

Cheminert® valves

FOR INJECTION, SWITCHING, AND STREAM SELECTION

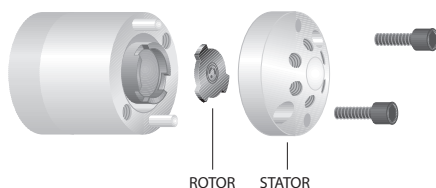
- Pressure ratings from 100 psi to 20,000 psi
- Inert, biocompatible construction
- Easy field service
- Automated operation – pneumatic or electric
- 4, 6, 8, and 10 port and internal sample two position models
- Stream selection versions with up to 26 positions

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

MORE INFORMATION

Decoding product no's for Cheminert valves ... pages 264-265

Actuation 188-209

Applications . 170-171

Materials

Metals 254-255

Polymers 256

Valve rotors 257

Valve descriptions

Cheminert

HPLC 149,152

Low pressure ... 150,153

Nanovolume® 147

UHPLC 147-148

Diaphragm 142-143

Valco

Injectors 101

Selectors 102-103

Cheminert valve prices

HPLC 158-165

Low pressure ... 166-169

Nanovolume®

valves..154-155, 158-159

OEM 180-187

Selectors 172-179

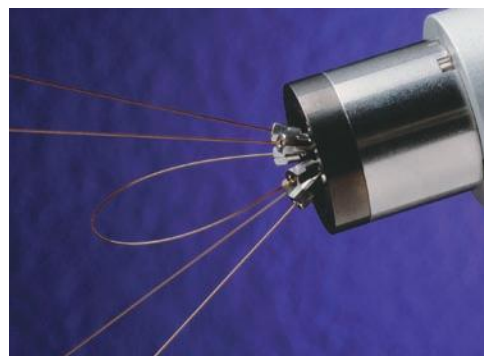
UHPLC 154-157



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
UHPLC 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
HPLC 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
UHPLC 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
HPLC 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



Nanovolume® Selectors

Application	Fittings		Bore size	Model	Pressure rating	More info
UHPLC 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
UHPLC 20,000 psi 15,000 psi 10,000 psi	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
UHPLC 20,000 psi 15,000 psi 10,000 psi	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
UHPLC 20,000 psi 15,000 psi 10,000 psi	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

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 C1 is a through-the-handle (front-loading) injector designed for direct replacement of existing competitive models. All Model C1 injectors are manual, with position feedback standard.

Model C1CF is a 6 port through-the-handle continuous flow injector. An engraving on the stator maintains pump flow between ports 5 and 4 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 C1 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.

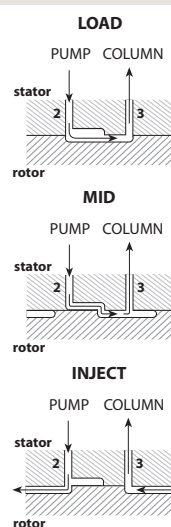
Semi-Preparative HPLC

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 C1CF FLOWPATH



MORE INFORMATION

HPLC selectors 152
Injectors and selectors
for OEMs 151, 153



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 C1

Microbore, page 162
Analytical, page 165

5,000 psi

Through-handle

CHEMINERT VALVES

Low pressure injectors

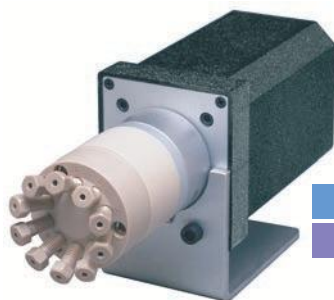
With Valco Zero Dead Volume (ZDV) Fittings

C20Z 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.

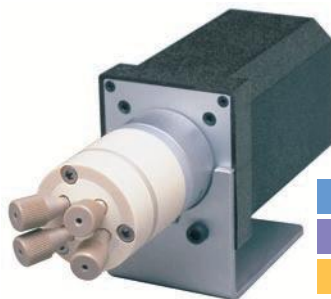
The **Model C22Z** is a conventional two position sample injector and switching valve, with 4, 6, 8, or 10 ports. Sample injection requires a loop, ordered separately.

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

Decoding product no's for Cheminert valves . . . pages 264-265

Actuation 188-209

Applications . . . 170-171

Materials

Metals 254-255
Polymers 256
Valve rotors 257

Valve descriptions

Cheminert
Injectors 147-151
Selectors 152-153
Nanovolume® 147
Diaphragm 142-143
Valco
Injectors 101
Selectors 102-103

Cheminert valve prices

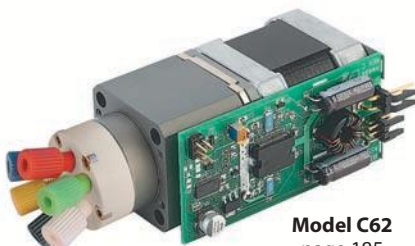
HPLC 158-165
Low pressure 166-169
Nanovolume®
valves . . . 154-155, 158-159
Selectors 172-179
OEM 180-187
UHPLC 154-157

For OEMs



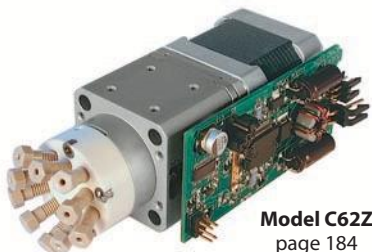
Model C52
Microbore, page 180
Analytical, page 182

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, 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. A simple jumper change shifts the mode to dual contact closure, in which one contact closure shifts the injector to inject and a second is required to shift it back to load. 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 lightweight 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.

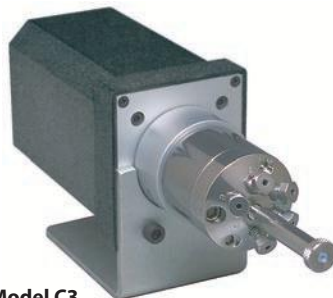
Model C2V is designed specifically for use in an autosampler. It is like the standard C2 except that the sample port is perpendicular to the valve axis. This permits the valve and actuator to be installed horizontally, while the syringe loads the injector vertically.

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.

PORT DIAMETERS

Model	Fitting size	Standard port diameter
-------	--------------	------------------------

High Pressure

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

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
High Pressure					
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
Low Pressure					
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
OEM – High Pressure					
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
OEM – Low Pressure					
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.

MORE INFORMATION

Actuation ... pp 188-209

Materials

Metals 254-255
Polymers 256
Valve rotors 257

Valve descriptions

Cheminert
Injectors 147-151
Selectors 152-153
Nanovolume® 147
Diaphragm 142-143
Valco
Injectors 101
Selectors 102-103

Cheminert valve prices

HPLC 158-165
Low pressure 166-169
Nanovolume®
valves.. 154-155, 158-159
Selectors 172-179
OEM 180-187
UHPLC 154-157



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

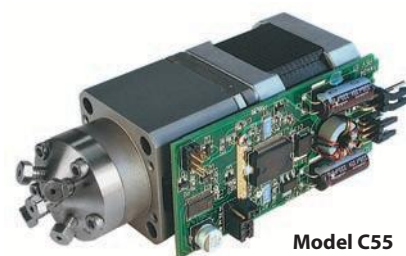
Integrated Motor/Stream Selectors

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).

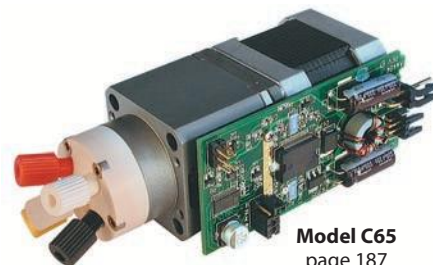
See how our stream selectors can simplify your instrument design and minimize time to market – all while trimming your costs.

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

Price



6 Port

Prod No

Price

Coated stainless stator – for use with metal tubing

Manual	C72MU-4674	\$1540	C72MU-4676	\$1540
With air actuator	C72MU-4674A	1790	C72MU-4676A	1790
With microelectric actuator	C72MU-4674EH	2280	C72MU-4676EH	2280
Replacement valve	C72MU-4674D	1540	C72MU-4676D	1540
Replacement rotor	C72M-46R4	95	C72M-46R6	95
Replacement stator	C72M-4C74	1090	C72M-4C76	1090

Coated stainless stator – for use with fused silica tubing

Manual	C72MFSU-4674	\$1590	C72MFSU-4676	\$1615
With air actuator	C72MFSU-4674A	1840	C72MFSU-4676A	1865
With microelectric actuator	C72MFSU-4674EH	2330	C72MFSU-4676EH	2355
Replacement valve	C72MFSU-4674D	1540	C72MFSU-4676D	1615
Replacement rotor	C72M-46R4	95	C72M-46R6	95
Replacement stator	C72M-4C74	1090	C72M-4C76	1090

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

Price



10 Port

Prod No

Price

Coated stainless stator

Manual	C72MX-6676	\$1240	C72MX-6670	\$1340
With air actuator	C72MX-6676A	1490	C72MX-6670A	1590
With microelectric actuator	C72MX-6676EH	1980	C72MX-6670ED	2140
Replacement valve	C72MX-6676D	1240	C72MX-6670D	1340
Replacement rotor	C72M-66R6	95	C72M-66R0	95
Replacement stator	C72M-6C76	940	C72M-6C70	1040

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 INFORMATION360 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.

15,000 psi

Nanobore

1/32"

150 µm



6 Port *



10 Port

Prod No	Price	Prod No	Price
C72NX-6676	\$1140	C72NX-6670	\$1240
C72NX-6676A	1390	C72NX-6670A	1490
C72NX-6676EH	1880	C72NX-6670ED	2040
C72NX-6676D	1140	C72NX-6670D	1240
C72N-66R6	95	C72N-66R0	95
C72N-6C76	840	C72N-6C70	940

Coated stainless stator

Manual

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator



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	Price
1 µl	CSLN1K	\$35
2 µl	CSLN2K	45
5 µl	CSLN5K	53
10 µl	CSLN10K	60



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		20 nanoliters		30 nanoliters	
Prod No	Price	Prod No	Price	Prod No	Price
C74NX-6674-.01	\$1140	C74NX-6674-.02	\$1140	C74NX-6674-.03	\$1140
C74NX-6674-.01A	1390	C74NX-6674-.02A	1390	C74NX-6674-.03A	1390
C74NX-6674-.01EH	1880	C74NX-6674-.02EH	1880	C74NX-6674-.03EH	1880
C74NX-6674-.01D	1140	C74NX-6674-.02D	1140	C74NX-6674-.03D	1140
C74N-66R-.01	95	C74N-66R-.02	95	C74N-66R-.03	95
C74N-6C7	840	C74N-6C7	840	C74N-6C7	840

MORE INFORMATION

1/32" Valco

fittingspages 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.

SPECS
**15,000 psi liq
50°C max**

 Stainless stator
with inert coating
Valcon E3 rotor
OPTIONS

■ 0.15 mm ports (.006")

**4 Port**

Prod No	Price
C72X-1674	\$940

**6 Port***

Prod No	Price
C72X-1676	\$940

**8 Port**

Prod No	Price
C72X-1678	\$990

**10 Port**

Prod No	Price
C72X-1670	\$1040

Manual	C72X-1674	\$940	C72X-1676	\$940	C72X-1678	\$990	C72X-1670	\$1040
With air actuator	C72X-1674A	1190	C72X-1676A	1190	C72X-1678A	1240	C72X-1670A	1290
With microelectric actuator	C72X-1674EH	1680	C72X-1676EH	1680	C72X-1678ED	1790	C72X-1670ED	1840
Replacement valve	C72X-1674D	940	C72X-1676D	940	C72X-1678D	990	C72X-1670D	1040
Replacement rotor	C72-16R4	95	C72-16R6	95	C72-16R8	95	C72-16R0	95
Replacement stator	C72-1C74	640	C72-1C76	640	C72-1C78	690	C72-1C70	740

**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.

SPECS
**10,000 psi liq
50°C max**

 Stainless stator
with inert coating
Valcon E3 rotor
OPTIONS

■ 0.15 mm ports (.006")

**4 Port**

Prod No	Price
C72H-1674	\$790

**6 Port***

Prod No	Price
C72H-1676	\$790

**8 Port**

Prod No	Price
C72H-1678	\$840

**10 Port**

Prod No	Price
C72H-1670	\$890

Manual	C72H-1674	\$790	C72H-1676	\$790	C72H-1678	\$840	C72H-1670	\$890
With air actuator	C72H-1674A	1040	C72H-1676A	1040	C72H-1678A	1090	C72H-1670A	1140
With microelectric actuator	C72H-1674EH	1530	C72H-1676EH	1530	C72H-1678ED	1640	C72H-1670ED	1690
Replacement valve	C72H-1674D	790	C72H-1676D	790	C72H-1678D	840	C72H-1670D	890
Replacement rotor	C72-16R4	95	C72-16R6	95	C72-16R8	95	C72-16R0	95
Replacement stator	C72-1C74	640	C72-1C76	640	C72-1C78	690	C72-1C70	740


**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	Price	Volume	Prod No	Price	Volume	Prod No	Price
2 µl	CSL2	\$22.50	50 µl	CSL50	\$22.50	1 ml	CSL1K	\$35.00
5 µl	CSL5	22.50	100 µl	CSL100	31.25	2 ml	CSL2K	45.00
10 µl	CSL10	22.50	250 µl	CSL250	31.25	5 ml	CSL5K	52.50
20 µl	CSL20	22.50	500 µl	CSL500	31.25	10 ml	CSL10K	68.75

**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

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****OPTIONS**

■ 0.15 mm ports (.006")

Sample volume**20 nanoliters**

Prod No Price

50 nanoliters

Prod No Price

100 nanoliters

Prod No Price

Manual	C74X-1674-.02	\$940	C74X-1674-.05	\$940	C74X-1674-.1	\$940
With air actuator	C74X-1674-.02A	1190	C74X-1674-.05A	1190	C74X-1674-.1A	1190
With microelectric actuator	C74X-1674-.02EH	1680	C74X-1674-.05EH	1680	C74X-1674-.1EH	1680
Replacement valve	C74X-1674-.02D	940	C74X-1674-.05D	940	C74X-1674-.1D	940
Replacement rotor	C74-16R-.02	95	C74-16R-.05	95	C74-16R-.1	95
Replacement stator	C74-1C7	640	C74-1C7	640	C74-1C7	640

**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

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****OPTIONS**

■ 0.15 mm ports (.006")

Sample volume**20 nanoliters**

Prod No Price

50 nanoliters

Prod No Price

100 nanoliters

Prod No Price

Manual	C74H-1674-.02	\$790	C74H-1674-.05	\$790	C74H-1674-.1	\$790
With air actuator	C74H-1674-.02A	1040	C74H-1674-.05A	1040	C74H-1674-.1A	1040
With microelectric actuator	C74H-1674-.02EH	1530	C74H-1674-.05EH	1530	C74H-1674-.1EH	1530
Replacement valve	C74H-1674-.02D	790	C74H-1674-.05D	790	C74H-1674-.1D	790
Replacement rotor	C74-16R-.02	95	C74-16R-.05	95	C74-16R-.1	95
Replacement stator	C74-1C7	640	C74-1C7	640	C74-1C7	640


**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*



10 Port

N60 stainless stator

Manual

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

Prod No

Price

Prod No

Price

C2N-4006

\$1055

C2N-4000

\$1165

C2N-4006EH

1795

C2N-4000EH

1905

C2N-4006D

1055

C2N-4000D

1165

C2N-40R6

92

C2N-40R0

92

C2N-4C06

595

C2N-4C00

680

PAEK stator

Manual

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

C2N-4346

\$1055

C2N-4340

\$1165

C2N-4346EH

1795

C2N-4340EH

1905

C2N-4346D

1055

C2N-4340D

1165

C2N-43R6

92

C2N-43R0

92

C2N-4C46

595

C2N-4C40

680

SPECS

5000 psi liq

50°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.

Volume	Stainless steel		PEEK	
	Prod No	Price	Prod No	Price
1 µl	CSLN1K	\$35	CSLN1KPK	\$40
2 µl	CSLN2K	45	CSLN2KPK	48
5 µl	CSLN5K	53	CSLN5KPK	54
10 µl	CSLN10K	60	CSLN10KPK	60

**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
50°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****10 nanoliters****20 nanoliters****N60 stainless stator**

	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C4N-4004-.004	\$1055	C4N-4004-.01	\$1055	C4N-4004-.02	\$1055
With microelectric actuator	C4N-4004-.004EH	1795	C4N-4004-.01EH	1795	C4N-4004-.02EH	1795
Replacement valve	C4N-4004-.004D	1055	C4N-4004-.01D	1055	C4N-4004-.02D	1055
Replacement rotor	C4N-40R-.004	92	C4N-40R-.01	92	C4N-40R-.02	92
Replacement stator	C4N-4C0	595	C4N-4C0	595	C4N-4C0	595

PAEK stator

Manual	C4N-4344-.004	\$1055	C4N-4344-.01	\$1055	C4N-4344-.02	\$1055
With microelectric actuator	C4N-4344-.004EH	1795	C4N-4344-.01EH	1795	C4N-4344-.02EH	1795
Replacement valve	C4N-4344-.004D	1055	C4N-4344-.01D	1055	C4N-4344-.02D	1055
Replacement rotor	C4N-43R-.004	92	C4N-43R-.01	92	C4N-43R-.02	92
Replacement stator	C4N-4C4	595	C4N-4C4	595	C4N-4C4	595



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 PAEK 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



6 Port*



8 Port



10 Port

	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
N60 stainless stator								
Manual	C2-1004	\$550	C2-1006	\$550	C2H-1008	\$605	C2H-1000	\$660
With air actuator	C2-1004A	800	C2-1006A	800	C2H-1008A	855	C2H-1000A	910
With microelectric actuator	C2-1004EH	1290	C2-1006EH	1290	C2H-1008EH	1345	C2H-1000EH	1400
Replacement valve	C2-1004D	550	C2-1006D	550	C2H-1008D	605	C2H-1000D	660
Replacement rotor	C2-10R4	72	C2-10R6	72	C2-10R8H	72	C2-10R0H	72
Replacement stator	C-1C04	385	C-1C06	385	C-1C08H	440	C-1C00H	495
PAEK stator								
Manual	C2-1344	660	C2-1346	660	C2H-1348	715	C2H-1340	770
With air actuator	C2-1344A	910	C2-1346A	910	C2H-1348A	965	C2H-1340A	1020
With microelectric actuator	C2-1344EH	1400	C2-1346EH	1400	C2H-1348EH	1455	C2H-1340EH	1510
Replacement valve	C2-1344D	660	C2-1346D	660	C2H-1348D	715	C2H-1340D	770
Replacement rotor	C2-13R4	72	C2-13R6	72	C2-13R8H	72	C2-13R0H	72
Replacement stator	C-1C44	495	C-1C46	495	C-1C48H	550	C-1C40H	605
Titanium stator								
Manual	C2-1034	840	C2-1036	840	C2H-1038	895	C2H-1030	950
With air actuator	C2-1034A	1090	C2-1036A	1090	C2H-1038A	1145	C2H-1030A	1200
With microelectric actuator	C2-1034EH	1580	C2-1036EH	1580	C2H-1038EH	1635	C2H-1030EH	1690
Replacement valve	C2-1034D	840	C2-1036D	840	C2H-1038D	895	C2H-1030D	950
Replacement rotor	C2-10R4	72	C2-10R6	72	C2-10R8H	72	C2-10R0H	72
Replacement stator	C-1C34	675	C-1C36	675	C-1C38H	730	C-1C30H	785

SPECS**5000 psi liq****75°C max**

Metal stator

Valcon H rotor

5000 psi liq**50°C max**

PAEK 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



Order loops from page 161.


Model C2
1/16" ZDV fittings
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

Microbore 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

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		20 nanoliters		50 nanoliters	
	Prod No	Price	Prod No	Price	Prod No	Price
N60 stainless stator						
Manual	C4-0004-.01	\$715	C4-0004-.02	\$715	C4-0004-.05	\$715
With air actuator	C4-0004-.01A	965	C4-0004-.02A	965	C4-0004-.05A	965
With microelectric actuator	C4-0004-.01EH	1455	C4-0004-.02EH	1455	C4-0004-.05EH	1455
Replacement valve	C4-0004-.01D	715	C4-0004-.02D	715	C4-0004-.05D	715
Replacement rotor	C4-00R-.01	82	C4-00R-.02	82	C4-00R-.05	82
Replacement stator	C4-0C0	550	C4-0C0	550	C4-0C0	550
PAEK stator						
Manual	C4-0344-.01	825	C4-0344-.02	825	C4-0344-.05	825
With air actuator	C4-0344-.01A	1075	C4-0344-.02A	1075	C4-0344-.05A	1075
With microelectric actuator	C4-0344-.01EH	1565	C4-0344-.02EH	1565	C4-0344-.05EH	1565
Replacement valve	C4-0344-.01D	825	C4-0344-.02D	825	C4-0344-.05D	825
Replacement rotor	C4-03R-.01	82	C4-03R-.02	82	C4-03R-.05	82
Replacement stator	C4-0C4	660	C4-0C4	660	C4-0C4	660



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.

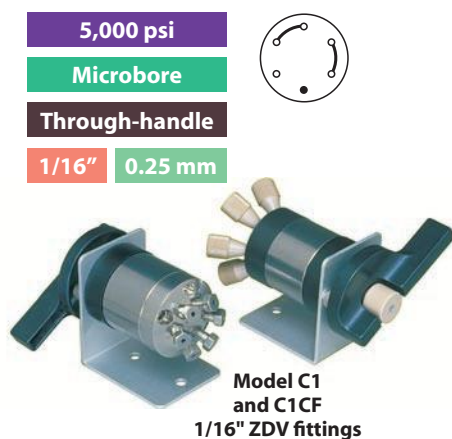
Volume	Stainless Steel		PEEK (for PAEK stators)		Titanium	
	Prod No	Price	Prod No	Price	Prod No	Price
2 µl	CSL2	\$22.50	CZSL2PK	\$31.25	—	—
5 µl	CSL5	22.50	CZSL5PK	31.25	—	—
10 µl	CSL10	22.50	CZSL10PK	31.25	CSL10TI	\$50.00
20 µl	CSL20	22.50	CZSL20PK	27.50	CSL20TI	50.00
50 µl	CSL50	22.50	CZSL50PK	25.00	CSL50TI	50.00
100 µl	CSL100	31.25	CZSL100PK	25.00	CSL100TI	50.00
250 µl	CSL250	31.25	CZSL250PK	31.25	CSL250TI	75.00
500 µl	CSL500	31.25	CZSL500PK	37.50	CSL500TI	150.00
1 ml	CSL1K	35.00	CZSL1KPK	50.00	CSL1KTI	237.00
2 ml	CSL2K	45.00	CZSL2KPK	68.75	—	—
5 ml	CSL5K	52.50	CZSL5KPK	106.25	—	—
10 ml	CSL10K	68.75	—	—	—	—



CHEMINERT VALVES

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

Model C1



5,000 psi

Microbore

Through-the-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	Price
C1-1006	\$705
C1-10R6	72
C-1C06	385

Prod No	Price
C-261	\$39

PAEK stator

Prod No	Price
C1-1346	\$815
C1-13R6	72
C-1C46	495

**SPECS**

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

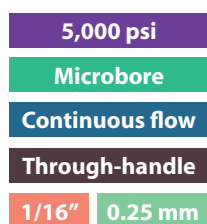
5000 psi liq
50°C max
PAEK stator
Valcon E rotor

OPTIONS

- Titanium and Hastelloy stators available.
- 0.40 mm bore (.016") on page 165.

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

Model C1CF



5,000 psi

Microbore

Continuous flow

Through-the-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	Price
C1CF-1006	\$760
C1-10R6	72
C6-1C06	440

Prod No	Price
C-261	\$39

PAEK stator

Prod No	Price
C1CF-1346	\$870
C1-13R6	72
C6-1C46	550

**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.

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

Model C6



Model C6
1/16" ZDV fittings

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	Price
C6-1006	\$605
C6-1006A	855
C6-1006E	1175
C6-1006EH	1345

Prod No	Price
C6-1006D	605
C2-10R6	72
C6-1C06	440

PAEK stator

Prod No	Price
C6-1346	\$715
C6-1346A	965
C6-1346E	1285
C6-1346EH	1455

Prod No	Price
C6-1346D	715
C2-13R6	72
C6-1C46	550

SPECS

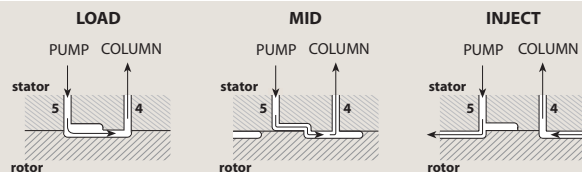
5000 psi liq
75°C max
Metal stator
Valcon H rotor

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

Order loops from page 161.

**C1CF and C6
CONTINUOUS FLOWPATH**

An engraving on the stator maintains pump flow between ports 5 and 4 during most of the switching cycle, virtually eliminating pressure spikes.



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

PAEK 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.

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 Price



6 Port*

Prod No Price



8 Port

Prod No Price



10 Port

Prod No Price

N60 stainless stator

Manual	C2-2004	\$385	C2-2006	\$385	C2H-2008	\$440	C2H-2000	\$495
With air actuator	C2-2004A	635	C2-2006A	635	C2H-2008A	690	C2H-2000A	745
With microelectric actuator	C2-2004EH	1125	C2-2006EH	1125	C2H-2008EH	1180	C2H-2000EH	1235
Replacement valve	C2-2004D	385	C2-2006D	385	C2H-2008D	440	C2H-2000D	495
Replacement rotor	C2-20R4	72	C2-20R6	72	C2-20R8H	72	C2-20R0H	72
Replacement stator	C-2C04	220	C-2C06	220	C-2C08H	275	C-2C00H	330

PAEK stator

Manual	C2-2344	495	C2-2346	495	C2H-2348	550	C2H-2340	605
With air actuator	C2-2344A	745	C2-2346A	745	C2H-2348A	800	C2H-2340A	855
With microelectric actuator	C2-2344EH	1235	C2-2346EH	1235	C2H-2348EH	1290	C2H-2340EH	1345
Replacement valve	C2-2344D	495	C2-2346D	495	C2H-2348D	550	C2H-2340D	605
Replacement rotor	C2-23R4	72	C2-23R6	72	C2-23R8H	72	C2-23R0H	72
Replacement stator	C-2C44	330	C-2C46	330	C-2C48H	385	C-2C40H	440

Titanium stator

Manual	C2-2034	675	C2-2036	675	C2H-2038	730	C2H-2030	785
With air actuator	C2-2034A	925	C2-2036A	925	C2H-2038A	980	C2H-2030A	1035
With microelectric actuator	C2-2034EH	1415	C2-2036EH	1415	C2H-2038EH	1470	C2H-2030EH	1525
Replacement valve	C2-2034D	675	C2-2036D	675	C2H-2038D	730	C2H-2030D	785
Replacement rotor	C2-20R4	72	C2-20R6	72	C2-20R8H	72	C2-20R0H	72
Replacement stator	C-2C34	510	C-2C36	510	C-2C38H	565	C-2C30H	620

Order loops
from page 161.

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.



Model C2
1/16" ZDV fittings

**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****0.2 µl****0.5 µl**

Prod No

Price

Price

Price

N60 stainless stator

Manual	C4-1004-.1	\$550	C4-1004-.2	\$550	C4-1004-.5	\$550
With air actuator	C4-1004-.1A	800	C4-1004-.2A	800	C4-1004-.5A	800
With microelectric actuator	C4-1004-.1EH	1290	C4-1004-.2EH	1290	C4-1004-.5EH	1290
Replacement valve	C4-1004-.1D	550	C4-1004-.2D	550	C4-1004-.5D	550
Replacement rotor	C4-10R-.1	72	C4-10R-.2	72	C4-10R-.5	72
Replacement stator	C4-1C0	385	C4-1C0	385	C4-1C0	385

PAEK stator

Manual	C4-1344-.1	660	C4-1344-.2	660	C4-1344-.5	660
With air actuator	C4-1344-.1A	910	C4-1344-.2A	910	C4-1344-.5A	910
With microelectric actuator	C4-1344-.1EH	1400	C4-1344-.2EH	1400	C4-1344-.5EH	1400
Replacement valve	C4-1344-.1D	660	C4-1344-.2D	660	C4-1344-.5D	660
Replacement rotor	C4-13R-.1	72	C4-13R-.2	72	C4-13R-.5	72
Replacement stator	C4-1C4	495	C4-1C4	495	C4-1C4	495

Titanium stator

Manual	C4-1034-.1	840	C4-1034-.2	840	C4-1034-.5	840
With air actuator	C4-1034-.1A	1090	C4-1034-.2A	1090	C4-1034-.5A	1090
With microelectric actuator	C4-1034-.1EH	1580	C4-1034-.2EH	1580	C4-1034-.5EH	1580
Replacement valve	C4-1034-.1D	840	C4-1034-.2D	840	C4-1034-.5D	840
Replacement rotor	C4-10R-.1	72	C4-10R-.2	72	C4-10R-.5	72
Replacement stator	C4-1C3	675	C4-1C3	675	C4-1C3	675

SPECS**5000 psi liq****75°C max**Metal stator
Valcon H rotor**5000 psi liq****50°C max**PAEK 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
MORE INFORMATION**Actuators**

Air		page 197
Microelectric		190
Universal		193

Materials

Metals		254-255
Polymers		256
Valve rotors		257

Standoff

assemblies		205
------------	-------	-----

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

Model C1

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 stator available.

■ 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 Price

6 port injector

C1-2006 \$540

Replacement rotor

C1-20R6 72

Replacement stator

C-2C06 220

Prod No Price

Replacement injector fitting

C-261 \$39



PAEK stator

Prod No Price

C1-2346 \$650

C1-23R6 72

C-2C46 330



5,000 psi

Analytical

Through-the-handle

1/16" 0.40 mm

Model C1 and C1CF
1/16" ZDV fittings

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

Model C1CF

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 Price

6 port injector

C1CF-2006 \$595

Replacement rotor

C1-20R6 72

Replacement stator

C6-2C06 270

Prod No Price

Replacement injector fitting

C-261 \$39



PAEK stator

Prod No Price

C1CF-2346 \$705

C1-23R6 72

C6-2C46 380



5,000 psi

Analytical

Continuous flow

Through-the-handle

1/16" 0.40 mm

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 Price

Manual

C6-2006 \$440

With pneumatic actuator

C6-2006A 690

With microelectric actuator

C6-2006EH 1180

PAEK stator

Prod No Price

C6-2346 \$550

C6-2346A 800

C6-2346EH 1290

Order loops from page 161.

Replacement valve

C6-2006D 440

Replacement rotor

C2-20R6 72

Replacement stator

C6-2C06 270

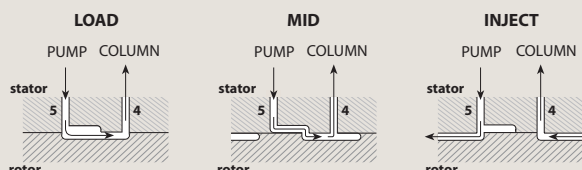
C6-2346D 550

C2-23R6 72

C6-2C46 380

C1CF and C6 CONTINUOUS FLOWPATH

An engraving on the stator maintains pump flow between ports 5 and 4 during most of the switching cycle, virtually eliminating pressure spikes.

Model C6
1/16" ZDV fittings

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



6 Port



8 Port



10 Port

Manual
With air actuator
With microelectric actuator

Replacement valve
Replacement rotor
Replacement stator

Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
C22Z-3184	\$260	C22Z-3186	\$260	C22Z-3188	\$290	C22Z-3180	\$315
C22Z-3184A	510	C22Z-3186A	510	C22Z-3188A	540	C22Z-3180A	565
C22Z-3184EH	1000	C22Z-3186EH	1000	C22Z-3188EH	1030	C22Z-3180EH	1055
C22Z-3184D	260	C22Z-3186D	260	C22Z-3188D	290	C22Z-3180D	315
C12-314	50	C12-316	50	C12-318	50	C12-310	50
C22Z-384	150	C22Z-386	150	C22Z-388	180	C22Z-380	205



Model C22Z
1/16" ZDV fittings

SPECS

100 psi gas/ 250 psi liq
75°C max

PPS stator

Valcon E2 rotor

OPTIONS

■ 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.

Volume	FEP		PTFE		PEEK	
	Prod No	Price	Prod No	Price	Prod No	Price
5 µl	CZSL5FEP	\$25.00	CZSL5TF	\$25.00	CZSL5PK	\$31.25
10 µl	CZSL10FEP	25.00	CZSL10TF	25.00	CZSL10PK	31.25
20 µl	CZSL20FEP	22.50	CZSL20TF	22.50	CZSL20PK	27.50
50 µl	CZSL50FEP	18.75	CZSL50TF	18.75	CZSL50PK	25.00
100 µl	CZSL100FEP	18.75	CZSL100TF	18.75	CZSL100PK	25.00
250 µl	CZSL250FEP	22.50	CZSL250TF	22.50	CZSL250PK	31.25
500 µl	CZSL500FEP	25.00	CZSL500TF	25.00	CZSL500PK	37.50
1 ml	CZSL1KFEP	30.00	CZSL1KTF	30.00	CZSL1KPK	50.00
2 ml	CZSL2KFEP	37.50	CZSL2KTF	37.50	CZSL2KPK	68.75

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 maxPPS stator
Valcon E2 rotorIncludes 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



6 Port



8 Port



10 Port

	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C22-3184	\$260	C22-3186	\$260	C22-3188	\$350	C22-3180	\$375
With air actuator	C22-3184A	510	C22-3186A	510	C22-3188A	600	C22-3180A	625
With microelectric actuator	C22-3184EH	1000	C22-3186EH	1000	C22-3188EH	1090	C22-3180EH	1115
Replacement valve	C22-3184D	260	C22-3186D	260	C22-3188D	350	C22-3180D	375
Replacement rotor	C22-314	50	C22-316	50	C22-318	50	C22-310	50
Replacement stator	C22-384	150	C22-386	150	C22-388	240	C22-380	265

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 maxPPS stator
Valcon E2 rotorIncludes 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		6 Port		8 Port		10 Port	
	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C22-6184	\$260	C22-6186	\$260	C22-6188	\$350	C22-6180	\$375
With air actuator	C22-6184A	510	C22-6186A	510	C22-6188A	600	C22-6180A	625
With microelectric actuator	C22-6184EH	1000	C22-6186EH	1000	C22-6188EH	1090	C22-6180EH	1115
Replacement valve	C22-6184D	260	C22-6186D	260	C22-6188D	350	C22-6180D	375
Replacement rotor	C22-614	50	C22-616	50	C22-618	50	C22-610	50
Replacement stator	C22-684	150	C22-686	150	C22-688	240	C22-680	265

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.



	FEP		PTFE		PEEK	
Volume	Prod No	Price	Prod No	Price	Prod No	Price
20 µl	CFSL20FEP	\$17.50	CFSL20TF	\$17.50	CFSL20PK	\$25.00
50 µl	CFSL50FEP	17.50	CFSL50TF	17.50	CFSL50PK	25.00
100 µl	CFSL100FEP	17.50	CFSL100TF	17.50	CFSL100PK	25.00
250 µl	CFSL250FEP	17.50	CFSL250TF	17.50	CFSL250PK	25.00
500 µl	CFSL500FEP	20.00	CFSL500TF	20.00	CFSL500PK	30.00
1 ml	CFSL1KFEP	25.00	CFSL1KTF	25.00	CFSL1KPK	40.00
2 ml	CFSL2KFEP	30.00	CFSL2KTF	30.00	CFSL2KPK	62.50

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.

Model C22
1/4-28 fittings

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

0.5 µl

1 µl

	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C24Z-2184-.2	\$260	C24Z-2184-.5	\$260	C24Z-2184-1	\$260
With air actuator	C24Z-2184-.2A	510	C24Z-2184-.5A	510	C24Z-2184-1A	510
With microelectric actuator	C24Z-2184-.2EH	1000	C24Z-2184-.5EH	1000	C24Z-2184-1EH	1000
Replacement valve	C24Z-2184-.2D	260	C24Z-2184-.5D	260	C24Z-2184-1D	260
Replacement rotor	C24-10R-.2	50	C24-10R-.5	50	C24-10R-1	50
Replacement stator	C24Z-1C8	150	C24Z-1C8	150	C24Z-1C8	150



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 maxPPS 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****1 µl****2 µl**

	<i>Prod No</i>	<i>Price</i>	<i>Prod No</i>	<i>Price</i>	<i>Prod No</i>	<i>Price</i>
Manual	C24-2184-.5	\$260	C24-2184-1	\$260	C24-2184-2	\$260
With air actuator	C24-2184-.5A	510	C24-2184-1A	510	C24-2184-2A	510
With microelectric actuator	C24-2184-.5EH	1000	C24-2184-1EH	1000	C24-2184-2EH	1000
Replacement valve	C24-2184-.5D	260	C24-2184-1D	260	C24-2184-2D	260
Replacement rotor	C24-10R-.5	50	C24-10R-1	50	C24-10R-2	50
Replacement stator	C24-1C8	150	C24-1C8	150	C24-1C8	150

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

CHEMINERT VALVES

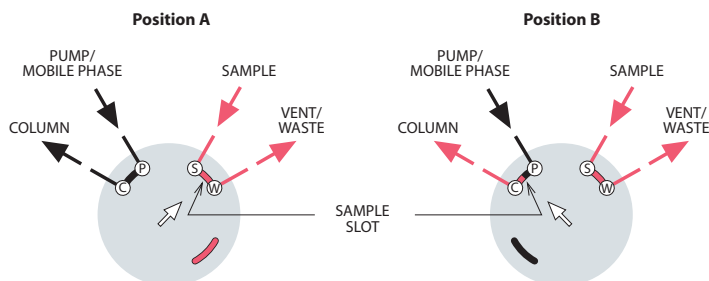
These illustrations show basic sample injection techniques using Cheminert two position valves. With rare exceptions, there is no difference between switching valves and external volume sampling valves, so the same valve can be used for either function.

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

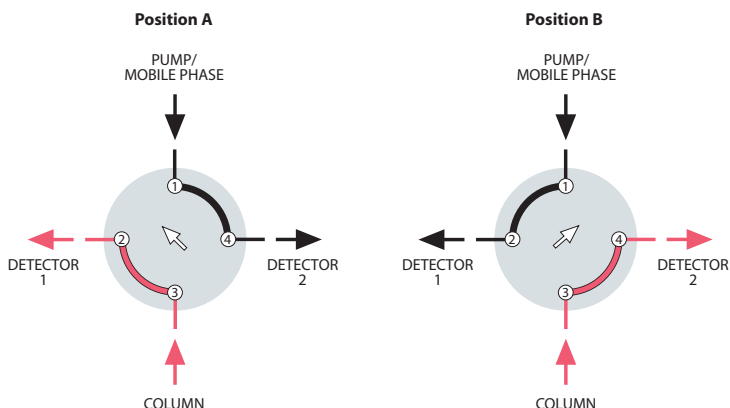
The internal sample (fixed volume) flowpath is used when very small sample volumes are required. The sample size is determined by a passage engraved on the valve rotor, allowing precise, repeatable injections. In Position A, the sample flows through the sample passage while the mobile phase flows through 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.



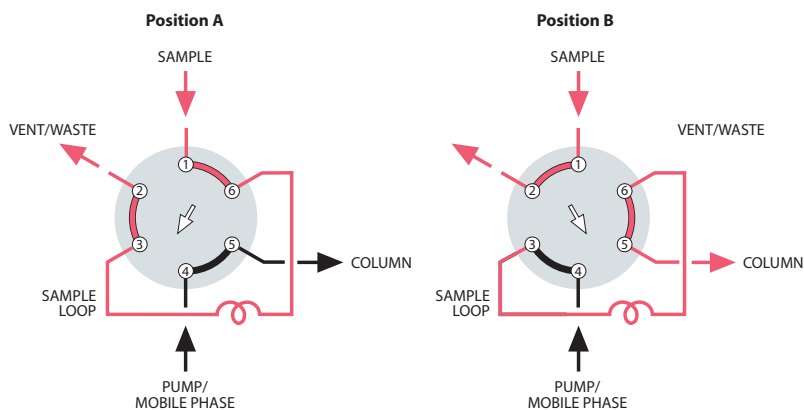
4 port switching valve

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



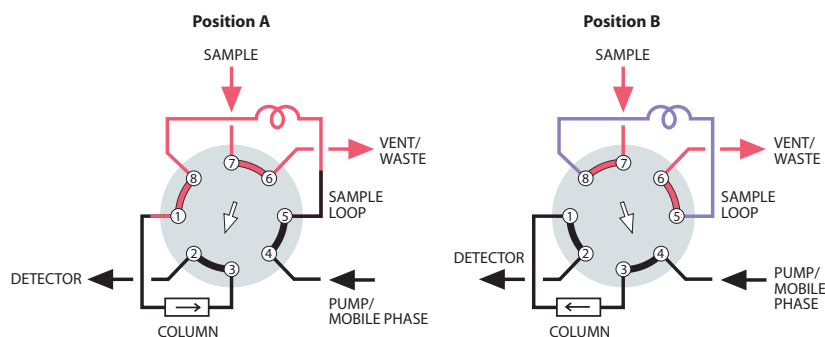
SAMPLE INJECTION

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 applicationspages 120-121

8 port sampling/switching

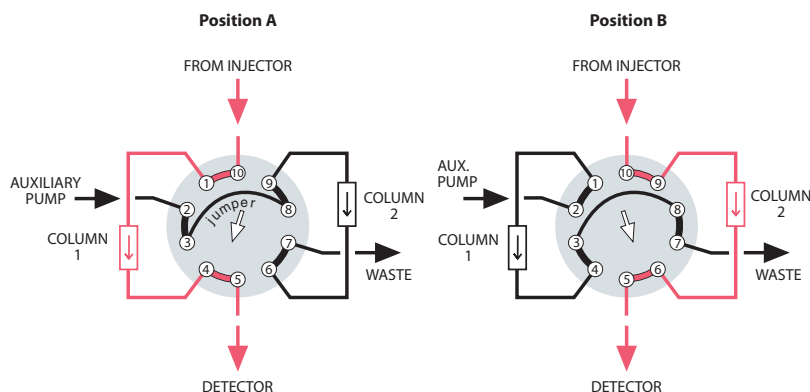


LOOP SAMPLING WITH BACKFLUSH TO DETECTOR

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 applicationspages 122-123

CHEMINERT VALVES

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

Model C75NX

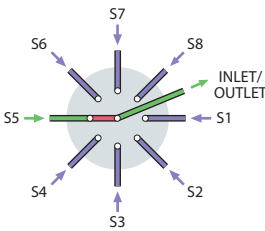
15,000 psi

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		8 Position		10 Position	
	Prod No	Price	Prod No	Price	Prod No	Price
Coated stainless stator						
With air actuator	C75NX-6676A	\$1620	C75NX-6678A	\$1670	C75NX-6670A	\$1720
With microelectric actuator	C75NX-6676EMH	2185	C75NX-6678EMT	2295	C75NX-6670EMT	2345
Replacement valve	C75NX-6676D	1215	C75NX-6678D	1265	C75NX-6670D	1315
Replacement rotor	C75N-66R6	95	C75N-66R8	95	C75N-66R0	95
Replacement stator	C75N-6C76	915	C75N-6C78	965	C75N-6C70	1015



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

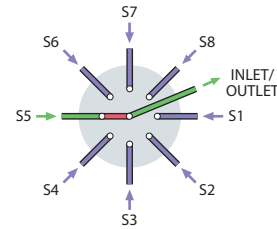
Stainless stator
with inert coating
Valcon E3 rotor

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

OPTIONS

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

Coated stainless stator

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

6 Position

Prod No Price

C75H-1676A \$1270

C75H-1676EMH 1835

C75H-1676D 865

C75-16R6 95

C75-1C76 715

8 Position

Prod No Price

C75H-1678A \$1320

C75H-1678EMT 1945

C75H-1678D 915

C75-16R8 95

C75-1C78 765

10 Position

Prod No Price

C75H-1670A \$1370

C75H-1670EMT 1995

C75H-1670D 965

C75-16R0 95

C75-1C70 815



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

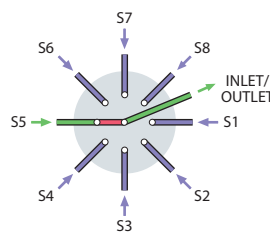
Includes nuts and ferrules.

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

Manual

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

PAEK stator

Manual

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

Titanium stator

Manual

With air actuator

With microelectric actuator

Replacement valve

Replacement rotor

Replacement stator

4 Position		6 Position		8 Position		10 Position	
Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
C5-2004	\$470	C5-2006	\$470	C5H-2008	\$525	C5H-2000	\$580
C5-2004A	875	C5-2006A	875	C5H-2008A	930	C5H-2000A	985
C5-2004EMH	1440	C5-2006EMH	1440	C5H-2008EMT	1555	C5H-2000EMT	1610
C5-2004D	470	C5-2006D	470	C5H-2008D	525	C5H-2000D	580
C5-20R4	72	C5-20R6	72	C5-20R8H	72	C5-20R0H	72
C5-2C04	265	C5-2C06	265	C5-2C08H	320	C5-2C00H	375
C5-2344	580	C5-2346	580	C5H-2348	635	C5H-2340	690
C5-2344A	985	C5-2346A	985	C5H-2348A	1040	C5H-2340A	1095
C5-2344EMH	1550	C5-2346EMH	1550	C5H-2348EMT	1665	C5H-2340EMT	1720
C5-2344D	580	C5-2346D	580	C5H-2348D	635	C5H-2340D	690
C5-23R4	72	C5-23R6	72	C5-23R8H	72	C5-23R0H	72
C5-2C44	375	C5-2C46	375	C5-2C48H	430	C5-2C40H	485
C5-2034	760	C5-2036	760	C5H-2038	815	C5H-2030	870
C5-2034A	1165	C5-2036A	1165	C5H-2038A	1220	C5H-2030A	1275
C5-2034EMH	1730	C5-2036EMH	1730	C5H-2038EMT	1845	C5H-2030EMT	1900
C5-2034D	760	C5-2036D	760	C5H-2038D	815	C5H-2030D	870
C5-20R4	72	C5-20R6	72	C5-20R8H	72	C5-20R0H	72
C5-2C34	555	C5-2C36	555	C5-2C38H	610	C5-2C30H	645

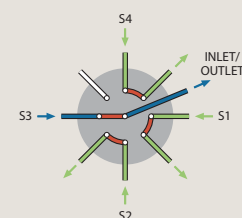


Model C5
6 positions
1/16" ZDV fittings

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
 PAEK stator
 Valcon E rotor

OPTIONS

- 2", 3", 4", and 6" standoffs
- Hastelloy C stator
- Optional 0.25 mm (.010") bore 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 PAEK 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

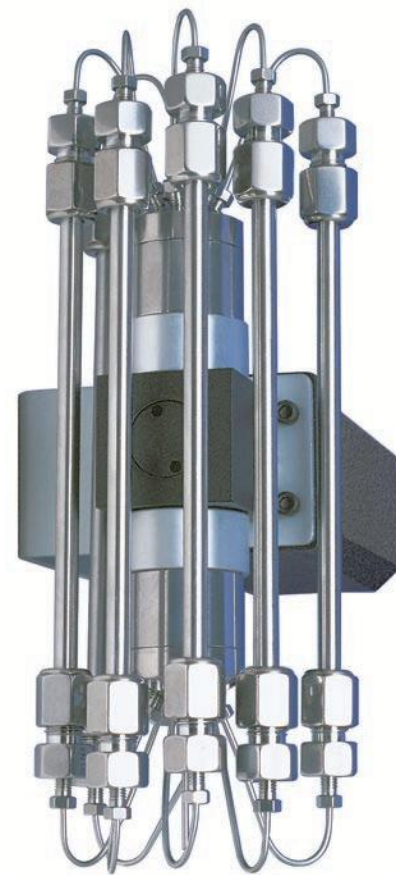
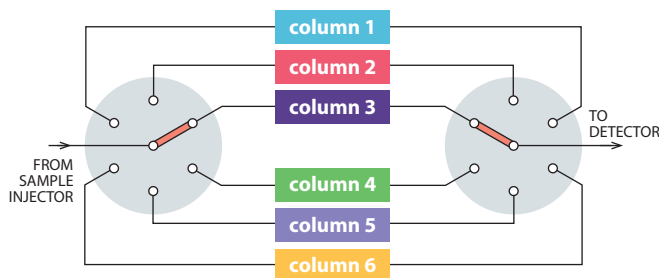
1/16" 0.40 mm

	6 Column		8 Column		10 Column	
	Prod No	Price	Prod No	Price	Prod No	Price
N60 stainless stator						
System	C5-2006EMTD	\$2385	C5H-2008EMTD	\$2555	C5H-2000EMTD	\$2665
Replacement rotor	C5-20R6	72	C5-20R8H	72	C5-20R0H	72
PAEK stator						
System	C5-2346EMTD	2605	C5H-2348EMTD	2775	C5H-2340EMTD	2885
Replacement rotor	C5-23R6	72	C5-23R8H	72	C5-23R0H	72

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

RS-232 interface cable

Prod No	Price
I-22697	\$29

**Model C5 system**

Columns not
included

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

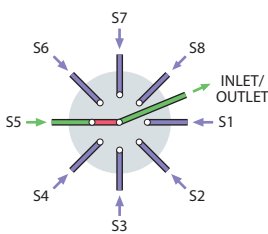
Low pressure

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.

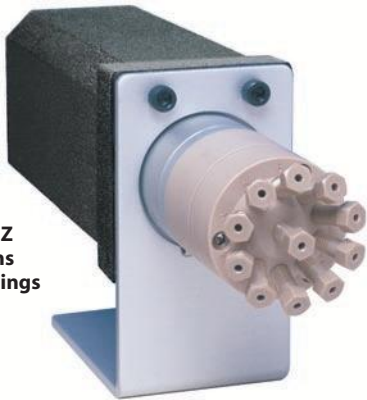


SPECS
100 psi gas/ 250 psi liq
75°C max
PPS stator
Valcon E2 rotor

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

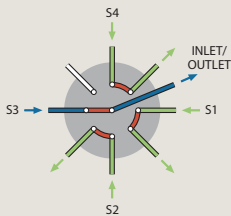
	6 Position		8 Position		10 Position		14 Position	
	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C25Z-3186	\$300	C25Z-3188	\$340	C25Z-3180	\$365	C25Z-31814	\$475
With air actuator	C25Z-3186A	705	C25Z-3188A	745	C25Z-3180A	770	C25Z-31814A	880
With microelectric act.	C25Z-3186EMH	1270	C25Z-3188EMH	1310	C25Z-3180EMH	1335	C25Z-31814EMH	1445
Replacement valve	C25Z-3186D	300	C25Z-3188D	340	C25Z-3180D	365	C25Z-31814D	475
Replacement rotor	C15-310	50	C15-310	50	C15-310	50	C25Z-325	50
Replacement stator	C25Z-386	180	C25Z-388	220	C25Z-380	240	C25Z-38-14	350

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 maxPPS stator
Valcon E2 rotor

OPTIONS

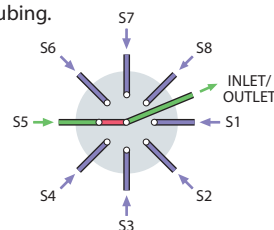
■ 2", 3", 4", and 6"
standoffs

■ 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		6 Position		8 Position		10 Position	
	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C25-3184	\$300	C25-3186	\$300	C25-3188	\$405	C25-3180	\$425
With air actuator	C25-3184A	705	C25-3186A	705	C25-3188A	810	C25-3180A	830
With microelectric act.	C25-3184EMH	1270	C25-3186EMH	1270	C25-3188EMH	1375	C25-3180EMH	1395
Replacement valve	C25-3184D	300	C25-3186D	300	C25-3188D	405	C25-3180D	425
Replacement rotor	C25-314	50	C25-316	50	C15-310	50	C25-310	50
Replacement stator	C25-384	180	C25-386	180	C25-388	280	C25-380	305

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 maxPPS stator
Valcon E2 rotor

OPTIONS

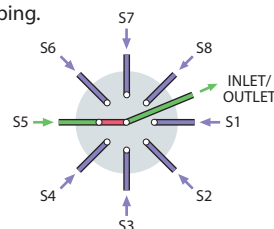
■ 2", 3", 4", and 6"
standoffs

■ 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		6 Position		8 Position		10 Position	
	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
Manual	C25-6184	\$300	C25-6186	\$300	C25-6188	\$405	C25-6180	\$425
With air actuator	C25-6184A	705	C25-6186A	705	C25-6188A	810	C25-6180A	830
With microelectric act.	C25-6184EMH	1270	C25-6186EMH	1270	C25-6188EMH	1375	C25-6180EMH	1395
Replacement valve	C25-6184D	300	C25-6186D	300	C25-6188D	405	C25-6180D	425
Replacement rotor	C25-614	50	C25-616	50	C25-618	50	C25-610	50
Replacement stator	C25-684	180	C25-686	180	C25-688	280	C25-680	305

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

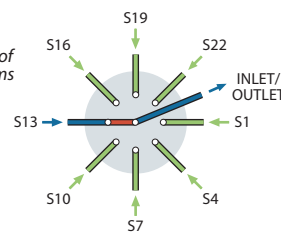
Low pressure

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")		24 Position 0.61 mm (.024")		28 Position 0.56 mm (.022")	
	Prod No	Price	Prod No	Price	Prod No	Price
With microelectric actuator	C25G-24520EMT	\$1830	C25G-24524EMT	\$1880	C25G-24528EMT	\$1910
Replacement valve	C25G-24520D	800	C25G-24524D	850	C25G-24528D	880
Replacement rotor	C25G-24R20	110	C25G-24R24	110	C25G-24R28	110
Replacement stator	C25G-2C520	470	C25G-2C524	530	C25G-2C528	560

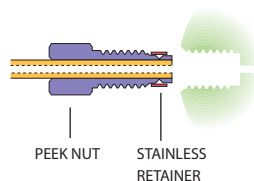


Model C25G
24 positions
1/16" fittings

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	Price
6-40 one piece nut/bushing, natural PEEK, stainless retainer	CNNF1PK	\$14
Tightening tool	CGFT	10

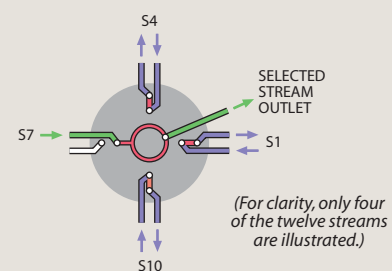


OPTIONAL FLOWPATHS

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

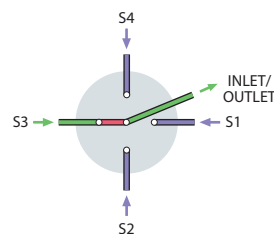
- 2", 3", 4", and 6" standoffs
- Consult the factory for optional materials.
- 8 position selectors are available with 3 mm (.120") ports

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

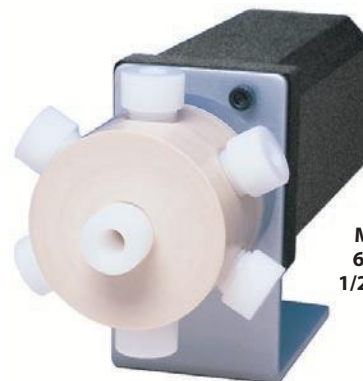
	4 Position		6 Position	
	Prod No	Price	Prod No	Price
With air actuator	C45-9784A	\$930	C45-9786A	\$985
With microelectric actuator	C45-9784EMT	1555	C45-9786EMT	1610
Replacement valve	C45-9784D	525	C45-9786D	580
Replacement rotor	C45-97R4	110	C45-97R6	110

Fittings for C45 valves

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



	Prod No	Price
Delrin nut	CFL-4D	\$6
CTFE nut	CFL-4KF	8
PPS nut	CFL-4PPS	7
CTFE ferrule	CFL-CB4KF-S	5



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

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 compliant

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 Price



6 Port*

Prod No Price



8 Port

Prod No Price



10 Port

Prod No Price

N60 stainless stator

With integrated actuator	C52-1004I	\$900	C52-1006I	\$900	C52-1008I	\$950	C52-1000I	\$1000
With motor/sensor only	C52-1004I-S	750	C52-1006I-S	750	C52-1008I-S	800	C52-1000I-S	850
With motor only	C52-1004IX	700	C52-1006IX	700	C52-1008IX	750	C52-1000IX	800
Replacement rotor	C2-10R4	72	C2-10R6	72	C2-10R8H	72	C2-10R0H	72
Replacement stator	C52-1C04	385	C52-1C06	385	C52-1C08	440	C52-1C00	495

PAEK stator

With integrated actuator	C52-1344I	1000	C52-1346I	1000	C52-1348I	1050	C52-1340I	1100
With motor/sensor only	C52-1344I-S	850	C52-1346I-S	850	C52-1348I-S	900	C52-1340I-S	950
With motor only	C52-1344IX	800	C52-1346IX	800	C52-1348IX	850	C52-1340IX	900
Replacement rotor	C2-13R4	72	C2-13R6	72	C2-13R8H	72	C2-13R0H	72
Replacement stator	C52-1C44	495	C52-1C46	495	C52-1C48	550	C52-1C40	605

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.



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.

Volume	Stainless Steel		PEEK (for PEEK stators)	
	Prod No	Price	Prod No	Price
2 µl	CSL2	\$22.50	CZSL2PK	\$31.25
5 µl	CSL5	22.50	CZSL5PK	31.25
10 µl	CSL10	22.50	CZSL10PK	31.25
20 µl	CSL20	22.50	CZSL20PK	27.50
50 µl	CSL50	22.50	CZSL50PK	25.00
100 µl	CSL100	31.25	CZSL100PK	25.00
250 µl	CSL250	31.25	CZSL250PK	31.25
500 µl	CSL500	31.25	CZSL500PK	37.50
1 ml	CSL1K	35.00	CZSL1KPK	50.00
2 ml	CSL2K	45.00	CZSL2KPK	68.75
5 ml	CSL5K	52.50	CZSL5KPK	106.25
10 ml	CSL10K	68.75	–	–



ABOUT LOOPS

■ Other materials available in many sizes: Electroformed Nickel, Hastelloy C, Nickel 200, and PTFE (see pages 254-5).

■ 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.

MORE INFORMATION

Materials

Metals..... page 254-5

Polymers 256

Valve rotors..... 257

**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**Price***PAEK stator***Prod No**Price*

Manual

C3-1006

\$605

C3-1346

\$715

With air actuator

C3-1006A

855

C3-1346A

965

With microelectric actuator

C3-1006EH

1345

C3-1346EH

1455

Replacement valve

C3-1006D

605

C3-1346D

715

Replacement rotor

C2-10R6

72

C2-13R6

72

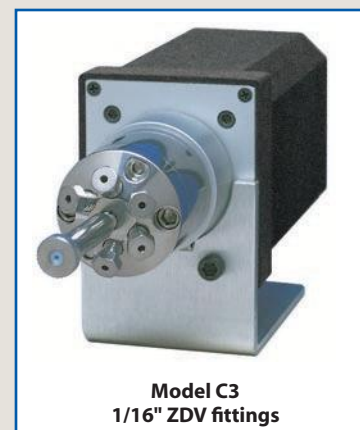
Replacement stator

C3-1C06

440

C3-1C46

550

Order loops
from page 161.
Model C3
1/16" ZDV fittings
**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**Price***PAEK stator***Prod No**Price*

Manual

C2V-1006

\$605

C2V-1346

\$715

With air actuator

C2V-1006A

855

C2V-1346A

965

With microelectric actuator

C2V-1006EH

1345

C2V-1346EH

1455

Replacement valve

C2V-1006D

605

C2V-1346D

715

Replacement rotor

C2-10R6

72

C2-13R6

72

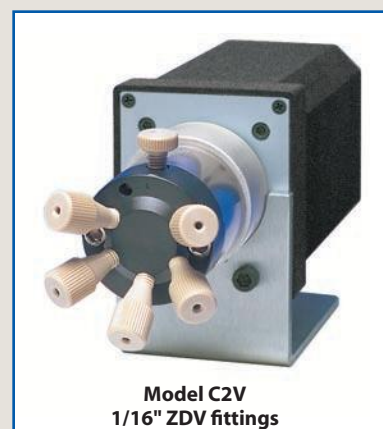
Replacement stator

C2V-1C06

440

C2V-1C46

550

Order loops
from page 161.
Model C2V
1/16" ZDV fittings

**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 compliant

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 Price



6 Port*

Prod No Price



8 Port

Prod No Price



10 Port

Prod No Price

N60 stainless stator

With integrated actuator

C52-2004I \$750 C52-2006I \$750 C52-2008I \$800 C52-2000I \$850

With motor/sensor only

C52-2004I-S 600 C52-2006I-S 600 C52-2008I-S 650 C52-2000I-S 700

With motor only

C52-2004IX 550 C52-2006IX 550 C52-2008IX 600 C52-2000IX 650

Replacement rotor

C2-20R4 72 C2-20R6 72 C2-20R8H 72 C2-20R0H 72

Replacement stator

C52-2C04 220 C52-2C06 220 C52-2C08 275 C52-2C00 330

PEEK stator

With integrated actuator

C52-2344I 850 C52-2346I 850 C52-2348I 900 C52-2340I 950

With motor/sensor only

C52-2344I-S 700 C52-2346I-S 700 C52-2348I-S 750 C52-2340I-S 800

With motor only

C52-2344IX 650 C52-2346IX 650 C52-2348IX 700 C52-2340IX 750

Replacement rotor

C2-23R4 72 C2-23R6 72 C2-23R8H 72 C2-23R0H 72

Replacement stator

C52-2C44 330 C52-2C46 330 C52-2C48 385 C52-2C40 440

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.



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.

Stainless Steel**PEEK**

(for PEEK stators)

Volume	Prod No	Price	Prod No	Price
2 µl	CSL2	\$22.50	CZSL2PK	\$31.25
5 µl	CSL5	22.50	CZSL5PK	31.25
10 µl	CSL10	22.50	CZSL10PK	31.25
20 µl	CSL20	22.50	CZSL20PK	27.50
50 µl	CSL50	22.50	CZSL50PK	25.00
100 µl	CSL100	31.25	CZSL100PK	25.00
250 µl	CSL250	31.25	CZSL250PK	31.25
500 µl	CSL500	31.25	CZSL500PK	37.50
1 ml	CSL1K	35.00	CZSL1KPK	50.00
2 ml	CSL2K	45.00	CZSL2KPK	68.75
5 ml	CSL5K	52.50	CZSL5KPK	106.25
10 ml	CSL10K	68.75	–	–

**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.

MORE INFORMATION

Materials

Metals page 254-255

Polymers 256

Valve rotors 257

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**Price***PAEK stator***Prod No**Price*

Manual

C3-2006

\$440

C3-2346

\$550

With air actuator

C3-2006A

690

C3-2346A

800

With microelectric actuator

C3-2006EH

1180

C3-2346EH

1290

Replacement valve

C3-2006D

440

C3-2346D

550

Replacement rotor

C2-20R6

72

C2-23R6

72

Replacement stator

C3-2C06

275

C3-2C46

385

Order loops
from page 161.**Model C3**
1/16" ZDV fittings

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**Price***PAEK stator***Prod No**Price*

Manual

C2V-2006

\$440

C2V-2346

\$550

With air actuator

C2V-2006A

690

C2V-2346A

800

With microelectric actuator

C2V-2006EH

1180

C2V-2346EH

1290

Replacement valve

C2V-2006D

440

C2V-2346D

550

Replacement rotor

C2-20R6

72

C2-23R6

72

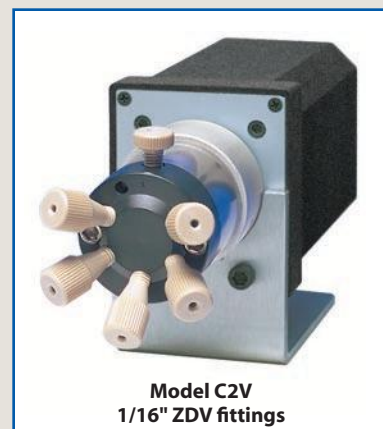
Replacement stator

C2V-2C06

275

C2V-2C46

385

Order loops
from page 161.**Model C2V**
1/16" ZDV fittings

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 compliant

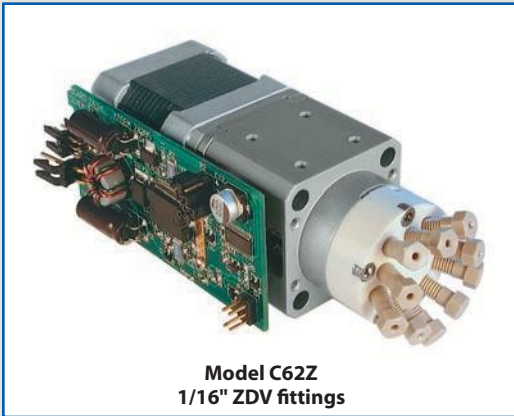
Includes Valco ZDV PEEK nuts and ferrules.
Sample loops are not included with valves. Order separately.

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.

4 Port		6 Port		8 Port		10 Port	
Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
C62Z-3184I	\$635	C62Z-3186I	\$635	C62Z-3188I	\$665	C62Z-3180I	\$685
C62Z-3184I-S	485	C62Z-3186I-S	485	C62Z-3188I-S	515	C62Z-3180I-S	535

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



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.

FEP			PTFE		PEEK	
Volume	Prod No	Price	Prod No	Price	Prod No	Price
5 µl	CZSL5FEP	\$25.00	CZSL5TF	\$25.00	CZSL5PK	\$31.25
10 µl	CZSL10FEP	25.00	CZSL10TF	25.00	CZSL10PK	31.25
20 µl	CZSL20FEP	22.50	CZSL20TF	22.50	CZSL20PK	27.50
50 µl	CZSL50FEP	18.75	CZSL50TF	18.75	CZSL50PK	25.00
100 µl	CZSL100FEP	18.75	CZSL100TF	18.75	CZSL100PK	25.00
250 µl	CZSL250FEP	22.50	CZSL250TF	22.50	CZSL250PK	31.25
500 µl	CZSL500FEP	25.00	CZSL500TF	25.00	CZSL500PK	37.50
1 ml	CZSL1KFEP	30.00	CZSL1KTF	30.00	CZSL1KPK	50.00
2 ml	CZSL2KFEP	37.50	CZSL2KTF	37.50	CZSL2KPK	68.75



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
Polymers256
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.

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 compliant

**4 Port****6 Port****8 Port****10 Port**

	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
With motor, sensor, & controller	C62-3184I	\$635	C62-3186I	\$635	C62-3188I	\$720	C62-3180I	\$740
With motor and sensor only	C62-3184I-S	485	C62-3186I-S	485	C62-3188I-S	570	C62-3180I-S	590

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.

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 compliant

4 Port**6 Port****8 Port****10 Port**

	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
With motor, sensor, & controller	C62-6184I	\$635	C62-6186I	\$635	C62-6188I	\$720	C62-6180I	\$740
With motor and sensor only	C62-6184I-S	485	C62-6186I-S	485	C62-6188I-S	570	C62-6180I-S	590

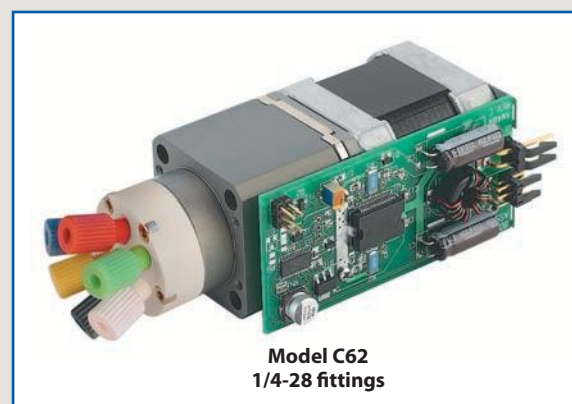
Sample loops

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.



	FEP		PTFE		PEEK	
Volume	Prod No	Price	Prod No	Price	Prod No	Price
20 µl	CFSL20FEP	\$17.50	CFSL20TF	17.50	CFSL20PK	\$25.00
50 µl	CFSL50FEP	17.50	CFSL50TF	17.50	CFSL50PK	25.00
100 µl	CFSL100FEP	17.50	CFSL100TF	17.50	CFSL100PK	25.00
250 µl	CFSL250FEP	17.50	CFSL250TF	17.50	CFSL250PK	25.00
500 µl	CFSL500FEP	20.00	CFSL500TF	20.00	CFSL500PK	30.00
1 ml	CFSL1KFEP	25.00	CFSL1KTF	25.00	CFSL1KPK	40.00
2 ml	CFSL2KFEP	30.00	CFSL2KTF	30.00	CFSL2KPK	62.50



Model C62
1/4-28 fittings

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

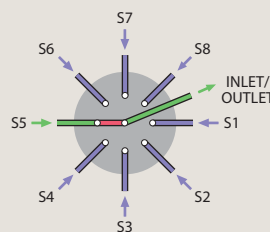
Model C55

5,000 psi**Integrated****Stream selector****10-32 ZDV****1/16" 0.40 mm****CE compliant**

Includes nuts and ferrules.

Valves with stainless stators have stainless fittings.

Valves with PEEK stators have PEEK fittings.

**SPECS****5000 psi liq****50°C max**

Metal stator

Valcon H rotor

5000 psi liq**50°C max**

PEEK stator

Valcon E rotor

OPTIONS

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

- 4 and 8 positions available

N60 stainless stator

With integrated actuator

Including RS-232 interface

4 Position		6 Position		8 Position		10 Position	
Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
C55-2004I	\$825	C55-2006I	\$825	C55-2008I	\$875	C55-2000I	\$925
C55-2004IA	855	C55-2006IA	855	C55-2008IA	905	C55-2000IA	955
C55-2004I-S	675	C55-2006I-S	675	C55-2008I-S	725	C55-2000I-S	775
C55-2004IX	625	C55-2006IX	625	C55-2008IX	675	C55-2000IX	725
C5-20R4	72	C5-20R6	72	C5-20R8H	72	C5-20R0H	72
C55-2C04	265	C55-2C06	265	C55-2C08	320	C55-2C00	375

PEEK stator

With integrated actuator

Including RS-232 interface

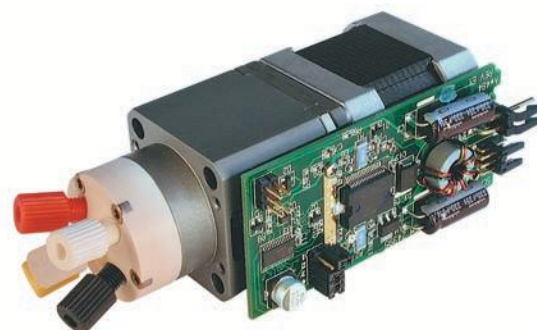
With motor/sensor only

With motor only

Replacement rotor

Replacement stator

C55-2344I	925	C55-2346I	925	C55-2348I	975	C55-2340I	1025
C55-2344IA	955	C55-2346IA	955	C55-2348IA	1005	C55-2340IA	1055
C55-2344I-S	775	C55-2346I-S	775	C55-2348I-S	825	C55-2340I-S	875
C55-2344IX	725	C55-2346IX	725	C55-2348IX	775	C55-2340IX	825
C5-23R4	72	C5-23R6	72	C5-23R8H	72	C5-23R0H	72
C55-2C44	375	C55-2C46	375	C55-2C48	430	C55-2C40	485


Model C55
 1/16" ZDV fittings

Model C65
 1/4-28 fittings

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

Model C65Z

SPECS

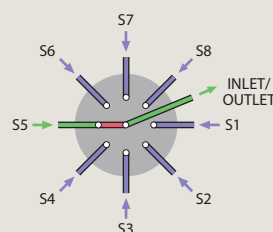
100 psi gas/ 250 psi liq
50°C max
PPS stator
Valcon E2 rotor

*** 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

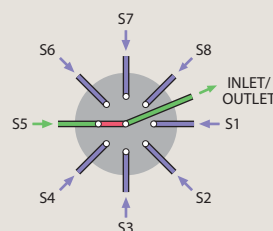
100 psi gas/ 250 psi liq
50°C max
PPS stator
Valcon E2 rotor

*** 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

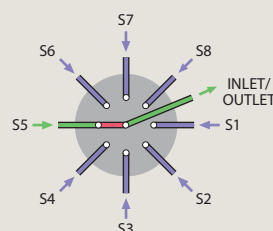
100 psi gas/ 250 psi liq
50°C max
PPS stator
Valcon E2 rotor

*** 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