COLNATEC

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Basic Design with Same Degree of Excellence

Designed with the same level of dependability and precision of Eon™ system, the EonLT™ PC-based film thickness monitor provides a basic feature-set for users who do not require process or temperature control. The EonLT™ offers the same innovative monitoring capability of the Eon™, yet the technology has been streamlined to provide a more compact, low-cost unit. Like the Eon™, the Eon-LT™ is a temperature measuring film thickness monitor which surpasses conventional monitors that are blind to thermal changes of the crystal. The combination of frequency and temperature measurement allows unprecedented accuracy in real-time rate and thickness monitoring.

Why measure temperature?

The frequency change of a crystal by process heating can easily be equal to the frequency change caused by coating. In normal operation there is a built-in 10% error in most rate measurements. In the worst case, the error rate can reach 100% - calling into question the entire purpose of the measurement process. While Eon-LT™ is compatible with industry standard crystal sensors, the unit was also specifically created to be paired with Colnatec's Phoenix™ in combination with AT™, HT™, RC™, or SuperQuartz (SQ™) 6 MHz crystals for achieving a degree of precision never before imagined in the world of thin film

Eon-LT™ PC-Based Monitor

Film Thickness Monitor with Temperature Measurement

Features

- Temperature measuring quartz oscillator
- Communicates with latest, intuitive Eon™ software
- Real time graphing of temperature and frequency alongside corresponding rate and thickness values
- Shutter on/off support (relays)
- All connecting cables, software, and instruction manual included

Applications

- Atomic Layer Deposition (ALD)
- Chemical Vapor Deposition (CVD)
- Molecular Beam Epitaxy (MBE)
- CIGS (thin film solar)
- OLED (display & lighting)
- Multi-Layer Optical Thin Film Deposition

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Specifications

Measurement	
Frequency Resolution	0.001 HZ @ 6 MHz (1 Sample per Second)
Sample Rate	100 Hz to 10 Hz
Display Update Rate	10 Hz - 1 Hz
Sensor Crystal Frequency	6 MHz
Electronics	
Temperature	2 type K TC
Sources	2 0-5 VDC source controls
Relays (non-programmable)	2 SPST NO for abort & thickness setpoint
Remote Power	Front panel FOB connector for manual power control
Input setup	Inputs can trigger events depending on user selected conditions
Output Setup	Outputs can be triggered depending on user selected conditions
LED(s)	Dual status
Communication Protocol	Communication status Power-up status RS-232
DAC Recorder	Either or both source outputs can be used as recorder outputs

Dimensions	
4.5” x 2.5” x 1”	
Ordering Information	
Eon-LT™	PC-interactive thin film monitor