

# AC & DC Voltage & Current Monitor

## ENVIROMUX®

### AC & DC Voltage & Current Monitor

- Reports AC voltage, AC current, DC voltage and DC current.
  - Current measurements require Hall-Effect transducers (sold separately).
  - Polling rate: 1Sa/s.
- Common applications include: electrical systems, power equipment, battery monitoring, generators, remote sites, controlled environment vaults (CEVs), building automation, data center, cabinets, telecom, substations, storage power supplies, communication huts, indoor/outdoor lighting, power distribution, and medical and test equipment.
- AC voltage 2-pin terminal block
  - 0 to 240VAC 600V isolated
  - 0.25VAC resolution
  - Accuracy
    - ◆ 0 to 220VAC: 2.5VAC accuracy
    - ◆ 220 to 240VAC: 5.0VAC accuracy at 77°F (25°C)
- DC voltage 2-pin terminal block
  - -60 to +60V DC non-isolated
  - 0.12VDC resolution
  - 1.2VDC accuracy
- One rectifying Hall Effect 4-pin transducer interface for measuring AC current
  - 0.2% resolution
  - Accuracy and range are transducer-dependent (sold separately).
- One non-rectifying Hall Effect 4-pin transducer interface for measuring DC current
  - 0.2% resolution
  - Accuracy and range are transducer-dependent (sold separately).
- Supports CAT5/5e/6 cable up to 1,000 ft (305 m).
- Dimensions WxDxH (in): 6.2x2.3x1.6 (158x58x41 mm).
- Powered by E-2D/5D/16D.
- Regulatory approvals: CE, RoHS.
- Compatible with E-FSC Fiber Converter/Extender.
  - Use to extend the monitor up to 1.2 miles (2km) from the ENVIROMUX unit.



### E-ACDCLM

The AC & DC Voltage & Current Monitor measures and reports AC and DC voltage, and reports AC and DC current measured with attached Hall-Effect transducers (sold separately) to the E-2D/5D/16D unit.

AC & DC Voltage & Current Monitor	
NTI Part #	Description
E-ACDCLM	AC & DC Voltage & Current Monitor

## Hall-Effect Current Sensors, Solid-Core, 6.5mm Loop Diameter



**E-AMPxx-6-5**

- Measures both AC and DC currents using a solid-core system.
  - Available rated currents: 10A, 20A, and 50A.
    - ◆ Contact an NTI product consultant for other available ratings between 10A and 50A.
- Common applications include: monitoring AC variable speed drives, static converters for DC motor drives, battery supplied applications, uninterruptible power supplies (UPS), switched mode power supplies (SMPS), electrochemical systems, and power supplies for welding applications.
- Includes a 7ft 4-wire cable for connecting to the E-ACDCLM.
  - To extend the distance between the hall-effect sensor and the E-ACDCLM, simply connect longer wires (22AWG) using the included splices.
    - ◆ It is recommended to place the E-ACDCLM as close to the hall-effect sensor as possible. The E-ACDCLM can be placed up to 1000 ft away from the E-2D/5D/16D unit using CAT5/5e/6 cable.
- Loop diameter: 0.26" (6.5mm).
- Response time:  $\leq 1\mu\text{S}$  @ 50A/ $\mu\text{S}$ , 10%-90%.
- Galvanic isolation: 2.5KV @ 50Hz, AC, 1min.
- Supply voltage:  $\pm 12\text{V}$ ,  $\pm 15\text{V}$ .
- Output voltage:  $\pm 4\text{V}$ .
- Power consumption:  $\leq 25\text{mA}$ .
- Comes with two 0.08" (2mm) diameter mounting holes.
- Dimensions WxDxH (in): 0.98x1.26x0.98 (25x32x25mm).
- Operating temperature: -40 to 185°F (-40 to 85°C).
- Storage temperature: -40 to 257°F (-40 to 125°C).

## Hall-Effect Current Sensors, Split-Core, 12mm Loop Diameter



**E-AMPxx-SC12**

- Measures AC and DC currents using a split-core system.
  - Available rated currents: 50A, 100A, 200A, 300A, 400A.
    - ◆ Contact an NTI product consultant for other available ratings between 50A and 400A.
- Common applications include: monitoring AC variable speed drives, static converters for DC motor drives, battery supplied applications, uninterruptible power supplies (UPS), switched mode power supplies (SMPS), electrochemical systems, and power supplies for welding applications.
- Includes a 7ft 4-wire cable for connecting to the E-ACDCLM or E-DCLM-6.
  - To extend the distance between the hall-effect sensor and the E-ACDCLM or E-DCLM-6, simply connect longer wires (22AWG) using the included splices.
    - ◆ It is recommended to place the E-ACDCLM or E-DCLM-6 as close to the hall-effect sensor as possible. The E-ACDCLM and E-DCLM-6 can be placed up to 1000 ft away from the E-2D/5D/16D unit using CAT5/5e/6 cable.
- Loop diameter: 0.47" (12mm).
- Response time:  $\leq 7\mu\text{S}$  @ 50A/ $\mu\text{S}$ , 10%-90%.
- Galvanic isolation: 2.5KV @ 50Hz, AC, 1min.
- Supply voltage:  $\pm 12\text{V}$ ,  $\pm 15\text{V}$ .
- Output voltage:  $\pm 4\text{V}$ .
- Current consumption:  $\leq 25\text{mA}$ .
- Dimensions WxDxH (in): 1.81x0.63x1.46 (46x16x37mm).
- Operating temperature: -13 to 185°F (-25 to 85°C).
- Storage temperature: -40 to 212°F (-40 to 100°C).

### Hall-Effect Current Sensors, Solid-Core, 6.5mm Loop Diameter

NTI Part #	Rated Current	Loop Diameter
E-AMP10-6-5	10A	0.26" (6.5mm)
E-AMP20-6-5	20A	0.26" (6.5mm)
E-AMP50-6-5	50A	0.26" (6.5mm)

### Hall-Effect Current Sensors, Split-Core, 12mm Loop Diameter

NTI Part #	Rated Current	Loop Diameter
E-AMP50-SC12	50A	0.47" (12mm)
E-AMP100-SC12	100A	0.47" (12mm)
E-AMP200-SC12	200A	0.47" (12mm)
E-AMP300-SC12	300A	0.47" (12mm)
E-AMP400-SC12	400A	0.47" (12mm)

Note: Contact an NTI product consultant for hall-effect sensors in other sizes and ratings.

## Hall-Effect Current Sensors, Split-Core, 21mm Loop Diameter



**E-AMPxx-SC21**

- Measures both AC and DC currents using a split-core system.
  - Available rated currents: 30A, 50A, 100A, 200A, and 500A.
    - ♦ Contact an NTI product consultant for other available ratings between 30A and 500A.
- Common applications include: monitoring AC variable speed drives, static converters for DC motor drives, battery supplied applications, uninterruptible power supplies (UPS), switched mode power supplies (SMPS), electrochemical systems, and power supplies for welding applications.
- Includes a 7ft 4-wire cable for connecting to the E-ACDCLM.
  - To extend the distance between the hall-effect sensor and the E-ACDCLM, simply connect longer wires (22AWG) using the included splices.
    - ♦ It is recommended to place the E-ACDCLM as close to the hall-effect sensor as possible. The E-ACDCLM can be placed up to 1000 ft away from the E-2D/5D/16D unit using CAT5/5e/6 cable.
- Loop diameter: 0.83" (21mm).
- Response time:  $\leq 5\mu\text{s}$  @ 50A/ $\mu\text{S}$ , 10%-90%.
- Galvanic isolation: 2.5KV @ 50Hz, AC, 1min.
- Supply voltage:  $\pm 12\text{V}$ ,  $\pm 15\text{V}$ .
- Output voltage:  $\pm 4\text{V}$ .
- Power consumption:  $\leq 25\text{mA}$ .
- Comes with two 0.2" (5mm) diameter open-slotted mounting holes.
- Dimensions WxDxH (in): 2.36x0.63x2.40 (60x16x61mm).
- Operating temperature: -40 to 185°F (-40 to 85°C).
- Storage temperature: -40 to 257°F (-40 to 125°C).

### Hall-Effect Current Sensors, Split-Core, 21mm Loop Diameter

NTI Part #	Rated Current	Loop Diameter
E-AMP30-SC21	30A	0.83" (21mm)
E-AMP50-SC21	50A	0.83" (21mm)
E-AMP100-SC21	100A	0.83" (21mm)
E-AMP200-SC21	200A	0.83" (21mm)
E-AMP500-SC21	500A	0.83" (21mm)

Note: Contact an NTI product consultant for hall-effect sensors in other sizes and ratings.