

# 1000A AC CURRENT TRANSDUCER Model C1000

## Specification Sheet

Ordering Part Number: CT-CO-N-1000-U Unterminated  
CT-CO-N-1000-B Banana Plug

### ELECTRICAL

**Current Range:** 0.1 to 1000A AC  
Continuous at  $\leq 1$  kHz

**Output Signal:** 0.333 mV/A or  
333mV @ 1000A AC

**Accuracy\*:** 0.1 to 10 A:  $\leq 3\%$  Reading  $\pm 0.1$  A  
10 A:  $\leq 3\%$   
50 A:  $\leq 1.5\%$   
200A:  $\leq 0.75\%$   
1200A:  $\leq 0.5\%$   
Per IEC 185: 5VA, Class 0.5 @ 48 to 65 Hz

**Phase Shift:** 0.1 to 10A: Not specified  
10A:  $\leq 3^\circ$   
50A:  $\leq 1.5^\circ$   
200A:  $\leq 0.75^\circ$   
1000A:  $\leq 0.5^\circ$   
1200A:  $\leq 0.5^\circ$

**Frequency Range:** 30 to 5 kHz

**Limit Operating Conditions:**  
1200A for 40 min .with 20 min. off  
Current Derating 1000A / F, F in kHz

**Load Impedance:** 100k $\Omega$  min.

**Influence of Adjacent Conductor:** <1 mA/A

**Influence of Conductor Position In Jaw:**  
0.1% of reading

**Influence of Frequency:**  
30 Hz to 48 Hz: < 3% of Reading  
65 Hz to 1 kHz: < 0.5% of Reading  
1 kHz to 5 kHz: < 1% of Reading

**Influence of Temperature:**  
 $\leq 100$  ppm/ $^\circ$ C , or 0.1% per  $10^\circ$ C

**Influence of Humidity:**  
<0.1% From 10 to 90%

### MECHANICAL

**Operating Temperature:**  
14 $^\circ$  to 122 $^\circ$ F (-10 $^\circ$  to +50 $^\circ$ C)

**Storage temperature:**  
-40 $^\circ$  to 158 $^\circ$ F (-40 $^\circ$  to +70 $^\circ$ C)

**Operating Relative Humidity:**  
85% @ 95 $^\circ$ F (35 $^\circ$ C)

**Maximum Cable Diameter:**  
One  $\varnothing$  2.0" (52 mm)

**Case Protection:** IP 40 (IEC 529)  
Probe closed

**Impact Test:** IK04 0.5 J (EN50102)

**Drop Test:**  
Test per IEC 68-2-32: 1.0 m drop on  
38 mm of Oak on concrete

**Mechanical Shock:**  
100g Test per IEC 68-2-27

**Vibration:**  
5-15 Hz, 0.15 mm (IEC 68-2-6)  
15-25 Hz, 1 mm  
25-55 Hz, 0.25 mm

**Dimensions:**  
8.5 x 4.37 x 1.77" (216 x 111 x 45 mm)

**Weight:**  
1.21 lb (500 g)

**Polycarbonate Material:**  
Handles: ABS, Gray UL 94 V0  
Jaws: Lexan 500R, Red UL 94 V0

**Altitude:**  
Non-operating 0 to 39,000' (12 km)  
Operating: 0 to 6,600' (2000 m)

**Polarity:** S1 lead is the positive terminal

**Output Lead:** Double insulated, 10 ft. (3 m)

### SAFETY

**Working Voltage:** 600 Vrms

**Common mode voltage:** 30V

**Electrical: CE Mark**  
Double insulation or reinforced insulation between the primary or secondary and the outer case of the handle; conforms to IEC 1010-2-032

**Dielectric strength:**  
600V Category III, Pollution 2  
5550V,50/60 Hz between primary, secondary and the outer case of the handle

**Electromagnetic Compatibility:**  
EN 50081-1 Class B  
EN 50082-2 Electrostatic Discharge IEC 1000-4-2  
Radiated field IEC 1000-4-3  
Fast Transients IEC 1000-4-4  
Magnetic field at 50/60 Hz; IEC 1000-4-8

**Manuals:**  
None

**Shipping:**  
White box

**Ordering Part Number:**  
CT-CO-N-1000-U unterminated  
CT-CO-N-1000-B banana plugs

\*Accuracy reference conditions:  
23 $^\circ$ C  $\pm$  3 $^\circ$ C, 20-75% RH, External magnetic field <40 A/m, 48-65 Hz sine wave, Distortion Factor less than 1%, No DC component, No external current carrying conductor, Test sample centered, Load impedance = 1M $\Omega$

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