

Compact Colony Picker PM-2s multi Specifications

Automatic colony picking, re-arraying, and replicating.		
Image identification	Identification method	Imaging with color CCD (charge coupled device)
	Colony identification accuracy	15 million pixel RGB color CCD, pixel resolution: 0.06 mm/pixel
	Identification setting parameter	Set RGB extraction, distance to adjacent colonies, ratio of long to short ellipsis diameter, roundness, maximum number of pixels, minimum number of pixels, identification area, other (*1)
Drive	Drive type	Triaxial (2-phase stepping motor x 3) actuator type
	Positional accuracy	Actuator positioning accuracy ± 0.05 mm
	Minimum transfer colony size	$\varnothing 0.2$ mm (actual size varies depending on conditions)
	Maximal processing speed	5 sec / pick (not including sterilization and washing)
	Operation set parameter	Set needle replacement, number of pickings, microplate transfer, needle pin washing, depth of needle pin insertion, other (*1)
Operation mode	Colony picking	Automatic colony picking from Petri dish to microplate.
	Re-arraying / Replicating	Replicating (Petri dish and master plate \rightarrow Daughters plate) Compression (Four 96-well plates \rightarrow One 384-well plate) Expansion (One 384-well plate \rightarrow Four 96-well plates) Re-arraying (User definable transfer between wells by editing CSV data)
	Data view	Automatic saving of the data after the transfer completion. Import / Export to CSV data.
Dish / plate	Dishes applicable to transfer source	$\varnothing 90$ mm / $\varnothing 150$ mm disposable dishes
	Plates applicable to transfer targets	(Shallow): 96-, 384-well; (deep): 96-well
Needle pin	Picking movement	1 point / 1 Pick / operation
	Material and specification	SUS304, PM-2s dedicated needle pin
	Replacement procedure and storage capacity	A.N.C.S. (Automatic Needle Change System) full automatic replacement, the dedicated needle pin tray may hold a maximum of 96 needles, allowing their automatic replacement
	Pin sterilization	3-Type combination sterilization (automatic supply ethanol brushing tank, automatic ethanol rinsing tank, high temperature (400°C) heating tank)
Control	Image analysis and integrated control	Use of a personal computer, OS: Windows XP
	Drive control	In-house drive board built into the main unit
Functions	Others	UV sterilization lamp (3 fluorescent lamps) (with automatic power off timer)
		Built-in ethanol supply pump
		Low remaining ethanol supply warning, ditto discharge tank full sensor, ditto fluid leak warning sensor, front door opening sensor (with interlock function)
External dimensions	(W) \times (D) \times (H)	(W) 675 mm x (D) 550 mm x (H) 730 mm (does not include projections)
Weight of the main unit	Dry weight	Approx. 65 kg (does not include the control computer)
Power supply	(Japanese specification)	100 V AC, 5 A (50/60 Hz) (does not include the control computer)
Accessories	Accessories for the main unit	Needle pin x 24, needle pin stocker x 1, ethanol supply pyrex glass bottle (1000 ml) x 1, ditto waste discharge pyrex glass bottle (1000 ml) x 1, instruction manual for the main unit (English) x 1
	Personal computer (*2)	Windows system x 1, TFT LCD monitor (17-inch SXGA) x 1, keyboard x 1, USB mouse x 1, RS-232C cable (2 m) x 1, USB cable (2 m) x 1, monitor cable x 1, power cable (for the main unit, personal computer, monitor x 1 each) x 1, instruction manual (English) x 1

*1 Please inquire about the details of the software function.

*2 The specifications of the used computer may vary over time.

< Attention > For the purpose of technical improvements the above specifications may be changed without prior notice.



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