

Q8A1

HIGH PRECISION 0.1% 10A CLAMP ON CURRENT PROBE

The model Q8A1 clamp on current probe/clamp on ct is based on AC transformer technology for use in measurement of AC current, it is suitable for 5A, 10A cable online measurement. With measurement range of 1 mA to 20A AC and frequency range from 40Hz to 2MHz, it has a high accuracy class of 0.1%. It suits for oscilloscope, power quality analyzer, electric energy meter calibrator etc. Easy to operate everywhere. its technical standard according to EN 61010-1, EN 61010-2-032, IEC60044-1. This model Q8A1 clamp on current probe have been used in many instrument manufacturers and measurement small current of ammeter recorder.

All of our clamp on current probe are strictly comply 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, IEC/EN61010-2-032, IEC/EN 61010-2-031.

Features

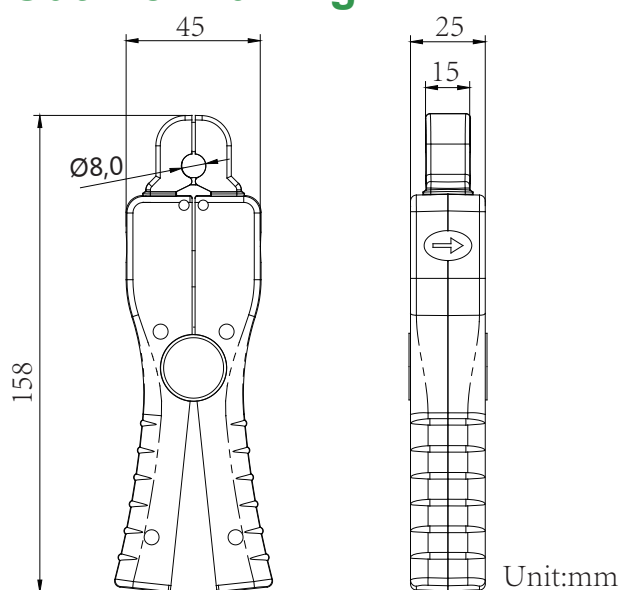
1. UL, CE CNAS mark;
2. Holding wire diameter: $\phi 8\text{mm}$;
3. Installation: clamp type design;
4. 2-128th harmonic measurement;
5. Frequency 10Hz-2MHz Bandwidth;
6. Conforms to EN 61010, 600V CAT III;
7. Measurement range of 1mA to 20A AC;
8. As a high accuracy clamp current probe;
9. Low phase shift for power measurement;
10. Industrial design & beautiful appearance;
11. High content nickel metal permalloy core;
12. Min 1mA for leakage current measurement;
13. High precision 0.1% for current measurement;
14. Improved ergonomic design & easy operation;
15. Can be customized 4mm banana/BNC connector;
16. Large jaw opening accommodates conductors up to two 500kcoil;
17. IEC/EN61010-2-032, IEC/EN 61010-2-031, IEC 61869-2 etc standard;
18. Designed for recorders, loggers, oscilloscopes, power and harmonic meters;



Applications

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

Outline Drawing



Parameters

Technical parameters	
Ratio	1000:1, 2000:1, 2500:1, 4000:1 (customized)
Accuracy Class	0.1%, 0.2%
Primary current	0 - 5A AC, 0 - 10A AC, 0 - 20A AC
Signal output	1mA/A, 5mA/A, 1mV/A, 5mV/A, 10mV/A
Secondary voltage	0 - 50mV, 0-100mV, 0-200mV, 0-1V, 0-5V AC (customized)
Secondary current	0 - 2.5mA, 0-5mA, 0-10mA, 0-20mA AC (customized)
Max. Cont. Input current	24A
Load capacity	≤20Ω, standard 4Ω
Over voltage category	CAT III 600V
Frequency range	10Hz-2MHz
Dielectric strength	3KV 50Hz/60Hz at 1minute

Technical parameters - continued	
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	1A, 5A, 10A, 20A optional
Output mode	Lead output(2.5m, 5m, 10m or customized)
Output signal	333mV, 50mV, 1V, 2V, 5V AC at nominal input current
Connector	BNC, 4mm banana, signal cable(2 cores), customized
Accuracy (20A Range)	
0-10mA	≤0.5%
10mA-1A	≤0.2%
1A-20A	≤0.1%
Phase Shift(20A Range)	
0-10mA	≤0.5°
10mA-1A	≤0.2°
1A-20A	≤0.1°
Mechanical parameters	
Dimensions (L x W x H) (mm)	42.6x122.5x23
Weight (g)	250
Holding wire diameter (mm)	φ8
Max. jaw opening (mm)	8
Jaw color	Black
Material	PC+ABS+Polycarbonate, UL94 V0

Selection Guide

Model	Rate Current	Max Current	Secondary Current	Coil Ratio	Burden Resistance	Accuracy
Q8A1-1-1	1A	1.2A	1mA	1000:1	customized	0.1%
Q8A1-1-2	1A	1.2A	0.5mA	2000:1	customized	0.1%
Q8A1-5-1	5A	6A	5mA	1000:1	customized	0.1%
Q8A1-5-2	5A	6A	2.5mA	2000:1	customized	0.1%
Q8A1-5-3	5A	6A	2mA	2500:1	customized	0.1%
Q8A1-10-1	10A	12A	10mA	1000:1	customized	0.1%
Q8A1-10-2	10A	12A	5mA	2000:1	customized	0.1%
Q8A1-10-3	10A	12A	4mA	2500:1	customized	0.1%
Q8A1-20-1	20A	24A	20mA	1000:1	customized	0.1%
Q8A1-20-2	20A	24A	10mA	2000:1	customized	0.1%
Q8A1-V5-1	5A	6A	50mV	1000:1	customized	0.1%
Q8A1-V5-2	5A	6A	500mV	1000:1	customized	0.1%
Q8A1-V5-3	5A	6A	1V	1000:1	customized	0.1%
Q8A1-V10-1	10A	12A	100mV	1000:1	customized	0.1%
Q8A1-V10-2	10A	12A	1V	1000:1	customized	0.1%
Q8A1-V10-3	10A	12A	5V	1000:1	customized	0.1%
Q8A1-1-12	1A	1.2A	1mA	1000:1	customized	0.2%
Q8A1-1-22	1A	1.2A	0.5mA	2000:1	customized	0.2%
Q8A1-5-12	5A	6A	5mA	1000:1	customized	0.2%
Q8A1-5-22	5A	6A	2.5mA	2000:1	customized	0.2%
Q8A1-10-12	10A	12A	10mA	1000:1	customized	0.2%
Q8A1-10-22	10A	12A	5mA	2000:1	customized	0.2%
Q8A1-10-32	10A	12A	4mA	2500:1	customized	0.2%
Q8A1-20-12	20A	24A	20mA	1000:1	customized	0.2%
Q8A1-20-22	20A	24A	10mA	2000:1	customized	0.2%
Q8A1-V5-12	5A	6A	50mV	1000:1	customized	0.2%
Q8A1-V5-22	5A	6A	500mV	1000:1	customized	0.2%
Q8A1-V5-32	5A	6A	1V	1000:1	customized	0.2%
Q8A1-V10-12	10A	12A	100mV	1000:1	customized	0.2%
Q8A1-V10-22	10A	12A	1V	1000:1	customized	0.2%
Q8A1-V10-32	10A	12A	5V	1000:1	customized	0.2%

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

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%