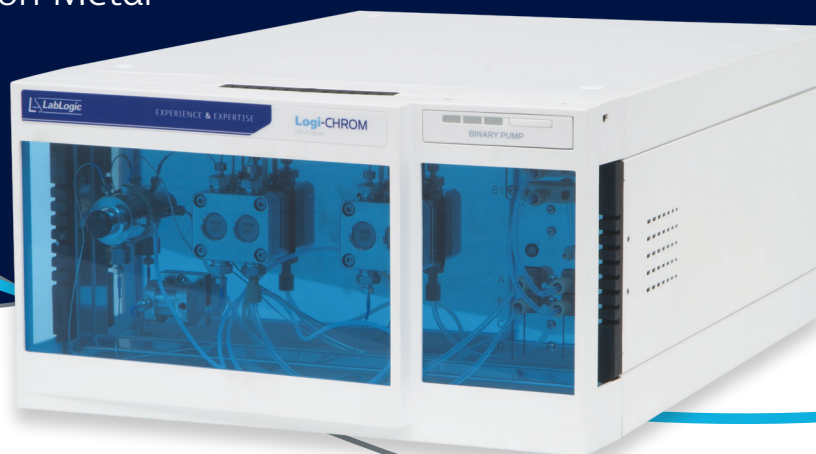


# Specification Datasheet

## Logi-CHROM

Binary Pump – Non-Metal



### Logi-CHROM Binary Pump

<b>Pump Head</b>	10 ml / min., with spring-loaded check valves
<b>Pulsation Compensation</b>	Active pressure and pulsation compensation
<b>Pump Head Materials</b>	Ceramic
<b>Maximum Pressure</b>	400 bar, 5800 psi
<b>Solvent Selection Valve</b>	2 x 2 channels (dependent on model)
<b>Flow Rate Range</b>	0.001 - 10 ml/min. (0.02 - 10 ml/min. recommended)
<b>Flow Rate Increment</b>	0.001 ml/min.
<b>Flow Rate Accuracy</b>	± 1%, measured at 5 - 80% of flow range range using ethanol
<b>Flow Rate Precision</b>	< 0.1% RSD based on retention time at constant room temperature
<b>Pulsation</b>	< 2 % amplitude (typically < 1.3 %) or < 0.3 MPa (3 bar), whatever is greater, at 1 mL/min ethanol, at all pressures > 1 MPa (10 bar, 147 psi).

### Gradient System

<b>Gradient Formation</b>	High pressure binary mixing
<b>Gradient Range</b>	0 - 100%, (5 - 95% recommended)
<b>HPG: Minimum Increment</b>	0.1%
<b>HPG: Gradient Accuracy</b>	± 0.3 % at 1 ml/min, 150 bar (ethanol/caffeine tracer) ± 1 % (5 - 95 %, measured at 0.1 – 10 ml/min, water/caffeine tracer)
<b>HPG: Gradient Precision</b>	< 0.1 % RSD at 1 ml/min, 0.3% RSD overall, based on retention time at constant room temperature
<b>Mixing Volume</b>	100 µl (optional 50 or 200 µl available)
<b>Delay Volume</b>	160 µl (depending on mixer)
<b>Piston Seal Washing</b>	Standard

## Gradient System

<b>System Protection</b>	Soft start, Pmin and Pmax are programmable
<b>Wetted Materials</b>	GFP (graphite fibre reinforced PTFE), sapphire, ruby, aluminium oxide (Al2O3)

## Degasser

<b>Degasser Channels</b>	2 channels, Teflon® AF (dependent on model)
<b>Degasser Maximum Flow Rate</b>	10 ml/min
<b>Degassing Method</b>	Gas permeation through Teflon® AF amorphous fluoropolymer membrane
<b>Degassing Efficiency</b>	< 0.5 ppm dissolved O2 at 1 ml/min
<b>Degassing Chamber Volume</b>	480 µl volume per channel
<b>Solvent Applicability</b>	Universal, with the exception of hydrochloric acid and halogenated hydrocarbons - in particular hexafluoroisopropanol (HFIP)
<b>Wetted Materials</b>	PEEK, Tefzel®, Teflon® AF
<b>Vacuum Chamber</b>	Polypropylene and stainless steel
<b>Vacuum Pump</b>	Low hysteresis behaviour

## Ambient

<b>Ambient Conditions</b>	Temperature range: 10-40°C; 50-104°F humidity: below 90 % humidity (non-condensing)
<b>Leak Sensor</b>	Yes
<b>Power Supply</b>	Voltage range: 100 - 240 V, 50 - 60 Hz

## Communication

<b>Interfaces</b>	LAN, Pin header connectors (Analog IN, Start IN, Error IN)
<b>Control</b>	Laura Software
<b>Analog Inputs</b>	Flow Rate: 0 - 10 V via pin head connectors
<b>Analog Outputs</b>	8 event outputs (TTL, OC, Relays) and 24 V

### Europe & Worldwide

#### LabLogic Systems Limited

Paradigm House, 3 Melbourne Avenue  
Broomhill, Sheffield, S10 2QJ, UK

**E-mail:** solutions@lablogic.com

**Tel:** +44 (0)114 266 7267

**Fax:** +44 (0)114 266 3944

[www.lablogic.com](http://www.lablogic.com)

### USA & Canada

#### LabLogic Systems, Inc.

1911 N US HWY 301, Suite 140  
Tampa, FL 33619, USA

**E-mail:** solutions@lablogic.com

**Tel:** +1-813-626-6848

**Fax:** +1-813-620-3708

[www.lablogic.com](http://www.lablogic.com)

