

Ultra High Performance Liquid Chromatograph

Nexera series

Specifications



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.



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.

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).

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: max. 4, Detector: max 2, etc. | | |
| Number of connectable units | 8 (Using option: 12) | | 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 | — | — |
| 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 delivery unit |



LC-40B XR

Solvent Delivery Pump

| | 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) | 0.0001 – 3.0000 mL/min (1.0 – 70 MPa) 3.0001 – 5.0000 mL/min (1.0 – 44 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, whichever greater (under specified conditions) | | ± 1% (under specified conditions) | |
| Flow rate precision | ≤ 0.06% RSD or 0.02 minSD, whichever greater | | | |
| Gradient mode | High-pressure gradient (2 or 3 solvents) Quaternary low-pressure gradient | High-pressure gradient (2 solvents (LC-40B XR standard) or 3 solvents) Quaternary low-pressure gradient (Only available for LC-40D XR) | High-pressure gradient (2 or 3 solvents) Quaternary low-pressure gradient | High-pressure gradient (2 solvents (LC-40B X3 standard) or 3 solvents) 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 specified conditions) | | | |
| Wetted materials | SUS316L, Hastelloy® C, PEEK, PTFE, Sapphire, Ruby | SUS316L, Hastelloy C, PEEK, PE, Sapphire, Ruby | | |
| Available pH range | 1 to 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 | | | 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 | | | |
| Power supply | AC 100–240 V, 50/60 Hz | | | |
| | 150 VA | LC-40D XR: 150 VA LC-40B XR: 180 VA | 150 VA | LC-40D X3: 150 VA LC-40B X3: 180 VA |



DGU-403

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 | |

Autosampler



SIL-40C XR

| | SIL-40 SIL-40C | SIL-40 XR SIL-40C XR | SIL-40C XS | SIL-40C X3 |
|---|--|--|---|--------------------|
| Injection method | Total-volume Injection (standard), loop injection (optional) | | | |
| Allowable maximum pressure | 44 MPa | 80 MPa | 105 MPa | 130 MPa |
| Injection volume | 0.1 to 100 µL | 0.1 to 50 µL | | |
| | 0.1 to 2000 µL (optional) | | | |
| Injection volume accuracy | ± 1% (5 µL injection, n = 20) | | | |
| Linearity | ≥ 0.9999 | | | |
| Injection cycle time | ≤ 6.7 seconds (under specified conditions) | | | |
| Samples for processing | 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) | | | |
| Injection volume 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) | ≤ 0.0015% (without rinse) ≤ 0.0003% (with rinse, typically) (under specified conditions) | | |
| Dip rinsing outside the needle and injection port rinsing | Standard equipment | | | |
| Pumping rinse outside the needle | Option | Standard equipment | | |
| Internal rinsing (3 dil) | Option | | | Standard equipment |
| Sample cooler | SIL-40: None SIL-40C: Standard equipment (Air-circulation temperature control type) | SIL-40 XR: None SIL-40C XR: Standard equipment (Air-circulation temperature control type) | Standard equipment (Air-circulation temperature control type) | |
| Sample cooler temperature setting range | 4 to 45°C (Room temperature needs to be less than 30°C and humidity needs to be less than 70% to set 4°C) | | | |
| Sample cooler temperature accuracy | ± 2°C (sensor position ± 0.5°C) | | | |
| Wetted material | SUS316L, DLC, PEEK, GFP, PTFE, FEP, ETFE, sapphire, ceramics, PPS, FFKM | | | |
| Available pH range | 1 to 14 | | | |
| Dimensions [mm], weight | W 260 × D 500 × H 280 (SIL-40C/40C XR/40C XS/40C X3: Protrusion adds 140 mm to the depth) | | | |
| | SIL-40: 17 kg SIL-40C: 24 kg | SIL-40 XR: 17 kg SIL-40C XR: 24 kg | 24 kg | |
| Operating temperature range | 4 to 35°C | | | |
| Power supply | Cooler model | AC 100–240 V, 400 VA, 50/60 Hz | | |
| | 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 temperature setting range | Air-circulation temperature control type, 4 to 45°C (Room temperature 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-40S

| | 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, 50/60 Hz |

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 nm | |
| Wavelength accuracy | ± 1 nm | |
| Wavelength reproducibility | ± 0.1 nm | |
| Drift | ≤ 0.1 × 10 ⁻³ of AU/h (under specified conditions) | |
| Noise | 1 Wavelength mode: ≤ 4.0 × 10 ⁻⁶ AU, 2 Wavelength mode: ≤ 10.0 × 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 μL, equipped with temperature control function) Semi-micro cell (optical path length: 5 mm, cell volume: 2.5 μL, equipped with temperature control function) Conventional cell (optical path length: 10 mm, cell volume: 12 μL, equipped with temperature control function) Inert cell (optical path length: 10 mm, cell volume: 12 μL, 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 μL) Micro flow cell (optical path length: 3 mm, cell volume: 0.21 μL) Maximum pressure cell (optical path length: 10 mm, cell volume: 12 μL) | |
| 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 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 | ≤ 0.4 × 10 ⁻³ of AU/h (under specified conditions) |
| Noise | ≤ 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 μL, equipped with temperature control function) Semi-micro cell (optical path length: 5 mm, cell volume: 2.5 μL, equipped with temperature control function) Conventional cell (optical path length: 10 mm, cell volume: 12 μL, equipped with temperature control function) Inert cell (optical path length: 10 mm, cell volume: 12 μL, 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 μL, equipped) Micro flow cell (optical path length: 3 mm, cell volume: 0.21 μL) Maximum pressure cell (optical path length: 10 mm, cell volume: 12 μL) |
| 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 | ≤ 0.5 × 10 ⁻³ AU/h (under specified conditions) |
| Noise | ≤ 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 |
|-----------------------------------|---|---|
| Light source | Xenon lamp | 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, 18 kg |
| 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°C |
| 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 | ≤ 80% (Room temperature 5 to 31°C), ≤ 50% (Room temperature 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 selection valve | 228-65017-58 | Two-solvent switching unit to be incorporated in solvent delivery unit | |
| FCV-11AL | 228-65611-58 | The mobile phase switching valve 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 rinsing kit | 228-56201-41 | Automatic rinsing kit for plunger seal cleaning | |
| Mixer | 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) |
| | MR 100 µL | 228-72652-43 | High-efficiency mixer for high-pressure gradient system (volume 100 µL) |
| | 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 | |
|--------------------------------|-------------------------------|--|---|
| Sample loop | 50 µL | 228-63132-44 | Sample loop for 50 µL injection (standard configuration of SIL-40 XR/40C XR/40C XS/40C X3) |
| | 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 kit | 228-72568-41, -42 | Tubing kits for dual injection (228-72568-41 is for CTO-40S and 228-72568-42 is for CTO-40C) | |
| Sample loop for loop injection | 5 µL | 228-71759-42 | Sample loop for loop injection mode (volume 5 µL) |
| | 20 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) |
| Sample plate | 1.5 mL | 228-71762-46 | Plate for 1.5 mL sample vial (54) |
| | 1 mL | 228-71762-42 | Plate for 1 mL sample vial (84) |
| | 4 mL | 228-71762-43 | Plate for 4 mL sample vial (28) |
| | 10 mL | 228-71762-44 | Plate for 10 mL sample vial (12) |
| Identification labels | For 96-well microplates | 228-71840-41 | Identification label affixed to the 96-well microtiter plate (100 set) |
| | 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

| Part Name | P/N | Description | |
|----------------------------|--------------------|--|--|
| Active pre-heater | 228-72084-41 | Pre-heater device for thermostating 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 |
| | 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 | Tubing kit to connect the flow line switching valve and columns |
| | ID 0.1 | 228-72437-42 | |
| Six FCV tubing kits | ID 0.3 | 228-72437-43 | |
| | ID 0.1 | 228-72437-44 | |
| Nexlock™ SS (with fitting) | 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 µL) 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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