

**Spark**  
HOLLAND



Spark Holland introduces  
**OPTIMAS™**

The optimum balance of  
economics and performance



BETTER **SAMPLE CARE**



**CHROMATOGRAPHIC  
SPECIALTIES INC.**

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## OPTIMAS™

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# Reliable no-nonsense HPLC autosampler

Learn more about the OPTIMAS™: optimizing your injection automation, using reliable injection technology, with a carousel holder for sample vial flexibility. OPTIMAS™ features our proven PASA™ injection concept, combining robust injection with high precision and accuracy. With its three injection modes including zero sample loss injection, OPTIMAS™ rivals top-class autosampler performance, while challenging middle-class autosampler prices!

## Keypad control for easy combination with any HPLC system

OPTIMAS™ does not need a PC for programming and control because it has its own keypad. No need for a software driver to integrate OPTIMAS™ in your HPLC system - you are free to use the data acquisition package of your choice.

## Sample cooling without restricting sample access

OPTIMAS™ can be equipped with sample cooling using a contact-cooling concept, which provides efficient cooling without the need for extra insulation of the sample tray. The sample tray thus remains easy accessible, allowing to place extra vials in the tray even during run.

## From micro samples to prep samples

Sample trays come in three configurations:

1. 96 # standard or 2-mL vials or tapered vials for micro volumes
2. 84 # standard 2-mL vials plus 3 # 10-mL vials used for reagents
3. 24 # 10-mL vials for large injection volumes.

Trays can be interchanged in seconds.

## Reagent addition and mixing

Internal standard addition, sample dilution, or derivatization steps are easily programmed to reduce sample preparation time and errors associated with manual procedures.

## No worry OEM partnering

OPTIMAS™ has been designed with OEM customization in mind. Shape and color can easily be adapted to different system looks. 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 25,000 autosamplers. Reassuring numbers if you demand a reliable partner in HPLC instrumentation.



- Reliable PASA™ injection technology

- Superior price/performance ratio

- Sample cooling  
- Large choice of sample vials

# Specifications

OPTIMAS™		
<b>Injection modes</b>	Full-loop Partial loop-fill µL-pick-up	Pressure Assisted Sample Aspiration (PASA™) using 0.05MPa sample headspace pressure to avoid air bubbles in sample lines. No external pressure source required
<b>Sample loop volume</b>	1 µL – 5000 µL	
<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 > 10 µL
<b>Replicate Injections</b>	Max 9	
<b>Syringe volume</b>	250 µL standard 1000 µL and 2500 µL optional	
<b>Needle wash</b>	Inside needle wash. Wash can be programmed between series, injections and between vials.	
<b>Injection cycle time</b>	73 sec	10 ul partial loop-fill including 250 ul wash
<b>Valve switching time</b>	60 msec	
<b>Wetted parts</b>	SS316, PTFE, TEFZEL, PEEK, glass, For Bio-kit option: PEEK and coated-steel (in-and-outside of needle) instead of SS316	
<b>Carry-over</b>	< 0.05% with standard wash	Typically < 0.01% with extra wash
<b>Sample capacity</b>	STD: 84 standard 2 mL vials plus three 10 mL vials for mix solvents LSV tray: 24 10 mL vials LSC tray: 96 standard vials	See accessories for LSV and LSC tray
<b>Vial height (including cap)</b>	Maximum: 47 mm Minimum: 32 mm	
<b>Sample cooling</b>	Programmable: 4 – 15°C Accuracy: ± 2°C (at temperature sensor). Cooling capacity: max 20°C below ambient temperature	Factory installed option (Peltier technology)
<b>Dimensions</b>	300 x 500 x 340 mm (wxdxh) or 11.8x19.7x13.4 inch (WxDxH)	
<b>Weight</b>	15 kg (33 lbs) 18 kg (39 lbs) for OPTIMAS™ cool	
<b>Power requirements</b>	115-230 Volt AC + 10/-22%; 50-60 Hz; 200 VA	
<b>Working temperature</b>	10 – 40 °C	Indoor use only



# Specifications

Instrument control		
From Keypad	<ul style="list-style-type: none"><li>- 9 programmable methods (including injection, mix, and time programmable events)</li><li>- Analysis time max 10 hr</li><li>- Max 14 Mix/dilute steps per method</li><li>- Run sequence (vial positions linked to methods)</li><li>- Priority sample (interrupt run for priority sample)</li></ul>	
Outputs	<ul style="list-style-type: none"><li>- 2 inject markers – both TTL and contact closure</li><li>- Alarm – contact closure</li><li>- Stop (TTL)</li></ul>	Alarm is activated on Error Status Message
Inputs	<ul style="list-style-type: none"><li>- Next injection (TTL)</li><li>- Freeze (TTL)</li><li>- Stop (TTL)</li></ul>	

Safety	
Alarm output	For example used to stop the pump when Error message is generated
Missing vial sensor	
Software malfunction	“Watchdog” function in FPGA for embedded software control

Compliances	
Safety	CE, according to IEC-1010
Pollution degree	2
Quality	ISO 9001 certified manufacturing

## Ordering information

OPTIMAS™ versions	
OPTIMAS™ Standard	SP820.000
OPTIMAS™ Cool	SP820.001
Field Installable options	
<b>Prep option:</b> tray for 10 mL vials, 2.5 mL syringe, large-bore injection valve with 10 mL sample loop	0820.836
<b>Bio kit:</b> PEEK injection valve, 100 µL PEEK sample loop, bio-coated needle.	0820.832
Accessories	
<b>Large Sample Capacity tray:</b> 96 sample positions for 2 mL vials	0820.316
<b>Large Sample Volume tray:</b> 24 positions for 10 mL vials	0820.835
<b>1000 µL Syringe</b>	4400.000
<b>250 µL Syringe</b>	4400.250
<b>Preventive Maintenance kit:</b> PM workbook, PM checklist, 1 std needle assembly, 1 stad air needle, 1 buffer tubing, 1 syringe valve, 1 rotor seal, 1 syringe 250 µL, 1 serum needle assembly, 1 serum air needle.	0700.901
<b>Wash bottle bracket for 2 * 250 ml wash bottles (including wash bottles)</b>	0820.850

For more information:



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Specifications are subject to change

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