

Ultra High Performance Liquid Chromatograph

Nexera series Specifications

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C196-E095

System Configuration

UV-VIS Detector SPD-40/40V

Photodiode Array (PDA) Detector SPD-M40

Baseline stability and linearity have been improved, and stability remains even under fluctuating temperatures. The PDA detector is equipped with a UV cut-off filter to improve the quantitation accuracy of photodegradable compounds. The cell and lamp are traceable via individual IDs.

Solvent Delivery Pump LC-40 series

In addition to the four parallel double plunger models based on the maximum pressure limit, the XR and X3 models have a dual pump that reduces gradient delay volume and enables an ultra-fast high-pressure gradient. Other pumping environments (low-pressure gradient, mobile phase blending) can also be provided.

Autosampler SIL-40 series

The autosampler boasts ultra-low carryover, less than 0.0003% (under specified conditions). Its ultra-fast injection cycle and auto pretreatment functions also contribute to more efficient analysis. The optional dual-injection system consists of two separate injection ports and flow lines, enabling different analyses to be carried out simultaneously.



Plate Changer

The installation area has been greatly reduced to 170 mm. It is possible to load up to 7 racks of 1.5 mL vials or 14 microtiter plates. Up to 3 plate changers can be connected, allowing up to 44 MTPs with up to 16896 samples to be loaded at once (using 384-well MTPs).

Mobile Phase Monitor MPM-40 (Optional)

The monitoring device can be placed in the reservoir tray. The volume of liquid remaining in each mobile phase bottle is measured in real time and can be checked from a PC or mobile device. Before a batch analysis is started, the amount of mobile phase required is calculated and a warning is displayed if the amount remaining is insufficient.

System Controller SCL-40, CBM-40/40lite

The SCL-40 system controller features a touch panel and allows the user to control the instrument and carry out analysis preparation directly without the need for a PC. A graphical UI makes the controller easy to use.

Degassing Unit DGU-403/405

3-channel and 5-channel types available. Since the degassing unit is built into the LC-40B X3 pump, a separate unit is not required.

Column Oven CTO-40 series

The circulation oven has a slim 130 mm model (maximum temperature: 85°C) and a standard 260 mm model (maximum temperature: 100°C). Both are able to accommodate a 300 mm column and have connection ports for CMD or mixer ID recognition. Active preheater tubing is available as an option.

Specifications



SCL- 40

System Controller

	SCL-40	CBM-40	CBM-40lite
Monitor	Touch panel LabSolutions™ Web monitor	LabSolutions Web monitor	LabSolutions Web monitor
Connectable unit	Solvent delivery unit: max.	4, Autosampler: 1, Column oven: n	nax. 4, Detector: max 2, etc.
Number of connectable units			4 (Excluding built-in solvent delivery unit)
Event input/output	Input: 1, output: 2		
Analog board	Up to two channels (option)	Up to one channel (option)	_
Communication		Ethernet	
Reservoir tray	Built-in	Built-in —	
Dimensions [mm], weight	W 260 × D 500 × H 140, 6 kg	W 260 × D 500 × H 72, 5 kg	_
Operating temperature range	4 to 35°C		
Power supply	AC 100–240 V, 50 VA, 50/60 Hz Supplied from solvent de		Supplied from solvent delivery unit

Solvent Delivery Pump



LC-40B XR

	LC-40D	LC-40D XR LC-40B XR	LC-40D XS	LC-40D X3 LC-40B X3
Pumping method		Parallel-type double plunger (approx. 10 µL/1 stroke)		
Allowable maximum pressure	44 MPa	70 MPa	105 MPa	130 MPa
Flow rate settings range	0.0001 – 5.0000 mL/min (1.0 – 44 MPa) 5.0001 – 10.0000 mL/min (1.0 – 22 MPa)	5.0001 – 10.0000 mL/min (1.0 – 22 MPa)	0.0001 - 3.0000 mL/min (1.0 - 105 MPa) 3.0001 - 5.0000 mL/min (1.0 - 80 MPa) 5.0001 - 10.0000 mL/min (1.0 - 22 MPa)	0.0001 - 3.0000 mL/min (1.0 - 130 MPa) 3.0001 - 5.0000 mL/min (1.0 - 80 MPa) 5.0001 - 10.0000 mL/min (1.0 - 22 MPa)
Flow rate accuracy	± 1% or ± 2 µL/min (under specifi		± 1% (under spe	cified conditions)
Flow rate precision		$\leq 0.06\%$ RSD or 0.02 m	ninSD, whichever greater	
Gradient mode	High-pressure gradient (2 or 3 solvents)	High-pressure gradient (2 solvents (LC-40B XR standard) or 3 solvents)	High-pressure gradient (2 or 3 solvents)	High-pressure gradient (2 solvents (LC-40B X3 standard) or 3 solvents)
	Quaternary low-pressure gradient	Quaternary low-pressure gradient (Only available for LC-40D XR)	Quaternary low-pressure gradient	Quaternary low-pressure gradient (Only available for LC-40D X3)
Gradient range of set concentrations	0 to 100% (0.1% step)			
Gradient concentration accuracy		± 0.5% (under sp	ecified conditions)	
Wetted materials	SUS316L, Hastelloy [®] C, PEEK, PTFE, Sapphire, Ruby SUS316L, Hastelloy C, PEEK, PE, Sapphire, Ruby			hire, Ruby
Available pH range		1 to	o 14	
Automatic rinsing kit	Option		Standard equipment	
Degassing unit	1 unit connectable	LC-40D XR: 1 unit connectable LC-40B XR: 2 units connectable	1 unit connectable	LC-40D X3: 1 unit connectable LC-40B X3: pre-installed (5 port built- in), 1 unit connectable
Dimensions [mm]	W 260 × D 500 × H 140 W 260 × LC-40B X3		LC-40D X3: W 260 × D 500 × H 140 LC-40B X3: W 260 × D 500 × H 210	
Weight	10 kg	LC-40D XR: 10 kg LC-40B XR: 13 kg	12 kg	LC-40D X3: 12 kg LC-40B X3: 21 kg
Operating temperature range		4 to	35°C	·
	AC 100–240 V, 50/60 Hz			
Power supply	150 VA	LC-40D XR: 150 VA LC-40B XR: 180 VA	150 VA	LC-40D X3: 150 VA LC-40B X3: 180 VA

Degassing Unit _

	DGU-403	DGU-405
Number of degassed solvents	3	5
Degassed flow line capacity	400 µL/1 line	
Dimensions [mm], weight	W 260 × D 500 × H 72, 4 kg	
Operating temperature range	4 to 35°C	
Power supply	Supplied from solvent delivery unit	

DGU-403

3

Autosampler



SIL-40C XR

		SIL-40 SIL-40C	SIL-40 XR SIL-40C XR	SIL-40C XS	SIL-40C X3
Injection meth	od	Total-volume Injection (standard), loop injection (optional)			nal)
Allowable max	kimum pressure	44 MPa	80 MPa	105 MPa	130 MPa
		0.1 to 100 µL		0.1 to 50 µL	-
Injection volur	ne		0.1 to 2000	μL (optional)	
Injection volur	ne accuracy		≤ ± 1% (5 µL in	jection, n = 20)	
Linearity			≥ 0.9	9999	
Injection cycle	time		≤ 6.7 seconds (under	specified conditions)	
Samples for pr	ocessing	288 (microtiter plate, 96 well × 3 plates), 1152 (microtiter plate, 384 well × 3 plates), 252 (1 mL sample vial, 84 × 3 plates), 162 (1.5 mL sample vial, 54 × 3 plates), 84 (4 mL sample vial, 28 × 3 plates), 36 (10 mL sample vial, 12 × 3 plates), 72 (1.5 mL micro tube, 24 × 3 plates)			3 plates), ates),
Injection volur	ne reproducibility		RSD ≤ 1.0% (0.5 to 0.9 µL), RSD ≤ 0.5% (1.0 to 1.9 µL), RSD ≤ 0.25% (2.0 to 4.9 µL), RSD ≤ 0.15% (More than 5.0 µL), RSD < 0.5% (typically, 0.5 µL), RSD < 0.25% (typically, 1.0 µL)		
Carryover		≤ 0.0025% (without rinse) ≤ 0.0005% (with rinse, typically) (under specified conditions)	$\leq 0.0015\%$ (without rinse) $\leq 0.0003\%$ (with rinse, typically) (upder specified conditions)		ally)
Dip rinsing out and injection p	tside the needle	Standard equipment			
, ,	outside the needle	Option	Option Standard equipment		
Internal rinsing	g (3 dil)		Option		Standard equipment
Sample cooler		SIL-40: None SIL-40C: Standard equipment (Air-circulation tem- perature control type)	SIL-40 XR: None SIL-40C XR: Standard equipment (Air-circulation tem- perature control type)		equipment perature control type)
Sample cooler temperature s		4 to 45°C (Room temperature needs to be less than 30°C and humidity needs to be less than 70% to set			ss than 70% to set 4°C)
Sample cooler temperature a	ccuracy	$\pm 2^{\circ}$ C (sensor position $\pm 0.5^{\circ}$ C)			
Wetted materi	ial	SUS316L,	DLC, PEEK, GFP, PTFE, FEP,	ETFE, sapphire, ceramics,	PPS, FFKM
Available pH r	ange		1 to	0 14	
		W 260 x D 500 x H 280 (SIL-40C/40C XR/40C XS/40C X3: Protrusion adds 140 mm to the depth)			
Dimensions [m	ım], weight	SIL-40: 17 kg SIL-40C: 24 kg	SIL-40 XR: 17 kg SIL-40C XR: 24 kg	24	4 kg
Operating tem	perature range		4 to 3	35°C	
Power supply	Cooler model		AC 100–240 V, 4	00 VA, 50/60 Hz	
i owei suppiy	Non cooler model	AC 100–240 V,150 VA, 50/60 Hz			

Plate Changer



		PLATE CHANGER	
Samples for processing (includes two plates of autosampler)	1 PLATE CHANGER	1536 (microtiter plate, 96 well × 16 plates), 864 (deep-well plate, 96 well × 9 plates) 6144 (microtiter plate, 384 well × 16 plates), 3456 (deep-well plate, 384 well × 9 plates) 756 (1 mL sample vial, 84 × 9 plates), 486 (1.5 mL sample vial, 54 × 9 plates) 252 (4 mL sample vial, 28 × 9 plates), 108 (10 mL sample vial, 12 × 9 plates)	
	3 PLATE CHANGERS	4224 (microtiter plate, 96 well × 44 plates), 2208 (deep-well plate, 96 well × 23 plates) 16896 (microtiter plate, 384 well × 44 plates), 8832 (deep-well plate, 384 well × 23 plates) 1932 (1 mL sample vial, 84 × 23 plates), 1242 (1.5 mL sample vial, 54 × 23 plates) 644 (4 mL sample vial, 28 × 23 plates), 276 (10 mL sample vial, 12 × 23 plates)	
Sample cooler		Air-circulation temperature control type, 4 to 45°C	
temperature setting range	(Room ten	perature needs to be less than 30°C and humidity needs to be less than 70% to set 4°C)	
Dimensions [mm], weight	W 170 × D 500 × H 560 (Protrusion adds 140 mm to the depth), 26 kg		
Operating temperature range	4 to 35°C		
Power supply	AC 100–240 V, 400 VA, 50/60 Hz		

Column Oven



	CTO-40C	CTO-40S	
Temperature control type	Forced air circulation		
Temperature control range	Room temperature -10°C to 100°C	Room temperature -10°C to 85°C	
Temperature accuracy	± 0.5°C	± 0.8°C	
Temperature precision	± 0.05°C	± 0.1°C	
Containable column size and number	Up to 250 mm L. column × 6 or 300 mm L. column × 3	Up to 100 mm L. column × 6 or 300 mm L. column × 3	
Dimensions [mm], weight	W 260 × D 500 × H 415, 21 kg	W 130 × D 500 × H 553, 15 kg	
Operating temperature range	4 to 35°C		
Power supply	AC 100–120 V / 220–240 V (Automatic switching), 400 VA, 50/60 Hz AC 100–240 V, 300 VA, 50		

CTO-40S

UV-VIS Detector



SPD-40V

	SPD-40	SPD-40V	
Light source	Deuterium (D ₂) lamp	Deuterium (D ₂) lamp, tungsten lamp	
Wavelength range	190 to 700 nm	190 to 1000 nm	
Bandwidth	8 r	im	
Wavelength accuracy	± 1	nm	
Wavelength reproducibility	± 0.1	nm	
Drift	≤ 0.1 × 10 ⁻³ of AU/h (un	der specified conditions)	
Noise	1 Wavelength mode: $\leq 4.0 \times 10^{-6}$ AU, 2 Wavelength	mode: $\leq 10.0 \times 10^{-6}$ AU (under specified conditions)	
Linearity	2.5 AU (under specified conditions)		
Standard flow cell	Optical path length: 10 mm, Cell volume: 12µL, Pressure: 12 MPa Material of wetted parts: SUS316L, PFA, quartz		
Cell temperature control range	19 to 50°C, 1°C Step		
Optional flow cell	UHPLC cell (optical path length: 10 mm, cell volume: 8 μ L, equipped with temperature control function) Semi-micro cell (optical path length: 5 mm, cell volume: 2.5 μ L, equipped with temperature control function) Conventional cell (optical path length: 10 mm, cell volume: 12 μ L, equipped with temperature control function) Inert cell (optical path length: 10 mm, cell volume: 12 μ L, equipped with temperature control function) Preparative cell (optical path length: 0.1/0.2/0.5 mm, cell volume: 0.8/1.6/4.0 μ L) Micro flow cell (optical path length: 3 mm, cell volume: 0.21 μ L) Maximum pressure cell (optical path length: 10 mm, cell volume: 12 μ L)		
Available pH range	1 to 13 (Cell quartz might be damaged by a mobile phase of pH >10.)		
Dimensions [mm], weight	W 260 × D 500 × H 140, 11 kg		
Operating temperature range	4 to 2	35°C	
Power supply	AC 100–240 V, 150 VA, 50/60 Hz		

Photodiode Array Detector



SPD-M40

	SPD-M40	
Light source	Deuterium (D ₂) lamp, Tungsten lamp	
Number of diode elements	1024	
Wavelength range	190 to 800 nm	
Wavelength accuracy	± 1 nm	
Wavelength reproducibility	± 0.1 nm	
Slit width	1.2 nm, 8 nm	
Spectral resolution	≤ ± 1.4 nm	
Drift	\leq 0.4 × 10 ⁻³ of AU/h (under specified conditions)	
Noise	\leq 4.5 × 10 ⁻⁶ AU (under specified conditions)	
Linearity	2.5 AU (under specified conditions)	
Standard flow cell	Optical path length: 10 mm, Cell volume: 12 µL, Pressure: 12 MPa Material of wetted parts: SUS316L, PFA, quartz	
Cell temperature control range	19 to 50°C, 1°C Step	
Optional flow cell	UHPLC cell (optical path length: 10 mm, cell volume: 8 μ L, equipped with temperature control function) Semi-micro cell (optical path length: 5 mm, cell volume: 2.5 μ L, equipped with temperature control functior Conventional cell (optical path length: 10 mm, cell volume: 12 μ L, equipped with temperature control function Inert cell (optical path length: 10 mm, cell volume: 12 μ L, equipped with temperature control function) Preparative cell (optical path length: 10 nm, cell volume: 0.8/1.6/4.0 μ L, equipped) Micro flow cell (optical path length: 3 mm, cell volume: 0.21 μ L) Maximum pressure cell (optical path length: 10 mm, cell volume: 12 μ L)	
Available pH range	1 to 13 (Cell quartz might be damaged by a mobile phase pH >10.)	
Dimensions [mm], weight	W 260 × D 500 × H 140, 10 kg	
Operating temperature range	4 to 35°C	
Power supply	AC 100–240 V, 180 VA, 50/60 Hz	

Capillary cell type Photodiode Array Detector

	SPD-M30A	
Light source	Deuterium (D ₂) lamp	
Number of diode elements	1024	
Wavelength range	190 to 700 nm	
Wavelength accuracy	± 1 nm	
Wavelength reproducibility	± 0.1 nm	
Slit width	1 nm, 8 nm	
Spectral resolution	≤ 1.4 nm	
Drift	\leq 0.5 × 10 ⁻³ AU/h (under specified conditions)	
Noise	\leq 0.4 × 10 ⁻⁶ AU (under specified conditions)	
Linearity	2.0 AU (under specified conditions)	
Cell	Standard cell: Optical path length: 10 mm, Capacity: 1 μL, Pressure: 8 MPa Optional high-sensitivity cell: Optical path length: 85 mm, Capacity: 9 μL, Pressure: 8 MPa	
Dimensions [mm], weight	W 260 × D 500 × H 140, 12 kg	
Operating temperature range	4 to 35°C	
Power supply	AC 100–240 V, 150 VA, 50/60 Hz	

Spectrofluorometric Detector

	RF-20A	RF-20Axs	
		Xenon lamp	
Light source	Xenon lamp	Low-pressure mercury lamp (to check wavelength accuracy)	
Wavelength range	200 to 650 nm	200 to 750 nm	
Spectral bandwidth	20	nm	
Wavelength accuracy	± 2 nm		
Wavelength precision	± 0.2 nm		
S/N	Water Raman peak S/N ≥1200 Low background S/N ≥ 9000	Water Raman peak S/N ≥ 2000 Low background S/N ≥ 12000	
Range of cell temperature control	_	Room temperature –10°C to 40°C, 1°C step	
Cell	Standard conventional cell: volume 12 µL, maximum pressure 2 MPa Optional semi-micro cell: volume 3 µL, maximum pressure 2 MPa		
Function	Simultaneous measurement of four wavelengths, Wavelength scanning		
Dimensions [mm], weight	W 260 × D 500 × H 210, 16 kg W 260 × D 500 × H 210, 1		
Operating temperature range	4 to 35°C		
Power supply	AC 100–240 V, 400 VA, 50/60 Hz		

Differential Refractive Index Detector

	RID-20A	
Measurement range	1 to 1.75 RIU	
Noise	≤ 2.5 × 10 ⁻⁹ RIU	
Drift	≤ 1 × 10 ⁻⁷ RIU/h	
Range	A mode: 0.01 × 10 ⁻⁶ to 500 × 10 ⁻⁶ RIU P, L-mode: 1 × 10 ⁻⁶ to 5000 × 10 ⁻⁶ RIU	
Response	0.05 to 10 sec, 10 steps	
Polarity – Change	Available	
Zero adjustment	Auto zero, Optical zero, Fine zero	
Maximum flow rate	20 mL/min (150 mL/min in option)	
Range of cell temperature control	30 to 60°C	
Cell	Volume 9 µL, Maximum pressure 2 MPa	
Dimensions [mm], weight	W 260 × D 420 × H 140, 12 kg	
Operating temperature range	4 to 35°C	
Power supply	AC 100–240 V, 150 VA, 50/60 Hz	

Conductivity Detector

	CDD-10Avp	
Cell volume	0.25 µL	
Cell constant	25 μS·cm⁻¹	
Material of wetted parts	PEEK, SUS316	
Maximum use pressure	2.9 MPa (30 kgf/cm ²)	
Response	0.05 to 10 s, 10 steps	
Zero adjustment	Auto-zero function, Baseline-shifting function	
Dimensions [mm], weight	W 260 × D 420 × H 140, 6 kg	
Operating temperature range	4 to 35℃	
Power supply	AC 100–240 V, 250 VA, 50/60 Hz	

Evaporative Light-Scattering Detector

	ELSD-LT II			
Nebulizing method	Siphon Splitting			
Light source	LED			
Detection	Photomultiplier			
Scope of set temperature	Room temperature to 80°C			
Gas nebulizer	Nitrogen or air*			
Gas flow rate, gas pressure	Up to 3.0 mL/min, up to 450 kPa			
Standard mobile phase flow rate	0.2 to 2.5 mL/min			
Analog output	0 to 1 V			
Dimensions [mm], weight	W 260 × D 550 × H 450, 20 kg			
Operating temperature range	5 to 40°C			
Operation humidity range	\leq 80% (Room temperature 5 to 31°C), \leq 50% (Room remperature 31 to 40 °C)			
Power supply	AC 100 V, 210 VA, 50/60 Hz			

*Requires a gas supply source, such as an air compressor, nitrogen generator and gas piping.
 [Note]

 Please use a regulator with filter (option) in order to remove small foreign matters in the gas.
 Please make sure that nitrogen or air doesn't contain oil, dust, or moisture when you use nitrogen generator and/or air compressor.
 Please use the instrument in a room with exhaust facilities.

Optional accessories

Solvent Delivery Unit

	Part Name	P/N	Description
Low-pressure	gradient unit	228-65016-58	Low-pressure gradient unit for LC-40D/40D XR/40D XS/40D X3
Reservoir sele	ction valve	228-65017-58	Two-solvent switching unit to be incorporated in solvent delivery unit
FCV-11AL		228-65611-58	The mobile phase switching value of 3 flow lines that connects to solvent delivery unit (external)
FCV-11ALS		228-65610-58	The mobile phase switching valve of 1 flow line that connects to solvent delivery unit (external)
Automatic rin	sing kit	228-56201-41	Automatic rinsing kit for plunger seal cleaning
	MR 20 µL	228-72652-41	High-efficiency mixer for high-pressure gradient system (volume 20 µL)
	MR 40 µL	228-72652-42	High-efficiency mixer for high-pressure gradient system (volume 40 µL)
Mixer	MR 100 µL	228-72652-43	High-efficiency mixer for high-pressure gradient system (volume 100 µL)
Mixer	MR 180 µL	228-72652-44	High-efficiency mixer for high-pressure gradient system (volume 180 µL)
	MR 40 µL LPGE	228-65020-41	High-efficiency mixer for low-pressure gradient system (volume 40 µL)
	MR 300 µL LPGE	228-72653-42	High-efficiency mixer for low-pressure gradient system (volume 300 µL)

Autosampler

Part Name		P/N	Description
	50 µL	228-63132-44	Sample loop for 50 µL injection (standard configuration of SIL-40 XR/40C XR/40C XS/40C X3)
Sample loop	100 µL	228-63132-45	Sample loop for 100 µL injection (standard configuration of SIL-40/40C)
	500 μL	228-45405-45	Sample loop to increase the injection volume up to 500 μL (Connect sample loop 100 μL (228-63132-45))
	2000 µL	228-45405-46	Sample loop to increase the injection volume up to 2 mL (Connect sample loop 100 μL (228-63132-45))
Dual-injection l	cit	228-72568-41, -42	Tubing kits for dual injection (228-72568-41 is for CTO-40S and 228-72568-42 is for CTO-40C)
	5 µL	228-71759-42	Sample loop for loop injection mode (volume 5 µL)
Sample loop for loop injection	r20 μL	228-71759-43	Sample loop for loop injection mode (volume 20 µL)
	50 µL	228-71759-44	Sample loop for loop injection mode (volume 50 µL)
	1.5 mL	228-71762-46	Plate for 1.5 mL sample vial (54)
Samala alata	1 mL	228-71762-42	Plate for 1 mL sample vial (84)
Sample plate	4 mL	228-71762-43	Plate for 4 mL sample vial (28)
	10 mL	228-71762-44	Plate for 10 mL sample vial (12)
	For 96-well microplates	228-71840-41	Identification label affixed to the 96-well microtiter plate (100 set)
Identification _ labels	For 96-well deep-well plates	228-71840-42	Identification label affixed to the 96-well deep-well plate (100 set)
	For 384-well microplates	228-71840-43	Identification label affixed to the 384-well microtiter plate (100 set)
	For 384-well deep-well plates	228-71840-44	Identification label affixed to the 384-well deep-well plate (100 set)

Column Oven

Р	art Name	P/N	Description
Active pre-heat	er	228-72084-41	Pre-heater device for thermostatting mobile phase before the column inlet
FCV kits	For CTO-40S	228-72438-41	This is a kit for attaching a flow line switching valve to CTO-40S
FCV KILS	For CTO-40C	228-72589-41	This is a kit for attaching a flow line switching valve to CTO-40C
Two FCV tubing kits	ID 0.3	228-72437-41	
	ID 0.1	228-72437-42	- - Tubing kit to connect the flow line switching valve and columns
Six FCV tubing kits	ID 0.3	228-72437-43	Tubing kit to connect the now line switching valve and columns
Six FCV tubing	ID 0.1	228-72437-44	
	ID 0.1 mm × 600 mm	228-62544-11	- Finger-tight high-pressure fitting
	ID 0.3 mm × 600 mm	228-62544-22	

UV Detector / PDA Detector

Part Name	P/N	Description
UHPLC cell	228-64724-41 (PDA), -42 (UV)	Flow cell for high-speed analysis (volume 8 µL)
Semi-micro cell	228-64725-41 (PDA), -42 (UV)	Flow cell for semi-micro analysis (volume 2.5 µL)
Conventional cell	228-68250-41 (PDA), -42 (UV)	Flow cell with the same cell volume (12 $\mu\text{L})$ as standard cell of SPD-20A and SPD-M20A
Inert cell	228-64728-41 (PDA), -42 (UV)	Inert-type flow cell with metal-less wetted parts
Preparative cell	228-64727-41 (PDA), -42 (UV)	Preparative flow cell with variable optical path length
Micro flow cell	228-64737-41 (PDA), -42 (UV)	Flow cell for micro analysis (volume 0.21 µL)
Maximum pressure cell	228-64726-41 (PDA), -42 (UV)	High-pressure resisting flow cell for Nexera [™] UC
Solvent recycle valve	228-56808-42 (UV)	Valve to recycle mobile phase by attaching to SPD-40/40V

Others

Part Name	P/N	Description
Mobile phase monitor (controller)	228-65525-58	MPM-40 controller to monitor remaining mobile phase in real-time Up to six bottle holders can be connected (228-65526-58, set of two)
Power outlet unit 6P	228-65523-42 (socket type B) 228-65523-43 (socket type D) 228-65523-46 (socket type I) 228-65523-58 (socket type F)	Power tap to turn off the main power of the instrument completely at one time. Switches can be installed in front of the reservoir tray. It provides six outlets.
Power outlet unit 2PS	228-65524-46 (for China) 228-65524-58 (for other than China)	Outlet to supply power to main units that need to be connected to service outlets, such as SIL-10A and FRC-10A. It provides two outlets.
Tubing kit A, ID 0.3 for high-pressure GE	228-70254-41	Tubing kits for high-pressure gradient system. Column inlet tubing ID 0.3 mm
Tubing kit B, ID 0.1 for high-pressure GE	228-70254-42	Tubing kits for high-pressure gradient system. Column inlet tubing ID 0.1 mm
Tubing kit C, ID 0.3 for low-pressure GE	228-70254-43	Tubing kits for low-pressure gradient system. Column inlet tubing ID 0.3 mm
Tubing kit D, ID 0.1 for low-pressure GE	228-70254-44	Tubing kits for low-pressure gradient system. Column inlet tubing ID 0.1 mm
Cable kit A	228-70247-41	Optical link cable kit, 600 mm × 1 pc, 800 mm × 1 pc
Cable kit B	228-70247-42	Optical link cable kit, 600 mm × 2 pcs, 800 mm × 1 pc
Cable kit C	228-70247-43	Optical link cable kit, 600 mm × 3 pcs, 800 mm × 1 pc
Cable kit D	228-70247-44	Optical link cable kit, 600 mm × 4 pcs, 800 mm × 1 pc
Reservoir tray	228-65508-58	Reservoir tray for up to 8 bottles (1L)
AD board	228-55519-41	Board for analog-digital conversion. It takes in detector signals as analog signals.
Optical cable connector expansion board	228-70481-41	The board to expand the number of optical cable connector channels to 12ch from 8ch (standard) by attaching to SCL-40/CBM-40

Valve

Part Name	P/N	Description
FCV-DR	228-65602-58	Drive unit and control board for incorporating valve into CTOs (1 FCV valve is required separately)
FCV-0206	228-65603-58	2-position 6-port valve (Maximum pressure: 44 MPa)
FCV-0607	228-65604-58	6-position 7-port valve (Maximum pressure: 44 MPa)
FCV-0206H	228-65607-58	2-position 6-port valve (Maximum pressure: 80 MPa)
FCV-0607H	228-65608-58	6-position 7-port valve (Maximum pressure: 80 MPa)
FCV-0206H3	228-65624-58	2-position 6-port valve (Maximum pressure: 130 MPa)
FCV-0607H3	228-65625-58	6-position 7-port valve (Maximum pressure: 130 MPa)

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