

Q70

1000:1 HIGH PRECISION 1000A CLAMP ON AC CURRENT SENSOR PROBE

The model Q70 current sensor probe, it is suitable for 0-1000A current measurement, both cable and copper bus bar online measurement. Its core is made by Permalloy, the influence of external magnetic field is very small, which ensures the high accuracy, high stability and high reliability of uninterrupted measurement long time. This sensor probe could output current and voltage signal, the range, transformation ratio can be customized. Q70 current probe has been used many for oscilloscope to measurement current amplitude and waveform.

All of our current sensor probe are strictly comply IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC60044-1, IEC 61869-2, ANSI/IEEE C57.13, GB1208-2006, GB/T 20840.1-2010, GB/T 20840.2-2014, GB/T 22071.1-2018.

Features

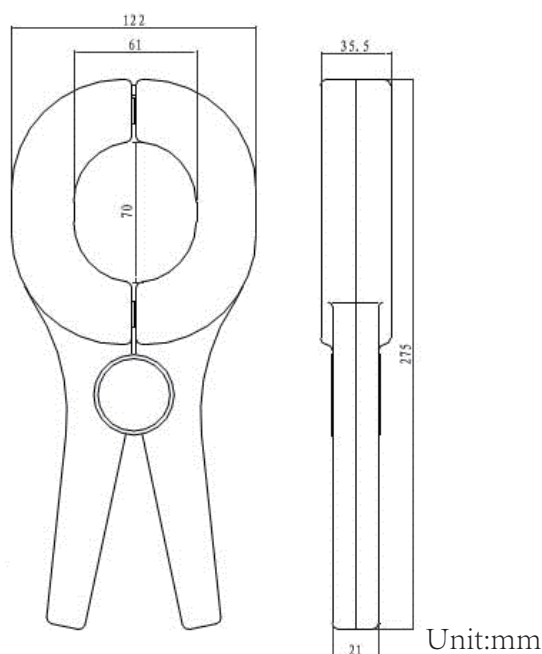
1. UL, CE CNAS mark;
2. High content permalloy core;
3. Copper bus bar measurement;
4. 1mA/A or 1mV/A signal output;
5. Frequency 40Hz-20kHz Bandwidth;
6. Conforms to EN 61010, 600V CAT III;
7. Holding wire diameter: $\phi 60\text{mm} \times 70\text{mm}$;
8. Low phase shift for power measurement;
9. Industrial design & beautiful appearance;
10. Measurement range of 1mA to 1000A AC;
11. High precision 0.1% for current measurement;
12. Improved ergonomic design & easy operation;
13. As a high accuracy oscilloscope current sensor probe;
14. Large jaw opening accommodates conductors up to two 500kcoil;
15. IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC 61869-2 etc standard;
16. Designed for recorders, loggers, oscilloscopes, power and harmonic meters;



Applications

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|-------------------------------------|---|-----------------------------------|
| 1. Power meter; | 2. Energy sub-meters; | 3. Digital multi-meter; |
| 4. Cable fault analysis; | 5. Oscilloscopes meter; | 6. Large industrial loads; |
| 7. Earth resistance meter; | 8. Power quality analyzer; | 9. Data logging/recording; |
| 10. Power load monitoring; | 11. Phase volt-ampere meter; | 12. Power quality monitoring; |
| 13. Power and harmonic meters; | 14. Multi-function energy meter; | 15. CT primary current detection; |
| 16. Measuring around cable bundles; | 17. Electric energy meter tester (on site); | |

Outline Drawing



Parameters

Technical parameters	
Ratio	1000:5, 1000:1, 2000:1(customized)
Accuracy Class	0.2%, 0.5%, 1%
Primary current	0-1000A AC, 0-500A AC, 0-200A AC, 0-100A AC
Signal output	1mA/A, 5mA/A, 1mV/A, 5mV/A, 10mV/A
Secondary voltage	0-333mV, 0-500mV, 0-1V, 0-5V, 0-10V AC;
Secondary current	0-250mA, 0-500mA, 0-1A or 0-5A AC
Max. Cont. Input current	1200A
Load capacity	≤2.5VA or 4Ω

Technical parameters - continued

Over voltage category	CAT III 600V
Frequency range	40Hz-20kHz
Dielectric strength	3KV 50Hz/60Hz at 1minute
Temperature range	-20°C to +55°C
Output	2.5 meter cable with D01 or BNC connector
Max. voltage not insulated conductors	720 V
Standard	EN 61010-1, EN 61010-2-032, EN 61010-2-031 IEC60044-1, & IEC61869-2, 600V CAT III
Installation	Clamp type
Range	100A, 200A, 400A, 500A, 600A, 1000A optional
Output mode	Lead output (2.5m, 5m, 10m or customized)
Output signal	333mV, 500mV, 1V, 2V, 5V, 10V AC at nominal input current
Connector	BNC, 4mm banana, signal cable(2 cores), customized

Accuracy (1000A Range)

0-10A	≤0.5%
10-100A	≤0.2%
100-1000A	≤0.1%

Phase Shift(1000A Range)

0-10A	≤0.5°
10-100A	≤0.2°
100-1000A	≤0.1°

Mechanical parameters

Dimensions (L x W x H) (mm)	122 x 275 x 35.5
Weight (g)	720
Holding wire diameter (mm)	φ60 x 70
Max. jaw opening (mm)	60
Jaw color	White
Material	PC+ABS, UL94 V0

Clamp On Current Transformer Selection Model

Model	Current Range	Max Current	Secondary Output Signal	Ratio	Resistance	Accuracy
S50	0-1200A	1200A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
S120	0-3000A	3600A	250mA, 500mA, 1A, 2A, 5A, 333mV, 1V, 2V , 5V, 10V etc	600:1, 1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P8	0-10A	20A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1, 4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P18	0-200A	240A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1, 4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P50	0-1000A	1200A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
P110	0-1500A	1500A	250mA, 500mA, 1A, 2A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q8A1	20A	20A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q8A2	20A	20A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q13	100A	120A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q20A	200A	240A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q20B	200A	240A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q40	500A	600A	200mA, 250mA, 500mA, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q50A	1000A	1000A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q70	1000A	1200A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q110	1500A	1500A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
Q125	2000A	2400A	500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	200:1, 600:1, 1000:1, 2000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.2%, 0.5%
Q125B	3000A	3600A	250mA, 500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	600:1, 1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.2%, 0.5%
Q150	3000A	3600A	500mA, 1A, 5A, 333mV, 1V, 2V , 5V, 10V etc	600:1, 1000:1, 2000:1,4000:1 etc	2.5VA, 1VA, 4Ω, 10Ω, 20Ω etc	0.2%, 0.5%
XQ13	100A	120A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
XQ20	200A	240A	2mA, 2.5mA, 5mA, 10mA,20mA, 333mV, 1V, 2V , 5V, 10V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%
HQ15	100A	120A	2mA, 2.5mA, 5mA, 10mA, 20mA, 333mV, 1V, 2V , 5V etc	1000:1,2000:1, 2500:1,4000:1 etc	4Ω, 10Ω, 20Ω etc	0.1%, 0.2%, 0.5%

Selection Guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
Q70A5-200	200A	240A	5A	40:1	2.5VA	0.5%
Q70A5-300	300A	360A	5A	60:1	2.5VA	0.5%
Q70A5-400	400A	480A	5A	80:1	2.5VA	0.5%
Q70A5-500	500A	600A	5A	100:1	2.5VA	0.5%
Q70A5-600	600A	720A	5A	120:1	2.5VA	0.5%
Q70A5-800	800A	960A	5A	160:1	2.5VA	0.5%
Q70A5-1000	1000A	1200A	5A	200:1	2.5VA	0.5%
Q70A1-100	100A	120A	1A	100:1	customized	0.2%
Q70A1-200	200A	240A	1A	200:1	customized	0.2%
Q70A1-300	300A	360A	1A	300:1	customized	0.2%
Q70A1-400	400A	480A	1A	400:1	customized	0.2%
Q70A1-500	500A	600A	1A	500:1	customized	0.2%
Q70A1-600	600A	720A	1A	600:1	customized	0.2%
Q70A1-800	800A	960A	1A	800:1	customized	0.2%
Q70A1-1000	1000A	1200A	1A	1000:1	customized	0.2%
Q70A2-1000	1000A	1200A	500mA	2000:1	customized	0.2%
Q70A3-1000	1000A	1200A	400mA	2500:1	customized	0.2%
Q70A4-1000	1000A	1200A	250mA	4000:1	customized	0.2%
Q70A5-1000	1000A	1200A	500mA	2000:1	customized	0.1%
Q70A6-1000	1000A	1200A	400mA	2500:1	customized	0.1%
Q70A7-1000	1000A	1200A	250mA	4000:1	customized	0.1%

Notes: Can be customized clamp on current transformers according to user requirements!