

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