

Product Fact Sheet

CyFlow® Ploidy Analyser

Product Picture



Product name

CyFlow® Ploidy Analyser

Manufacturer information

The CyFlow® Ploidy Analyser is manufactured by Sysmex Partec GmbH.

Sysmex Partec GmbH

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Sysmex Partec is an ISO 9001:2008 and ISO 13485:2012 certified company.

Summary

The CyFlow® Ploidy Analyser is a compact flow cytometer for ploidy analysis, high resolution DNA and genome size analysis for plants, animals and micro-organisms.

Productivity values

High-performance, bench-top design with integrated fluidics, built-in PC and a 15" TFT monitor. Ploidy determination in agrosience, breeding and aqua culture.

Genome size determination for taxonomy, ecology and evolutionary biology.

Detection of:

- Ploidy level variation: polyploidy, haploidy, triploidy, endopolyploidy, apomixes and aneuploidy
- Nuclear genome size and C-value
- Sex in plants
- Cell numbers

Main features of CyFlow® Ploidy Analyser

- ✓ Ploidy and genome size analysis in less than 2 minutes
- ✓ Preparation and staining of metaphase chromosomes is not required
- ✓ Replaces time-consuming microscopic evaluation
- ✓ Easy and quick sample preparation by ready-to-use Sysmex Partec Protocols
- ✓ Optional autoloading station for 96-well plates or 120 test tubes
- ✓ Any living plant material can be analysed: leaves, seedlings, roots, flowers, seeds
- ✓ Detection with +/- 1 chromosome accuracy in many plants
- ✓ Compact and robust instrumentation allows measurement at various locations

Specifications

Feature	Description
Parameters	1 or 2 optical parameters with photomultiplier tubes (PMT)
Optics	Standard set-up and filters for propidium iodide (long pass filter 590 nm) and/or DAPI / SSC (long pass filter 435 nm)
Light Sources	Up to two light sources <ul style="list-style-type: none"> • UV LED (365 nm) • Nd-YAG green laser at 532 nm (30 mW)
Flow System	<ul style="list-style-type: none"> • Quartz flow cuvette for laminar sample transport and hydrodynamic focusing • Completely closed fluidic system • Sample port with biosafety cleaning system • True Volumetric Absolute Counting based on mechanical volume measurement • Computer controlled precision syringe pump speed continuously adjustable from 0.1-19.9 µl/s

	<ul style="list-style-type: none"> • Easily accessible sheath fluid and waste reservoirs with fluid level sensors
Electronics	<ul style="list-style-type: none"> • Parallel signal processing for each optical channel • Single and multiple trigger on any parameter or combination of parameters • Individual threshold level settings • 16 bit analog-to-digital converters
Computer	<ul style="list-style-type: none"> • Built-in Windows™ PC • Microsoft Windows™ 7 professional 64-bit operating system • Integrated 15" TFT LCD display • Dual screen setup (optional) • Keyboard, mouse • 4 USB ports • 100MB/s and 1000MB/s Ethernet connection • DeskJet colour printer, printing via network
Software	<ul style="list-style-type: none"> • Windows™ based FCM software CyView™ for real-time data acquisition, data analysis and data display • Editable CyView™ user environments • Guided prime and shut down procedures • Easy experimental template set up (configuration files) • Flow cytometry standard data (FCS) format for storage of original and evaluated data • 1 parameter histograms and 2 parameter dot plots • 64 — 4096 channels resolution for 1 parameter histograms • 64/64 — 4096/4096 channels for 2 parameter dot plots • Time parameter • Selectable linear scale or 4 decade logarithmic scale • Software-based lin/log transformation • Analysis pre-selectable on time, number of events or sample volume • Multi parameter gating (colour highlighting feature) • FCS Express RUO software (Dongle version) for data analysis and reporting • Direct reporting into PDF • Multiple tube reporting • Data export to Excel and Power Point format
Dimensions	<ul style="list-style-type: none"> • Standalone instrument: L 385 mm x W 280 mm x H 290 mm • With Autoloading Station: L 745 mm • Height with open screen: 528 mm

Weight	18 kg
QC functions	For quality control of instrument operation
Interface	USB, Ethernet, video output
Operative temperature	15-30°C
Operative humidity	20-85%, non-condensing
Noise	<70 dBA
Electrical Specification	2/II
Nominal voltage	100 - 240 VAC
Power consumption	200 VA

Article number

Article no.	Item	Description
CY-S-3039_V1_S	CyFlow® Ploidy Analyser Set	Consisting of: CyFlow® Ploidy Analyser (UV-LED 365nm, 1 optical parameter), HP Deskjet 1010 Printer, FCS Express 4 RUO, Keyboard, Mouse, Accessories box, Starter kit
CY-S-3039_V2_S	CyFlow® Ploidy Analyser Set	Consisting of: CyFlow® Ploidy Analyser (532nm, 30mW green solid state laser, 2 optical parameters), HP Deskjet 1010 Printer, FCS Express 4 RUO, Keyboard, Mouse, Accessories box, Starter kit
CY-S-3039_V3_S	CyFlow® Ploidy Analyser Set	Consisting of: CyFlow® Ploidy Analyser (UV-LED 365nm, 532 nm, 30mW green solid state laser, 2 optical parameters), HP Deskjet 1010 Printer, FCS Express 4 RUO, Keyboard, Mouse, Accessories box, Starter kit
CY-S-3080-6	CyFlow® Robby 6 Autoloading Station	Autoloading Station for tubes and 96-well plates

Possible configurations	Description
Standalone	
With Autoloader	Autoloading Station for automatic sampling from tubes and 96-well plates