

# WIDE BANDWIDTH

# HIGH AC CURRENT TRANSMITTER



Clipped around a conductor without disconnecting the conductor.

Flexible Current Probe

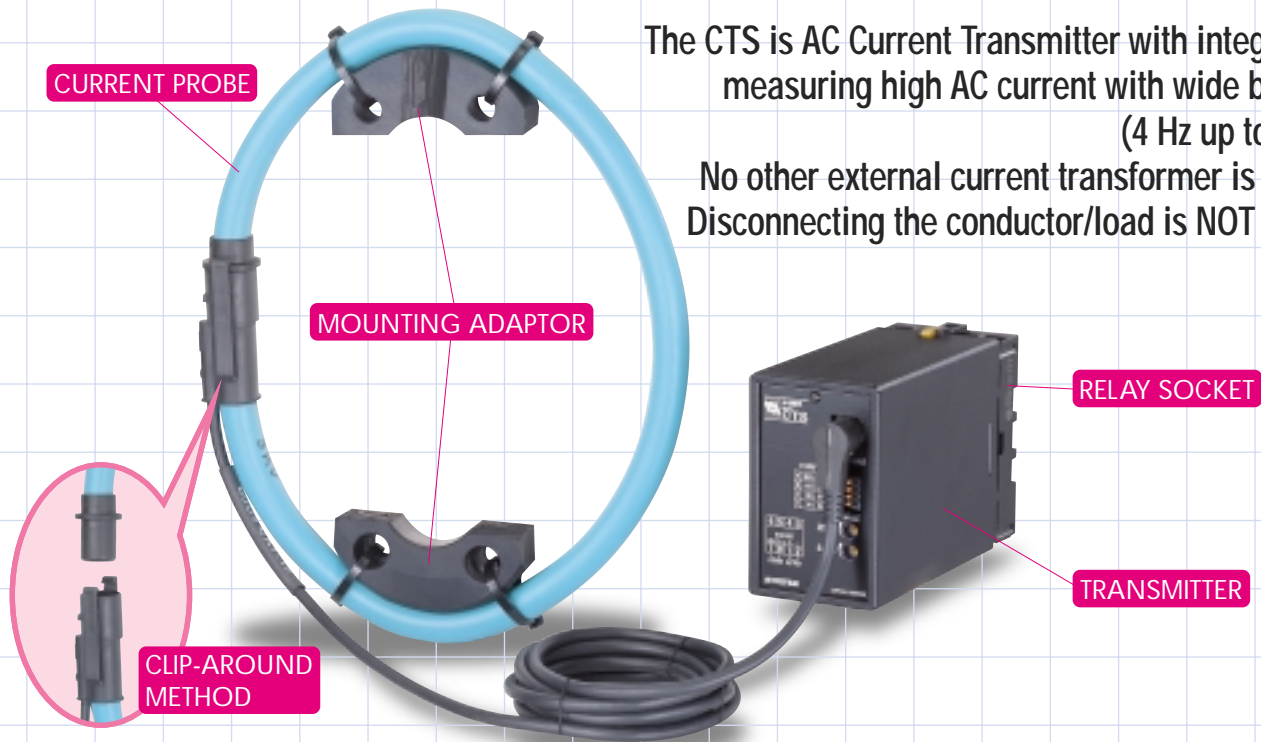
**HIGH AC CURRENT TRANSMITTER**  
Model: CTS

## FEATURES

- The CTS converts high AC current into a 4-20 mA or any standard process signal.
- Rogowski coil type probe ensures stable measurement.
- Flexible current probe can be clipped around a conductor without disconnecting the conductor.
- Can accept a wide input frequency band (4Hz up to 10kHz).
- Measurement in tight places as never before possible.

# Best Suitable for Measuring Outputs from a High Capacity Inverter.

MAX 3000 AMPS



The CTS is AC Current Transmitter with integral probe measuring high AC current with wide bandwidth (4 Hz up to 10 kHz).

No other external current transformer is required. Disconnecting the conductor/load is NOT required.

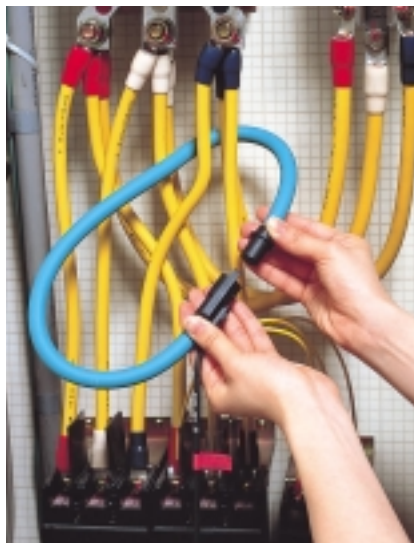
**1** Converting high AC current into a 4-20 mA or any standard process signal.



The CTS detects high AC current through the flexible current probe and will output a proportional, low-ripple standard signal appropriate for computer use. The Rogowski coil type probe ensures stable measurement over a wide input frequency band.

**2** Measurement in tight places as never before possible.

The flexible current probe can be connected and disconnected even in a maze of wires, without disconnecting load.



## FRONT PANEL CONFIGURATION



PROBE CONNECTOR

RANGE SELECTORS

| 300A type | 3000A type |
|-----------|------------|
| 300A      | 3000A      |
| 150A      | 1500A      |
| 60A       | 600A       |
| 30A       | 300A       |

ZERO ADJ.

-5 to +5%

SPAN ADJ.

95 to 105%

## SPECIFICATIONS

### • GENERAL

Connection : M3.5 screw terminals  
 Output & power : M3.5 screw terminals  
 Input : connector  
 Housing material : TPE rubber, Polypropylene  
 Probe : flame-resistant resin (black)  
 Transmitter : input to output to power  
 Isolation : up to 15% of 3rd harmonic content  
 Input waveform : 0 – 120% at 1 – 5V  
 Overrange output : 0 – 120% of rating

### • INPUT

Frequency : 4 Hz – 10 kHz (-3 dB)  
 Max. operating voltage : 600V AC (primary side)  
 Input burden : 0.5VA maximum  
 Overload capacity : 1000% of rating for 3 seconds, 200% for 10 seconds, 120% continuous  
 Operational range : 0 – 120% of rating

### • OUTPUT

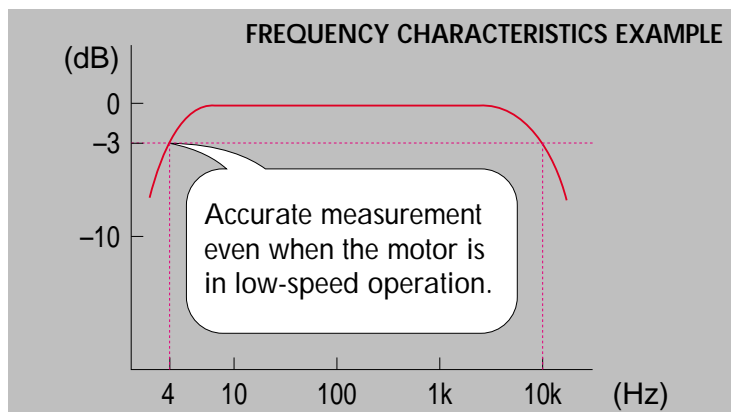
DC Current : 4-20 mA ( $\leq 750\Omega$ ) or specific range within 0 to 20 mADC  
 DC Voltage : 1-5 V ( $\geq 500\Omega$ ), 0-10V, 0-5V, 0-1V or specific range within -10 to +12 VDC

### • INSTALLATION

Power input  
 AC : 100V, 110V, 115V, 120V, 200V, 220V or 240V  $\pm 10\%$ , 50/60  $\pm 2$  Hz, approx. 2VA  
 DC : 12V, 24V or 48V  $\pm 10\%$ , or 85 – 150V for 110V rating; ripple 10% p-p max.; approx. 2W (80mA at 24V)  
 Operating temperature  
 Probe : -20 to +85°C (-4 to 185°F)  
 Transmitter : -5 to +60°C (23 to 140°F)  
 Operating humidity : 30 to 90% RH (non-condensing)  
 Mounting : surface or DIN rail  
 Weight  
 Probe : 200 g (0.44 lbs)  
 Transmitter : 300 g (0.66 lbs)

## 3 Wide frequency band (4 Hz up to 10 kHz) can be accepted; suitable for inverter current.

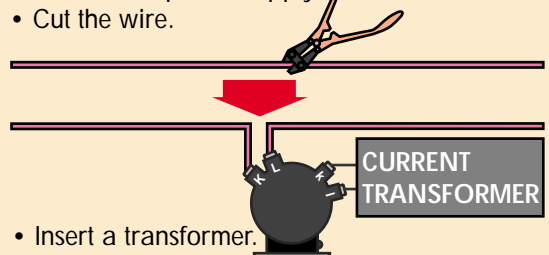
Frequency : 4 Hz – 10 kHz (-3 dB)  
 Max. operating voltage : 600 VAC (primary side)  
 Input burden : 0.5 VA maximum  
 Overload capacity : 1000% of rating for 3 sec., 200% for 10 sec., 120% continuous  
 Operational range : 0 – 120% of rating



## 4 Economical, simple procedure without needing a current transformer.

**BEFORE:** You had to cut the wire.

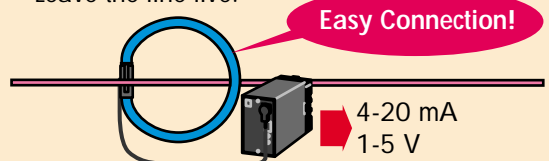
- Turn off the power supply.
- Cut the wire.



- Insert a transformer.

**NOW:** Just clip-around!

- Leave the line live.



## M-SYSTEM WARRANTY

### 1. What is covered.

M-System Co., Ltd. ("M-System") warrants, to the original purchaser only of new M-System products purchased directly from M-System, or from M-System's authorized distributors or resellers, for its own use not for resale, that the M-System products shall be free from defects in materials and workmanship and shall conform to the specifications set forth in the product catalogue applicable to the M-System products for the Warranty Period (see Paragraph 5 below for the Warranty Period of each product).

THE ABOVE WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE M-SYSTEM PRODUCTS AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

### 2. What is not covered.

This warranty does not cover any M-System product which has been: (1) modified, altered or subjected to abuse, misuse, negligence or accident; (2) improperly installed or installed in conjunction with any equipment for which it was not designed; or (3) damaged or destroyed by disasters such as fire, flood, lightning or earthquake.

In no event shall M-System be liable for any special, incidental, consequential or other damages, costs or expenses (including, but not limited to, loss of time, loss of profits, inconvenience or loss of use of any equipment).

### 3. Remedies.

If a defective product is returned to M-System in accordance with the procedures described below, M-System will, at its sole option and expense, either: (1) repair the defective product; (2) replace the defective product; or (3) refund the purchase price for the defective product paid by the purchaser. Except as otherwise provided by applicable state law, these remedies constitute the purchaser's **sole and exclusive** remedies and M-System's sole and exclusive obligation under this warranty.

### 4. Warranty Procedure.

If the purchaser discovers a failure of the M-System products to conform to the terms of this warranty within the Warranty Period, the purchaser must promptly (and, in any event not more than 30 days after the discovery of such failure) notify the relevant party as described below either by telephone or in writing at the below address to obtain an Authorized Return (AR) number and return the defective product to the relevant party. The designated AR number should be marked on the outside of the return package and on all correspondence related to the defective product. The purchaser shall return, at purchaser's expense, defective products only upon receiving an AR number. In order to avoid processing delays, please be sure to include: copies of the original purchase order and sales invoice; the purchaser's name, address and phone number; the model and serial numbers of the returned product; and a detailed description of the alleged defect.

### 5. Warranty Period.

Signal Conditioner: 36 months from the date of purchase.  
 M-Rester: 12 months from the date of purchase.  
 Valve Actuator: 18 months from the date of shipment from M-System or 12 months from the date of its installation, whichever comes first.  
 Other Products: 12 months from the date of purchase.

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- Specifications subject to change without notice.

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## PERFORMANCE in percentage of span

|                       |   |
|-----------------------|---|
| Accuracy              | ±1.5% at 20 Hz – 1 kHz                                  |
| Repeatability         | ±0.1%   |
| Position sensitivity  | ±1%   |
| Temp. coefficient     | ±0.15%/°C (±0.08%/°F)                                   |
| Response time         | ≤1 second (0 – 90%)                                     |
| Ripple                | 0.5% p-p max.   |
| Line voltage effect   | ±0.1% over voltage range                                |
| Insulation resistance | ≥100MΩ with 500V DC                                     |
| Dielectric strength   | 2000V AC @1 minute (input to output to power to ground) |

## EXTERNAL DIMENSIONS mm (inch)

