

TRANSFER DOOR L-VAT, SERIES 07.5

For load lock and process chamber isolation on the atmospheric side of semiconductor production systems.



Low cost of ownership

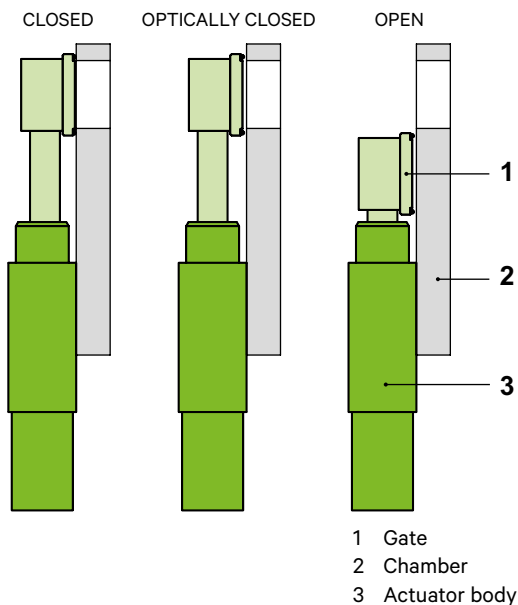
Easy installation

Protected pressure bar possible

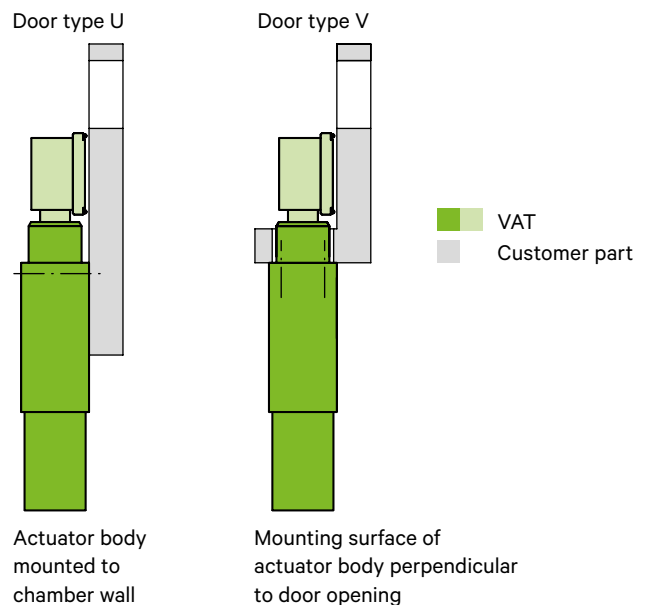
MAIN FEATURES

Opening sizes	46 × 236 mm to 50 × 336 mm (1.81" × 9.29" to 1.97" × 13.23")
Actuator	pneumatic: double acting with position indicator
Body material	aluminum
Sealing technology	L-VAT: see glossary

FUNCTIONAL PRINCIPLE



TYPES



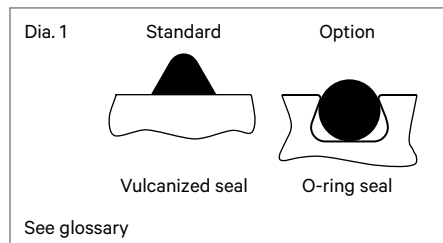
TECHNICAL DATA

Leak rate	Gate: blank or nickel-plated – with FKM seal – with FFKM seal – with VMQ seal Gate: hard anodized – with FKM or FFKM seal	<1·10 ⁻⁹ mbar ls ⁻¹ <1·10 ⁻⁷ mbar ls ⁻¹ <1·10 ⁻⁶ mbar ls ⁻¹ <1·10 ⁻⁵ mbar ls ⁻¹																			
Pressure range on vacuum side		1·10 ⁻⁹ mbar to 1.1 bar (abs)																			
Differential pressure on the gate	In closing direction In opening direction	1 bar ≤ 0.1 bar																			
Differential pressure at opening		≤ 0.1 bar																			
Cycles until first service		≥ 3 million																			
Temperature ¹⁾	<table border="1"> <thead> <tr> <th rowspan="2">Operating temperature of the door</th> <th colspan="3">Configurations</th> </tr> <tr> <th>Door</th> <th colspan="2">Actuator</th> </tr> <tr> <td></td> <th>Gate</th> <th>Position indicator</th> <th>Solenoid valve</th> </tr> </thead> <tbody> <tr> <td>≤ 50 °C</td> <td>aluminum</td> <td>standard</td> <td>with</td> </tr> <tr> <td>≤ 80 °C</td> <td>aluminum</td> <td>standard</td> <td>without</td> </tr> </tbody> </table>		Operating temperature of the door	Configurations			Door	Actuator			Gate	Position indicator	Solenoid valve	≤ 50 °C	aluminum	standard	with	≤ 80 °C	aluminum	standard	without
Operating temperature of the door	Configurations																				
	Door	Actuator																			
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≤ 50 °C	aluminum	standard	with																		
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Material	Aluminum gate Stainless steel gate	EN AW-5083 (3.3547), EN AW-6061 (3.3211), EN AW-6082 (3.2315) AISI 316L (1.4404, 1.4435)																			
Seal	Gate	FKM (Viton®)																			
Mounting position		actuator up or down																			
Impulse solenoid valve		24 V DC, 2.5 W (others on request)																			
Position indicator: contact rating	Voltage Current Power Connection	≤ 50 V AC / DC ≤ 0.5 A max. 10 W 9 pin subminiature D																			
Compressed air connection	With solenoid valve Without solenoid valve CDA flow rate	quick connector O.D. 4 mm, tube length ≥ 1 m R ¹ / ₈ " internal thread, tube length ≥ 1 m min. 600 SLPM																			

DN (D1 × D) D1 opening height D opening length		Compressed air min. – max. overpressure		Volume of pneumatic actuator		Closing or opening time	Weight			
							Aluminum valve		Stainless steel valve	
mm	inch	bar	psi	l	ft ³	s	kg	lbs	kg	lbs
46 × 236	1.81 × 9.29	4 – 7	58 – 102	0.25	0.007	< 1	5	11	6	13.20
50 × 336	1.97 × 13.23	4 – 7	58 – 102	0.25	0.007	< 1	5.20	4.30	6.4	14.10

¹⁾ Maximum values: depending on operating conditions and sealing materials

OPTIONS, CUSTOMIZED SOLUTIONS



ACTUATOR

- Actuator cover kit to cover the pistons and cylinders of the gate pressure bar

VALVE

- Other sealing materials, e. g. FFKM, VMQ, FVMQ gate seal
- O-ring seal in gate (Dia. 1) instead of the vulcanized seal (standard)
- Gate: hard anodized or nickel-plated

SPARE PARTS

We can offer a wide variety of spare parts. Please contact us for details and an offer.

Thank you for specifying the fabrication number of the valve indicated on the identification tag when asking for spare parts.

ORDERING INFORMATION FOR STANDARD VALVES

Door type U
with pneumatic actuator
double acting
with position indicator

	DN (D1 × D)		Ordering numbers (*specify control voltage)			
	mm	inch	aluminum		stainless steel	
			without solenoid valve	with impulse solenoid valve	without solenoid valve	with impulse solenoid valve
SEMI E21-94	46 × 236	1.81 × 9.29	07510-UA24	07510-UA44 *	07510-UE24	07510-UE44 *
SEMI E21.1-1296	50 × 336	1.97 × 13.23	07512-UA24	07512-UA44 *	07512-UE24	07512-UE44 *

Other sizes on request

Door type V
with pneumatic actuator
double acting
with position indicator

	DN (D1 × D)		Ordering numbers (*specify control voltage)			
	mm	inch	aluminum		stainless steel	
			without solenoid valve	with impulse solenoid valve	without solenoid valve	with impulse solenoid valve
SEMI E21-94	46 × 236	1.81 × 9.29	07510-VA24	07510-VA44 *	07510-VE24	07510-VE44 *
SEMI E21.1-1296	50 × 336	1.97 × 13.23	07512-VA24	07512-VA44 *	07512-VE24	07512-VE44 *

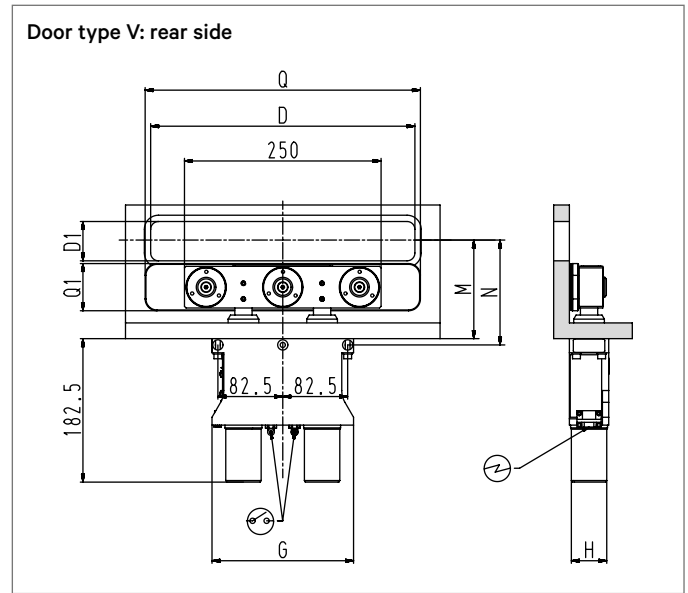
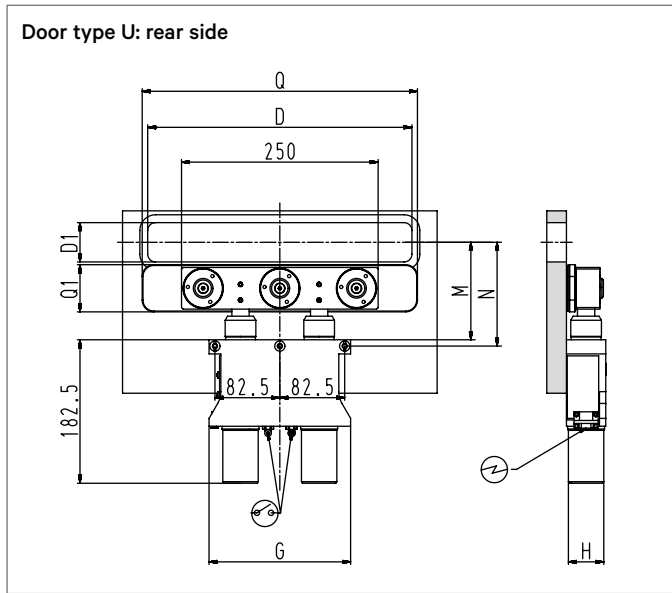
Other sizes on request

ORDERING INFORMATION FOR VALVES WITH OPTIONS

Basic ordering number plus «-X»: -X to be specified

Example: 07512-UA24-X, X = hard anodized gate

DIMENSIONS



⊖ Electrical connection ⊕ Position indicator ■ Customer part

D1 × D	mm	46 × 236	50 × 336	56 × 496
	inch	1.81 × 9.29	1.97 × 13.23	2.20 × 19.53
D	mm	236	336	496
	inch	9.29	13.23	19.53
D1	mm	46	50	56
	inch	1.81	1.97	2.20
G	mm	180	180	180
	inch	7.09	7.09	7.09
H	mm	50	50	50
	inch	1.97	1.97	1.97
M	mm	124	124	124
	inch	4.88	4.88	4.88
N	mm	132	132	132
	inch	5.20	5.20	5.20
Q	mm	60	60	64
	inch	2.36	2.36	2.52
Q1	mm	250.30	350	510
	inch	9.85	13.78	20.08