



XTC/3

Thin Film Deposition Controller

ADVANCED, AFFORDABLE RATE CONTROL FOR SINGLE OR MULTIPLE LAYERS

Now get everything you want in a thin film deposition controller for single and multiple-layer processes. The XTC/3 with patented ModeLock¹ provides proven mode hop prevention for consistent quality. With the XTC/3 Thin Film Deposition Controller, you get highly accurate control of deposition rate and thickness, the capacity for virtually any number of layers, easy installation, and extremely high reliability to ensure productivity.

INFICON, the global leader in thin film deposition control, now offers an instrument with a remarkably low cost of ownership for unprecedented value.

Whether your control needs reflect production or research and development use, you will find a precise match in the INFICON XTC/3.

WORLDWIDE INFICON SUPPORT

No matter where you are, you get fast answers, attentive service, and maximum uptime. With offices around the world, INFICON is the only manufacturer of thin film deposition controllers to offer you local service and technical support around the world.

FEATURES AT A GLANCE

- available in single-layer and multiple-layer models
- patented ModeLock technology prevents film thickness errors caused by mode-hopping
- supports INFICON Crystal 12™, CrystalSix® and dual sensor automatic crystal switching for maximum productivity
- XTC/3M multiple-layer model supports up to 99 processes, 999 layers, 32 films, 2 sensors and two sources
- XTC/3S single-layer model supports up to 9 films, 2 sensors and two sources
- easy-to-read TFT LCD graphics displays
- films and processes can be assigned unique, descriptive names for easy retrieval
- Ethernet connection available
- free-standing (no computer necessary) or optional Windows® software for PC operation
- plug-and-play replacement for INFICON XTC/2 controllers (limited to XTC/2 features and command set)

¹ModeLock—Patented in United States, United Kingdom, and Germany. For detailed technical information on ModeLock, visit our website for a copy of "The Technology of the Intelligent Oscillator for Quartz Crystal Measurement and its Advantages for Thin Film Processes."

SPECIFICATIONS

| Feature, Parameter, or Specification | XTC/3S Single Layer | XTC/3M Multiple Layer |
|--|---|---|
| Frequency Change Measurement Resolution | ± 0.028 Hz | ± 0.028 Hz |
| Measurement Interval | 0.25 seconds | 0.25 seconds |
| Thickness & Rate Resolution / Measurement | 0.034 Angstroms @ Tooling/density = 100, fundamental frequency = 6 MHz | 0.034 Angstroms @ Tooling/density = 100, fundamental frequency = 6 MHz |
| Measurement Technology | ModeLock | ModeLock |
| Number of Processes | 1 | 99 |
| Number of Layers | 1 | 999 |
| Number of Material Programs (or Films) | 9 | 32 |
| Number of Sensor Inputs | 2 standard | 2 standard |
| CrystalSix / Crystal 12 Sensor Support | Yes | Yes |
| Support XTAL2 Switch | Yes | Yes |
| Number of Source Outputs | 2 standard | 2 standard |
| Computer Communications | RS232 standard, Ethernet TCP/IP optional | RS232 standard, Ethernet TCP/IP optional |
| Max RS232 Baud Rate | 115.2 KBaud | 115.2 KBaud |
| Automatic Crystal Switch | Yes | Yes |
| Number of Relays | 12 standard, Not Event Assignable | 12 standard, Event Assignable |
| Number of Programmable Relay Functions | 1 | 1 |
| Functions per Relay | 1 | 1 |
| Relay Voltage Rating | 30VDC or 30VAC RMS or 42V peak at 2.5 Amps | 30VDC or 30VAC RMS or 42V peak at 2.5 Amps |
| Number of Inputs | 8 TTL, 24VDC Max | 8 TTL, 24VDC Max |
| Number of Programmable Input Functions | 1, Not Event Assignable | 1, Event Assignable |
| Number of Recorder Outputs | 1 | 1 |
| Manual Power / Hand Held Controller | Yes | Yes |
| Exhaust Fan | No Exhaust Fan | No Exhaust Fan |
| Test Mode | Yes | Yes |
| Shutter Delay | Yes | Yes |
| Secondary Tooling | Yes | Yes |
| Crystal Starting Frequency | 6 MHz | 6 MHz |
| Maximum Allowed Frequency Shift | 1.0 MHz | 1.0 MHz |
| Case Dimensions | half rack, 2U high | half rack, 2U high |
| Rate and Thickness Display Resolution | 0.1 A/s for 0.0 to 99.9 A/s, 1 A/s for 100 to 999 A/s, display thickness resolution = 1 A | 0.1 A/s for 0.0 to 99.9 A/s, 1 A/s for 100 to 999 A/s, display thickness resolution = 1 A |
| Film Select via Inputs | Yes | No |
| User Guide Languages | English, Chinese | English, Chinese |
| Control Loops | PID | PID |
| Software to Operate from PC | Yes | Yes |
| Datalogging | Yes | Yes |
| Quality and Stability Function | Yes | Yes |
| Sample and Hold (RateWatcher™) | Yes | Yes |
| Crucible Selection | Yes | Yes |
| Crucible Feedback Input | Yes | Yes |
| Select Control Voltage Polarity | Yes, +/- 2.5, 5, 10 Volts; 15-bit Resolution | Yes, +/- 2.5, 5, 10 Volts; 15-bit Resolution |
| Program Lock Code | Yes | Yes |
| Display with Graphics | Yes | Yes |
| User Labeled Processes (cell phone style alphanumeric entry) | No | Yes |
| User Labeled Films (cell phone style alphanumeric entry) | No | Yes |
| Transfer Sensor Control | Yes | Yes |
| XTC/2 RS232 Communications Compatibility | Yes (limited) | Yes (limited) |



GLOBAL HEADQUARTERS:

Two Technology Place, East Syracuse, NY 13057 USA
 Tel: +1.315.434.1100 Fax: +1.315.437.3803 E-mail: reachus@inficon.com

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 Due to our continuing program of product improvements, specifications are subject to change without notice.

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