

Transfer Valve

TRANSFER VALVE I-MOTION, SERIES V78

For load lock and process chamber isolation in SEMI production system.
Suitable for corrosive process such as Etch or CVD.



APPLICATIONS

- Semiconductor processing
- Pneumatically locked (option)
- Plasma Etch, CVD, sputter deposition
- Manufacturing of solar panels
- LCD/flat panel process

MAIN FEATURES

- Semi standard application (Semi E21- 94, Semi E24- 92, Semi- E21.1-1296)
- Low vibration
- Long lifetime
- Pneumatically locked (option)
- Welded bellows actuator seal
- Bonnet flange bolts are designed with retainers to eliminate bolts from falling out upon disassembly

OPTIONS

- Hard anodize
- Stainless steel solution
- Custom opening size available
- Various O-ring (Kalrez[®], Chemraz[®] etc.)

Valve A = B with pneumatic actuator

with position indicator
double action

| DN mm | Ordering Number | |
|-----------------------|-------------------------|------------------------|
| | blank aluminum | hard anodized aluminum |
| 46 x 236 | V78-P-423-2-1-BAGBCAB-A | on request |
| 50 x 336 | V78-P-533-2-1-BAGDZAC-A | on request |
| Other size on request | | |

With solenoid valve is an option

Valve A < B with pneumatic actuator

with position indicator
double action

| DN mm | Ordering Number | |
|-----------------------|-------------------------|-------------------------|
| | blank aluminum | hard anodized aluminum |
| 46 x 236 | V78-P-423-2-1-CAGBCAB-A | V78-P-423-2-1-CAFBZBC-A |
| 50 x 336 | V78-P-533-2-1-CAGDZAC-A | V78-P-533-2-1-CAGBZBC-A |
| Other size on request | | |

With solenoid valve is an option

| | | |
|--|--|---|
| Actuator | | Pneumatic |
| Leak rates | Valve body, seat | $< 1 \times 10^{-9}$ mbar l/s |
| Pressure range | | 1×10^{-9} mbar to 1.2 bar |
| Differential pressure on the gate in opening direction | | ≤ 1.2 bar |
| Differential pressure on the gate in closing direction | | ≤ 1.2 bar |
| Differential pressure at the opening | | ≤ 30 mbar |
| Life cycle until first service | Mechanism O-ring | $\geq 2,000,000$ |
| Temperature | Valve body Valve gate Actuator | $\leq 120^{\circ}\text{C}$ $\leq 120^{\circ}\text{C}$ $\leq 60^{\circ}\text{C}$ |
| Material | Valve body Valve gate Bonnet Shaft Mechanism Bellow Bellow end piece | EN AW-6061 (3.3211) EN AW-6061 (3.3211) EN AW-6061 (3.3211) AISI 316L (1.4435) EN AW-6061 (3.3211) AISI 633 (AM350) AISI 316L (1.4435) |
| Surface treatment | Valve body Valve gate Bonnet Shaft Actuator | White hard anodization White hard anodization White hard anodization Bare White hard anodization |
| Seal | Bonnet, gate | FKM (Viton [®]) |
| Feed through | | Bellows |
| Solenoid valve | | 24V DC or on request |
| Position indicator | Type Voltage Current Connector | Micro switch 24V DC 5-100 mA D-Sub 9 pin male |
| Air pressure | | 4.5 - 6 bar |
| Mounting position | | Actuator up or down |
| Air failure | | NA |
| Compress air connection | | Quick connector OD 6mm |
| Options | | <ul style="list-style-type: none"> ·FFKM sealing material is available ·Hard anodized aluminum surface ·Sealing surface or groove for O-ring seal ·Metal body seal (stainless steel version) ·Screw holes outside or inside of the sealing lin |