ISHIHARA CHEMICAL

Electro nickel plating solution (watts bath) automatic controller

METIS-7000



Features

- Metis-7000 Ni, Cl, pH, H3BO3 is an electro nickel plating solution automatic controller. It can analyze nickel sulfate, nickel chloride and boric acid concentration which are active components of processing solution used for electro nickel plating (watts bath) 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. Nickel sulfate concentration / absorptiometry (analysis accuracy ±3.0%) 2.Nickel chloride concentration / potentiometric titration method (analysis accuracy ±3.0%) 3.Boric acid concentration / neutralization titration (analysis accuracy ±3.0%) 4.pH value/ glass electrode method
Replenishing	Controlling replenishing pump from analysis result. **Replenishing system needs mutual consultation about conditions at processing line.
Cycle time	About 15 minutes **Cycle time depends on concentration of solution, etc.



Image picture

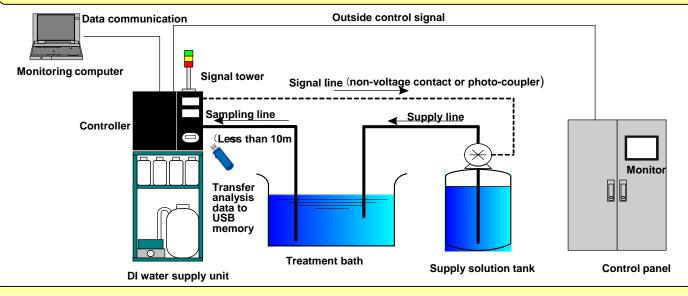
■Specification

Dimension / Weight (body)	W385 × H470 × D455(mm) / 30kg
Dimension / Weight (Footstool)	W465 × H930 × D425(mm) / 15kg
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.)

Replenishing unit	Replenishing pump, tank, replenishing hose, liquid level sensor, etc.
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.

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Analyzes chemical solution concentration with chemical reagent.

Analyzing

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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