

# M-1200 TEMPERATURE CONVERTER

Precision temperature measurement for OEM semiconductor and medical applications with RF, microwave and high voltage



Advanced Energy's M-1200 offers highly accurate and reliable FluorOptic® technology in a compact, robust form factor for OEMs. The M-1200 provides an ECAT interface and includes local rotary switches for easy ID settings.

## PRODUCT HIGHLIGHTS

- New, low noise amplification circuitry for improved accuracy and long-term stability
- Five channels enabling compact packaging for multi-zone measurement and control
- Robust light source designed for years of maintenance-free operation with no calibration requirement

## TYPICAL APPLICATIONS

- Semiconductor Electrostatic Chuck (ESC)
- Semiconductor Chamber and Process Control
- Semiconductor Back-End Process Monitoring
- Microwave Heating
- Transformer Winding Hot Spot Monitoring
- Medical RF Heating and Ablation
- Patient Monitoring During MRI
- Scientific Research

## AT A GLANCE

### Wide Temperature Range

-200 to 300°C  
or 20 to 450°C

### Channels

Up to 5

### Industry-Leading Accuracy

Up to  $\pm 0.15^\circ\text{C}$

### Probes

AE's Standard or Custom OEM  
Probes

### Interface

ECAT

## M-1200 FluorOptic Temperature Converter

### TECHNICAL DATA

| Measurement Specifications |                                                    |
|----------------------------|----------------------------------------------------|
| Temperature Range          | -200 to 300°C<br>or 20 to 450°C                    |
| Channels                   | Up to 5                                            |
| Accuracy                   | Up to $\pm 0.15^{\circ}\text{C}$ (Probe dependent) |
| Noise                      | $\leq 0.1^{\circ}\text{C}$                         |
| Sampling Rate              | 10 Hz, typ, 50 Hz, max                             |
| Interface                  | EtherCAT                                           |
| Power Input                | 24 VDC $\pm 10\%$ , M8 connector                   |

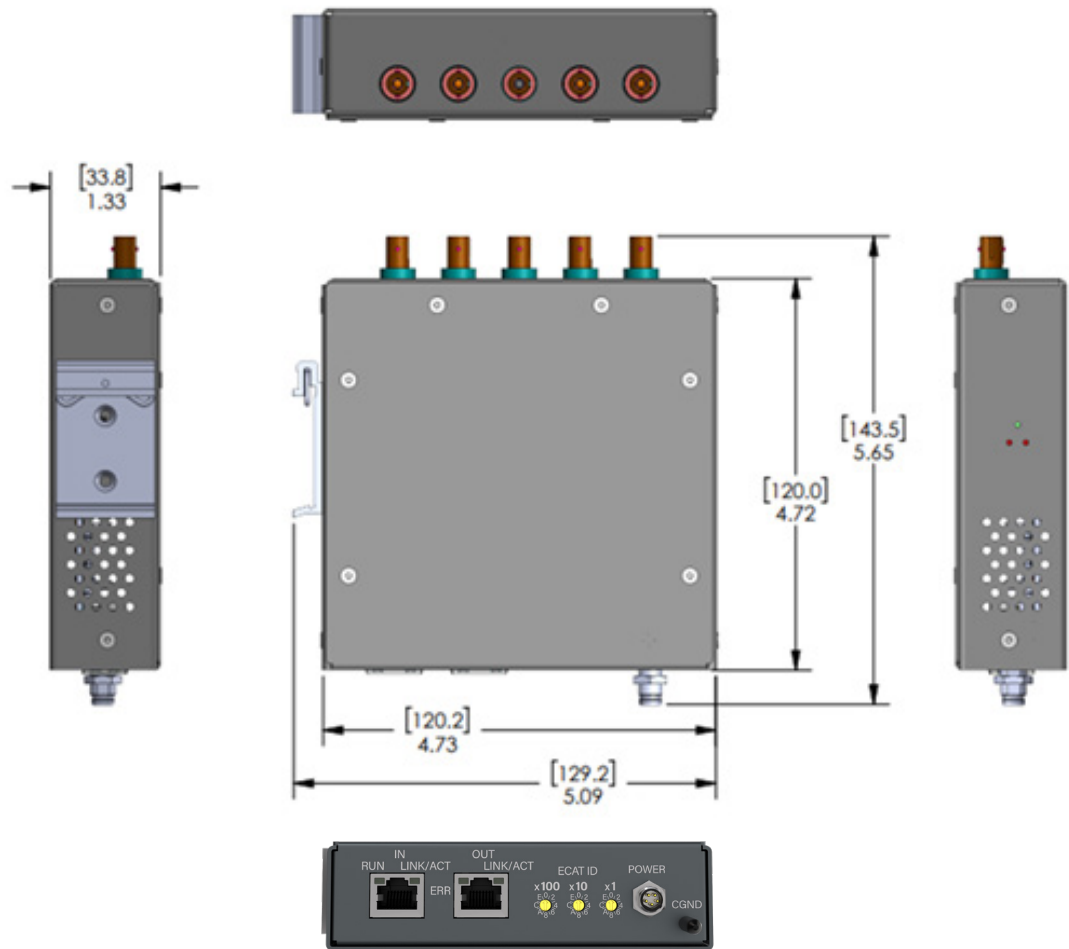
| Environmental Specifications |                                           |
|------------------------------|-------------------------------------------|
| Operating Temperature Range  | 5 to 55°C                                 |
| Compliance                   | CE, RoHs                                  |
| Humidity                     | <80% RH, non-condensing                   |
| Enclosure Dimensions         | 120.0 mm (H) x 120.2 mm (W) x 33.8 mm (D) |
| Mounting                     | Din Rail                                  |

| Probes            |                                          |
|-------------------|------------------------------------------|
| Probe Connections | ST                                       |
| OEM Services      | Custom OEM probe designs and calibration |

### ORDERING INFORMATION

| PN            | Description                                                 |
|---------------|-------------------------------------------------------------|
| FOT-12AB-0000 | A - 0: -200 to 300°C; 1: 20 to 450°C<br>B - 1 to 5 channels |

MECHANICAL DRAWING





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## ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than four decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

PRECISION | POWER | PERFORMANCE | TRUST

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