

# Cheminert® valves

FOR INJECTION, SWITCHING, AND STREAM SELECTION

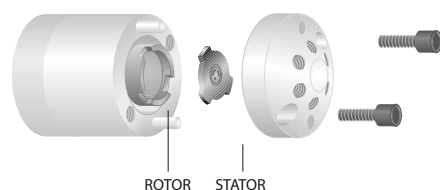
- Pressure ratings from 100 psi to 20,000 psi liq
- Inert, biocompatible construction
- Easy field service
- Automated operation – pneumatic or electric
- 4, 6, 8, and 10 port and internal sample two position models
- Stream selection versions with up to 26 positions

## Design

The basic Cheminert design involves a flat rotor which is engraved with slots which connect the ports. A stator is held at a constant, preset force against the rotor.

When repairs are required, all that is necessary for rotor access is the removal of two or three screws. Remove the old rotor and replace it, put the screws back in and tighten them, and the valve is ready for use at the factory-set pressure specification. No adjustments are possible, much less required. Other advantages of the design include easy panel mounting, low actuating torque, and compact size.

The flat plate design offers flow paths for basic flow switching, sample injection, and stream selection up to 10 positions (28 positions in some models).



## Materials of Construction

**UHPLC** models have stators of specially coated stainless steel, with PAEK rotors.

**HPLC** models have stators of Nitronic 60 stainless steel, PAEK, Hastelloy C, or titanium, all of which are compatible with common HPLC solvents. Many are available with a proprietary long-life coating. Valcon H rotors are used with metal stators, and Valcon E with PAEK.

**Low pressure** models have PPS stators and rotors of Valcon E2, a proprietary reinforced PTFE composite.

Metal valves are supplied with stainless nuts, with ferrules of the same material as the stator. Fittings for polymeric valves vary with the valve design. The valve price lists contain more detailed information.

Sample injection loops are available in a variety of materials, and are found on the pages with their corresponding valves.

## TECH TIP

For optimal zero dead volume connections, make sure your tubing meets the best industry standards. OD tolerance should be nominal dimension  $\pm .002$ ".

Fractional dimension	Nominal dimension
1/32"	.031
1/16"	.062
1/8"	.125
1/4"	.250
3/8"	.375
1/2"	.500

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Nanovolume®

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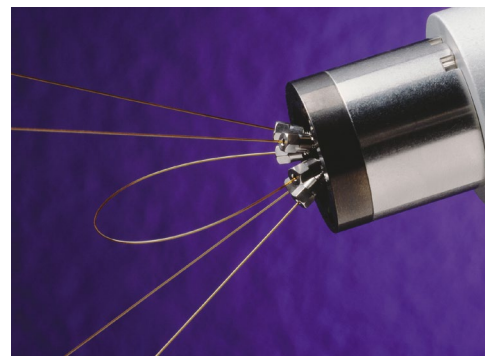
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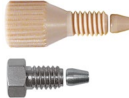
## Nanovolume®

Cheminert Nanovolume® injectors, switching valves, and selectors are ideal for high speed, high throughput techniques which demand a valve and fitting system that minimize internal volume and eliminate dead volume.



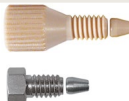
A proprietary rotor material and stator coating achieve pressures to 20,000 psi, suitable for the most demanding analytical techniques. All models are compatible with any VICI actuation option.



### Nanovolume® Injectors and switching valves

Application	Fittings		Bore size	Model	Pressure rating	More info
<b>UHPLC</b> 20,000 psi 15,000 psi 10,000 psi	360 micron		100 or 150 µm	C72MU	20,000 psi	p. 154
				C72MX	15,000 psi	p. 154
				C72MH	10,000 psi	vici.com
	1/32" stainless		100 or 150 µm	C72NU	20,000 psi	vici.com
				C72NX	15,000 psi	p. 155
				C72NH	10,000 psi	vici.com
	1/16" stainless		150 µm	C72X	15,000 psi	vici.com
				C72H	10,000 psi	vici.com
<b>HPLC</b> 5,000 psi	1/32" PEEK or stainless		100 or 150 µm	C2N	5,000 psi	p. 158

### Nanovolume® Internal sample injectors

Application	Fittings		Bore size	Sample sizes available	Model	Pressure rating	More info
<b>UHPLC</b> 20,000 psi 15,000 psi 10,000 psi	1/32" stainless		100 µm	4, 10, or 20 nl	C74NU	20,000 psi	vici.com
					C74NX	15,000 psi	vici.com
					C74NH	10,000 psi	vici.com
			150 µm	10, 20, or 30 nl	C74NU	20,000 psi	vici.com
					C74NX	15,000 psi	p. 155
					C74NH	10,000 psi	vici.com
	1/16" stainless		150 µm	10, 20, or 50 nl	C74U	20,000 psi	vici.com
					C74X	15,000 psi	vici.com
					C74H	10,000 psi	vici.com
<b>HPLC</b> 5,000 psi	1/32" PEEK or stainless		100 or 150 µm	4, 10, or 20 nl	C4N	5,000 psi	p. 159



#### NANOVOLUME® VALVES AT VICI.COM

For more information on all valve options listed here, go to:

[www.vici.com/cval/cval\\_nano.php](http://www.vici.com/cval/cval_nano.php)



### Nanovolume® Selectors

Application	Fittings		Bore size	Model	Pressure rating	More info
<b>UHPLC</b> 20,000 psi 15,000 psi 10,000 psi	1/32" stainless		100 or 150 µm	C75NU	20,000 psi	vici.com
				C75NX	15,000 psi	p. 172
				C75NH	10,000 psi	vici.com
	1/16" stainless		150 µm	C75U	20,000 psi	vici.com
				C75X	15,000 psi	vici.com
				C75H	10,000 psi	vici.com

## CHEMINERT VALVES

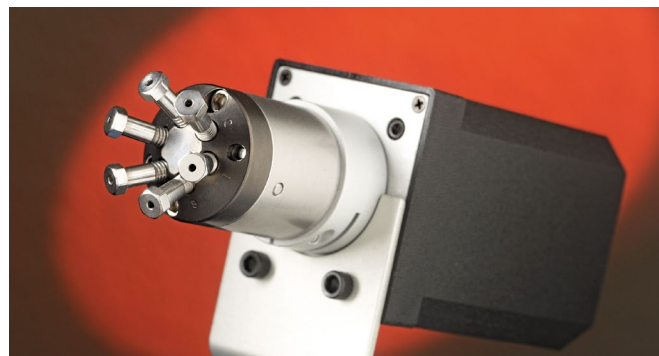
## UHPLC

Cheminert UHPLC injectors, switching valves, and selectors are ideal for high speed, high throughput techniques which demand a valve and fitting system that minimize internal volume and eliminate dead volume.



VICI offers UHPLC versions for nanobore and microbore applications.

## Nanovolume® UHPLC valves



See previous page for information about Nanovolume® UHPLC injectors, switching valves, and selectors.





## Microbore UHPLC injectors and switching valves

Application	Fittings		Bore size	Model	Pressure rating	More info
<b>UHPLC</b> <b>20,000 psi</b> <b>15,000 psi</b> <b>10,000 psi</b>	1/32" stainless		250 µm	C72NU	20,000 psi	vici.com
				C72NX	15,000 psi	vici.com
				C72NH	10,000 psi	vici.com
	1/16" stainless		250 µm	C72U	20,000 psi	vici.com
				C72X	15,000 psi	p. 156
				C72H	10,000 psi	p. 156

## Microbore UHPLC internal sample injectors

Application	Fittings		Bore size	Sample sizes available	Model	Pressure rating	More info
<b>UHPLC</b> <b>20,000 psi</b> <b>15,000 psi</b> <b>10,000 psi</b>	1/32" stainless		250 µm	20, 50, or 100 nl	C74NU	20,000 psi	vici.com
					C74NX	15,000 psi	vici.com
					C74NH	10,000 psi	vici.com
	1/16" stainless		250 µm	20, 50, or 100 nl	C74U	20,000 psi	vici.com
					C74X	15,000 psi	p. 157
					C74H	10,000 psi	p. 157

## Microbore UHPLC selectors

Application	Fittings		Bore size	Model	Pressure rating	More info
<b>UHPLC</b> <b>20,000 psi</b> <b>15,000 psi</b> <b>10,000 psi</b>	1/32" stainless		250 µm	C75NU	20,000 psi	vici.com
				C75NX	15,000 psi	p. 172
				C75NH	10,000 psi	vici.com
	1/16" stainless		250 µm	C75U	20,000 psi	vici.com
				C75X	15,000 psi	vici.com
				C75H	10,000 psi	p. 173

UHPLC VALVES  
AT VICI.COM

For more information on all valve options listed here, go to:

[www.vici.com/cval/cval\\_uhplc.php](http://www.vici.com/cval/cval_uhplc.php)



## MORE INFORMATION

Nanovolume® injectors  
and selectors . . . . . 147

## HPLC injectors

### Nanobore

Nanovolume® HPLC injectors and internal sample injectors include 1/32" PEEK nuts and ferrules. See page 147 for an overview of these valves.

### Microbore

**Model C2** valves can be used as injectors or switching valves.

**Model C4** is an internal volume sample injector with sample sizes ranging from 10 nl to 50 nl.

**Model C6** continuous flow injector is designed to maintain pump flow during most of the switching cycle, virtually eliminating pressure spikes.

**Model C1CFI** is a 6 port through-the-handle continuous flow injector. An engraving on the stator maintains pump flow between ports 2 and 3 during most of the switching cycle, virtually eliminating pressure spikes. Because the handle is integral to the design, all Model C1CF valves are manual, with position feedback standard.

### Analytical

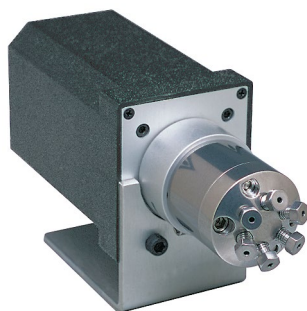
**Models C2, C6, and C1CFI** are also available for analytical injection and switching, with port sizes of 0.40 mm (.016"). **Model C4** offers internal volume sample sizes ranging from 0.1 to 0.5 µl.

### Semi-Preparative HPLC

**Model C2** valves are available with flow passages optimized for semi-preparative HPLC. Choose from 4, 6, 8, or 10 port versions. Contact our sales or technical support departments for more information.

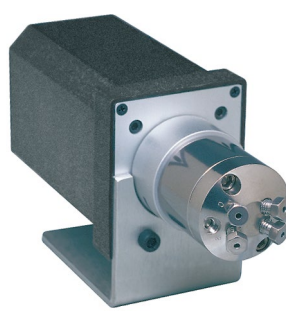
### Autosampler Replacements

We supply direct replacements for injectors in many popular autosamplers. Call technical support to determine which replacement is best for your application.



**Model C2**  
Microbore, page 160  
Analytical, page 163

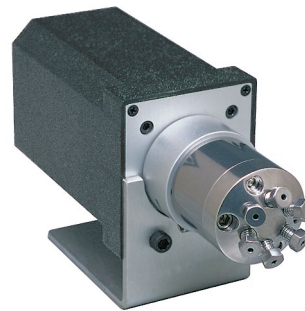
5,000 psi



**Model C4**  
Microbore, page 161  
Analytical, page 164

5,000 psi

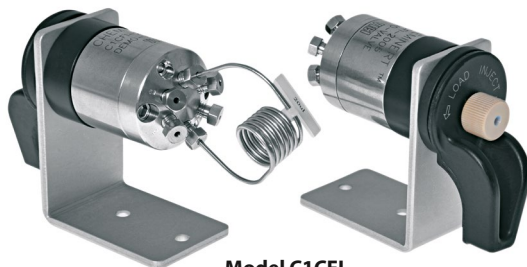
Internal sample



**Model C6**  
Microbore, page 162  
Analytical, page 165

5,000 psi

Continuous flow



**Model C1CFI**  
Microbore, page 162  
Analytical, page 165

5,000 psi

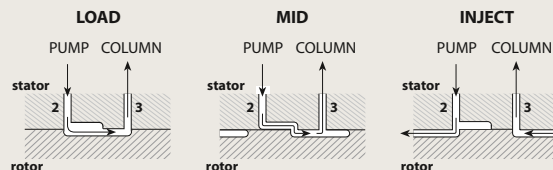
Through-handle

Continuous flow

### MORE INFORMATION

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### MODEL C1CFI FLOWPATH



For schematic diagrams of continuous flow Model C6, see pages 162 and 165.



## CHEMINERT VALVES

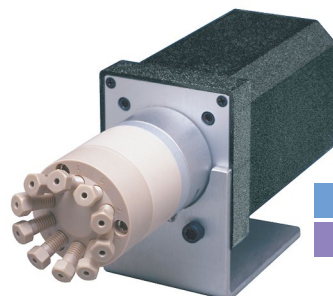
## Low pressure injectors

## With Valco Zero Dead Volume (ZDV) Fittings

C20Z Series valves with zero dead volume fittings (10-32 thread) are shipped with standard PEEK nuts and ferrules. Zero dead volume fingertight fittings and nuts and ferrules of other materials may be ordered separately. Standard specifications are 100 psi gas/250 psi liquid at 75°C. On request, the pressure rating can be as high as 600 psi liquid. **Caution:** Metal fittings will damage the threads and details of C20Z series valves. Use of metal fittings in a C20Z valve voids the warranty.

The **Model C22Z** is a conventional two position sample injector and switching valve, with 4, 6, 8, or 10 ports. Sample injection requires a loop, ordered separately.

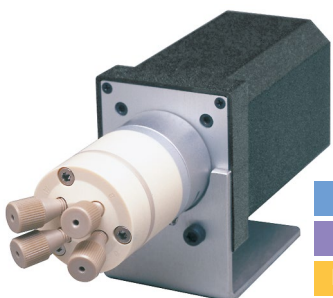
The **Model C24Z** is an internal sample injector, for applications in which the sample size is smaller than that of any available external loop. Sample sizes available are 0.2, 0.5, and 1 µl.



**Model C22Z**  
page 166

Low pressure

10-32 ZDV



**Model C24Z**  
page 168

Low pressure

10-32 ZDV

Internal sample

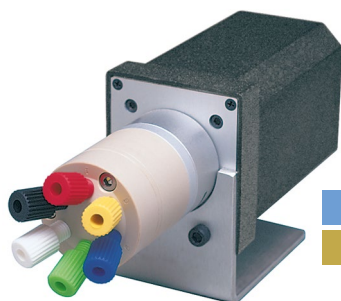
## With Cheminert 1/4-28 Fittings

C20 Series valve caps have female threads for direct connection of lines – no couplings are required. C20 Series valves are available in 4, 6, 8, and 10 port versions. Standard specifications are 100 psi gas/250 psi liquid at 75°C.

Multicolored Cheminert 1/4-28 flangeless fittings for 1/16" or 1/8" OD tubing (depending on the valve model) are included.

**Model C22** valves are used for sample injection or switching. (Functionally equivalent to Model C22Z) Sample injection requires a loop, ordered separately.

The **Model C24** is an internal sample injector like the C24Z, available with 0.5, 1.0, or 2.0 µl sample size.



**Model C22**  
page 167

Low pressure

1/4-28 Int.



**Model C24**  
page 169

Low pressure

1/4-28 Int.

Internal sample

**CAUTION**

Metal fittings will damage the threads and details of C20Z series valves (models C22Z, C24Z, C25Z). Use of metal fittings in a C20Z valve voids the warranty.

**TECH TIP**

Our life tests indicate that these valves will typically give more than 100,000 cycles before requiring any service. This assumes that the fluid used is free of particulates and not reactive toward the valve components. If the stream may contain particulates, or if it has high salt content which could precipitate within the sample lines, use an in-line filter.

*Note:* Valves with purge ports are available on request.

**MORE INFORMATION**

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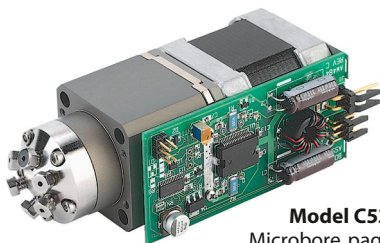
**Valve descriptions**

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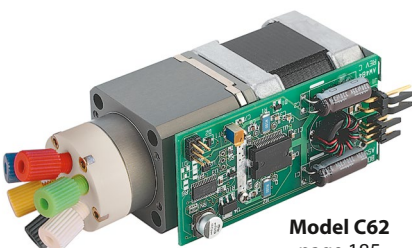
**Cheminert valve prices**

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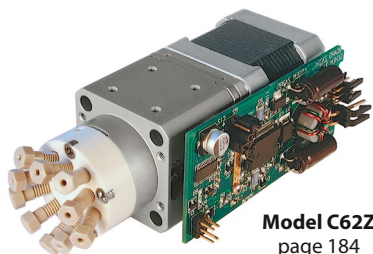
## For OEMs



**Model C52**  
Microbore, page 180  
Analytical, page 182  
**5,000 psi**



**Model C62**  
page 185  
**Low pressure**



**Model C62Z**  
page 184  
**Low pressure**

## Integrated Motor/Injector Assemblies

Cheminert's **Model C52** (HPLC) and **Model C62(Z)** (low pressure) injectors are integrated motor/valve assemblies designed specifically to be built into an OEM system. Using the well-proven Cheminert injector designs and the 24 volt motor from our popular microelectric actuators, the C52 and C62 need only to be connected to the instrument's power supply.

Control is simplified to require a single contact closure; the injector's position is determined by whether the closure is held high or low. There's even an easy way for the instrument to confirm the valve's position by sensing the output from a built-in sensor.

In the default control mode, one contact closure shifts the injector to inject and a second is required to shift it back to load. A simple jumper change shifts the mode to single contact closure, in which a contact closure moves the injector from load to inject, where it remains until the contact is broken and the injector reverts to the load position. Jumper settings can also be modified to change the motor's degree of rotation so it can be used with any of the valve models available.

All these features are built into a compact and light-weight package and are available in 4, 6, 8, and 10 port configurations. Serial communication via RS-232 is optional.

## Autosampler and Other OEM Injectors

**Model C3** is a unique injector with a syringe injection port centered on the rear face of the valve (opposite the handle or actuator), allowing convenient syringe insertion when the valve is mounted on an actuator inside an instrument.

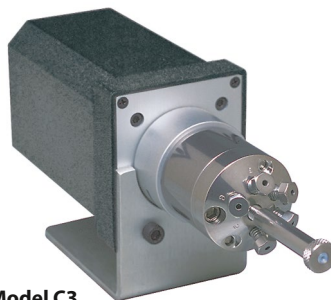
**Model C2V** is designed specifically for use in an autosampler. It is like the standard C2 except that the sample port is perpendicular to the valve axis. This permits the valve and actuator to be installed horizontally, while the syringe loads the injector vertically.

## UNIVERSAL ACTUATOR

The new universal actuator operates virtually any Valco or Cheminert rotary valve – two position and selector alike – greatly simplifying the electronic aspect of instrument design.....193

## OEM SELECTOR VALVES

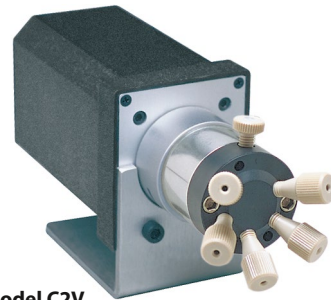
See pages 153 and 186-187 for selector (multiposition) valves for OEMs.



**Model C3**  
Microbore, page 181  
Analytical, page 183

**5,000 psi**

**Centered port**



**Model C2V**  
Microbore, page 181  
Analytical, page 183

**5,000 psi**

**Vertical port**

## CHEMINERT VALVES

## UHPLC and high pressure selectors

UHPLC **Model C75** selectors offer pressure ratings of 20,000 psi, 15,000 psi and 10,000 psi with 1/32" and 1/16" fittings for nanobore and microbore applications. See charts on pages 147 and 148 for all options.



**Model C75**  
See chart on page 147

20,000 psi

15,000 psi

10,000 psi



**Model C5**  
page 174

5,000 psi

HPLC **Model C5**, with Valco ZDV fitting details, is available with 4, 6, 8, or 10 positions. Stators are available in Nitronic 60 stainless, titanium, and Hastelloy C-22, with rotors of Valcon H, all of which are compatible with common HPLC solvents. PAEK stators are used in combination with Valcon E rotors.



**HPLC column selector system**  
page 175

5,000 psi

Column selector system

The C5 valve is the backbone of the Cheminert **HPLC column selector system**, which includes two stream selection valves mounted on a single microelectric actuator.

Columns are not included.

Consult the factory for information about a **UHPLC column selector system**.

## PORT DIAMETERS

Model	Fitting size	Standard port diameter
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## High Pressure

C5	1/16" ZDV	0.15 mm (.006") 0.25 mm (.010") 0.40 mm (.016") 0.75 mm (.030")
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## Low Pressure

C25Z	1/16" ZDV	0.75 mm (.030")
C25	1/4-28 for 1/16" tubing	0.75 mm (.030")
	1/4-28 for 1/8" tubing	1.50 mm (.060")
C25G	1/16" ZDV	0.67 mm (.026")
C45	1/2-20 for 1/4" tubing	4.6 mm (.180")

## OEM – High Pressure

C55	1/16" ZDV	0.25 mm (.010") 0.40 mm (.016") 0.75 mm (.030")
-----	-----------	---

## OEM – Low Pressure

C65Z	1/16" ZDV	0.75 mm (.030")
C65	1/4-28 for 1/16" tubing	0.75 mm (.030")
	1/4-28 for 1/8" tubing	1.50 mm (.060")

## SPECIFICATIONS

## CHEMINERT SELECTORS

Model	Stator material	Std rotor material	Max pressure	Max temp	Number of positions
<b>High Pressure</b>					
C5	Metal	Valcon H	5000 psi liq	75°C	4, 6, 8, 10
	PAEK	Valcon E	5000 psi liq	50°C	4, 6, 8, 10
<b>Low Pressure</b>					
C25Z	PPS	Valcon E2	100 psi gas/ 250 psi liq	75°C	4, 6, 8, 10, 12, 14
C25	PPS	Valcon E2	100 psi gas/ 250 psi liq	75°C	4, 6, 8, 10
C25G	PEEK	Valcon M	100 psi liq	50°C	20, 24, 28
C45	PPS	Valcon TF	100 psi liq	50°C	4, 6, 8
<b>OEM – High Pressure</b>					
C55	Metal	Valcon H	5000 psi liq	50°C	4, 6, 8, 10
	PAEK	Valcon E	5000 psi liq	50°C	4, 6, 8, 10
<b>OEM – Low Pressure</b>					
C65Z	PPS	Valcon E2	100 psi gas/ 250 psi liq	50°C	4, 6, 8, 10
C65	PPS	Valcon E2	100 psi gas/ 250 psi liq	50°C	4, 6, 8, 10

## UNIVERSAL ACTUATOR

The new universal actuator operates virtually any Valco or Cheminert rotary valve – two position and selector alike – greatly simplifying the electronic aspect of instrument design. ... 193

## CAUTION

Metal fittings will damage the threads and details of C25Z, C25G, and C65Z series valves.

Use of metal fittings in these valves voids the warranty.

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**Model C25Z**  
page 176

Low pressure

10-32 ZDV



**Model C25**  
page 177

Low pressure

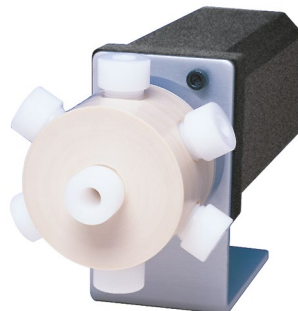
1/4-28 Internal



**Model C25G**  
page 178

Low pressure

6-40 flat bottom



**Model C45**  
page 179

Low pressure

1/2-20 Int.

## Low pressure selectors

### With Valco Zero Dead Volume Fittings

**Model C25Z** valves feature the popular 1/16" Valco ZDV details for 1/16" OD tubing. Available in 4, 6, 8, 10, 12, and 14 positions, with a variety of actuator options. Standard materials are PPS stator and Valcon E2 rotor, with other materials optional.

### With Cheminert 1/4-28 Fittings

The **Model C25** has female 1/4-28 threaded fitting details for direct connection of lines – no couplings are required. The C25 is available in 4, 6, 8, and 10 position models. Multicolored Cheminert 1/16" or 1/8" flangeless fittings are included. Rotors are made of Valcon E2 with stators of PPS.

### With 6-40 Fittings for 1/16" or 1/32" tubing

**Model C25G** valves feature 6-40 flat bottom details that can accommodate 1/16" (standard) or 1/32" (optional) tubing. The fitting is one piece PEEK with a stainless steel retainer. available with 20, 24, or 28 positions. Universal actuator is required.

### With Cheminert 1/2-20 Fittings

**Model C45** valves feature 1/2-20 threaded fitting details for use with 1/4" OD tubing. This is a tapered rotor valve with large bore for high flow applications. Rotors are made from Valcon E2, with valve body made from PPS. Available in 4 and 6 position configurations only.

## For OEMs

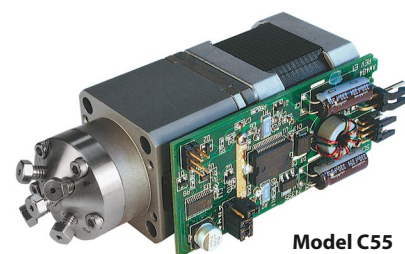
### Integrated Motor/Stream Selectors

Cheminert's new **Model C55** (HPLC) and **Model C65(Z)** (low pressure) stream selectors are integrated motor/valve assemblies designed specifically to be built into an OEM system. The compact, lightweight package is available in 4, 6, 8, and 10 position configurations.

Using the well-proven Cheminert stream selector design and the 24 volt motor from our microelectric actuators, the Models C55, C65, and C65Z need only to be connected to an instrument's power supply. A single momentary contact closure steps the valve to the next position; a separate contact closure moves the valve to position 1 (Home).

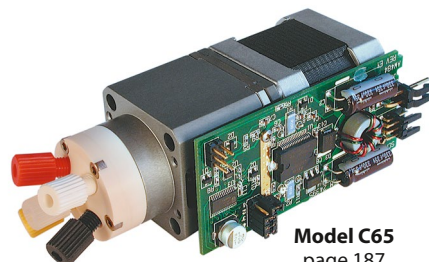
See how our stream selectors can simplify your instrument design and minimize time to market – all while trimming your costs.

Serial communication via RS-232 is optional.



**Model C55**  
page 186

5,000 psi



**Model C65**  
page 187

Low pressure

### OEM INJECTORS

See pages 151, 180-185  
for injectors for OEMs.



## CHEMINERT VALVES

**20,000 psi UHPLC Nanovolume® valves**  
**360 micron fittings, 100 micron bore (.004")**

Model C72MU

**20,000 psi****Nanobore****360 µm****100 µm**

Includes stainless 360 micron fittings.

Valves for use with fused silica tubing have gold-plated ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.


**4 Port**  
 Prod No

**6 Port**  
 Prod No
**Coated stainless stator for use with stainless tubing**

Manual	C72MU-4674	C72MU-4676
With air actuator	C72MU-4674A	C72MU-4676A
With microelectric actuator	C72MU-4674EH	C72MU-4676EH
Replacement valve	C72MU-4674D	C72MU-4676D
Replacement rotor	C72M-46R4	C72M-46R6
Replacement stator	C72M-4C74	C72M-4C76

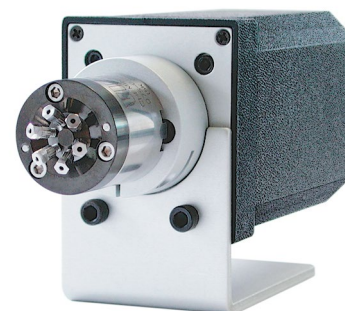
**For use with fused silica tubing**

Manual	C72MFSU-4674	C72MFSU-4676
With air actuator	C72MFSU-4674A	C72MFSU-4676A
With microelectric actuator	C72MFSU-4674EH	C72MFSU-4676EH
Replacement valve	C72MFSU-4674D	C72MFSU-4676D
Replacement rotor	C72M-46R4	C72M-46R6
Replacement stator	C72M-4C74	C72M-4C76

**SPECS**
**20,000 psi liq**  
**50°C max**

 Stainless w/ inert coating  
 stator  
 Valcon E3 rotor
**OPTIONS**

- 150 micron (.006") bore
- Internal sample injector (4 - 20 nl)
- 10,000 and 15,000 psi versions available


**Model C72MU**  
**360 micron fittings**  
 (Model C72MX is similar)

**15,000 psi UHPLC Nanovolume® valves**  
**360 micron fittings, 150 micron bore (.006")**

Model C72MX

**15,000 psi****Nanobore****360 µm****150 µm**

Includes stainless 360 micron fittings.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.


**6 Port**  
 Prod No

**10 Port**  
 Prod No
**Coated stainless stator**

Manual	C72MX-6676	C72MX-6670
With air actuator	C72MX-6676A	C72MX-6670A
With microelectric actuator	C72MX-6676EH	C72MX-6670EH
Replacement valve	C72MX-6676D	C72MX-6670D
Replacement rotor	C72M-66R6	C72M-66R0
Replacement stator	C72M-6C76	C72M-6C70

**SPECS**
**15,000 psi liq**  
**50°C max**

 Stainless w/ inert coating  
 stator  
 Valcon E3 rotor
**OPTIONS**

- 100 micron (.004") bore
- Internal sample injector (4 - 20 nl)
- 10,000 psi version available
- 4 and 8 port versions available

**MORE INFORMATION**
 360 micron Nanovolume®  
 fittings ..... page 58

## 15,000 psi UHPLC Nanovolume® valves 1/32" Valco stainless fittings, 150 micron bore (.006")

Model C72NX

**SPECS**

15,000 psi liq  
50°C max

Stainless w/ inert coating  
stator  
Valcon E3 rotor

**OPTIONS**

- 100 micron (.004") bore
- 250 micron (.010") bore
- 10,000 psi version available
- 4 and 8 port versions available

Includes stainless nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

\* The 6 port valve includes a 5 µl loop of the stator material.



**6 Port \***  
Prod No



**10 Port**  
Prod No

**Coated stainless stator**

Manual

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

C72NX-6676  
C72NX-6676A  
C72NX-6676EH

C72NX-6676D  
C72N-66R6  
C72N-6C76

C72NX-6670  
C72NX-6670A  
C72NX-6670ED

C72NX-6670D  
C72N-66R0  
C72N-6C70

15,000 psi

Nanobore

1/32"

150 µm



**Model C72NX**  
1/32" Valco stainless  
fittings

### Sample loops for C72NX valves

Each stainless loop includes two stainless 1/32" Valco fittings.

Volume	Stainless Prod No
1 µl	CSLN1K
2 µl	CSLN2K
5 µl	CSLN5K
10 µl	CSLN10K



**Model C74NX**  
1/32" Valco stainless  
fittings

## 15,000 psi UHPLC Nanovolume® internal sample injectors 1/32" Valco stainless fittings, 150 micron bore (.006")

Model C74NX

**SPECS**

15,000 psi liq  
50°C max

Stainless w/ inert coating  
stator  
Valcon E3 rotor

**OPTIONS**

- 100 micron (.004") bore
- 250 micron (.010") bore
- 10,000 and 20,000 psi versions available

Includes stainless nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



15,000 psi

Nanobore

Internal sample

1/32"

150 µm

**Coated stainless stator**

Manual

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

**10 nanoliters**  
Prod No

C74NX-6674-.01  
C74NX-6674-.01A  
C74NX-6674-.01EH

C74NX-6674-.01D  
C74N-66R-.01  
C74N-6C7

**20 nanoliters**  
Prod No

C74NX-6674-.02  
C74NX-6674-.02A  
C74NX-6674-.02EH

C74NX-6674-.02D  
C74N-66R-.02  
C74N-6C7

**30 nanoliters**  
Prod No

C74NX-6674-.03  
C74NX-6674-.03A  
C74NX-6674-.03EH

C74NX-6674-.03D  
C74N-66R-.03  
C74N-6C7

**MORE INFORMATION**

1/32" Valco  
fittings .....pages 10,12  
1/16" Nanovolume®  
injectors  
C72X ..... vici.com  
C74X ..... vici.com

## CHEMINERT VALVES

15,000 psi UHPLC microbore valves,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C72X

15,000 psi
Microbore
1/16" 0.25 mm

Includes stainless steel nuts and ferrules.  
Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.  
\* The 6 port valve includes a 5 µl stainless steel sample loop.



**4 Port**  
Prod No



**6 Port\***  
Prod No



**8 Port**  
Prod No



**10 Port**  
Prod No

Manual	C72X-1674	C72X-1676	C72X-1678	C72X-1670
With air actuator	C72X-1674A	C72X-1676A	C72X-1678A	C72X-1670A
With microelectric actuator	C72X-1674EH	C72X-1676EH	C72X-1678ED	C72X-1670ED
Replacement valve	C72X-1674D	C72X-1676D	C72X-1678D	C72X-1670D
Replacement rotor	C72-16R4	C72-16R6	C72-16R8	C72-16R0
Replacement stator	C72-1C74	C72-1C76	C72-1C78	C72-1C70

## SPECS

**15,000 psi liq**  
**50°C max**  
Stainless stator  
with inert coating  
Valcon E3 rotor

## OPTIONS

■ 0.15 mm ports (.006")

10,000 psi UHPLC microbore valves,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C72H

10,000 psi
Microbore
1/16" 0.25 mm

Includes stainless steel nuts and ferrules.  
Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.  
\* The 6 port valve includes a 5 µl stainless steel sample loop.



**4 Port**  
Prod No



**6 Port\***  
Prod No



**8 Port**  
Prod No



**10 Port**  
Prod No

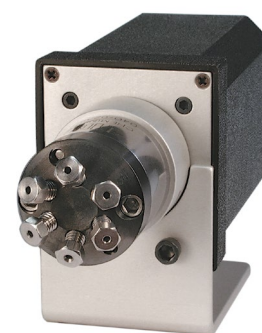
Manual	C72H-1674	C72H-1676	C72H-1678	C72H-1670
With air actuator	C72H-1674A	C72H-1676A	C72H-1678A	C72H-1670A
With microelectric actuator	C72H-1674EH	C72H-1676EH	C72H-1678ED	C72H-1670ED
Replacement valve	C72H-1674D	C72H-1676D	C72H-1678D	C72H-1670D
Replacement rotor	C72-16R4	C72-16R6	C72-16R8	C72-16R0
Replacement stator	C72-1C74	C72-1C76	C72-1C78	C72-1C70

## SPECS

**10,000 psi liq**  
**50°C max**  
Stainless stator  
with inert coating  
Valcon E3 rotor

## OPTIONS

■ 0.15 mm ports (.006")



**Model C72H**  
(C72X similar)  
1/16" ZDV fittings

## Stainless steel sample loops

for C72X and C72H valves

Each loop includes two stainless steel nuts and ferrules.

Metal loops > 2 ml are made from 1/8" OD tubing with brazed or welded 1/16" tube ends or reducing unions.

Volume	Prod No	Volume	Prod No	Volume	Prod No
2 µl	CSL2	50 µl	CSL50	1 ml	CSL1K
5 µl	CSL5	100 µl	CSL100	2 ml	CSL2K
10 µl	CSL10	250 µl	CSL250	5 ml	CSL5K
20 µl	CSL20	500 µl	CSL500	10 ml	CSL10K



## ABOUT LOOPS

■ Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.

**15,000 psi UHPLC microbore internal sample injectors,  
1/16" Valco fittings, 0.25 mm ports (.010")**

Model C74X

**SPECS**
**15,000 psi liq**  
**50°C max**

 Stainless stator  
 with inert coating  
 Valcon E3 rotor
**OPTIONS**

■ 0.15 mm ports (.006")

Includes stainless steel nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



15,000 psi

Microbore

Internal sample

1/16"

0.25 mm

**Sample volume****20 nanoliters**

Prod No

**50 nanoliters**

Prod No

**100 nanoliters**

Prod No

Manual

C74X-1674-.02

C74X-1674-.05

C74X-1674-.1

With air actuator

C74X-1674-.02A

C74X-1674-.05A

C74X-1674-.1A

With microelectric actuator

C74X-1674-.02EH

C74X-1674-.05EH

C74X-1674-.1EH

Replacement valve

C74X-1674-.02D

C74X-1674-.05D

C74X-1674-.1D

Replacement rotor

C74-16R-.02

C74-16R-.05

C74-16R-.1

Replacement stator

C74-1C7

C74-1C7

C74-1C7

**10,000 psi UHPLC microbore internal sample injectors,  
1/16" Valco fittings, 0.25 mm ports (.010")**

Model C74H

**SPECS**
**10,000 psi liq**  
**50°C max**

 Stainless stator  
 with inert coating  
 Valcon E3 rotor
**OPTIONS**

■ 0.15 mm ports (.006")

Includes stainless steel nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



10,000 psi

Microbore

Internal sample

1/16"

0.25 mm

**Sample volume****20 nanoliters**

Prod No

**50 nanoliters**

Prod No

**100 nanoliters**

Prod No

Manual

C74H-1674-.02

C74H-1674-.05

C74H-1674-.1

With air actuator

C74H-1674-.02A

C74H-1674-.05A

C74H-1674-.1A

With microelectric actuator

C74H-1674-.02EH

C74H-1674-.05EH

C74H-1674-.1EH

Replacement valve

C74H-1674-.02D

C74H-1674-.05D

C74H-1674-.1D

Replacement rotor

C74-16R-.02

C74-16R-.05

C74-16R-.1

Replacement stator

C74-1C7

C74-1C7

C74-1C7


**Model C74H**  
**(C74X similar)**  
**1/16" ZDV fittings**
**MORE INFORMATION****Actuators**

Air ..... page 197

Microelectric .....190

Universal .....193

**Materials**

Metals..... 254-255

Polymers .....256

Valve rotors.....257

**Standoff**

assemblies .....205



## CHEMINERT VALVES

5,000 psi Nanovolume® valves,  
1/32" fittings, 100 micron ports (.004")

Model C2N

5,000 psi

Nanobore

1/32"

100 µm

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PEEK stators have PEEK fittings.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

\* The 6 port valve includes a 250 nL PEEK loop.

**6 Port\***  
Prod No**10 Port**  
Prod No**N60 stainless stator**

Manual

C2N-4006

C2N-4000

With microelectric actuator

C2N-4006EH

C2N-4000EH

Replacement valve

C2N-4006D

C2N-4000D

Replacement rotor

C2N-40R6

C2N-40R0

Replacement stator

C2N-4C06

C2N-4C00

**PAEK stator**

Manual

C2N-4346

C2N-4340

With microelectric actuator

C2N-4346EH

C2N-4340EH

Replacement valve

C2N-4346D

C2N-4340D

Replacement rotor

C2N-43R6

C2N-43R0

Replacement stator

C2N-4C46

C2N-4C40

**SPECS****5000 psi liq****75°C max**

Metal stator

Valcon H rotor

**5000 psi liq****50°C max**

PAEK stator

Valcon E rotor

**OPTIONS**

- 150 micron (.006") and 250 micron (.010") bores

**Model C2N**  
1/32" ZDV fittings**Sample loops**

for C2N valves

Each stainless loop includes two stainless steel nuts and ferrules.

Each PEEK loop includes two PEEK nuts and ferrules.

	<b>Stainless steel</b>	<b>PEEK</b>
Volume	Prod No	Prod No
1 µl	CSLN1K	CSLN1KPK
2 µl	CSLN2K	CSLN2KPK
5 µl	CSLN5K	CSLN5KPK
10 µl	CSLN10K	CSLN10KPK

**ABOUT LOOPS**

- Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.

**5,000 psi Nanovolume® internal sample injector,  
1/32" fittings, 100 micron ports (.004")**

Model C4N

**SPECS**

5000 psi liq  
75°C max  
Metal stator  
Valcon H rotor

5000 psi liq  
50°C max  
PAEK stator  
Valcon E rotor

**OPTIONS**

■ 150 micron (.006") bore

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



5,000 psi

Nanobore

Internal sample

1/32"

100 µm

**Sample volume****4 nanoliters**

Prod No

**10 nanoliters**

Prod No

**20 nanoliters**

Prod No

**N60 stainless stator**

Manual  
With microelectric actuator

C4N-4004-.004  
C4N-4004-.004EH

C4N-4004-.01  
C4N-4004-.01EH

C4N-4004-.02  
C4N-4004-.02EH

Replacement valve  
Replacement rotor  
Replacement stator

C4N-4004-.004D  
C4N-40R-.004  
C4N-4C0

C4N-4004-.01D  
C4N-40R-.01  
C4N-4C0

C4N-4004-.02D  
C4N-40R-.02  
C4N-4C0

**PAEK stator**

Manual  
With microelectric actuator

C4N-4344-.004  
C4N-4344-.004EH

C4N-4344-.01  
C4N-4344-.01EH

C4N-4344-.02  
C4N-4344-.02EH

Replacement valve  
Replacement rotor  
Replacement stator

C4N-4344-.004D  
C4N-43R-.004  
C4N-4C4

C4N-4344-.01D  
C4N-43R-.01  
C4N-4C4

C4N-4344-.02D  
C4N-43R-.02  
C4N-4C4



**Model C4N**  
**1/32" ZDV fittings**

## CHEMINERT VALVES

Microbore valves,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C2

5,000 psi

Microbore

1/16" 0.25 mm

Includes nuts and ferrules.

Valves with metal stators have stainless steel nuts and ferrules of the stator material.

Valves with PEEK stators have PEEK nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

\* The 6 port valve includes a 5 µl loop of the stator material.

**4 Port**  
Prod No**6 Port\***  
Prod No**8 Port**  
Prod No**10 Port**  
Prod No**N60 stainless stator**

Manual	C2-1004	C2-1006	C2H-1008	C2H-1000
With air actuator	C2-1004A	C2-1006A	C2H-1008A	C2H-1000A
With microelectric actuator	C2-1004EH	C2-1006EH	C2H-1008EH	C2H-1000EH
Replacement valve	C2-1004D	C2-1006D	C2H-1008D	C2H-1000D
Replacement rotor	C2-10R4	C2-10R6	C2-10R8H	C2-10R0H
Replacement stator	C-1C04	C-1C06	C-1C08H	C-1C00H

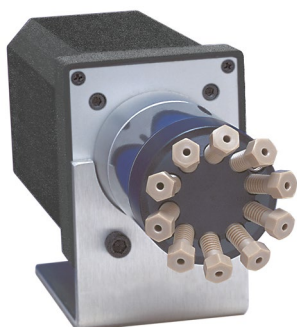
**PAEK stator**

Manual	C2-1344	C2-1346	C2H-1348	C2H-1340
With air actuator	C2-1344A	C2-1346A	C2H-1348A	C2H-1340A
With microelectric actuator	C2-1344EH	C2-1346EH	C2H-1348EH	C2H-1340EH

Replacement valve	C2-1344D	C2-1346D	C2H-1348D	C2H-1340D
Replacement rotor	C2-13R4	C2-13R6	C2-13R8H	C2-13R0H
Replacement stator	C-1C44	C-1C46	C-1C48H	C-1C40H

**Titanium stator**

Manual	C2-1034	C2-1036	C2H-1038	C2H-1030
With air actuator	C2-1034A	C2-1036A	C2H-1038A	C2H-1030A
With microelectric actuator	C2-1034EH	C2-1036EH	C2H-1038EH	C2H-1030EH
Replacement valve	C2-1034D	C2-1036D	C2H-1038D	C2H-1030D
Replacement rotor	C2-10R4	C2-10R6	C2-10R8H	C2-10R0H
Replacement stator	C-1C34	C-1C36	C-1C38H	C-1C30H

**Model C2**  
1/16" ZDV fittings**SPECS**

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PEEK stator  
 Valcon E rotor

**OPTIONS**

- Continuous flow version is available as Model C6. See page 162.
- Hastelloy C stators
- Loop fill port assembly for injection from front of the valve. See page 41.
- 0.15 mm (0.006") bore

**NOTE**

Cheminert high pressure valves with polymeric stators have a longer pilot depth.



Order loops from page 161.

**MORE INFORMATION****Actuators**

Air ..... page 197  
 Microelectric ..... 190  
 Universal ..... 193

**Materials**

Metals ..... 254-255  
 Polymers ..... 256  
 Valve rotors ..... 257

**Nuts**

Metal ..... 10  
 PEEK ..... 63

**Ferrules**

Metal ..... 12  
 PEEK ..... 63

**Standoff**

assemblies ..... 205

## Nanoliter sample injector, 1/16" Valco fittings, 0.15 mm ports (.006")

Model C4

### SPECS

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

### OPTIONS

- 100, 200, and 500 nl sample volumes are also available in 0.25 mm bore.  
See page 164.
- Loop fill port assembly for injection from front of the valve.  
See page 41.
- 0.25 mm (0.010") bore

### NOTE

Cheminert high pressure valves with polymeric stators have a longer pilot depth.

Includes nuts and ferrules.  
 Valves with stainless stators have stainless fittings.  
 Valves with PAEK stators have PEEK fittings.  
 Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



5,000 psi

Microbore

Internal sample

1/16"

0.15 mm

Sample volume	10 nanoliters <i>Prod No</i>	20 nanoliters <i>Prod No</i>	50 nanoliters <i>Prod No</i>
<b>N60 stainless stator</b>			
Manual	C4-0004-.01	C4-0004-.02	C4-0004-.05
With air actuator	C4-0004-.01A	C4-0004-.02A	C4-0004-.05A
With microelectric actuator	C4-0004-.01EH	C4-0004-.02EH	C4-0004-.05EH
Replacement valve	C4-0004-.01D	C4-0004-.02D	C4-0004-.05D
Replacement rotor	C4-00R-.01	C4-00R-.02	C4-00R-.05
Replacement stator	C4-0C0	C4-0C0	C4-0C0
<b>PAEK stator</b>			
Manual	C4-0344-.01	C4-0344-.02	C4-0344-.05
With air actuator	C4-0344-.01A	C4-0344-.02A	C4-0344-.05A
With microelectric actuator	C4-0344-.01EH	C4-0344-.02EH	C4-0344-.05EH
Replacement valve	C4-0344-.01D	C4-0344-.02D	C4-0344-.05D
Replacement rotor	C4-03R-.01	C4-03R-.02	C4-03R-.05
Replacement stator	C4-0C4	C4-0C4	C4-0C4



**Model C4**  
 1/16" ZDV fittings

### ABOUT LOOPS

- Other materials are available in many sizes: Electroformed Nickel, Hastelloy C, Nickel 200, and PTFE.  
See pages 254-255.
- Metal loops > 2 ml are made from 1/8" OD tubing with brazed or welded 1/16" tube ends or reducing unions.
- Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.

### Sample loops *for C1, C2, C2V, C3, and C6 valves*

Each metal loop includes two stainless steel nuts and ferrules.  
 Each PEEK loop includes two PEEK nuts and ferrules.

	<b>Stainless Steel</b>	<b>PEEK (for PAEK stators)</b>	<b>Titanium</b>
Volume	<i>Prod No</i>	<i>Prod No</i>	<i>Prod No</i>
2 µl	CSL2	CZSL2PK	—
5 µl	CSL5	CZSL5PK	—
10 µl	CSL10	CZSL10PK	CSL10TI
20 µl	CSL20	CZSL20PK	CSL20TI
50 µl	CSL50	CZSL50PK	CSL50TI
100 µl	CSL100	CZSL100PK	CSL100TI
250 µl	CSL250	CZSL250PK	CSL250TI
500 µl	CSL500	CZSL500PK	CSL500TI
1 ml	CSL1K	CZSL1KPK	CSL1KTI
2 ml	CSL2K	CZSL2KPK	—
5 ml	CSL5K	CZSL5KPK	—
10 ml	CSL10K	—	—





## CHEMINERT VALVES

Microbore continuous flow through-the-handle injector,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C1CFI

5,000 psi
Microbore
Continuous flow
Through-handle
1/16" 0.25 mm



Available only in manual version.  
Position feedback included.  
Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.  
Valves with PEEK stators have PEEK fittings.  
Includes one 5 µl loop of the stator material.

## N60 stainless stator

Prod No

C1CFI-1006

C1-10R6

C1CF-1C06

## PAEK stator

Prod No

C1CFI-1346

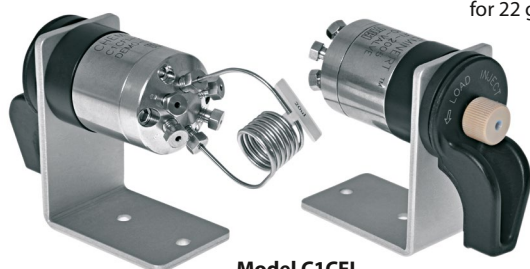
C1-13R6

C1CF-1C46

6 port injector  
Replacement rotor  
Replacement stator

Replacement injector fitting  
for 22 gauge x 2" long needle

C-261



Model C1CFI  
1/16" ZDV fittings

## SPECS

5000 psi liq

75°C max

Metal stator

Valcon H rotor

5000 psi liq

50°C max

PAEK stator

Valcon E rotor

## OPTIONS

■ 0.40 mm bore (.016")  
on page 165.

## MORE INFORMATION

Syringes..... page 250

## NOTE

Cheminert high pressure  
valves with polymeric  
stators have a longer pilot  
depth.

Microbore continuous flow injector,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C6

5,000 psi
Microbore
Continuous flow
1/16" 0.25 mm

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PEEK stators have PEEK fittings.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

Includes one 5 µl loop of the stator material.

## N60 stainless stator

Prod No

C6-1006

C6-1006A

## PAEK stator

Prod No

C6-1346

C6-1346A

Manual

With pneumatic actuator

With standard electric actuator

With microelectric actuator

C6-1006E

C6-1006EH

C6-1346E

C6-1346EH

Replacement valve

Replacement rotor

Replacement stator

C6-1006D

C2-10R6

C6-1C06

C6-1346D

C2-13R6

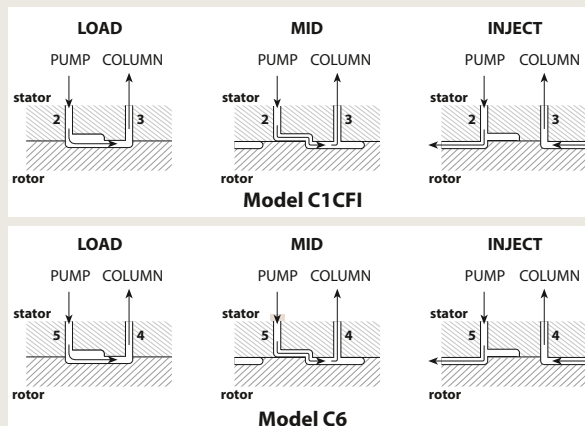
C6-1C46



Model C6  
1/16" ZDV fittings

## CONTINUOUS FLOWPATHS

An engraving on the stator  
maintains pump flow between  
the pump connection port and  
the column connection port  
during most of the switching  
cycle, virtually eliminating  
pressure spikes.



Order loops from page 161.

## Analytical valves, 1/16" Valco fittings, 0.40 mm ports (.016")

Model C2

### SPECS

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PEEK stator  
 Valcon E rotor

### OPTIONS

- Continuous flow version is available as Model C6.  
See page 162.
- Hastelloy C stators
- Semi-prep version with 0.75 mm ports (.030") available
- Loop fill port assembly for injection from front of the valve.  
See page 41.

### NOTE

Cheminert high pressure valves with polymeric stators have a longer pilot depth.



Order loops  
from page 161.

Includes nuts and ferrules.

Valves with metal stators have stainless steel nuts and ferrules of the stator material.

Valves with PEEK stators have PEEK nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

\* The 6 port valve includes a 20 µl loop of the stator material.

5,000 psi

Analytical

1/16" 0.40 mm



**4 Port**  
Prod No



**6 Port\***  
Prod No



**8 Port**  
Prod No



**10 Port**  
Prod No

### N60 stainless stator

Manual	C2-2004	C2-2006	C2H-2008	C2H-2000
With air actuator	C2-2004A	C2-2006A	C2H-2008A	C2H-2000A
With microelectric actuator	C2-2004EH	C2-2006EH	C2H-2008EH	C2H-2000EH

Replacement valve	C2-2004D	C2-2006D	C2H-2008D	C2H-2000D
Replacement rotor	C2-20R4	C2-20R6	C2-20R8H	C2-20R0H
Replacement stator	C-2C04	C-2C06	C-2C08H	C-2C00H

### PAEK stator

Manual	C2-2344	C2-2346	C2H-2348	C2H-2340
With air actuator	C2-2344A	C2-2346A	C2H-2348A	C2H-2340A
With microelectric actuator	C2-2344EH	C2-2346EH	C2H-2348EH	C2H-2340EH

Replacement valve	C2-2344D	C2-2346D	C2H-2348D	C2H-2340D
Replacement rotor	C2-23R4	C2-23R6	C2-23R8H	C2-23R0H
Replacement stator	C-2C44	C-2C46	C-2C48H	C-2C40H

### Titanium stator

Manual	C2-2034	C2-2036	C2H-2038	C2H-2030
With air actuator	C2-2034A	C2-2036A	C2H-2038A	C2H-2030A
With microelectric actuator	C2-2034EH	C2-2036EH	C2H-2038EH	C2H-2030EH

Replacement valve	C2-2034D	C2-2036D	C2H-2038D	C2H-2030D
Replacement rotor	C2-20R4	C2-20R6	C2-20R8H	C2-20R0H
Replacement stator	C-2C34	C-2C36	C-2C38H	C-2C30H



**Model C2**  
1/16" ZDV fittings

### OPTIONAL FLOWPATH

Model C2 6 port valves can also be ordered with a dual 3-way rotor, as described in EPA Method 555.

To specify this flowpath, substitute "6X" for "6" in the valve or rotor product number.



### AUTOSAMPLER REPLACEMENT VALVES

The Cheminert Model C2 6 port valve is an excellent replacement for the valve originally supplied in many autosamplers, including autosamplers manufactured by Beckman, Gilson, Spark-Holland, CTC, Thermo Fisher, and Varian.

Call technical support to determine which replacement is best for your application.

## CHEMINERT VALVES

Analytical internal sample injector,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C4

5,000 psi

Analytical

Internal sample

1/16" 0.25 mm



Includes nuts and ferrules.

Valves with metal stators have stainless steel nuts and ferrules of the stator material.

Valves with PEEK stators have PEEK nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

## Sample volume

0.1 µl

Prod No

0.2 µl

Prod Noe

0.5 µl

Prod No

## N60 stainless stator

Manual	C4-1004-.1	C4-1004-.2	C4-1004-.5
With air actuator	C4-1004-.1A	C4-1004-.2A	C4-1004-.5A
With microelectric actuator	C4-1004-.1EH	C4-1004-.2EH	C4-1004-.5EH
Replacement valve	C4-1004-.1D	C4-1004-.2D	C4-1004-.5D
Replacement rotor	C4-10R-.1	C4-10R-.2	C4-10R-.5
Replacement stator	C4-1C0	C4-1C0	C4-1C0

## PEEK stator

Manual	C4-1344-.1	C4-1344-.2	C4-1344-.5
With air actuator	C4-1344-.1A	C4-1344-.2A	C4-1344-.5A
With microelectric actuator	C4-1344-.1EH	C4-1344-.2EH	C4-1344-.5EH
Replacement valve	C4-1344-.1D	C4-1344-.2D	C4-1344-.5D
Replacement rotor	C4-13R-.1	C4-13R-.2	C4-13R-.5
Replacement stator	C4-1C4	C4-1C4	C4-1C4

## Titanium stator

Manual	C4-1034-.1	C4-1034-.2	C4-1034-.5
With air actuator	C4-1034-.1A	C4-1034-.2A	C4-1034-.5A
With microelectric actuator	C4-1034-.1EH	C4-1034-.2EH	C4-1034-.5EH
Replacement valve	C4-1034-.1D	C4-1034-.2D	C4-1034-.5D
Replacement rotor	C4-10R-.1	C4-10R-.2	C4-10R-.5
Replacement stator	C4-1C3	C4-1C3	C4-1C3

## SPECS

5000 psi liq

75°C max

Metal stator  
Valcon H rotor

5000 psi liq

50°C max

PEAK stator  
Valcon E rotor

## OPTIONS

- .05 µl sample volumes are also available.
- Loop fill port assembly for injection from front of the valve.  
See page 41.

Model C4  
1/16" ZDV fittings

## NOTE

Cheminert high pressure valves with polymeric stators have a longer pilot depth.

## MORE INFORMATION

## Actuators

Air ..... page 197  
Microelectric ..... 190  
Universal ..... 193

## Materials

Metals ..... 254-255  
Polymers ..... 256  
Valve rotors ..... 257

## Standoff

assemblies ..... 205

## Analytical continuous flow through-the-handle injector, 1/16" Valco fittings, 0.40 mm ports (.016")

Model C1CFI

### SPECS

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

### OPTIONS

■ 0.25 mm bore (.010")  
 on page 162.

Available only in manual version.  
 Position feedback included.  
 Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.  
 Valves with PAEK stators have PEEK fittings.  
 Includes one 20 µl loop of the stator material.

### N60 stainless stator

Prod No

6 port injector  
 Replacement rotor  
 Replacement stator

C1CFI-2006  
 C1-20R6  
 C1CF-2C06

### PAEK stator

Prod No

C1CFI-2346  
 C1-23R6  
 C1CF-2C46

Replacement injector fitting  
 for 22 gauge x 2" long needle

C-261



5,000 psi

Analytical

Continuous flow

Through-handle

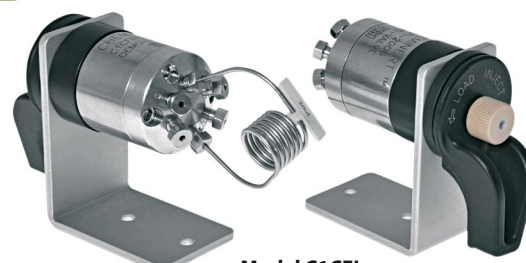
1/16" 0.40 mm

### MORE INFORMATION

Syringes. . . . . page 250

### NOTE

Cheminert high pressure valves with polymeric stators have a longer pilot depth.



Model C1CFI  
1/16" ZDV fittings

## Analytical continuous flow injector, 1/16" Valco fittings, 0.40 mm ports (.016")

Model C6

### SPECS

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.  
 Valves with PAEK stators have PEEK fittings.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.  
 Includes a 20 µl loop of the stator material.

### N60 stainless stator

Prod No

Manual  
 With pneumatic actuator  
 With microelectric actuator

C6-2006  
 C6-2006A  
 C6-2006EH

### PAEK stator

Prod No

C6-2346  
 C6-2346A  
 C6-2346EH

Replacement valve  
 Replacement rotor  
 Replacement stator

C6-2006D  
 C2-20R6  
 C6-2C06

C6-2346D  
 C2-23R6  
 C6-2C46

Order loops from page 161.

5,000 psi

Analytical

Continuous flow

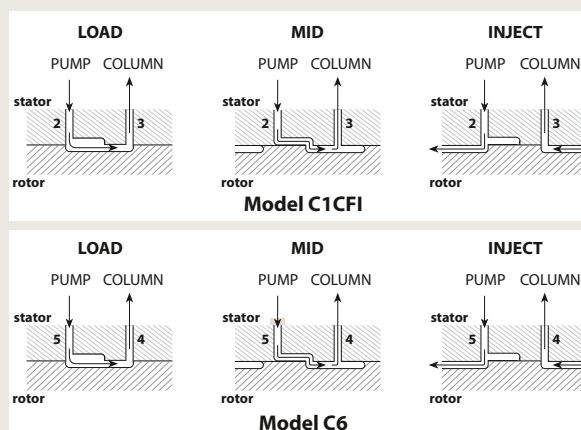
1/16"



Model C6  
1/16" ZDV fittings

### CONTINUOUS FLOWPATHS

An engraving on the stator maintains pump flow between the pump connection port and the column connection port during most of the switching cycle, virtually eliminating pressure spikes.





## CHEMINERT VALVES

## Valves with 1/16" Valco ZDV fittings, 0.75 mm ports (.030")

Model C22Z

Low pressure

10-32 ZDV

1/16"

0.75 mm

Includes Valco ZDV PEEK nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

Sample loops are not included with valves. Order separately.



**4 Port**  
Prod No



**6 Port**  
Prod No



**8 Port**  
Prod No



**10 Port**  
Prod No

Manual  
With air actuator  
With microelectric actuator

C22Z-3184  
C22Z-3184A  
C22Z-3184EH

C22Z-3186  
C22Z-3186A  
C22Z-3186EH

C22Z-3188  
C22Z-3188A  
C22Z-3188EH

C22Z-3180  
C22Z-3180A  
C22Z-3180EH

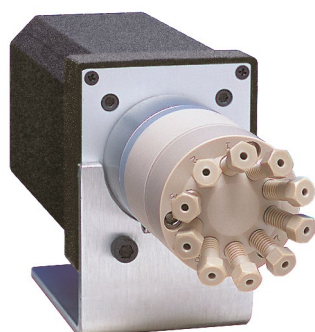
Replacement valve  
Replacement rotor  
Replacement stator

C22Z-3184D  
C12-314  
C22Z-384

C22Z-3186D  
C12-316  
C22Z-386

C22Z-3188D  
C12-318  
C22Z-388

C22Z-3180D  
C12-310  
C22Z-380



**Model C22Z**  
1/16" ZDV fittings

## SPECS

100 psi gas/ 250 psi liq

75°C max

PPS stator

Valcon E2 rotor

## OPTIONS

■ 12 and 14 port versions available.

■ Purge option

■ Other polymeric rotors and stators are available.

## PURGE OPTION

The purge option permits a flow of liquid or gas to flush the valve interior of potentially toxic or corrosive components. We recommend this option for applications using materials (such as salt solutions) that could damage the metal parts of the valve.

Consult our technical staff for details.

## Sample loops

for Model C22Z



Loops include PEEK nuts and ferrules. Loops smaller than 500 µl are made from 1/16" OD tubing; loops 500 µl or bigger are made from 1/8" OD tubing with polymeric unions and 1/16" ends.

	FEP	PTFE	PEEK
Volume	Prod No	Prod No	Prod No
5 µl	CZSL5FEP	CZSL5TF	CZSL5PK
10 µl	CZSL10FEP	CZSL10TF	CZSL10PK
20 µl	CZSL20FEP	CZSL20TF	CZSL20PK
50 µl	CZSL50FEP	CZSL50TF	CZSL50PK
100 µl	CZSL100FEP	CZSL100TF	CZSL100PK
250 µl	CZSL250FEP	CZSL250TF	CZSL250PK
500 µl	CZSL500FEP	CZSL500TF	CZSL500PK
1 ml	CZSL1KFEP	CZSL1KTF	CZSL1KPK
2 ml	CZSL2KFEP	CZSL2KTF	CZSL2KPK

## ABOUT LOOPS

■ Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.

## MORE INFORMATION

Actuators

Air ..... page 197

Microelectric ..... 190

Universal ..... 193

Materials

Metals..... 254-255

Polymers ..... 256

Valve rotors..... 257

Standoff

assemblies ..... 205

## Valves with 1/4-28 fitting details for 1/16" tubing, 0.75 mm ports (.030")

Model C22

## SPECS

100 psi gas/ 250 psi liq

75°C max

PPS stator

Valcon E2 rotor

Includes multicolored Cheminert 1/4-28 flangeless fittings for 1/16" tubing.  
Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.  
Sample loops are not included with valves. Order separately.

Low pressure

1/4-28 Internal

1/16"

0.75 mm



4 Port

Prod No



6 Port

Prod No



8 Port

Prod No



10 Port

Prod No

Manual	C22-3184	C22-3186	C22-3188	C22-3180
With air actuator	C22-3184A	C22-3186A	C22-3188A	C22-3180A
With microelectric actuator	C22-3184EH	C22-3186EH	C22-3188EH	C22-3180EH
Replacement valve	C22-3184D	C22-3186D	C22-3188D	C22-3180D
Replacement rotor	C22-314	C22-316	C22-318	C22-310
Replacement stator	C22-384	C22-386	C22-388	C22-380

## Valves with 1/4-28 fitting details for 1/8" tubing, 1.50 mm ports (.060")

Model C22

## SPECS

100 psi gas/ 250 psi liq

75°C max

PPS stator

Valcon E2 rotor

Includes multicolored Cheminert 1/4-28 flangeless fittings for 1/8" tubing.  
Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.  
Sample loops are not included with valves. Order separately.

Low pressure

1/4-28 Internal

1/8"

1.50 mm

4 Port

Prod No

6 Port

Prod No

8 Port

Prod No

10 Port

Prod No

Manual	C22-6184	C22-6186	C22-6188	C22-6180
With air actuator	C22-6184A	C22-6186A	C22-6188A	C22-6180A
With microelectric actuator	C22-6184EH	C22-6186EH	C22-6188EH	C22-6180EH
Replacement valve	C22-6184D	C22-6186D	C22-6188D	C22-6180D
Replacement rotor	C22-614	C22-616	C22-618	C22-610
Replacement stator	C22-684	C22-686	C22-688	C22-680

## Sample loops

for Model C22

Loops include flangeless fittings with white color nuts. Loops smaller than 500 µl are made from 1/16" OD tubing; loops 500 µl or bigger are made from 1/8" OD tubing.

Volume	FEP Prod No	PTFE Prod No	PEEK Prod No
20 µl	CFSL20FEP	CFSL20TF	CFSL20PK
50 µl	CFSL50FEP	CFSL50TF	CFSL50PK
100 µl	CFSL100FEP	CFSL100TF	CFSL100PK
250 µl	CFSL250FEP	CFSL250TF	CFSL250PK
500 µl	CFSL500FEP	CFSL500TF	CFSL500PK
1 ml	CFSL1KFEP	CFSL1KTF	CFSL1KPK
2 ml	CFSL2KFEP	CFSL2KTF	CFSL2KPK



Model C22  
1/4-28 fittings

## ABOUT LOOPS

- Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.

## Internal sample injectors, 1/16" Valco ZDV fittings, 0.40 mm ports (.016")

Model C24Z

Low pressure

Internal sample

10-32 ZDV

1/16" 0.40 mm

Includes Valco ZDV PEEK nuts and ferrules.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



## Sample volume

## 0.2 µl

Prod No

## 0.5 µl

Prod No

## 1 µl

Prod No

Manual

C24Z-2184-.2

C24Z-2184-.5

C24Z-2184-1

With air actuator

C24Z-2184-.2A

C24Z-2184-.5A

C24Z-2184-1A

With microelectric actuator

C24Z-2184-.2EH

C24Z-2184-.5EH

C24Z-2184-1EH

Replacement valve

C24Z-2184-.2D

C24Z-2184-.5D

C24Z-2184-1D

Replacement rotor

C24-10R-.2

C24-10R-.5

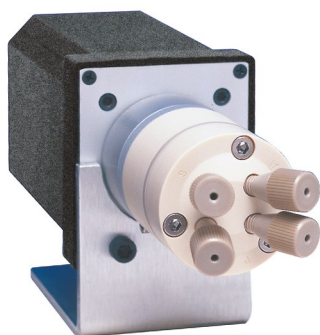
C24-10R-1

Replacement stator

C24Z-1C8

C24Z-1C8

C24Z-1C8



**Model C24Z**  
1/16" ZDV fittings

## SPECS

100 psi gas/ 250 psi liq

75°C max

PPS stator

Valcon E2 rotor

## OPTIONS

■ 2.0 µl sample volumes are also available.

■ Purge option.

■ Other polymeric rotors and stators are available.

## PURGE OPTION

The purge option permits a flow of liquid or gas to flush the valve interior of potentially toxic or corrosive components. We recommend this option for applications using materials (such as salt solutions) that could damage the metal parts of the valve.

Consult our technical staff for details.

## MORE INFORMATION

Actuators

Air ..... page 197

Microelectric ..... 190

Universal ..... 193

Materials

Metals..... 254-255

Polymers ..... 256

Valve rotors..... 257

Standoff

assemblies ..... 205

**Internal sample injectors, 1/4-28 for 1/16" tubing, 0.50 mm ports (.020")***Model C24***SPECS**

**100 psi gas/ 250 psi liq**  
**75°C max**  
 PPS stator  
 Valcon E2 rotor

**OPTIONS**

- 0.2 µl sample volumes are also available.
- Purge option
- Other polymeric rotors and stators are available. Consult the factory for prices and information.

Includes multicolored Cheminert 1/4-28 flangeless fittings for 1/16" tubing.  
 Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

**Low pressure****Internal sample****1/4-28 Internal****1/16"****0.50 mm****Sample volume****0.5 µl***Prod No***1 µl***Prod No***2 µl***Prod No*

Manual  
 With air actuator  
 With microelectric actuator  
  
 Replacement valve  
 Replacement rotor  
 Replacement stator

C24-2184-.5  
 C24-2184-.5A  
 C24-2184-.5EH  
  
 C24-2184-.5D  
 C24-10R-.5  
 C24-1C8

C24-2184-1  
 C24-2184-1A  
 C24-2184-1EH  
  
 C24-2184-1D  
 C24-10R-1  
 C24-1C8

C24-2184-2  
 C24-2184-2A  
 C24-2184-2EH  
  
 C24-2184-2D  
 C24-10R-2  
 C24-1C8



**Model C24**  
**1/4-28 fittings**



## CHEMINERT VALVES

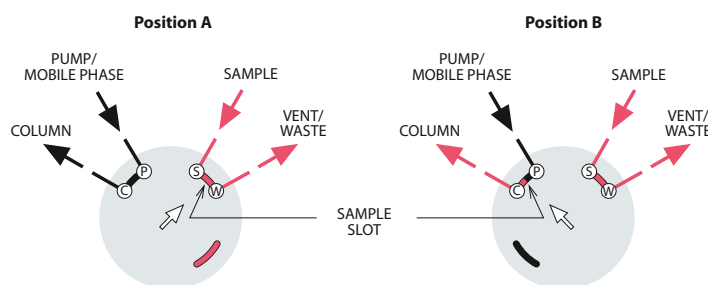
These illustrations show basic sample injection techniques using Cheminert two position valves. With rare exceptions, there is no difference between switching valves and external volume sampling valves, so the same valve can be used for either function.

The unique advantage of 8 and 10 port valves is that they reduce extra column volume by combining sampling and switching functions in a single valve. This minimizes expense, maintenance, service, and risk of leaks as compared to multiple 6 port valve systems.

## 4 port internal sample injector

## MICROVOLUME SAMPLE INJECTION

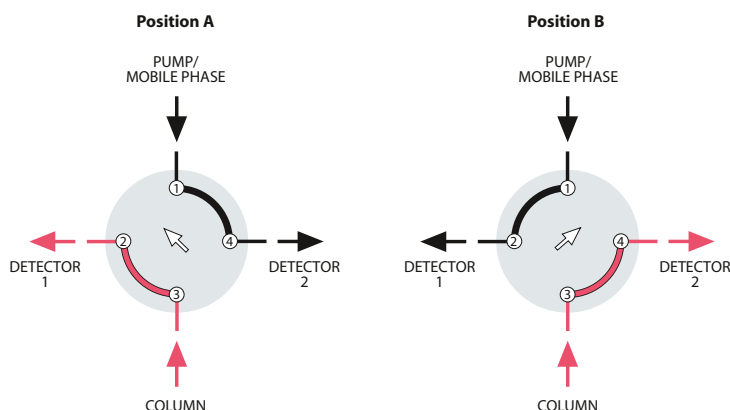
The internal sample (fixed volume) flowpath is used when very small sample volumes are required. The sample size is determined by a passage engraved on the valve rotor, allowing precise, repeatable injections. In Position A, the sample flows through the sample passage while the mobile phase flows through to the column. The third passage is inactive. In Position B, the sample passage is in line with the column and the mobile phase injects the contents of the sample passage into the column. The passage which was inactive in Position A allows the sample to continue flowing without interruption.



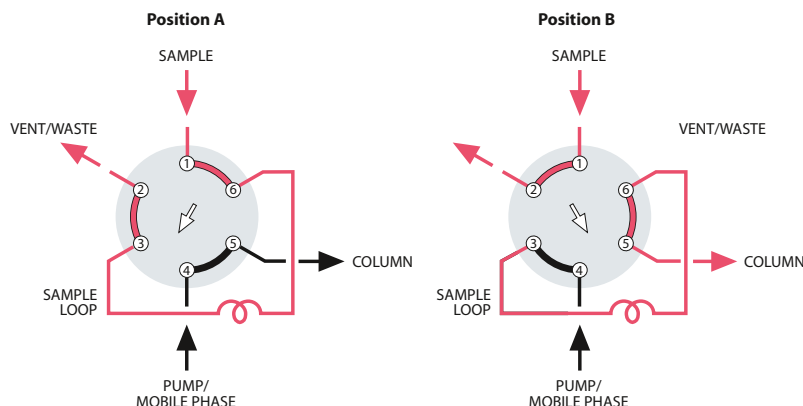
## 4 port switching valve

## DETECTOR SELECTION FROM TWO COLUMNS OR ONE COLUMN AND AUXILIARY CARRIER

This unique configuration allows analyses of different parts of one analysis with two different detectors, without splitting or multiple injections.



## 6 port external sample injector



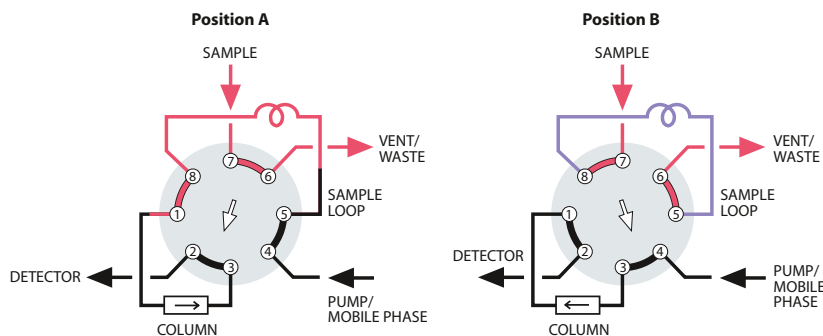
## SAMPLE INJECTION

With the valve in Position A, sample flows through the external loop while the mobile phase flows directly through to the column. When the valve is switched to Position B, the sample contained in the sample loop and valve flow passage is displaced by the mobile phase and is carried into the column.

*Note:* Especially for partial-filled loops, the flow direction of the mobile phase through the loop should be opposite (backflush) to the flow direction during the loading of the loop.

More applications .....pages 120-121

## 8 port sampling/switching

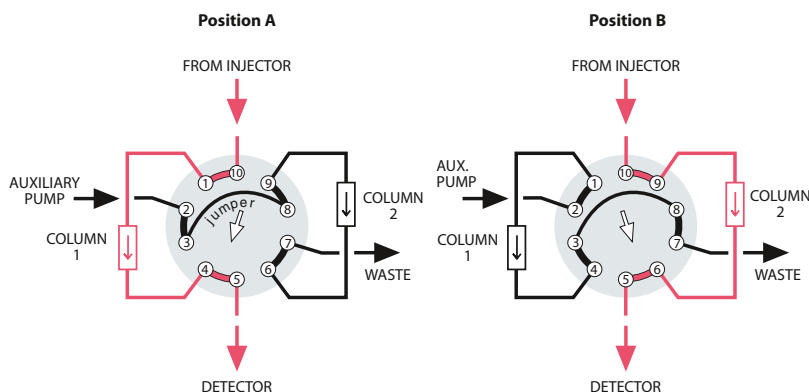


## LOOP SAMPLING WITH BACKFLUSH TO DETECTOR

One valve performs the functions of sampling and backflush valves, simplifying operation and reducing cost. When components of interest are detected, the strongly retained components are backflushed and removed from the column without temperature programming.

More applications ..... page 121

## 10 port sampling/switching



## ALTERNATE COLUMN REGENERATION

When columns must be regenerated following each analysis, this technique permits automation of the process. While one column performs the analysis, the second column undergoes regeneration through use of an auxiliary pump. Once the first analysis is complete, the valve is switched and the regenerated column is ready for analytical use.

More applications .....pages 122-123

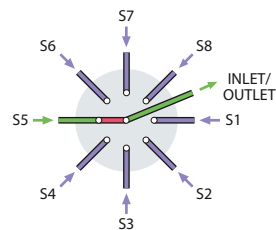
## CHEMINERT VALVES

**15,000 psi UHPLC Nanovolume® selectors,  
1/32" Valco fittings, 150 micron ports (.006")**

Model C75NX

**15,000 psi****Nanobore****Stream selector****1/32"****150 µm**

Includes Valco stainless steel fittings.  
Manual version not available.  
Microelectric actuator:  
24 VDC, with 110/230 VAC to 24 VDC power supply.

**SPECS**

**15,000 psi liq**  
**50°C max**

Stainless stator  
with inert coating  
Valcon E3 rotor

**OPTIONS**

- 100 micron (.004") bore
- 250 micron (.010") bore
- 10,000 and 20,000 psi versions available
- 4 positions

**6 Position**  
*Prod No*

**8 Position**  
*Prod No*

**10 Position**  
*Prod No*

**Coated stainless stator**

With air actuator

C75NX-6676A

C75NX-6678A

C75NX-6670A

With microelectric actuator

C75NX-6676EMH

C75NX-6678EMT

C75NX-6670EMT

Replacement valve

C75NX-6676D

C75NX-6678D

C75NX-6670D

Replacement rotor

C75N-66R6

C75N-66R8

C75N-66R0

Replacement stator

C75N-6C76

C75N-6C78

C75N-6C70



**Model C75NX**  
**1/32" Valco stainless**  
**fittings**

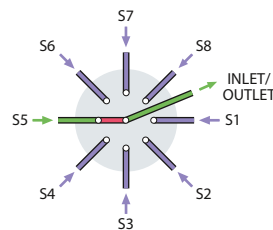
**10,000 psi UHPLC microbore selectors,  
1/16" Valco fittings, 0.25 mm ports (.010")**

Model C75H

**SPECS****10,000 psi liq****50°C max**Stainless stator  
with inert coating  
Valcon E3 rotor**OPTIONS**

- 150 micron (.006") bore
- 15,000 psi version available
- 4 positions

Includes Valco stainless steel fittings.  
Manual version not available.  
Microelectric actuator:  
24 VDC, with 110/230 VAC to 24 VDC power supply.

**10,000 psi****Microbore****Stream selector****1/16"****0.25 mm****Coated stainless stator**

With air actuator  
With microelectric actuator

Replacement valve  
Replacement rotor  
Replacement stator

**6 Position**  
*Prod No*

C75H-1676A  
C75H-1676EMH

**8 Position**  
*Prod No*

C75H-1678A  
C75H-1678EMT

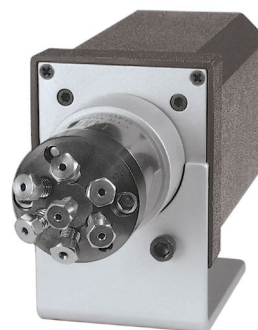
**10 Position**  
*Prod No*

C75H-1670A  
C75H-1670EMT

C75H-1676D  
C75-16R6  
C75-1C76

C75H-1678D  
C75-16R8  
C75-1C78

C75H-1670D  
C75-16R0  
C75-1C70



**Model C75H**  
**1/16" Valco stainless**  
**fittings**

**MORE INFORMATION****Actuators**

Air ..... page 196  
Microelectric .....192  
Universal .....193

**Materials**

Metals..... 254-255  
Polymers .....256  
Valve rotors.....257

**Standoff**

assemblies .....205

## CHEMINERT VALVES

## HPLC stream selector, 1/16" Valco ZDV fittings, 0.40 mm ports (.016")

Model C5

5,000 psi

Stream selector

10-32 ZDV

1/16" 0.40 mm

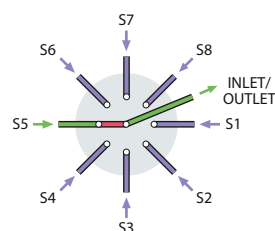
Includes nuts and ferrules.

Valves with metal stators have stainless steel nuts and ferrules of the stator material.

Valves with PEEK stators have PEEK nuts and ferrules.

Microelectric actuator:

24 VDC, with 110/230 VAC to 24 VDC power supply.



## SPECS

5000 psi liq

75°C max

Metal stator

Valcon H rotor

5000 psi liq

50°C max

PAEK stator

Valcon E rotor

## OPTIONS

- 2", 3", 4", and 6" standoffs
- Hastelloy C stator
- Optional 0.15 mm (.006") and 0.25 mm (.010") bores available
- Optional 0.75 mm (.030") bore for Prep HPLC available

## N60 stainless stator

	4 Position Prod No	6 Position Prod No	8 Position Prod No	10 Position Prod No
Manual	C5-2004	C5-2006	C5H-2008	C5H-2000
With air actuator	C5-2004A	C5-2006A	C5H-2008A	C5H-2000A
With microelectric actuator	C5-2004EMH	C5-2006EMH	C5H-2008EMT	C5H-2000EMT
Replacement valve	C5-2004D	C5-2006D	C5H-2008D	C5H-2000D
Replacement rotor	C5-20R4	C5-20R6	C5-20R8H	C5-20R0H
Replacement stator	C5-2C04	C5-2C06	C5-2C08H	C5-2C00H

## PAEK stator

	4 Position Prod No	6 Position Prod No	8 Position Prod No	10 Position Prod No
Manual	C5-2344	C5-2346	C5H-2348	C5H-2340
With air actuator	C5-2344A	C5-2346A	C5H-2348A	C5H-2340A
With microelectric actuator	C5-2344EMH	C5-2346EMH	C5H-2348EMT	C5H-2340EMT
Replacement valve	C5-2344D	C5-2346D	C5H-2348D	C5H-2340D
Replacement rotor	C5-23R4	C5-23R6	C5-23R8H	C5-23R0H
Replacement stator	C5-2C44	C5-2C46	C5-2C48H	C5-2C40H

## Titanium stator

	4 Position Prod No	6 Position Prod No	8 Position Prod No	10 Position Prod No
Manual	C5-2034	C5-2036	C5H-2038	C5H-2030
With air actuator	C5-2034A	C5-2036A	C5H-2038A	C5H-2030A
With microelectric actuator	C5-2034EMH	C5-2036EMH	C5H-2038EMT	C5H-2030EMT
Replacement valve	C5-2034D	C5-2036D	C5H-2038D	C5H-2030D
Replacement rotor	C5-20R4	C5-20R6	C5-20R8H	C5-20R0H
Replacement stator	C5-2C34	C5-2C36	C5-2C38H	C5-2C30H

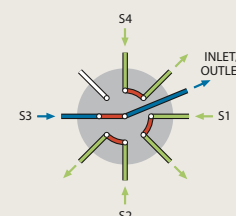


Model C5  
6 positions  
1/16" ZDV fittings

OPTIONAL  
FLOWPATH

**Model C5F**, the flow-through version, is similar to the C5 but its non-selected streams continue flowing through individual outlets. 3, 4, and 5 positions are available.

Consult the factory for C5F prices and information.



Model C5F  
schematic diagram

## MORE INFORMATION

Manifolds ..... page 33



**HPLC column selector system with 1/16" Valco ZDV fittings, 0.40 mm ports (.016")**

Model C5

**SPECS**

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PEEK stator  
 Valcon E rotor

**OPTIONS**

- 2", 3", 4", and 6" standoffs
- Hastelloy C stator
- Optional 0.25 mm (.010") and 0.15 mm (.006") bores available
- Optional 0.75 mm (.030") bore for Prep HPLC available

The system comprises two stream selection valves mounted on a single modular universal actuator, which can be controlled manually, via remote logic level signal, or by RS-232 interface (RS-485 optional). (See *plumbing diagram below*.)

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PEEK stators have PEEK fittings.

Includes microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.

5,000 psi

Column selector system

10-32 ZDV

1/16" 0.40 mm

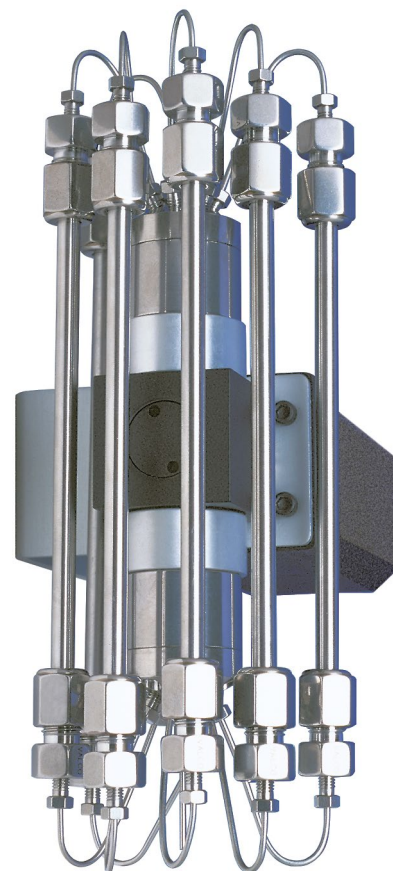
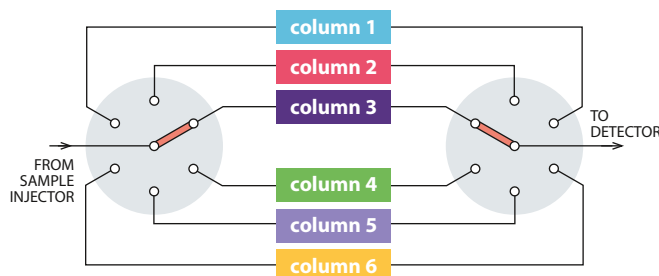
	6 Column Prod No	8 Column Prod No	10 Column Prod No
<b>N60 stainless stator</b>			
System	C5-2006EMTD	C5H-2008EMTD	C5H-2000EMTD
Replacement rotor	C5-20R6	C5-20R8H	C5-20R0H
<b>PEEK stator</b>			
System	C5-2346EMTD	C5H-2348EMTD	C5H-2340EMTD
Replacement rotor	C5-23R6	C5-23R8H	C5-23R0H

Contact factory for replacement valves and stators, as valves for dual drive assemblies have mirror image stators.

**RS-232 interface cable**

Prod No

I-22697

**Model C5 system**

Columns not included

**UHPLC COLUMN SELECTOR SYSTEMS**

Consult the factory for more information on UHPLC systems.

**ORDERING STATORS**

Valves for dual drive assemblies have mirror image stators. Consult Technical Support for correct product number before ordering.

Both valves use the same rotor.

**MORE INFORMATION**

Actuators

Air ..... page 197

Microelectric .....192

Universal .....193

Materials

Metals..... 254-255

Polymers .....256

Valve rotors.....257

Standoff

assemblies .....205

## CHEMINERT VALVES

### Stream selector, 1/16" Valco ZDV fittings, 0.75 mm ports (.030")

Model C25Z

Low pressure

Stream selector

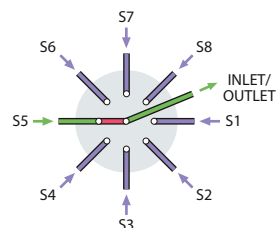
10-32 ZDV

1/16" 0.75 mm

Includes Valco ZDV PEEK nuts and ferrules.

Microelectric actuator:

24 VDC, with 110/230 VAC to 24 VDC power supply.



#### SPECS

100 psi gas/ 250 psi liq

75°C max

PPS stator

Valcon E2 rotor

#### OPTIONS

- 4 and 12 positions available
- 2", 3", 4", and 6" standoffs
- Other polymeric materials are available. Consult the factory.

	6 Position Prod No	8 Position Prod No	10 Position Prod No	14 Position Prod No
Manual	C25Z-3186	C25Z-3188	C25Z-3180	C25Z-31814
With air actuator	C25Z-3186A	C25Z-3188A	C25Z-3180A	C25Z-31814A
With microelectric act.	C25Z-3186EMH	C25Z-3188EMH	C25Z-3180EMH	C25Z-31814EMH
Replacement valve	C25Z-3186D	C25Z-3188D	C25Z-3180D	C25Z-31814D
Replacement rotor	C15-310	C15-310	C15-310	C25Z-325
Replacement stator	C25Z-386	C25Z-388	C25Z-380	C25Z-38-14

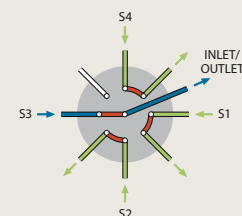


Model C25Z  
10 positions  
1/16" ZDV fittings

#### OPTIONAL FLOWPATH

Model C25ZF, the flow-through version, is similar to the C25Z but its non-selected streams continue flowing through individual outlets, instead of being dead-ended. 3, 4, 5, 6, and 7 positions are available.

Consult the factory for C25ZF prices and information.



**Stream selector, 1/4-28 fittings for 1/16" tubing, 0.75 mm ports (.030")**

Model C25

**SPECS**

**100 psi gas/ 250 psi liq**  
**75°C max**  
 PPS stator  
 Valcon E2 rotor

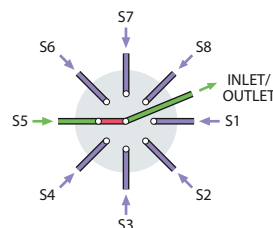
**OPTIONS**

- 2", 3", 4", and 6" standoffs
- CTFE stator

Includes multicolored Cheminert 1/4-28 flangeless fittings for 1/16" tubing.

Microelectric actuator:

24 VDC, with 110/230 VAC to 24 VDC power supply.



Low pressure

Stream selector

1/4-28 Internal

1/16"

0.75 mm

	4 Position Prod No	6 Position Prod No	8 Position Prod No	10 Position Prod No
Manual	C25-3184	C25-3186	C25-3188	C25-3180
With air actuator	C25-3184A	C25-3186A	C25-3188A0	C25-3180A
With microelectric act.	C25-3184EMH	C25-3186EMH	C25-3188EMH	C25-3180EMH
Replacement valve	C25-3184D	C25-3186D	C25-3188D	C25-3180D
Replacement rotor	C25-314	C25-316	C15-310	C25-310
Replacement stator	C25-384	C25-386	C25-388	C25-380

**Stream selector, 1/4-28 fittings for 1/8" tubing, 1.50 mm ports (.060")**

Model C25

**SPECS**

**100 psi gas/ 250 psi liq**  
**75°C max**  
 PPS stator  
 Valcon E2 rotor

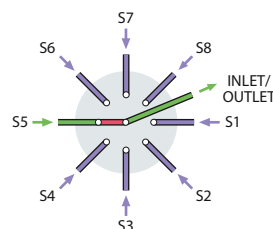
**OPTIONS**

- 2", 3", 4", and 6" standoffs
- CTFE stator

Includes multicolored Cheminert 1/4-28 flangeless fittings for 1/8" tubing.

Microelectric actuator:

24 VDC, with 110/230 VAC to 24 VDC power supply.



Low pressure

Stream selector

1/4-28 Internal

1/8"

1.50 mm

	4 Position Prod No	6 Position Prod No	8 Position Prod No	10 Position Prod No
Manual	C25-6184	C25-6186	C25-6188	C25-6180
With air actuator	C25-6184A	C25-6186A	C25-6188A	C25-6180A
With microelectric act.	C25-6184EMH	C25-6186EMH	C25-6188EMH	C25-6180EMH
Replacement valve	C25-6184D	C25-6186D	C25-6188D	C25-6180D
Replacement rotor	C25-614	C25-616	C25-618	C25-610
Replacement stator	C25-684	C25-686	C25-688	C25-680

**OPTIONAL FLOWPATH**

**Model C25F** is the flow-through version of C25. (See discussion on facing page.) 3, 4, 5, 6, and 7 positions are available.

Consult the factory for C25F prices and information.

**MORE INFORMATION****Actuators**

Air ..... page 196  
 Microelectric ..... 192  
 Universal ..... 193

**Materials**

Metals ..... 254-255  
 Polymers ..... 256  
 Valve rotors ..... 257

**Standoff**

assemblies ..... 205



**Model C25**  
**10 position**  
**1/4-28 fittings**

## CHEMINERT VALVES

## Stream selector, 1/16" Cheminert fittings

Model C25G

Low pressure

Stream selector

6-40 flat bottom

1/16"

Includes 6-40 PEEK nut/bushings for 1/16" OD tubing.

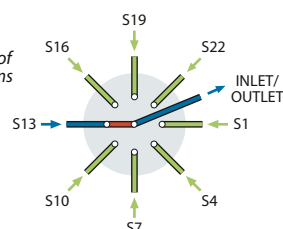
Available only with

microelectric actuator:

24 VDC,

with 110/230 VAC power supply.

(For clarity, only eight of the twenty-four streams are illustrated.)



## SPECS

100 psi liq

50°C max

PEEK stator

Valcon M rotor

## OPTIONS

■ 2", 3", 4", and 6" standoffs

■ Consult the factory for optional materials.

## Bore:

**20 Position**  
**0.67 mm (.026")**  
*Prod No*
**24 Position**  
**0.61 mm (.024")**  
*Prod No*
**28 Position**  
**0.56 mm (.022")**  
*Prod No*

With microelectric actuator

C25G-24520EMT

C25G-24524EMT

C25G-24528EMT

Replacement valve

C25G-24520D

C25G-24524D

C25G-24528D

Replacement rotor

C25G-24R20

C25G-24R24

C25G-24R28

Replacement stator

C25G-2C520

C25G-2C524

C25G-2C528

**Model C25G**  
**24 positions**  
**1/16" fittings**


## Fittings for C25G valves

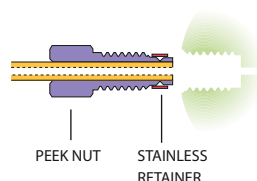
The C25G selector uses unique 6-40 fittings for flat-bottomed fitting details. As the fitting is tightened, the grooved area (supported by the stainless retainer) compresses enough to grip the tube for a low pressure connection.

*Prod No*
 6-40 one piece nut/bushing,  
 natural PEEK, stainless retainer

CNNF1PK

Tightening tool

CGFT

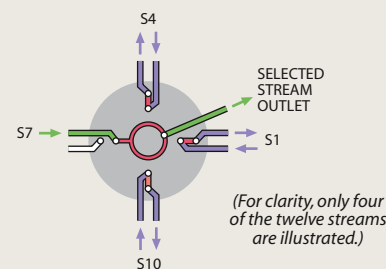


## OPTIONAL FLOWPATHS

**Model C25G** valves select and isolate one of 20-28 streams, with the remainder dead-ended.

**Model C25GF**, the flow-through version, is similar to the C25G but its non-selected streams continue flowing through individual outlets. 10, 12, and 14 positions are available.

Call for pricing and information.


**Model C35ZF schematic**

**Stream selector, 1/2-20 fittings for 1/4" tubing, 4.6 mm ports (.180")**

Model C45

**SPECS****100 psi liq****50°C max**

PPS stator

Valcon TF rotor

**OPTIONS**

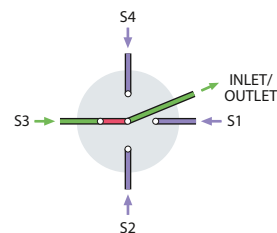
- 2", 3", 4", and 6" standoffs
- Consult the factory for optional materials.
- 8 position selectors are available with 3 mm (.120") ports

Manual version not available.

Includes Cheminert 1/2-20 flangeless fittings for 1/4" tubing, Delrin nuts, and CTFE ferrules.

Microelectric actuator:

24 VDC, with 110/230 VAC to 24 VDC power supply.



Low pressure

Stream selector

1/2-20 Internal

1/4"

4.6 mm

**4 Position**

Prod No

**6 Position**

Prod No

With air actuator

C45-9784A

C45-9786A

With microelectric actuator

C45-9784EMT

C45-9786EMT

Replacement valve

C45-9784D

C45-9786D

Replacement rotor

C45-97R4

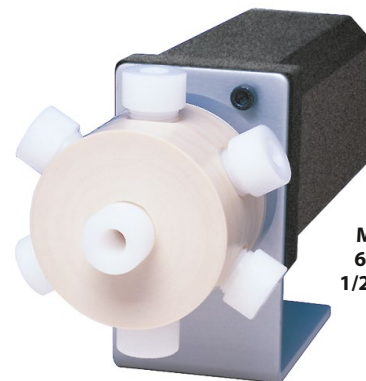
C45-97R6

**Fittings for C45 valves**

For additional 1/2-20 fittings and adapters, see page 72.



		Prod No
Nuts	CTFE	CFL-4KF
	Delrin	CFL-4D
	PPS	CFL-4PPS
Ferrules	CTFE	CFL-CB4KF-S
Plugs	CTFE	CP-4K
	Delrin	CP-4D



**Model C45**  
**6 positions**  
**1/2-20 fittings**

**MORE INFORMATION****Actuators**

Air ..... page 196

Microelectric .....192

Universal .....193

**Materials**

Metals..... 254-255

Polymers .....256

Valve rotors.....257

**Standoff**

assemblies .....205



## CHEMINERT VALVES ■ OEM

Integrated motor/valve,  
1/16" Valco fittings, 0.25 mm ports (.010")

Model C52

5,000 psi

Microbore

Integrated

1/16" 0.25 mm

CE ready\*

See page 151 for more information on Model C52 valves.  
**Also available in vertical port version.** Contact the factory.  
 Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.  
 Valves with PEEK stators have PEEK fittings.



**4 Port**  
Prod No



**6 Port\***  
Prod No



**8 Port**  
Prod No



**10 Port**  
Prod No

**N60 stainless stator**

With integrated actuator

C52-1004I

C52-1006I

C52-1008I

C52-1000I

With motor/sensor only

C52-1004I-S

C52-1006I-S

C52-1008I-S

C52-1000I-S

With motor only

C52-1004IX

C52-1006IX

C52-1008IX

C52-1000IX

Replacement rotor

C2-10R4

C2-10R6

C2-10R8H

C2-10R0H

Replacement stator

C52-1C04

C52-1C06

C52-1C08

C52-1C00

**PEAK stator**

With integrated actuator

C52-1344I

C52-1346I

C52-1348I

C52-1340I

With motor/sensor only

C52-1344I-S

C52-1346I-S

C52-1348I-S

C52-1340I-S

With motor only

C52-1344IX

C52-1346IX

C52-1348IX

C52-1340IX

Replacement rotor

C2-13R4

C2-13R6

C2-13R8H

C2-13R0H

Replacement stator

C52-1C44

C52-1C46

C52-1C48

C52-1C40

**SPECS****5,000 psi liq****40°C max**N60 stainless stator  
Valcon H rotor**5,000 psi liq****40°C max**PAEK stator  
Valcon E rotor**OPTIONS**■ **Vertical port version.**  
(Model C52V)

Contact the factory for more information.

■ **Optional 0.40 mm (.016") and 0.75 mm ports (.030") available**■ **Titanium and Hastelloy stators available**■ **Serial communication via RS-232 is available.****\* CE READY**

Since these integrated VICI motor/valves are designed as components to be embedded into other systems, they do not include a power supply. They have been tested according to the following EMC Standards:

EN61326-1:2006  
 Conducted emissions  
 Radiated emissions

However, these results do not substitute for, preclude, or guarantee passage of any or all relevant compliance testing as required for a final product that includes these components.

**NOTE**

Cheminert high pressure valves with polymeric stators have a longer pilot depth.

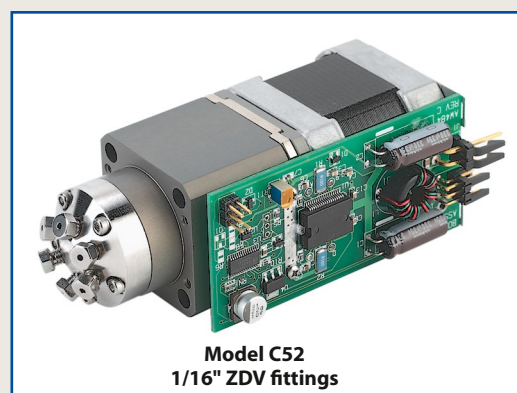
**MORE INFORMATION**

Materials

Metals..... page 254-5

Polymers ..... 256

Valve rotors..... 257



**Model C52**  
1/16" ZDV fittings



**Model C52V – vertical port version**  
(Contact the factory for info.)

**Sample loops**

for C52 injectors

Each metal loop includes two stainless steel nuts and ferrules.  
 Each PEEK loop includes two PEEK nuts and ferrules.

	<b>Stainless Steel</b>	<b>PEEK (for PEEK stators)</b>
<b>Volume</b>	<b>Prod No</b>	<b>Prod No</b>
2 µl	CSL2	CZSL2PK
5 µl	CSL5	CZSL5PK
10 µl	CSL10	CZSL10PK
20 µl	CSL20	CZSL20PK
50 µl	CSL50	CZSL50PK
100 µl	CSL100	CZSL100PK
250 µl	CSL250	CZSL250PK
500 µl	CSL500	CZSL500PK
1 ml	CSL1K	CZSL1KPK
2 ml	CSL2K	CZSL2KPK
5 ml	CSL5K	CZSL5KPK
10 ml	CSL10K	—

**ABOUT LOOPS**

- Other materials available in many sizes: Electroformed Nickel, Hastelloy C, Nickel 200, and PTFE (see pages 254-255).
- Metal loops > 2 ml are made from 1/8" OD tubing with brazed or welded 1/16" tube ends or reducing unions.
- Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.



**Microbore centered port injector,  
1/16" Valco fittings, 0.25 mm ports (.010")**

Model C3

**SPECS**

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

**OPTIONS**

- Titanium and Hastelloy stators available

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PAEK stators have PEEK fittings.

Includes one 5 µl loop of the stator material.

Includes syringe fill port for 22 gauge 3/4" and 2" needle.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



5,000 psi

Microbore

Centered port

1/16"

0.25 mm

**N60 stainless stator**

Prod No

**PAEK stator**

Prod No

Manual

C3-1006

C3-1346

With air actuator

C3-1006A

C3-1346A

With microelectric actuator

C3-1006EH

C3-1346EH

Replacement valve

C3-1006D

C3-1346D

Replacement rotor

C2-10R6

C2-13R6

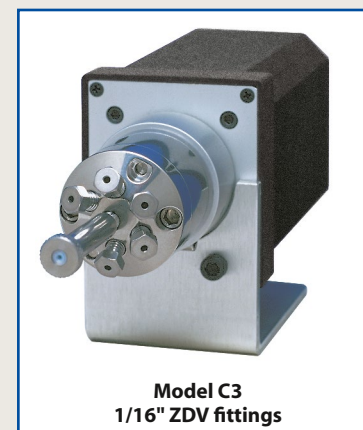
Replacement stator

C3-1C06

C3-1C46



Order loops  
from page 161.



**Model C3**  
1/16" ZDV fittings

**NOTE**

Cheminert high pressure valves with polymeric stators have a longer pilot depth.

**Microbore vertical port injector,  
1/16" Valco fittings, 0.25 mm ports (.010")**

Model C2V

**SPECS**

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

**OPTIONS**

- Titanium and Hastelloy stators available

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PAEK stators have PEEK fittings.

Includes one 5 µl loop of the stator material.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



5,000 psi

Microbore

Vertical port

1/16"

0.25 mm

**N60 stainless stator**

Prod No

**PAEK stator**

Prod No

Manual

C2V-1006

C2V-1346

With air actuator

C2V-1006A

C2V-1346A

With microelectric actuator

C2V-1006EH

C2V-1346EH

Replacement valve

C2V-1006D

C2V-1346D

Replacement rotor

C2-10R6

C2-13R6

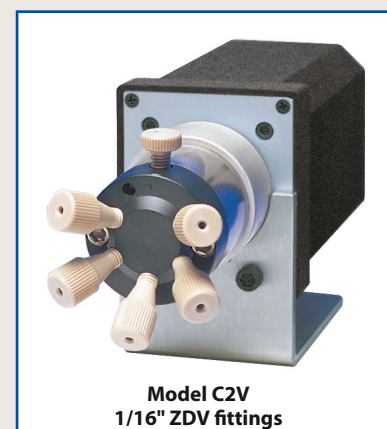
Replacement stator

C2V-1C06

C2V-1C46



Order loops  
from page 161.



**Model C2V**  
1/16" ZDV fittings

## CHEMINERT VALVES ■ OEM

Integrated motor/valve,  
1/16" Valco fittings, 0.40 mm ports (.016")

Model C52

5,000 psi
Analytical
Integrated
1/16" 0.40 mm
CE ready*

See page 151 for more information on Model C52 valves.  
Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PEEK stators have PEEK fittings, nuts and ferrules.



**4 Port**  
Prod No



**6 Port\***  
Prod No



**8 Port**  
Prod No



**10 Port**  
Prod No

**N60 stainless stator**

With integrated actuator

C52-2004I

C52-2006I

C52-2008I

C52-2000I

With motor/sensor only

C52-2004I-S

C52-2006I-S

C52-2008I-S

C52-2000I-S

With motor only

C52-2004IX

C52-2006IX

C52-2008IX

C52-2000IX

Replacement rotor

C2-20R4

C2-20R6

C2-20R8H

C2-20R0H

Replacement stator

C52-2C04

C52-2C06

C52-2C08

C52-2C00

**PEAK stator**

With integrated actuator

C52-2344I

C52-2346I

C52-2348I

C52-2340I

With motor/sensor only

C52-2344I-S

C52-2346I-S

C52-2348I-S

C52-2340I-S

With motor only

C52-2344IX

C52-2346IX

C52-2348IX

C52-2340IX

Replacement rotor

C2-23R4

C2-23R6

C2-23R8H

C2-23R0H

Replacement stator

C52-2C44

C52-2C46

C52-2C48

C52-2C40

**SPECS**

**5,000 psi liq**

**40°C max**

N60 stainless stator  
Valcon H rotor

**5,000 psi liq**

**40°C max**

PAEK stator  
Valcon E rotor

**OPTIONS**

■ **Vertical port version.**  
(Model C52V)

Contact the factory for more information.

■ Optional 0.25 mm (.010") and 0.75 mm ports (.030") available

■ Titanium and Hastelloy stators available

■ Serial communication via RS-232 is available.

**\* CE READY**

Since these integrated VICI motor/valves are designed as components to be embedded into other systems, they do not include a power supply. They have been tested according to the following EMC Standards:

EN61326-1:2006  
Conducted emissions  
Radiated emissions

However, these results do not substitute for, preclude, or guarantee passage of any or all relevant compliance testing as required for a final product that includes these components.

**NOTE**

Cheminert high pressure valves with polymeric stators have a longer pilot depth.

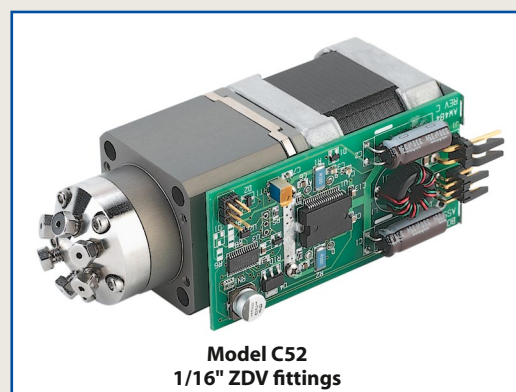
**MORE INFORMATION**

Materials

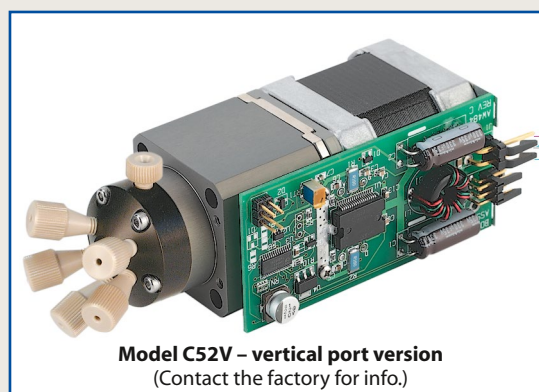
Metals..... page 254-5

Polymers ..... 256

Valve rotors..... 257



**Model C52**  
1/16" ZDV fittings



**Model C52V – vertical port version**  
(Contact the factory for info.)

**Sample loops**

for C52 injectors

Each metal loop includes two stainless steel nuts and ferrules.

Each PEEK loop includes two PEEK nuts and ferrules.

	<b>Stainless Steel</b>	<b>PEEK (for PAEK stators)</b>
Volume	Prod No	Prod No
2 µl	CSL2	CZSL2PK
5 µl	CSL5	CZSL5PK
10 µl	CSL10	CZSL10PK
20 µl	CSL20	CZSL20PK
50 µl	CSL50	CZSL50PK
100 µl	CSL100	CZSL100PK
250 µl	CSL250	CZSL250PK
500 µl	CSL500	CZSL500PK
1 ml	CSL1K	CZSL1KPK
2 ml	CSL2K	CZSL2KPK
5 ml	CSL5K	CZSL5KPK
10 ml	CSL10K	—

**ABOUT LOOPS**

- Other materials available in many sizes: Electroformed Nickel, Hastelloy C, Nickel 200, and PTFE (see pages 254-255).
- Metal loops > 2 ml are made from 1/8" OD tubing with brazed or welded 1/16" tube ends or reducing unions.
- Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.



## Analytical centered port injector, 1/16" Valco fittings, 0.40 mm ports (.016")

Model C3

### SPECS

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

### OPTIONS

- Titanium and Hastelloy stators available

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PAEK stators have PEEK fittings.

Includes one 20 µl loop of the stator material.

Includes syringe fill port for 22 gauge 3/4" and 2" needle.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



5,000 psi

Analytical

Centered port

1/16"

0.40 mm

### N60 stainless stator

Prod No

### PAEK stator

Prod No

Manual

C3-2006

C3-2346

With air actuator

C3-2006A

C3-2346A

With microelectric actuator

C3-2006EH

C3-2346EH

Replacement valve

C3-2006D

C3-2346D

Replacement rotor

C2-20R6

C2-23R6

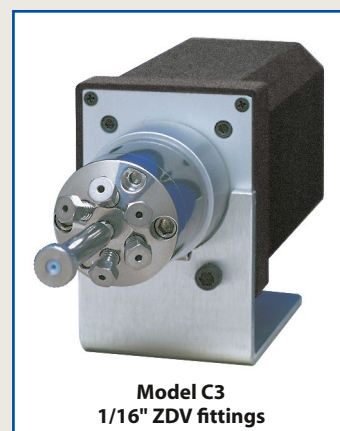
Replacement stator

C3-2C06

C3-2C46



Order loops  
from page 161.



**Model C3**  
1/16" ZDV fittings

### NOTE

Cheminert high pressure valves with polymeric stators have a longer pilot depth.

## Analytical vertical port injector, 1/16" Valco fittings, 0.40 mm ports (.016")

Model C2V

### SPECS

**5000 psi liq**  
**75°C max**  
 Metal stator  
 Valcon H rotor

**5000 psi liq**  
**50°C max**  
 PAEK stator  
 Valcon E rotor

### OPTIONS

- Titanium and Hastelloy stators available

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PAEK stators have PEEK fittings.

Includes one 20 µl loop of the stator material.

Microelectric actuator: 24 VDC, with 110/230 VAC to 24 VDC power supply.



5,000 psi

Analytical

Vertical port

1/16"

0.40 mm

### N60 stainless stator

Prod No

### PAEK stator

Prod No

Manual

C2V-2006

C2V-2346

With air actuator

C2V-2006A

C2V-2346A

With microelectric actuator

C2V-2006EH

C2V-2346EH

Replacement valve

C2V-2006D

C2V-2346D

Replacement rotor

C2-20R6

C2-23R6

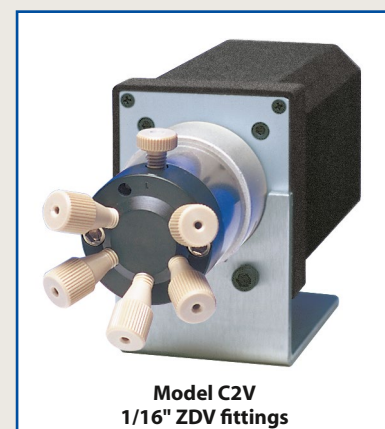
Replacement stator

C2V-2C06

C2V-2C46



Order loops  
from page 161.



**Model C2V**  
1/16" ZDV fittings

## CHEMINERT VALVES - OEM

## Integrated motor/valve, 1/16" Valco ZDV fittings, 0.75 mm ports (.030")

Model C62Z

Low pressure

Integrated

10-32 ZDV

1/16" 0.75 mm

CE ready\*

Includes Valco ZDV PEEK nuts and ferrules.

Sample loops are not included with valves. Order separately.



**4 Port**  
Prod No

With motor, sensor, & controller  
With motor and sensor only

C62Z-3184I  
C62Z-3184I-S



**6 Port**  
Prod No

C62Z-3186I  
C62Z-3186I-S



**8 Port**  
Prod No

C62Z-3188I  
C62Z-3188I-S



**10 Port**  
Prod No

C62Z-3180I  
C62Z-3180I-S

## SPECS

100 psi gas/ 250 psi liq

50°C max

PPS stator

Valcon E2 rotor

## OPTIONS

- Other polymeric rotors and stators are available

Consult the factory for prices and information.

- Serial communication via RS-232 is available.

## \* CE READY

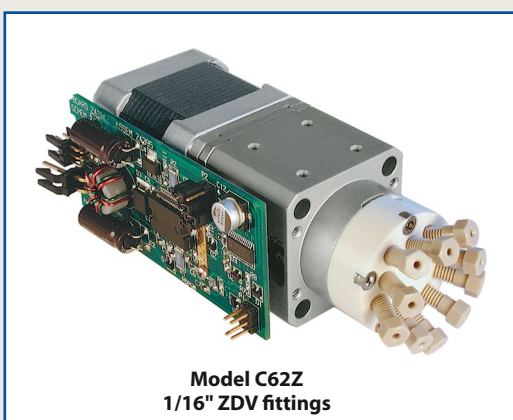
Since these integrated VICI motor/valves are designed as components to be embedded into other systems, they do not include a power supply. They have been tested according to the following EMC Standards:

EN61326-1: 2006

Conducted emissions

Radiated emissions

However, these results do not substitute for, preclude, or guarantee passage of any or all relevant compliance testing as required for a final product that includes these components.



**Model C62Z**  
1/16" ZDV fittings

## Sample loops

for Model C62Z

Loops include PEEK nuts and ferrules. Loops less than 500 µl are made from 1/16" OD tubing; loops 500 µl or greater are made from 1/8" OD tubing with polymeric unions and 1/16" ends.

Volume	FEP Prod No	PTFE Prod No	PEEK Prod No
5 µl	CZSL5FEP	CZSL5TF	CZSL5PK
10 µl	CZSL10FEP	CZSL10TF	CZSL10PK
20 µl	CZSL20FEP	CZSL20TF	CZSL20PK
50 µl	CZSL50FEP	CZSL50TF	CZSL50PK
100 µl	CZSL100FEP	CZSL100TF	CZSL100PK
250 µl	CZSL250FEP	CZSL250TF	CZSL250PK
500 µl	CZSL500FEP	CZSL500TF	CZSL500PK
1 ml	CZSL1KFEP	CZSL1KTF	CZSL1KPK
2 ml	CZSL2KFEP	CZSL2KTF	CZSL2KPK



## ABOUT LOOPS

- Sample loop shape and dimensions may vary from batch to batch due to fluctuations in tubing ID. Loop volume is controlled as closely as possible, but is not calibrated.

## MORE INFORMATION

Materials

Metals . . . . . page 254-255

Polymers . . . . . 256

Valve rotors . . . . . 257



**Integrated motor/valve, 1/4-28 fitting details for 1/16" tubing, 0.75 mm ports (.030")**

Model C62

**SPECS**

**100 psi gas/ 250 psi liq**  
**75°C max**  
 PPS stator  
 Valcon E2 rotor

**OPTIONS**

- Serial communication via RS-232 is available.

**\* CE READY**

See note on facing page.

Includes multicolored Cheminert flangeless fittings for 1/16" tubing.  
 Sample loops are not included with valves. Order separately.

Low pressure

Integrated

1/4-28 Internal

1/16" 0.75 mm

CE ready\*

**4 Port**

Prod No

**6 Port**

Prod No

**8 Port**

Prod No

**10 Port**

Prod No

With motor, sensor, & controller  
 With motor and sensor only

C62-3184I  
 C62-3184I-S

C62-3186I  
 C62-3186I-S

C62-3188I  
 C62-3188I-S

C62-3180I  
 C62-3180I-S

**Integrated motor/valve, 1/4-28 fitting details for 1/8" tubing, 1.50 mm ports (.060")**

Model C62

**SPECS**

**100 psi gas/ 250 psi liq**  
**75°C max**  
 PPS stator  
 Valcon E2 rotor

**OPTIONS**

- Serial communication via RS-232 is available.

**\* CE READY**

See note on facing page.

Includes multicolored Cheminert flangeless fittings for 1/8" tubing.  
 Sample loops are not included with valves. Order separately.

Low pressure

Integrated

1/4-28 Internal.

1/8" 1.50 mm

CE ready\*

**4 Port**

Prod No Prod No

**6 Port**

Prod No Prod No

**8 Port****10 Port**

With motor, sensor, & controller  
 With motor and sensor only

C62-6184IC62-6186I C62-6188IC62-6180I  
 C62-6184I-SC62-6186I-S C62-6188I-S

C62-6180I-S

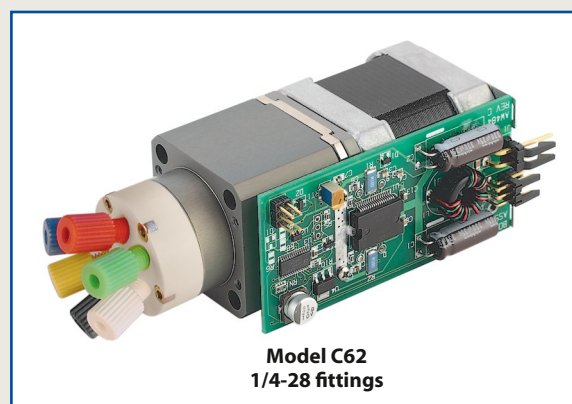
**Sample loops**

for Model C62

Loops include flangeless fittings with natural color nuts.  
 Loops less than 500 µl are made from 1/16" OD tubing;  
 loops 500 µl or greater are made from 1/8" OD tubing.



Volume	FEP Prod No	PTFE Prod No	PEEK Prod No
20 µl	CFSL20FEP	CFSL20TF	CFSL20PK
50 µl	CFSL50FEP	CFSL50TF	CFSL50PK
100 µl	CFSL100FEP	CFSL100TF	CFSL100PK
250 µl	CFSL250FEP	CFSL250TF	CFSL250PK
500 µl	CFSL500FEP	CFSL500TF	CFSL500PK
1 ml	CFSL1KFEP	CFSL1KTF	CFSL1KPK
2 ml	CFSL2KFEP	CFSL2KTF	CFSL2KPK



## CHEMINERT VALVES ■ OEM

Integrated motor/stream selector,  
1/16" Valco ZDV fittings, 0.40 mm ports (.016")

Model C55

5,000 psi

Integrated

Stream selector

10-32 ZDV

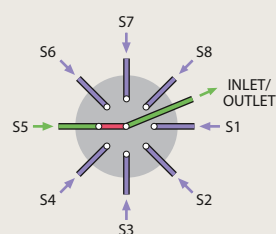
1/16" 0.40 mm

CE ready\*

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.  
Valves with PEEK stators have PEEK fittings.

See Tech Tip, below.



## SPECS

5000 psi liq  
50°C maxMetal stator  
Valcon H rotor5000 psi liq  
50°C maxPEAK stator  
Valcon E rotor

## OPTIONS

■ Optional bore:  
0.25 mm (.010")  
0.75 mm (.030")

■ 4 and 8 positions  
available

## \* CE READY

Since these integrated VICI motor/valves are designed as components to be embedded into other systems, they do not include a power supply. They have been tested according to the following EMC Standards:

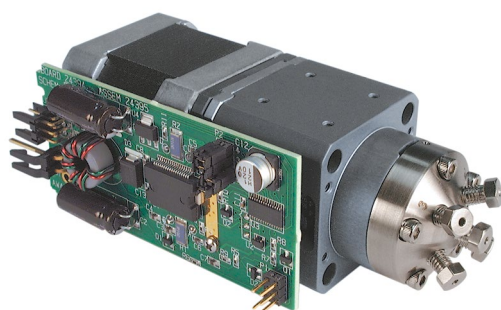
EN61326-1:2006  
Conducted emissions  
Radiated emissions

However, these results do not substitute for, preclude, or guarantee passage of any or all relevant compliance testing as required for a final product that includes these components.

## N60 stainless stator

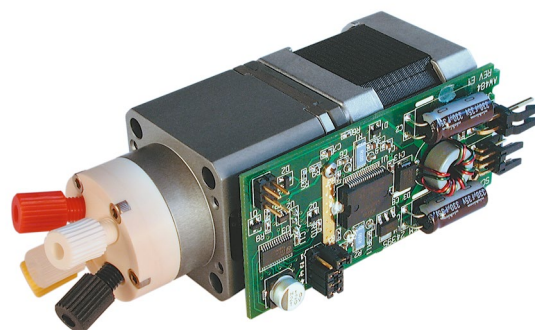
With integrated actuator  
Including RS-232 interface4 Position  
Prod NoC55-2004I  
C55-2004IA6 Position  
Prod NoC55-2006I  
C55-2006IA8 Position  
Prod NoC55-2008I  
C55-2008IA10 Position  
Prod NoC55-2000I  
C55-2000IAWith motor/sensor only  
With motor onlyC55-2004I-S  
C55-2004IXC55-2006I-S  
C55-2006IXC55-2008I-S  
C55-2008IXC55-2000I-S  
C55-2000IXReplacement rotor  
Replacement statorC5-20R4  
C55-2C04C5-20R6  
C55-2C06C5-20R8H  
C55-2C08C5-20R0H  
C55-2C00

## PEAK stator

With integrated actuator  
Including RS-232 interfaceC55-2344I  
C55-2344IAC55-2346I  
C55-2346IAC55-2348I  
C55-2348IAC55-2340I  
C55-2340IAWith motor/sensor only  
With motor onlyC55-2344I-S  
C55-2344IXC55-2346I-S  
C55-2346IXC55-2348I-S  
C55-2348IXC55-2340I-S  
C55-2340IXReplacement rotor  
Replacement statorC5-23R4  
C55-2C44C5-23R6  
C55-2C46C5-23R8H  
C55-2C48C5-23R0H  
C55-2C40Model C55  
1/16" ZDV fittings

## TECH TIP

For accurate port alignment, these integrated motor/stream selectors must be turned in one direction only. Factory setting is clockwise rotation, but it can be changed by a jumper setting. (See Technical Note TN-821 on vici.com)

Model C65  
1/4-28 fittings

**Integrated motor/stream selector,  
1/16" Valco ZDV fittings, 0.75 mm ports (.030")**

Model C65Z

**SPECS**

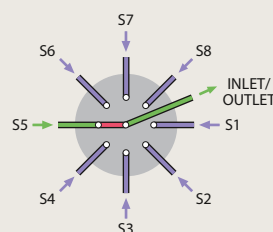
**100 psi gas/ 250 psi liq**  
**50°C max**  
 PPS stator  
 Valcon E2 rotor

**\* CE READY**

See note on facing page.

Includes Valco ZDV PEEK nuts and ferrules.

See Tech Tip on facing page.



Low pressure

Integrated

Stream selector

10-32 ZDV

1/16"

0.75 mm

CE ready\*

**4 Position**

Prod No

With integrated actuator  
 Including RS-232 interface  
 With motor and sensor only

C65Z-3184I

C65Z-3184IA

C65Z-3184I-S

**6 Position**

Prod No

C65Z-3186I

C65Z-3186IA

C65Z-3186I-S

**8 Position**

Prod No

C65Z-3188I

C65Z-3188IA

C65Z-3188I-S

**10 Position**

Prod No

C65Z-3180I

C65Z-3180IA

C65Z-3180I-S

**Integrated motor/stream stream selector,  
1/4-28 fittings for 1/16" tubing, 0.75 mm ports (.030")**

Model C65

**SPECS**

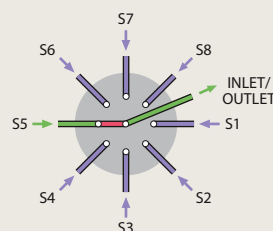
**100 psi gas/ 250 psi liq**  
**50°C max**  
 PPS stator  
 Valcon E2 rotor

**\* CE READY**

See note on facing page.

Includes multicolored Cheminert flangeless fittings for 1/16" tubing. See photo on facing page.

See Tech Tip on facing page.



Low pressure

Integrated

Stream selector

1/4-28 Internal

1/16"

0.75 mm

CE ready\*

**4 Position**

Prod No

With integrated actuator  
 Including RS-232 interface  
 With motor and sensor only

C65-3184I

C65-3184IA

C65-3184I-S

**6 Position**

Prod No

C65-3186I

C65-3186IA

C65-3186I-S

**8 Position**

Prod No

C65-3188I

C65-3188IA

C65-3188I-S

**10 Position**

Prod No

C65-3180I

C65-3180IA

C65-3180I-S

**Integrated motor/stream stream selector,  
1/4-28 fittings for 1/8" tubing, 1.50 mm ports (.060")**

Model C65

**SPECS**

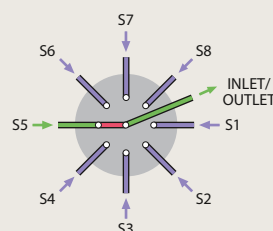
**100 psi gas/ 250 psi liq**  
**50°C max**  
 PPS stator  
 Valcon E2 rotor

**\* CE READY**

See note on facing page.

Includes multicolored Cheminert flangeless fittings for 1/8" tubing. See photo on facing page.

See Tech Tip on facing page.



Low pressure

Integrated

Stream selector

1/4-28 Internal

1/8"

1.50 mm

CE ready\*

**4 Position**

Prod No

With integrated actuator  
 Including RS-232 interface  
 With motor and sensor only

C65-6184I

C65-6184IA

C65-6184I-S

**6 Position**

Prod No

C65-6186I

C65-6186IA

C65-6186I-S

**8 Position**

Prod No

C65-6188I

C65-6188IA

C65-6188I-S

**10 Position**

Prod No

C65-6180I

C65-6180IA

C65-6180I-S