

Intelligent Autosampler AS-2055/2057



The JASCO Model AS-2055 and AS-2057 are fully automatic sample injection systems enabling greater productivity and the highest possible level of precision. Sampling flexibility is unparalleled with up to 384 well positions (microplate) for laboratory automation and combinatorial chemistry. Also available is a rack for 84 micro-vials or the standard rack for 50 2 mL vials. The AS-2055/2057 offer 5 operating modes; normal, two methods of pre-column derivatization, dilution, and zero-sample loss injection in stand-alone mode. In the zero-sample loss mode, the sample is sandwiched between two zones of mobile phase solvent, and the entire sample volume is drawn into the loop and injected without loss.

The AS-2055/2057 can easily be interfaced with the JASCO HPLC system using the JASCO chromatography data systems. These packages offer full automation of all JASCO HPLC components including the AS-2055/2057.

The Model AS-2055i/2057i is also available for biological separations without metallic material contact.

- **Excellent injection reproducibility**

The AS-2055/2057 offer operation in both fixed loop or variable volume injection modes. The reproducibility achieved in fixed loop 20 μ L injection is less than 0.2% SD with less than 0.01% sample contamination. In variable 10 μ L injections SD was less than 0.3%.

- **Complete flexibility**

Random sample access is provided as well as random number of injections and random injection volume for each vial. Urgent samples can be given priority.

- **Temperature control (AS-2057 only)**

The AS-2057 offers a built-in Peltier cooling and heating unit to expand the versatility of the instrument and maintain the integrity of all samples.

- **Non-adsorbent tubing**

The AS-2055/2057 both use an innovative stainless steel tubing, eliminating the adsorption problem that occurs when analyzing natural samples using Teflon tubing.

- **Sample pretreatment capability**

Air segmented sampling enables the AS-2055/2057 to automatically mix up to two different solvents or derivatizing reagents with the sample in a stand-alone mode. By automating the processes of derivatizations, the sample pretreatment capability saves time and improves the precision of complex chromatographic analyses.

- **Interfacing with the JASCO HPLC system**

The AS-2055/2057 can be used as a stand-alone module through the built-in keypad and LCD display, or integrated into a complete HPLC system with computer control. In stand alone mode, the advanced microprocessor of the AS-2055/2057 offer 10 user friendly programs with 64 steps per program. The AS-2055/2057 can freely interact with other HPLC modules via the built-in LC-Net interface and can also easily be triggered from an external event generated by a computer or other LC modules. Full PC control is also provided when incorporated in a JASCO HPLC system with the JASCO chromatography data systems.



SPECIFICATIONS

Sampling mode:	Partial (variable volume) or full (fixed) loop loading selectable
Number of sample:	50 for standard 2 mL vials 84 for 0.6 and 0.3 mL vials 96 or 384 for microplate
Sample loop:	100 µL standard
Injection volume	
Variable mode:	0.1 ~ 200 µL (standard, optional loop larger than 100 µL will be required for injection larger than 50 µL.), 1 ~ 2000 µL (optional)
Fixed mode:	100 µL (standard)
Other loops:	5, 10, 20, 50, 200, 500, 1000, 2000 and 5000 µL are available as optional accessory.
Reproducibility:	0.3% RSD (variable injection of 10 µL) 0.2% RSD (fixed injection of 20 µL)
Cross contamination:	Less than 0.01% (20 µL injection)
Sample loss:	10 µL (5 ~ 100 µL)
Temperature control (AS-2057 only):	
Low temperature section:	Arbitrary point between 4 °C and room temperature minus 10 °C
High temperature section:	Arbitrary point room temperature plus 10 °C and 60 °C
Maximum operating pressure:	35 MPa
Liquid wetted materials:	SUS-316, fluoropolymer and glass
Operation:	Through interactive key operation with keypad
Operating mode:	Normal mode Pre-column derivatization mode 1 Pre-column derivatization mode 2 Dilution mode Zero-sample loss injection mode
Program function:	Sample nos., range, Injection volume, No. of injections can be programed in max. 64 steps. 10 such program files are available and stored.
Self-diagnostics:	Memory (ROM, RAM), DC power supply and mechanical parts Inputs and outputs
Infection markers:	3 contact closures signals
STOP OUT:	1
STOP IN:	1
REMOTE INJ:	1
Dimensions	
AS-2055:	150 (W) x 470 (D) x 307 (H) mm, Approx. 12 kg
AS-2057:	150 (W) x 470 (D) x 387 (H) mm, Approx. 16 kg
Power requirements:	AC 100 ~ 240V ±10%
Power consumption	
AS-2055:	150 VA
AS-2057:	250 VA

STANDARD ACCESSORIES

Standard sample rack	1 pc
1.5 mL vial	3 pcs
Drain tube	1 pc
Flushing inlet tube assy.	1 pc
Drain attachment	1 pc
Safety cover	1 pc
Side panel	1 pc
Spare fuses	2 pcs
AC power cable	1 pc

OPTIONAL ACCESSORIES

Large volume injection kit for AS-2055/2057	
6705-H153A	Large volume injection kit
Sample vial rack for AS-2055	
6705-H101A	Standard vial rack, 50 vials, vial size: 12 x 32 mm
6705-H102B	Eppendorf tube rack, 50 vials, Tube type: 3810
6705-H103A	Micro vial rack, 84 vials, vial size: 7 x 32 mm
6705-H104A	Micro vial rack, 84 vials, vial size: 6 x 32 mm
6705-H117A	Microplate rack, 96-wells or 384-wells
Sample vial rack for AS-2057	
6705-H111A	Cooling standard vial rack, 50 vials, vial size: 12 x 32 mm
6705-H112B	Cooling eppendorf tube rack, 50 vials, Tube type: 3810
6705-2018GA	Cooling rack adaptor for 6705-H111A and 6705-H112B
6705-H113A	Cooling Chromacol vial rack, 84 vials, vial size: 7 x 32 mm
6705-H114A	Cooling Chromacol vial rack, 84 vials, vial size: 6 x 32 mm
6705-H119A	Cooling rack adaptor for 6705-H113A and 6705-H114A
6705-H136A	Cooling microplate rack, 96-wells or 384-wells

ORDERING INFORMATION

6827-J005B	Model AS-2055	Autosampler
6827-J006B	Model AS-2057	Autosampler
6828-J008B	Model AS-2059	Autosampler
6827-J007B	Model AS-2055i	Bio-inert Autosampler
6827-J008B	Model AS-2057i	Bio-inert Autosampler
6818-J002B	Model PU-2080	HPLC Pump
6819-J002B	Model PU-2080i	Bio-inert HPLC Pump
6823-J003B	Model PU-2089	Quaternary HPLC Pump
6823-J004B	Model PU-2089i	Bio-inert Quaternary HPLC Pump
6820-J002B	Model PU-2085	Semi-micro HPLC Pump
6821-J002B	Model PU-2086	Semi-preparative HPLC Pump
6822-J002B	Model PU-2087	Preparative HPLC Pump
6824-J002B	Model UV-2070	UV/VIS Detector (~ 900 nm)
6825-J002B	Model UV-2075	UV/VIS Detector (~ 600 nm)
6826-J002B	Model UV-2077	Multi-wavelength UV/VIS Detector
6832-J002B	Model MD-2015	Diode Array Detector (~ 900 nm)
6831-J002B	Model MD-2010	Diode Array Detector (~ 600 nm)
6829-J003B	Model FP-2020	Fluorescence Detector
6833-J002B	Model RI-2031	Refractive Index detector
6838-J002B	Model CD-2095	Circular Dichroism Detector
6837-J002B	Model OR-2090	Chiral Detector
6836-J002B	Model CL-2027	Chemiluminescence Detector
6834-J002B	Model CO-2060	Column Oven
6835-J002B	Model CO-2065	Column Oven

● Specifications are subject to change without notice.



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