

# S 5300 SAMPLE INJECTOR SYSTEM

The **Sykam S 5300 Sample Injector System** is a very flexible and powerful HPLC autosampler with excellent reproducibility and linearity properties. Variable vial racks and adaptors for microtiter plates as well as a multitude of firmware options make this system highly adaptable and suitable for any analytical application.

## ■ Robust Design

## ■ Durable X/Y/Z-Sampling

The **S 5300 Sample Injector System** features a mechanically durable X/Y/Z-Sampling-Mechanic designed for long life operation. The self-lubricating bearings keep the routine maintenance at a minimum and avoid troubles caused by dusty environments.

High precision stepper motors drive the X/Y axis for accurate positioning. Microstepping mode enables a high resolution for the syringe dosing and vial positioning.

## ■ Dual-Needle Design

The Dual-Needle design of the **S 5300 Sample Injector System** avoids system blockages due to septum particles injected into the system. The ventilation needle pierces the septum before the injection needle moves into the sample vial (see figure on the right).

As the more fragile injection needle does not need to pierce the vial septum, stronger vial caps or plastic

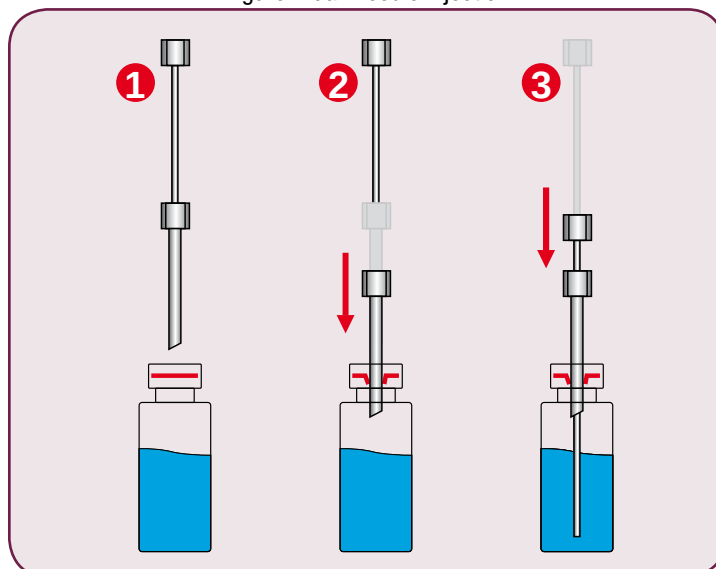


vials can be used without problems.

## ■ Accessibility

The injection valve with sample loop and injection port can be accessed directly from the instrument

Figure: Dual-Needle Injection



front without removing any protective covers. The dosing syringe can be accessed from the side of the instrument through a hinged glass panel. The exchange of the syringe can be done without the requirement of any tools.

## ■ Precision & Modularity

### ■ Performance

The **Sykam S 5300 Sample Injector System** offers multiple injection modes depending on application and sample needs. Besides fixed loop overfilling and variable volume injection the instrument offers a *Zero-Waste* injection mode for injecting very small sample amounts by moving the sample into the middle of the sample loop.

Linearity and injection precision can be optimized for any volume by different sample loops and syringe sizes.

### ■ Modular Options

The modular nature of the **Sykam S 5300 Sample Injector System** offers the possibility to “*just buy what you need*”. Modular options include sample heating/cooling for any sensitive sample material and derivatization for automatized pre-column derivatization tasks from reagent derivatization to automatic sample dilution.

## ■ OEM Options

The **Sykam S 5300 Sample Injector System** itself is available as a complete OEM instrument or even as a drop-in module to be used in any other instrument which requires automatic sample injection.

The OEM autosampler drop-in module is available as 2-Rack/1-Rack standard module or in individual sized units. Please contact us for any further information on OEM modules.

## ■ Technical Specifications

|                                    |                                                                     |
|------------------------------------|---------------------------------------------------------------------|
| <b>Wetted Materials:</b>           | Stainless Steel / PEEK*, PPS, PVDF                                  |
| <b>Sample Capacity:</b>            | 120 (1.5 ml), 192 (microtiter plates)                               |
| <b>Injection Volume:</b>           | Programmable 0.1 - 999.9 µl                                         |
| <b>Sample Heating/Cooling:</b>     | <i>optional:</i> +4 – +60 °C                                        |
| <b>Injection Precision:</b>        | < 0.5 % Variable Volume Injection (10 µl; typically ~0.25 %)        |
| <b>Linearity:</b>                  | Correlation Factor > 0.999 (10 µl injection volume, 500 µl Syringe) |
| <b>Carry Over:</b>                 | < 0.05 % with wash program                                          |
| <b>Dimensions:<br/>(W x H x D)</b> | 396 x 275 x 478 mm                                                  |
| <b>Power Supply:</b>               | 100 - 250 ~V (47 - 63 Hz)                                           |

\* depending on configuration

## ■ Order Information

| Catalog No | Description                                            |
|------------|--------------------------------------------------------|
| 10 50 010  | S 5300 Sample Injector (Fixed Loop)                    |
| 10 51 006  | <i>S 5300 Option:</i> Sample Heating/Cooling           |
| 10 51 004  | <i>S 5300 Option:</i> Variable Volume Injection Mode   |
| 10 51 005  | <i>S 5300 Option:</i> Derivatization (incl. 10 51 004) |
| 22 20 012  | S 5300 Microtiter Plate Adapter                        |

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