

## Q8A2

### 10A HIGH SENSITIVITY 0.1% PERMALLOY CORE CT AC CURRENT CLAMP

AC Current clamps are devices with jaws that open up and clamp around an electrical conductor to measure current. They are very useful as they allow you to clip the probe around an existing conductor without having to disconnect and reroute cables. AC Current clamps will read the magnitude of alternating current (AC) as well as the phase shift and waveform.

The model Q8A2 permalloy core ac current clamp ct with high accuracy up to 0.1% has been designed for use with energy meter tester, multimeters, recorders, power analyzers, safety testers etc. It has low phase shift for power measurement, greatly suitable for electric energy meter calibrator and oscilloscope. This Q8A2 clamp ct can convert 0 - 10A AC current to 0 - 10mA AC current with real shape, max 20A measurement, but with harmonic measurement function. It is suitable for leakage current measurement in the field.

## Features

1. UL, CE, CNAS mark;
2. Holding wire diameter:  $\phi 8\text{mm}$ ;
3. Frequency 10Hz-2MHz Bandwidth;
4. High times harmonic measurement;
5. Conforms to EN 61010, 600V CAT III;
6. Measurement range of 1mA to 20A AC;
7. Low phase shift for power measurement;
8. High content nickel metal permalloy core;
9. Min 1mA for leakage current measurement;
10. Improved ergonomic design & easy operation;
11. High precision 0.1% for current measurement;
12. Designed for DMMs, recorders, oscilloscopes, power meters etc.;



## Application

- |                         |                              |   |
|-------------------------|------------------------------|---|
| 1. Power meter;         | 6. Leakage current meter;    | 10. Power and harmonic meters;              |
| 2. Phase angle meter;   | 7. Power quality analyzer;   | 11. Multi-function energy meter;            |
| 3. Digital multi-meter; | 8. Data logging/recording;   | 12. CT secondary current detection;         |
| 4. Energy sub-meters;   | 9. Power quality monitoring; | 13. Electricity meter calibrator (on site); |
| 5. Oscilloscopes meter; |                              |   |

## Parameters

| Electrical parameters                 |  |
|---------------------------------------|--|
| Ratio                                 | 1000: 1, 2000:1 or 2500:1 (customized)   |
| Accuracy                              | 0.1 %,0.2%   |
| Primary current                       | 0 - 5A AC, 0 - 10A AC, 0 - 20A AC  |
| Secondary current                     | 0 - 10mA AC or 0 - 100mV AC (customized)   |
| Max. Cont. Input current              | 6A, 12A, 24A   |
| Load capacity                         | $\leq 20\Omega$ , Standard $4\Omega$   |
| Over voltage category                 | CAT III 600V   |
| Output signal (AC current)            | From 0 to 10mA AC at nominal input current   |
| Output signal (AC voltage)            | From 0 to 100mV AC at nominal input current  |
| Signal ratio                          | 1mA/A, 1mV/A, 10mV/A, 100mV/A  |
| Frequency range                       | 10Hz-200KHz  |
| Dielectric strength                   | 3KV 50Hz/60Hz at 1 minute  |
| Temperature range                     | -20°C to +55°C   |
| Output                                | 2.5 meter cable with D01 connector   |
| Max. voltage not insulated conductors | 720 V  |
| Standard                              | EN 61010-1, EN 61010-2-032, EN 61010-2-031<br>IEC60044-1, & IEC61869-2, 600V CAT III |
| Installation                          | Clamp type   |
| Output mode                           | Lead output (2.5m)   |
| Connector                             | BNC, 4mm banana, Audio plug,customized   |
| Mechanical parameters                 |  |
| Dimensions (L x W x H) (mm)           | 45x158x25  |
| Weight (g)                            | 250  |
| Holding wire diameter (mm)            | $\phi 8$   |
| Max. jaw opening (mm)                 | 8  |
| Color                                 | Black  |
| Material                              | PC+ABS+Polycarbonate, UL94 V0  |

## Selection guide

| Model       | Rate Current | Max Current | Secondary | Coil Ratio | Burden Resistance | Accuracy |
|-------------|--------------|-------------|-----------|------------|-------------------|----------|
| Q8A2-1-1    | 1A           | 1.2A        | 1mA       | 1000:1     | customized        | 0.1%     |
| Q8A2-1-2    | 1A           | 1.2A        | 0.5mA     | 2000:1     | customized        | 0.1%     |
| Q8A2-5-1    | 5A           | 6A          | 5mA       | 1000:1     | customized        | 0.1%     |
| Q8A2-5-2    | 5A           | 6A          | 2.5mA     | 2000:1     | customized        | 0.1%     |
| Q8A2-5-3    | 5A           | 6A          | 2mA       | 2500:1     | customized        | 0.1%     |
| Q8A2-10-1   | 10A          | 12A         | 10mA      | 1000:1     | customized        | 0.1%     |
| Q8A2-10-2   | 10A          | 12A         | 5mA       | 2000:1     | customized        | 0.1%     |
| Q8A2-10-3   | 10A          | 12A         | 4mA       | 2500:1     | customized        | 0.1%     |
| Q8A2-20-1   | 20A          | 24A         | 20mA      | 1000:1     | customized        | 0.1%     |
| Q8A2-20-2   | 20A          | 24A         | 10mA      | 2000:1     | customized        | 0.1%     |
| Q8A2-V5-1   | 5A           | 6A          | 50mV      | 1000:1     | customized        | 0.1%     |
| Q8A2-V5-2   | 5A           | 6A          | 500mV     | 1000:1     | customized        | 0.1%     |
| Q8A2-V5-3   | 5A           | 6A          | 1V        | 1000:1     | customized        | 0.1%     |
| Q8A2-V10-1  | 10A          | 12A         | 100mV     | 1000:1     | customized        | 0.1%     |
| Q8A2-V10-2  | 10A          | 12A         | 1V        | 1000:1     | customized        | 0.1%     |
| Q8A2-V10-3  | 10A          | 12A         | 5V        | 1000:1     | customized        | 0.1%     |
| Q8A2-1-12   | 1A           | 1.2A        | 1mA       | 1000:1     | customized        | 0.2%     |
| Q8A2-1-22   | 1A           | 1.2A        | 0.5mA     | 2000:1     | customized        | 0.2%     |
| Q8A2-5-12   | 5A           | 6A          | 5mA       | 1000:1     | customized        | 0.2%     |
| Q8A2-5-22   | 5A           | 6A          | 2.5mA     | 2000:1     | customized        | 0.2%     |
| Q8A2-10-12  | 10A          | 12A         | 10mA      | 1000:1     | customized        | 0.2%     |
| Q8A2-10-22  | 10A          | 12A         | 5mA       | 2000:1     | customized        | 0.2%     |
| Q8A2-10-32  | 10A          | 12A         | 4mA       | 2500:1     | customized        | 0.2%     |
| Q8A2-20-12  | 20A          | 24A         | 20mA      | 1000:1     | customized        | 0.2%     |
| Q8A2-20-22  | 20A          | 24A         | 10mA      | 2000:1     | customized        | 0.2%     |
| Q8A2-V5-12  | 5A           | 6A          | 50mV      | 1000:1     | customized        | 0.2%     |
| Q8A2-V5-22  | 5A           | 6A          | 500mV     | 1000:1     | customized        | 0.2%     |
| Q8A2-V5-32  | 5A           | 6A          | 1V        | 1000:1     | customized        | 0.2%     |
| Q8A2-V10-12 | 10A          | 12A         | 100mV     | 1000:1     | customized        | 0.2%     |
| Q8A2-V10-22 | 10A          | 12A         | 1V        | 1000:1     | customized        | 0.2%     |
| Q8A2-V10-32 | 10A          | 12A         | 5V        | 1000:1     | customized        | 0.2%     |

**Notes: Can be customized current probe according to user requirements!**