

SFC SFC-4000

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231	Калининград (4012)72-03-81	Омск (3812)21-46-40	Сыктывкар (8212)25-95-17
Ангарск (3955)60-70-56	Калуга (4842)92-23-67	Орел (4862)44-53-42	Тамбов (4752)50-40-97
Архангельск (8182)63-90-72	Кемерово (3842)65-04-62	Оренбург (3532)37-68-04	Тверь (4822)63-31-35
Астрахань (8512)99-46-04	Киров (8332)68-02-04	Пенза (8412)22-31-16	Тольятти (8482)63-91-07
Барнаул (3852)73-04-60	Коломна (4966)23-41-49	Петрозаводск (8142)55-98-37	Томск (3822)98-41-53
Белгород (4722)40-23-64	Кострома (4942)77-07-48	Псков (8112)59-10-37	Тула (4872)33-79-87
Благовещенск (4162)22-76-07	Краснодар (861)203-40-90	Пермь (342)205-81-47	Тюмень (3452)66-21-18
Брянск (4832)59-03-52	Красноярск (391)204-63-61	Ростов-на-Дону (863)308-18-15	Ульяновск (8422)24-23-59
Владивосток (423)249-28-31	Курск (4712)77-13-04	Рязань (4912)46-61-64	Улан-Удэ (3012)59-97-51
Владикавказ (8672)28-90-48	Курган (3522)50-90-47	Самара (846)206-03-16	Уфа (347)229-48-12
Владимир (4922)49-43-18	Липецк (4742)52-20-81	Саранск (8342)22-96-24	Хабаровск (4212)92-98-04
Волгоград (844)278-03-48	Магнитогорск (3519)55-03-13	Санкт-Петербург (812)309-46-40	Чебоксары (8352)28-53-07
Вологда (8172)26-41-59	Москва (495)268-04-70	Саратов (845)249-38-78	Челябинск (351)202-03-61
Воронеж (473)204-51-73	Мурманск (8152)59-64-93	Севастополь (8692)22-31-93	Череповец (8202)49-02-64
Екатеринбург (343)384-55-89	Набережные Челны (8552)20-53-41	Симферополь (3652)67-13-56	Чита (3022)38-34-83
Иваново (4932)77-34-06	Нижний Новгород (831)429-08-12	Смоленск (4812)29-41-54	Якутск (4112)23-90-97
Ижевск (3412)26-03-58	Новокузнецк (3843)20-46-81	Сочи (862)225-72-31	Ярославль (4852)69-52-93
Иркутск (395)279-98-46	Ноябрьск (3496)41-32-12	Ставрополь (8652)20-65-13	
Казань (843)206-01-48	Новосибирск (383)227-86-73	Сургут (3462)77-98-35	
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SFC-4000 Analytical SFC

Analytical SFC System

The SFC-4000 analytical SFC is extremely flexible, and with multiple solvent options enables rapid screening of a range of columns using different solvent conditions completely automatically. The SFC-4000 has an option for up to three column ovens each with ten full sized columns; each with separate temperature control, great for combining chiral and achiral SFC in a single system. Take advantage of a PDA detector combined with the CD-4095 chiral detector to work up fast analytical methods for direct scale-up to semi-prep and prep separations of chiral compounds.



PU-4380 CO₂ Pump

The PU-4380-CO₂ peltier temperature stabilized pump ensures the optimum conditions for pumping liquid CO₂, there is no requirement for complicated pretreatment of CO₂ and a chiller is not required for cooling the pump heads. Automatic stop valves control the input and output of CO₂.

Modifier Pumps

The PU-4180 modifier pump with optional 6 or 10 solvent selection for method development.

Column Temperature Control

CO-4060 column oven for accurate control (from below ambient up to 80 degC) with large space to accommodate six 4.6mm or 10mm columns (up to 300mm length), with optional column switching. The system can be configured with up to 3 ovens for different temperature zones and for multiple column options for chiral and achiral screening. The larger CO-4065 with internal column switching can be used with analytical and prep columns up to 3cm ID.

Back Pressure Regulator

The BP-4340 precision back pressure regulator is the best solution for maintaining super critical conditions with pressure fluctuations as low as 1.5 psi peak-to-peak. Dynamic control allows modifier gradients without changes in the back pressure applied to the column. Response is fast and accurate ensuring stable baselines even for trace level analysis.

Detection

The SFC-4000 system has the widest selection of detectors available for Analytical SFC. And for applications requiring the utmost sensitivity, JASCO has designed the first high pressure flow cell designed for our fluorescence detectors making them compatible with SFC.

UV-Visible

UV-4070/75 for dual wavelength 190 to 600nm (or 900nm).

Photometric Diode Array PDA

MD-4010, a 1024-element diode array for high sensitivity, trace analysis and component identification.

Chiral

The CD-4095 circular dichroism detector is the only chiral detector compatible with SFC and provides positive confirmation of enantiomeric separation. It can also be used to control chiral directed prep SFC.

ELSD and FID

ELSD and FID detection can be used by splitting a portion of flow to the inlet of the detector; these detectors are ideal for material that has no chromophore such as in petrochemical or pharmaceutical analysis.

Single Quadrupole Mass Spectrometer Detection with SFC

The SF-4000 analytical can be used with virtually any mass spectrometer working with ESI, APCI or APPI interface.

Instrument Control and Data Acquisition

The SFC-4000 system includes the ChromNAV data system – offering simple control for routine analytical separation through to complex method development with a range of enhanced reporting capabilities. Full GxP compliance and 21 CFR part 11.

SFC-4000 Analytical SFC System Applications

Simple Analytical

SFC-4000 Analytical SFC system operates with flow rates between 0.5 to 7mL/min (Liquid CO₂).

Method Development

With up to 2 modifier pumps and 6 or 10 solvent selection units, modifier selection is very flexible and enables rapid screening of a range of columns using different solvent conditions completely automatically. The SFC-4000 has an option for up to 3 column ovens each with up to 10 full sized columns with separate temperature control, great for combining chiral and achiral SFC in a single system.

Take advantage of the MD-4010 PDA detector combined with the CD-4095 chiral detector to work up fast analytical methods for direct scale-up to semi-prep and prep separations.

Small Scale Prep

Using 4.6mm columns with a choice of either 6 or 8 way fraction valves or the new open bed fraction collector with MCS 6 micro-cyclone collection system (patented), the SFC-4000 system is the ideal choice for small scale (sub mg) preparation using analytical SFC.

Benefits of using Super Critical Fluid Systems for Separation

High Solubility & Low Viscosity

Greater solubility and lower viscosity than liquid phase HPLC for faster column equilibration, faster separations and higher productivity.

Wide Molecular Structure Coverage

Applicable to a wide range of molecular structures with a wide range of polarities from strongly hydrophobic to strongly hydrophilic.

Environment-Friendly

SFC uses 'green' separation solvents – generally CO₂ with alcoholic modifiers – which are much greener than other solvents generally used in HPLC.

Cost-Effective

Dramatic reduction in solvent costs for both purchase and disposal.

Simple Operation

SFC easily scales-up from analytical to preparative, method transfer is simple and robust for both chiral and achiral sample purification.

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