

## Complete system for sophisticated thin film monitoring & control

Featuring monitoring electronics and easy-to-use software that works in conjunction with the user's PC, Phoenix™ System ID provides a simple yet comprehensive solution capable of performing thin film measurement operations right out of the box. As an added benefit, Phoenix™ System ID possesses a highly-specialized, proprietary temperature measurement technology that drives film thickness measurement accuracy to amazingly precise levels.

In many high-temperature applications, sensors will regularly fail due to their low temperature rating. Phoenix™ System is capable of not only measuring temperature but of withstanding temperatures higher than any other thin film system on the market. This allows for monitoring processes up to 500°C (e.g., ALD, CVD, etc.).

As part of Phoenix™ system, Eon-ID™ is a film thickness monitor with control capability that packages an ultra-high resolution deposition measurement system into a compact, rackmountable enclosure. Featuring integrated display, intuitive GUI, and durable architecture, Eon-ID™ offers an all-inclusive design that adapts easily to a variety of settings - ranging from industrial to laboratory to clean room to research environments.

Incorporating Phoenix™ sensor head with the Eon-ID™ controller represents a quantum leap forward from existing thin film measurement technology.



## PHOENIX SYSTEM ID

COMPREHENSIVE THIN FILM MONITORING & CONTROL SYSTEM

### Features

- Integrated display to fit greater variety of settings and applications
- Connectivity includes ethernet, usb, and WiFi
- New, easy-to-learn interface
- Sensor available in different lengths and with different flanges for flexibility
- Dual channels for expanded capability
- Advanced technology that increases reliability and durability in industrial environments
- Standard SMA air-side connection for crystal measurement
- Accepts all crystals crystals within 4-10 MHz, 1-200 Ω

### 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

Measurement	
Frequency Resolution	0.001 HZ @ 6 MHz (1 Sample per Second)
Sample Rate	0.5 Hz to 100 Hz
Display Update Rate	0.5 Hz to 100 Hz (Depending on sampling rate)
Sensor Crystal Frequency	5,6,7,8,9,10 MHz
COMM	
Optional	Ethernet
Creating Programs	All settings can be programmed using the touchscreen and embedded keypad. Keyboard can be connected via the USB port.
Capabilities	Unlimited Layer and Process programs

Standard Hardware	
Sensor	2 BNC Connections (External Oscillator Required)
Temperature	2 type K TC
Sources	2 0-5 VDC source controls
Relays (non-programmable)	2 SPST NO for abort & thickness set-point
Input (programmable)	8 isolated 5V inputs
Output (programmable)	8 5A SPST relays
Remote Power	Front panel FOB connector for manual power control
Expandable sensor card (1 incl., expandable to 2)	2 sensors, 2 sources, 2 relays, 2 Type K TC
Expandable I/O card (1 incl., expandable to 2)	Input: 8 isolated 5 VDC inputs
	Output: 8 5A SPST relays
Input setup	Inputs can trigger events depending on user selected conditions
Output Setup	Outputs can be triggered depending on user selected conditions
DAC Recorder	Either or both source outputs can be used as recorder outputs
Parameters	User scalable 0-5V output for rate and thickness
Dimensions	
Length	4" to 30" depending on customer requirements
Cross Section	Able to be passed through a 2.75" ConFlat port
Ordering Information	
Phoenix™	Standard sensor with embedded thermocouple
Eon-ID™	Temperature measurement & source control