



VAT Vakuumventile AG
CH-9469 Haag, Schweiz

Product data sheet

All-metal gate valve
Series 481, DN 40 (ID 1½")
Ordering No. 48132-RE24-ARL1

Description

Flange		Weld neck N.D. 40 schedule 40S
Actuator		Pneumatic double acting - without solenoid valve - with position indicator
Feed through		Bellows
Option	ARL =	Product: valve type ITER 2; Flange A+B: weld stub flange schedule 40S; Actuator: radiation resistant 10 ⁶ Gy; Position indicator: double; 200 °C; Glenair 6 pin connector; 125 °C; radiation resistant 10 ⁶ Gy

Technical data

Leak rate (Test method acc. VAT Standard N-2100; He/air mix, ΔP = 1 bar)	– Valve body – Valve seat	< 1 · 10 ⁻⁹ mbar ls ⁻¹ < 1 · 10 ⁻⁹ mbar ls ⁻¹
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)		30 ls ⁻¹
Cycles until first service (Maximum values: depending on operating conditions and valve contamination)	– Normal conditions ¹ – Extreme conditions ²	20 000 1 000
Bake-out temperature (Maximum values: depending on operating conditions and sealing materials)	– Valve body – Actuator – Position indicator	≤ 240 °C ≤ 140 °C (for max. 100h) ≤ 200 °C
Heating and cooling rate		≤ 10 °C h ⁻¹
Material	– Valve body – Flange – Weld neck – Gate – Mechanism – Bellows – Actuator	AISI 316 L AISI 316 L ESR AISI 316 L AISI 316 L AISI 316 L AISI 316 L AISI 304; aluminium
Seal	– Bonnet – Gate – Actuator	metal, silver plated metal, silver plated EPDM
Mounting position		any
Radiation resistance	– Valve body – Actuator – Position indicators	10 ⁸ Gy (10 ¹⁰ rad) 10 ⁶ Gy (10 ⁸ rad) 10 ⁶ Gy (10 ⁸ rad)

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

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

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Maximum magnetic field levels		≤ 150 mT
Volume of pneumatic actuator		0.27 l / 0.010 ft ³
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	≤ 1.5 sec
	– Opening	≤ 1.5 sec
Weight	– Valve complete	7.9 kg / 17.4 lbs
	– Actuator	1.8 kg / 4 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

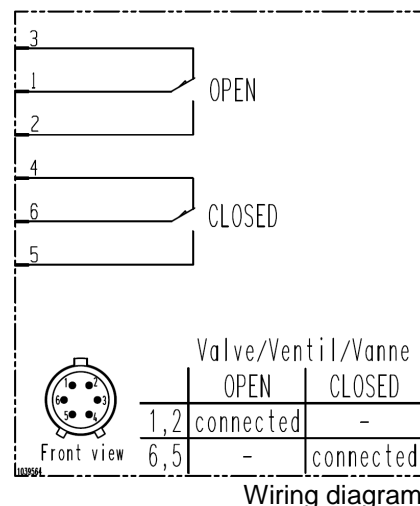
Related documents

Dimensional drawing No. 749790 Rev D
STEP file No. 749789 Rev B

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)



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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