

Etching solution
automatic controller

METIS - 7000

H₃PO₄, HNO₃, C₂H₄O₂

Features

- Metis-7000 H₃PO₄, HNO₃, C₂H₄O₂ is an etching solution automatic controller. It can analyze phosphoric acid (H₃PO₄), nitric acid (HNO₃) and acetic acid(C₂H₄O₂) concentration which are active components of process solution used for etching process at production line of flat panels and replenish (output signals for replenishment) supply solution automatically.
- Can maintain high analysis accuracy by washing sensors every after analysis cycle ends.
- Can perform the optimum control of analysis and replenishment by simple parameter change.
- Easy to integrate into specification of production line.
- Contribute to cost down by reducing amounts of use of process solution and labor costs for analysis and replenishment.

Specification

■Function

Control items/ analysis method	1. H ₃ PO ₄ concentration/ neutralization titration 2. HNO ₃ concentration / neutralization titration or absorptiometry 3. C ₂ H ₄ O ₂ concentration / neutralization titration * Analysis accuracy needs separate consultation.
Replenishing	Controlling replenishing pumps from analysis result. ※Replenishing system needs mutual consultation about conditions at processing line.
Cycle time	About 40 minutes



Image picture

■Specification

Dimension / Weight (body)	W385 × H470 × D455(mm) / 30kg
Dimension / Weight (Footstool)	W465 × H930 × D425(mm) / 20kg
Power supply	AC100V (±10%)、60/50Hz、3P Plug+ Ground (separated ground line needed for equipped computer)
Power dissipation	200VA(max)

■Option (Below is just some example for your consideration. If you have requests, please feel free to contact us.)

Alarm	Patrol light, various signal towers.
Data communication	CC-Link, RS-232C, RS-485, 4-20mA communication, external control, etc.

System summary



Automatically analysis flow

Start

Starts analysis flow every after user- fixed time elapses.

Sampling

Samples chemical solution by equipped pump.

Analyzing

Analyzes chemical solution concentration with chemical reagent .

Prints out and saves analysis data, and transfers it to USB memory.
(External data communication is available as optional choice.)

Calculating

Calculates necessary replenishment to correct the processing solution concentration to preset value on the basis of analysis result.

Replenishment

Replenishes supply solution into treatment tank by controlling replenishing pump with output signal from the controller.

Cleaning

Cleans reaction cell and sensors and stands-by till next analysis flow begins.

Note1) Please use our designated genuine parts or reagents for maintenance and running in order to prevent unexpected troubles.

Note2) Please be notified that we may change the specification or appearance of the controller for improvement without notice.

Note3) So as to maintain analysis accuracy, we recommend periodical maintenance or adjustment by our skilled engineer. (out of warranty)

For inquiry contact



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