



**Spark Holland introduces  
SPH1240™**

UHPLC Gradient Pump

BETTER **SAMPLE CARE**

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## SPH1240™

18,000 psi at any flow rate  
– no compromise!



Ultra high pressure pumps enable use of longer columns, higher flow rates and smaller particles. The optimum combination of these parameters may vary largely with the requirements of your assay. So why would you select an UHPLC pump that restricts your options within a limited flow or pressure range? SPH1240™ provides 18,000 psi for the entire range of analytical flow rates. Don't compromise the potential of UHPLC!

#### High pressure gradient – rapid and reproducible

UHPLC promises high separation speed and resolution. This promise will only be realized, if your UHPLC pump is able to deliver accurate and steep solvent gradients. Only high-pressure solvent mixing can provide such a demanding combination of accurate solvent composition and rapid response. High-pressure gradient delivery from SPH1240™ has been optimized with these demands in mind. Accurate flow delivery combined with dedicated adjustment of mixing volume and compressibility compensation guarantee that you get exactly the gradient that you programmed – over and over again.

#### SPH1240™ completes the palette for front-end UHPLC

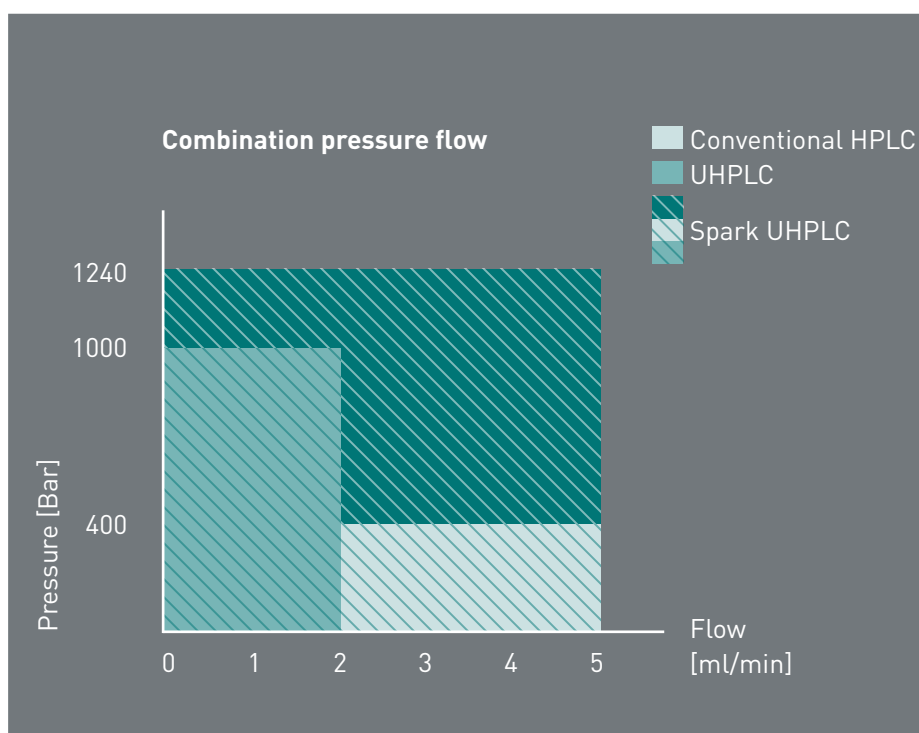
With the introduction of the SPH1240™ UHPLC pump, Spark Holland is now able to provide all components for the configuration of a variety of front-end UHPLC systems. Learn about our UHPLC compatible autosamplers ALIAS™ and INTEGRITY™ or the MISTRAL™ column oven. Whatever front-end system you configure, you will have state-of-the-art technology.

#### No worry OEM partnering

Spark is recognized for its OEM service and capabilities and for the SPH1240™ we make no exception! We are open to discuss any customization of hard- and software. We provide a range of communication interfaces and comprehensive software integration support. Test us!

#### Reassuring reliability

Spark has more than 27 years of experience in development and innovation of sample handling technology. The robustness of our instruments has been proven in more than 25,000 autosamplers and over 1000 systems for on-line SPE: reassuring numbers if you demand a reliable partner in HPLC.



- 500-18,000 psi up to 5 ml/min
- High pressure gradient

- Easy adjustment of compressibility compensation
- Active piston back wash

- Extra solvent selection options for both pumps
- Integrated degasser

# Specifications

SPH1240™		
Flow rate range	0.001 - 5.00 ml/min 0.001 ml/min increments	
Stroke volume	15 µl	
Maximum pressure	124 MPa	= 18.000 PSI or 1240 bar
Flow precision	< 0.2% RSD or sd < 0.02 min	
Flow accuracy	+/- 1 %	for the entire pressure range
Pulsation	± 0.75%	from 500 to 18,000 PSI
pH range	pH 1 - 10	
Wetted parts	316 SS, peek, ruby, sapphire, Teflon, UHMWPE, Teflon AF	

General		
Sound pressure level	LeAq < 70 dB	
Working temperature	5 - 40°C	
Storage temperature	-25 - 60°C	
Humidity	20 - 80% RH	
Dimensions (W x D x H)	300 x 120 x 500 mm	
Maximum weight basic model	16 kg	
Max load on top cover	49 Kg	
power requirements	95 - 230 Volt AC +/- 10%. 50/60 Hz	

Control		
Interface software		PSM (Pomp Service Manager) for OEM testing purposes available at Spark
Outputs	3 auxiliary relays	Relay Contacts: Vmax = 28 VDC/ VAC, Imax=0.25 A
Inputs	6 TTL inputs: <u>External I/O connector</u> <ul style="list-style-type: none"> <li>• TTL Input 1 (programmable)</li> <li>• TTL Input 2 (programmable)</li> </ul> <u>External controller connector</u> <ul style="list-style-type: none"> <li>• TTL Input: Pump ON</li> <li>• TTL Input: Pump OFF</li> <li>• TTL Input: Program Start</li> <li>• TTL Input: Not Used</li> </ul>	5V input signal, can be driven Low by means of Contact Closure or Open Collector
Serial communication	RS232 multi link	Ethernet and USB available for OEM versions

# Specifications

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

Options	
Solvent Selection Valve (per pump)	4 connection ports for <ul style="list-style-type: none"><li>• IN solvent 1</li><li>• IN solvent 2</li><li>• OUT to pumphead 1</li><li>• OUT to pumphead 2</li></ul> Max. 4 different solvent mixtures

# Ordering information

SPH1240™ versions	
<b>SPH1240™ UHPLC gradient pump set including:</b> <ul style="list-style-type: none"><li>• PUMP A (SP760.120) an UHPLC Pump 500-18.000 psi + including integrated 4 channel degasser + integrated Solvent Selection Valve</li><li>• PUMP B (SP760.220) an UHPLC Pump 500-18.000 psi + including integrated mixer + integrated Solvent Selection Valve</li></ul>	SP761.020
<b>SPH1240™ UHPLC gradient pump set including:</b> <ul style="list-style-type: none"><li>• PUMP A (SP760.100) an UHPLC Pump 500-18.000 psi</li><li>• PUMP B (SP760.200) an UHPLC Pump 500-18.000 psi including integrated mixer</li></ul>	SP761.000
Upgrades (Factory installed or field-installed by an authorized service engineer)	
<b>SSV kit Pump A: adds a Solvent Selection Valve to the pump:</b> extra solvent available (for SP760.100)	0760.814
<b>SSV kit Pump B: adds a Solvent Selection Valve to the pump:</b> extra solvent available (for SP760.200)	0760.815

## For more information:

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