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.

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
## Specifications

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Resolution</td>
<td>0.001 HZ @ 6 MHz (1 Sample per Second)</td>
</tr>
<tr>
<td>Sample Rate</td>
<td>100 Hz to 10 Hz</td>
</tr>
<tr>
<td>Display Update Rate</td>
<td>10 Hz - 1 Hz</td>
</tr>
<tr>
<td>Sensor Crystal Frequency</td>
<td>6 MHz</td>
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### 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

| Dimensions                      | 4.5” x 2.5” x 1”                                                     |

### Ordering Information

| Eon-LT™                         | PC-interactive thin film monitor                                      |