

DPC10

DEPOSITION PROCESS CONTROLLER



DESCRIPTION

New electronic unit for thin film deposition process controlling. DPC10 can operate two independent sources/chambers at the same time.

The DPC10 Deposition Process Controller is an advanced and complete electronic device designed for the physical vapor deposition process controlling. DPC10 monitors and controls the rate and thickness of thin film deposition. The rate and thickness of the deposition are calculated from the frequency change of the quartz placed in the process chamber. A user-programmed device can control the deposition process in a precise and repeatable manner. User interacts with unit via front panel touchscreen by selecting/entering parameters defining the process. The device executes any recipe created by the user with a graphical editor. In addition, DPC10 works with any voltage controlled deposition source power supply (via analogue interface) and can control substrate heating process.

The complete system consists of a DPC10 main electronic unit, a vacuum gauge and TM13/14 thickness monitor for each quartz crystal.

FEATURES

- **Designed for deposition process automation**
- **Two independent process loops**
- Easily operated **recipe editor** with graphical interface
- **Works with any voltage controlled (via analogue interface) deposition source power supply**
- **Controls evaporation rate and thickness**
- **Controls substrate heating process**
- Equipped with fast CPU & 7" touchscreen display
- Favourites list of frequently used materials
- 2D real time chart module

TECHNICAL DATA

Supply voltage	100-240 VAC, 50/60 Hz (power consumption max 43 W)
Inputs	2 analog inputs (0-10V) 12 digital inputs
Outputs	6 analog outputs (0-10V) 16 digital outputs
Supported thickness monitors	TM13: 0.1 Hz TM14: 0.01 Hz
Thickness	0 - 9999000 Å
Rate	0 - 9999 Å/s
Frequency range	2-6 MHz
Thickness resolution	TM13: 0.1 Å TM14: 0.01 Å
Rate resolution	TM13: 0.1 Å/s TM14: 0.01 Å/s
Frequency stability	TM13: 0.5 ppm TM14: 0.5 ppm
Tooling factor	1 - 400%
Measurement units	Å, kÅ, nm
Measurement period	100 ms - 2 s (depend on TM type)
Shutter control	manual, time, thickness
Shutter time	1 - 1000000 s
Supported active gauges	CTR90, TTR91, TTR211, PTR225, PKR251/360/361, PCR280, TPR280/281, PTR90, ITR90, ITR100, Baratron, ANALOG IN, PG105, ATMION, IKR360/361
Measurement units	mbar, Pa, Torr, Psia
Communication interface	RS232/485, Ethernet
User interface	7" TFT display with touchscreen
Interface language	English
Dimensions	212.6 x 128.4 x 266.1 mm (W x H x D)
Weight (approx.)	2.1 kg



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