤ 50 V AC / DC
Current max.	≤ 1.0 A
Connector on the valve:	8070-2530-02Z16-6PA
Mating connector:*	8070-3039-01Z16-6KA (pins compatible with AWG 20 wire)



Wiring diagram

### References

The product data is based on either VAT internally/externally performed lab tests or supplier product information. Relevant references listed on document 838738.

\*The mating connector is not part of the valve and needs to be ordered separately at Glenair.

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