

ACS Material Equipment Series InSitu ProTM AECHO600SA

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I. Product Composition

1) Main Unit



Photo of InSitu Pro^{TM} AECHO600SA

II. Product Features

The machine is a product designed for studying the variable temperature electrical properties of samples. It can characterize the changes in the electrical properties of samples with temperature variations. The product uses liquid nitrogen cooling and resistive heating to achieve precise temperature control within the range of -190 to 400°C. It can be integrated with other optical equipment (such as bridge circuit, source meter (SMU), multimeter) for in-situ temperature-variable testing.

The product needs to be used with a temperature controller and an optional cooling controller. The accompanying temperature control software on the host computer facilitates temperature setting and data acquisition. The provided LabVIEW VIs/C# SDK allows customers to perform customized programming.

III. Product Specifications

| InSitu Pro TM External Adjustment Probe Stage A- AECHO600SA | | | | | | | | |
|--|-------------------------------|--|--------------------------|--|---|--|--|--|
| SKU# | EIPOCHA1 | | | | | | | |
| Temperature Control Module | Cooling And Heating Method | Liquid nitrogen cooling, resistive heating (Joule heating) | Structural Properties | Sample Stage Size | 23x23mm * | | | |
| | Temperature Control Range | -190 ~ 400 °C * | | Sample Stage Material | Silver * | | | |
| | Temperature Stability | ±0.1°C (-190 ~ - 120 °C: ±0.3°C) | | Overall Dimensions | 430x430x60mm * | | | |
| | Temperature Resolution | 0.1°C | | Sample Chamber Height | 15mm * | | | |
| | Heating and Cooling Rate | 0~30°C /min (Programmable point control or segmented control), up to 150°C/min | | Chamber | Vacuum* | | | |
| | | | | XYZ Displaceme nt Range | ±6mm | | | |
| | Temperature Control Method | PID | | Probe Displaceme nt Accuracy | 1μm | | | |
| | Temperature Sensor | PT100 | Electrical Properties | Probe | Adjustable probes x4, manual control * | | | |
| Optical Properties | Optical Path | Reflective optical path * (optional transmissive optical path) | | Probe Connector Type | BNC interfaces x 4 * | | | |
| | Window Material | Quartz glass (manually removable and replaceable) * | | Sample Table Potential | Default electrical suspension *, optional electrical grounding | | | |
| | Window Dimensions | Ø25mm * | Basic Configuration | 1 main machine, 1 temperature controller, 1 cooling controller | | | | |

| | Objective Working Distance | 16.5mm * | | (low-temperature configuration), 1 liquid nitrogen tank (low- temperature configuration), 1 water circulation system, and 1 temperature control software. | | |
|------|---|---|----------|---|--|--|
| | Light Transmission Aperture | Default no light transmission * (optional with light transmission aperture) | Optional | Computer main unit / installation bracket / vacuum system / custom temperature control software. | | |
| | Window Defrosting | Airflow defrosting at sub-zero temperatures | | | | |
| Note | All parameters above are default. Items marked with * are customizable. | | | | | |

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