Spark

H O L L A N D

All-round, state-of-the-art
autosampler for ÄKTA™ pure

Spark Holland introduces
ALIAS™ for ÄKTA™ pure

BETTER **SAMPLE** CARE

ALIAS™ for ÄKTA™ pure

All-round, state-of-the-art autosampler for ÄKTA™ pure

Designed to fit for ÄKTA™ pure

ALIAS™ for ÄKTA™ pure is the dedicated autosampler for your ÄKTA™ pure, 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 ÄKTA™ pure.

ALIAS™ BIO version

ALIAS™ for ÄKTA™ pure is standard equipped with a bio-inert flowpath, which consist of a metal free injection valve and sample loop, combined with a coated sample needle. The installed sample loop of 100 µL permits injection volumes in a range of 1-100 µL. A wide range of sample loops is available to optimize the injection range to your applications.

ALIAS™ Bio PREP

ALIAS™ Bio PREP is designed for large volume injections. The ALIAS™ Bio PREP version holds 24 vials of 10 mL and uses a 2.5 mL syringe. Needles, tubing and sample loop are bio compatible, have larger capacity and allow rapid injection of sample volumes up to 10 mL.

Stackable

ALIAS™ can be used in a stackable environment, to save bench space. A fraction collector or pump can be positioned on top of the autosampler, which can load up to 65 kg.

Control and connecting

ALIAS™ for ÄKTA™ pure is controlled with the included SparkLink PC control software. Synchronization with UNICORN™ will take place via the I/O-box E9 of GE Healthcare. All necessary cables and connectors are included. The I/O-box E9 is available at GE Healthcare with partnumber 29-0113-61. The autosampler can also be connected to ÄKTAexplorer and ÄKTApurifier using the same principal of connection and control. ÄKTAexplorer and ÄKTApurifier do not require the I/O box, but are directly connected to the auxiliary port of the pump unit. The instruction manual 29-0404-29 "Connect autosampler ALIAS™ to ÄKTA™ pure" is available and describes how to connect the ALIAS™ autosampler to ÄKTA™ pure.

Reassuring reliability

Spark has more than 30 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 30,000 autosamplers. Comforting numbers if you demand a reliable autosampler.

Features and options

- Metal free sampling with silica-coated steel needle and PEEK valve
- 2 Wash solvents allows thorough needle wash with a weak and strong wash solvent
- Reagent addition and mix capabilities for derivatization, dilution, internal standard addition
- Cooling option. Peltier cooling module with forced air cooling in the sample compartment down to +4°C. (option)
- Solvent Selection Valve (SSV). Optional 6-port solvent selection valve for extended selection of reagents for needle wash and reagent addition. (option)
- Quick-fit injection valve for fast maintenance.

- Bio-inert flowpath
- Well plates and vials
- Cooling option
- Bio and Bio PREP version
- Stackable

Specifications

ALIAS™ Bio and Bio Cool versions		
Injection modes	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.
Injection volume	Programmable from 0 µl – 5000 µL 1 µL increments	Max injection volume depends on installed sample loop and injection mode
Injection precision	Full-loop injection ‹ 0.3% RSD Partial loop-fill ‹ 0.5% RSD µL -pick-up ‹ 1.0% RSD	For injection volumes › 5 µL
Sample viscosity	0.1 – 5 cP	
Injections per vial/well	Max 9	
Syringe volume	500 µL standard 1000 and 2500 µL optional	
Needle wash Inside and outside needle wash with drying. Wash can be programmed between injections and between vials/wells.	1 solvent std 1 extra solvent optional 5 additional wash solvents	Programmable volume from a 250 µL wash reservoir SSV option required
Injection cycle time	‹ 60 seconds	‹ 20 seconds, with typical 10 µL injection (loop fill with rinse buffer)
Valve switching time	60 msec	
Wetted parts	PEEK, PTFE, TEFZEL, VESPEL, glass. Needle coated with silica coating on SS316 (inside & outside)	
Carry-over	‹ 0.05% with standard wash Typically ‹ 0.01% with extra wash	"zero carry-over" can be accomplished with ALIAS wash capabilities
Sample capacity	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.
Maximum vial/MTP height	47 mm	including cap
Sample cooling 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%
Dimensions	300 x 510 x 360 mm (wxdxh) 300 x 575 x 360 mm for ALIAS™ cool	
Weight	19 kg 21 kg for ALIAS™ cool	
Max load on top cover	65 kg	
Power requirements	95 - 240 Volt AC ± 10%; 50-60 Hz; 200 VA	
Sound pressure level	LeAq ‹ 70 dB	
Working temperature	10 – 40 °C	Indoor use only
Storage temperature	-25 - 60 °C	
Humidity	20 – 80% RH	

Specifications

ALIAS™ Bio PREP and Bio PREP cool versions additional specifications		
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 2 mL
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, Imax = 0.25A
Inputs	2 programmable TTL inputs.	Free programmable as next injection (default), freeze or stop command
PC interface	RS 232 is standard.	
Software	SparkLink PC control (included) ALIAS™ Service Manager (included)	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™ Bio Autosampler with Bio compatible flowpath, 100 µL sample loop and 500 µL syringe. Includes vial rack of 48 positions for 1.5mL vials and vial start up kit.	GE840.002
ALIAS™ Bio Cool Autosampler with Bio compatible flowpath, sample compartment cooling, 100 µL sample loop and 500 µL syringe. Includes vial rack of 48 positions for 1.5mL vials and vial start up kit.	GE840.003
ALIAS™ Bio PREP Autosampler with Bio compatible flowpath for large volume sampling, 10 mL sample loop and 2.5 mL syringe. Includes 2 vial racks of 12 positions for 10 mL vials and vial start up kit.	GE840.402
ALIAS™ Bio PREP Cool Autosampler with Bio compatible flowpath for large volume sampling, sample compartment cooling, 10 mL sample loop and 2.5 mL syringe. Includes 2 vial racks of 12 positions for 10 mL vials and vial start up kit.	GE840.403

Upgrades (factory installed or field-installed by an authorized service engineer)	
Sample cooling	0840.840
Solvent Selection Valve (for up to 5 more wash solvents)	0840.835
Syringe kit 1000 µl (includes 2000 µl syringe-buffer tubing plus larger i.d. sample needle and air needle)	0840.862

For more information:

0051.686.10

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