



**Spark Holland introduces  
ALIAS™**

All-round, state-of-the-art  
autosampler for HPLC

BETTER **SAMPLE CARE**

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# Designed to fit any system for any application

ALIAS™ is a generic autosampler for HPLC and LC-MS using state-of-the-art injection technology with fast injection and wash cycles. Efficient, multi-solvent needle wash virtually eliminates carry-over. ALIAS™ handles well plates and sample vials, either open or sealed, and provides true 4°C sample cooling. Its compact, stackable design and unrivalled performance make the ALIAS™ autosampler the best fit for your HPLC system... and your UHPLC system!

## ALIAS™ UHPLC

ALIAS™ is also available as a UHPLC compatible version permitting injection into UHPLC systems operated at pressures as high as 18,000 PSI. A special injection routine has been developed to eliminate influence of sample loop decompression on injection performance. The UHPLC version can also be equipped with sample cooling.

## ALIAS™ Prep LC

A special modification for large volume injections turns the ALIAS™ into a perfect injector for your preparative LC system. The ALIAS™ Prep version holds 24 vials of 10 mL and uses a 2.5 mL syringe. Needles, tubing and sample loop have larger capacity and allow rapid injection of sample volumes up to 10 mL.

## No worry OEM partnering

ALIAS™ has been designed with OEM customization in mind. Shape and color can easily be adapted to different system looks. We provide a range of communication interfaces and comprehensive software integration support. We will turn your make-or-buy dilemma into a no brainer. Test us!

## Reassuring reliability

Spark has more than 25 years of experience in autosampler development and innovation. Our Pressure Assisted Sample Aspiration (PASA™) concept avoids sample-syringe contact and air bubbles and has proven its robustness in more than 20,000 autosamplers. Comforting numbers if you demand a reliable partner in HPLC.

## Features and options

- Metal free sampling with silica-coated steel needle and PEEK valve (option)
- Reagent addition and mix capabilities for derivatization, dilution, internal standard addition
- Solvent Selection Valve (SSV). Optional 6-port solvent selection valve for extended selection of reagents for needle wash and reagent addition (option)
- Integrated Stream Switching (ISS). Optional extra high pressure 6-port switching valve for column switching or other stream switching applications up to 18,000 PSI
- Quick-fit injection valve for fast service



- Reliable injection performance

- Well plates and vials  
- Sample cooling

- HPLC and UHPLC version  
- Stackable

# Specifications

ALIAS™ and ALIAS™ UHPLC		
<b>Injection modes</b>	Full-loop Partial loop-fill µL-pick-up	Pressure Assisted Sample Aspiration using ~10 PSI sample headspace pressure to avoid air bubbles in sample lines.
<b>Injection volume</b>	Programmable from 0 µl – 9999 µL 1 µL increments	Max injection volume depends on installed sample loop and injection mode
<b>Injection precision</b>	Full-loop injection < 0.3% RSD Partial loop-fill < 0.5% RSD µL -pick-up < 1.0% RSD	For injection volumes > 5 µL
<b>Sample viscosity</b>	0.1 – 5 cP	
<b>Injections per vial/well</b>	Max 9	
<b>Syringe volume</b>	500 µL standard 250, 1000 and 2500 µL optional	
<b>Needle wash</b> Inside and outside needle wash with drying. Wash can be programmed between injections and between vials/wells.	1 solvent 5 additional wash solvents	Programmable volume from a 250 µL wash reservoir SSV option required
<b>Injection cycle time</b>	< 60 seconds	< 20 seconds, with typical 10 ul injection (loop fill with rinse buffer)
<b>Valve switching time</b>	60 msec	
<b>Wetted parts</b>	SS316, PTFE, TEFZEL, VESPEL, glass, For Bio-kit option: PEEK and Coated-steel (needle) instead of SS316	
<b>Carry-over</b>	< 0.05% with standard wash Typically < 0.01% with extra wash	“zero carry-over” can be accomplished with ALIAS™ wash capabilities
<b>Sample capacity</b>	Microtiter plates: 2 Vials: 2x 48 (1.5 mL) or 2x 12 (10 mL) - optional	Microtiter plates according to SBS standards. 96-well high and low and 384-well.
<b>Maximum vial/MTP height</b>	47 mm	including cap
<b>Sample cooling</b> Factory installed option (Peltier technology)	Minimum: 4°C ± 2°C Maximum: ambient temp -3°C	Measured as air temperature in sample compartment for maximum ambient temperature 25°C and maximum humidity 80%
<b>Dimensions</b>	300 x 510 x 360 mm (wxdxh) 300 x 575 x 360 mm for ALIAS™ cool	
<b>Weight</b>	19 kg 21 kg for ALIAS™ cool	
<b>Max load on top cover</b>	65 kg	
<b>Power requirements</b>	95 - 240 Volt AC ± 10%; 50-60 Hz; 200 VA	
<b>Sound pressure level</b>	LeAq < 70 dB	
<b>Working temperature</b>	10 – 40 °C	Indoor use only
<b>Storage temperature</b>	-25 - -60°C	
<b>Humidity</b>	20 – 80% RH	

# Specifications

ALIAS™ Prep		
Injection modes	Partial loop-fill	
Injection volume	Programmable from 0 µL – 19,999 µL 1 µL increments	Injection volume depends on sample loop
Sample loop	10 mL	1/8" o.d. tubing with 1/16" tubing ends and fittings (Valco) Other loop sizes may be installed.
Injection precision	< 1% RSD	For injection volumes ranging from 10 µL up to 50% of sample loop volume
Syringe volume	2500 µL	Syringe buffer tubing volume is 2mL
Carry-over	< 0.1%	Using standard needle wash
Injection valve	Valco 0.75 mm i.d. bore	
Sample capacity	24 vials of 10 mL (LSV)	Maximum vial height 47 mm Minimum vial height 32 mm

Instrument control		
Outputs	Single auxiliary output which can be programmed as inject marker (default), alarm, etc	Contact closure Vmax = 28 Vdc/Vac, I <sub>max</sub> = 0.25A
Inputs	2 programmable TTL inputs.	Free programmable as next injection (default), freeze or stop command
PC interface	RS 232 is standard.	Extra serial RS232 for Multilink functionality allows upgrading for Symbiosis Pico  Note: OEM versions can be with Ethernet, CAN, USB etc.
Software	SparkLink 4.0 (included)  Driver for Analyst <small>(Analyst is a registered trademark from Applied Biosystems)</small> 1.4.1 and up  ALIAS™ Service Manager	For rapid (remote) diagnosis of maintenance and failure issues by a service engineer.

Safety	
Door-open sensor	Needle movement speed reduction if door is open
Missing vial/well plate sensor	User programmable response to missing vial: skip vial or stop run
Software malfunction	"Watchdog" function in FPGA for embedded software control

Compliances	
Safety	CE; CSA (UL), ROHS
Installation category	II (according to IEC-1010)
Pollution degree	2
Quality	ISO 9001 certified



# Ordering information

ALIAS™ versions	
ALIAS™	SP841.000
ALIAS™ Cool	SP841.001
ALIAS™ UHPLC	SP841.200
ALIAS™ UHPLC Cool	SP841.201

Upgrades (factory installed or field-installed by an authorized service engineer)	
Sample cooling (for ALIAS™ and ALIAS™ UPLC)	0840.840
Metal free sampling (Bio kit) for ALIAS™	0840.832
UHPLC kit for upgrading ALIAS™ to ALIAS™ UHPLC	0840.833
Prep kit (turns ALIAS™ into ALIAS™-Prep)	0840.837
ISS for ALIAS™	0840.834
ISS for ALIAS™ UHPLC	0840.861
SSV for all ALIAS™ versions	0840.835
Syringe kit 250 µl (includes 500 µl syringe-buffer tubing) Note: this option is NOT controlled by Sparklink 4.0 and Symbiosis Pico software	0840.731
Syringe kit 1000 µl (includes 2000 µl syringe-buffer tubing plus larger i.d. sample needle and air needle)	0840.862
Driver for Analyst <small>(Analyst is a registered trademark from Applied Biosystems)</small>	0930.296

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