

# Polar Bear *Plus* Flow Synthesiser

## SPECIFICATIONS AND DATA SHEET



Polar Bear Plus Flow Synthesiser shown with Uniqlis pump and netbook attached – not included as standard

### GENERAL

<b>Cylinder diameter</b>	mm	125
<b>Cylinder height</b>	mm	110
<b>Dimensions (W x D x H)</b>	mm	200 x 320 x 300
<b>Weight</b>	kg	13
<b>Temperature range</b>	°C	-40 to 150
<b>Accuracy</b>	°C	better than ± 1.5
<b>Control accuracy</b>	°C	±0.2
<b>Set point temperature setting resolution</b>	°C	0.01
<b>Safety circuit min. (software)</b>	°C	-50
<b>Safety circuit max. (software)</b>	°C	160
<b>Power input</b>	W	630

### COIL REACTOR

<b>Tubing material</b>		FEP
<b>Size, working volume with 2.4mm bore tubing</b>	mL	50

### HEATING AND COOLING\*

<b>Heating output</b>	W	180
<b>Heating rate</b>	°C/min	5
<b>Cooling time from 20°C to 0°C</b>	min	7
<b>Cooling time from 20°C to -20°C</b>	min	14
<b>Cooling time from 20°C to -40°C</b>	min	23

\*Based on plate temperatures.

### CONNECTIVITY

<b>Ethernet interface</b>	Yes
<b>Computer and Labview integration</b>	Yes
<b>USB data storage</b>	Yes
<b>Real time historical log</b>	Yes

### ENVIRONMENT

<b>Permissible ambient temperature</b>	°C	5 - 40
<b>Permissible relative moisture</b>		No data
<b>Protection class according to DIN EN 60529</b>		IP20

### PERFORMANCE DATA

Stable temperatures between -40° and +150°C can be maintained even with a throughput of 10ml/min.

Chemists at the Innovative Technology Centre, University of Cambridge are in the process of submitting detailed performance data for publication in the scientific literature; therefore we cannot currently publish full results here.

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