



Quality and reliability is our tradition

**KYORITSU**



ISO 9001:2000, BS EN 9001  
APPROVED BY BVQI

# Line up of Clamp Sensor Series

**KYORITSU ELECTRICAL INSTRUMENTS WORKS,LTD.**

# Non-contact Clamp-on system provides you clamp sensor in the existing facilities witho

**Load current detection type clamp sensors provide superior characteristic in phase for the use of power meter**

|                                 | MODEL 8127                                                                        | MODEL 8126                                                                        | MODEL 8125                                                                         | MODEL 8124                                                                          |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                 |  |  |  |  |
|                                 | CE<br>AC 100A<br>φ24<br>IEC61010                                                  | CE<br>AC 200A<br>φ40<br>IEC61010                                                  | CE<br>AC 500A<br>φ40<br>IEC61010                                                   | CE<br>AC1000A<br>φ68<br>IEC61010                                                    |
| Conductor size                  | φ24                                                                               | φ40                                                                               | φ40                                                                                | φ68                                                                                 |
| Rated current                   | AC 100A                                                                           | AC 200A                                                                           | AC 500A                                                                            | AC 1000A                                                                            |
| Output voltage                  | AC 500mV/100A (AC 5mV/A)                                                          | AC 500mV/200A (AC 2.5mV/A)                                                        | AC 500mV/500A (AC 1mV/A)                                                           | AC 500mV/1000A (AC 0.5mV/A)                                                         |
| Accuracy                        | ±0.5%rdg±0.1mV (50/60Hz)<br>±1.0%rdg±0.2mV (40Hz~1kHz)                            |                                                                                   |                                                                                    |                                                                                     |
| Phase Shift                     | within ±2.0° (45~65Hz)                                                            | within ±1.0° (45~65Hz)                                                            |                                                                                    | within ±1.0° (45~65Hz)                                                              |
| Withstand voltage               | AC3540V for 5 seconds                                                             | AC5350V for 5 seconds                                                             | AC5350V for 5 seconds                                                              | AC5350V for 5 seconds                                                               |
| Cable length : Output connector | Approx. 3m : MINI DIN 6pin                                                        |                                                                                   |                                                                                    |                                                                                     |
| Operating temperature ranges    | -0~50°C, less than 85% RH ( without condensation)                                 |                                                                                   |                                                                                    |                                                                                     |
| Output impedance                | Approx. 10Ω                                                                       | Approx. 5Ω                                                                        | Approx. 2Ω                                                                         | Approx. 1Ω                                                                          |
| Applicable standards            | IEC 61010-1 : 2002, IEC 61010-2-032 : 2002<br>CAT.Ⅲ 300V pollution degree 2       | IEC 61010-1 : 2002, IEC 61010-2-032 : 2002<br>CAT.Ⅲ 600V pollution degree 2       |                                                                                    |                                                                                     |
| Dimensions                      | 100(L)×60(W)×26(D)mm                                                              | 128(L)×81(W)×36(D)mm                                                              | 128(L)×81(W)×36(D)mm                                                               | 186(L)×129(W)×53(D)mm                                                               |
| Weight                          | Approx. 160g                                                                      | Approx. 260g                                                                      | Approx. 260g                                                                       | Approx. 510g                                                                        |
| Accessories                     | 9095 (Portable case) Instruction manual Cable marker                              |                                                                                   |                                                                                    | 9094 (Portable case) Instruction manual Cable marker                                |
| Options                         | 7146 (Banana φ4 adjuster plug) 7185 (Extension cable)                             |                                                                                   |                                                                                    |                                                                                     |

**Newly launch 5 Ampere clamp sensor model 8128.  
High efficiency on the test terminal in power distribution facilities**

|                                 | MODEL 8128                                                                          |
|---------------------------------|-------------------------------------------------------------------------------------|
|                                 |  |
|                                 | CE<br>AC 5A<br>φ24<br>IEC61010                                                      |
| Conductor size                  | φ24                                                                                 |
| Rated current                   | AC 5A (Max.50A)                                                                     |
| Output voltage                  | AC 50mV/5A [Max. 500mV/50A] (AC 10mV/A)                                             |
| Accuracy                        | ±0.5%rdg±0.1mV (50/60Hz)<br>±1.0%rdg±0.2mV (40Hz~1kHz)                              |
| Phase Shift                     | within ±2.0° (45~65Hz)                                                              |
| Withstand voltage               | AC3540V for 5 seconds                                                               |
| Cable length : Output connector | Approx. 3m : MINI DIN 6pin                                                          |
| Operating temperature ranges    | -0~50°C, less than 85% RH (without condensation)                                    |
| Output impedance                | Approx. 20Ω                                                                         |
| Applicable standards            | IEC 61010-1 : 2002, IEC 61010-2-032 : 2002<br>CAT.Ⅲ 300V pollution degree 2         |
| Dimensions                      | 100(L)×60(W)×26(D)mm                                                                |
| Weight                          | Approx. 160g                                                                        |
| Accessories                     | 9095 (Portable case) Instruction manual Cable marker                                |
| Options                         | 7146 (Banana φ4 adjuster plug) 7185 (Extension cable)                               |



In order to monitor energy saving and to control the electric facilities, it is essential and imperative to control the leak and load currents from mains and branch power lines up to the equipment. Clamp sensor is easy to carry and simple to install.

# easy and safe installations of the out any errors



## Leakage current & Load current detection types

### KEW 8146



AC 30A

φ24

IEC61010

### KEW 8147



AC 70A

φ40

IEC61010

### KEW 8148



AC 100A

φ68

IEC61010

|                                 |                                                                                                                          |                                                                                                                          |                                                                                                                           |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Conductor size                  | φ24                                                                                                                      | φ40                                                                                                                      | φ68                                                                                                                       |
| Rated current                   | AC 30A                                                                                                                   | AC 70A                                                                                                                   | AC 100A                                                                                                                   |
| Output voltage                  | AC 1500mV/30A (AC 50mV/A)                                                                                                | AC 3500mV/70A (AC 50mV/A)                                                                                                | AC 5000mV/100A (AC 50mV/A)                                                                                                |
| Accuracy                        | 0~15A<br>±1.0%rdg±0.1mV (50/60Hz)<br>±2.0%rdg±0.2mV (40Hz~1kHz)<br>15~30A<br>±5.0%rdg (50/60Hz)<br>±10.0%rdg (45Hz~1kHz) | 0~40A<br>±1.0%rdg±0.1mV (50/60Hz)<br>±2.0%rdg±0.2mV (40Hz~1kHz)<br>40~70A<br>±5.0%rdg (50/60Hz)<br>±10.0%rdg (45Hz~1kHz) | 0~80A<br>±1.0%rdg±0.1mV (50/60Hz)<br>±2.0%rdg±0.2mV (40Hz~1kHz)<br>80~100A<br>±5.0%rdg (50/60Hz)<br>±10.0%rdg (45Hz~1kHz) |
| Phase Shift                     | —                                                                                                                        |                                                                                                                          |                                                                                                                           |
| Withstand voltage               | AC3540V for 5 seconds                                                                                                    |                                                                                                                          |                                                                                                                           |
| Cable length : Output connector | Approx. 2m : MINI DIN 6pin                                                                                               |                                                                                                                          |                                                                                                                           |
| Operating temperature ranges    | -0~50°C, less than 85% RH (without condensation)                                                                         |                                                                                                                          |                                                                                                                           |
| Output impedance                | Approx. 90Ω                                                                                                              | Approx. 100Ω                                                                                                             | Approx. 60Ω                                                                                                               |
| Applicable standards            | IEC 61010-1 : 2002, IEC 61010-2-032 : 2002<br>CAT.Ⅲ 300V pollution degree 2                                              |                                                                                                                          |                                                                                                                           |
| Dimensions                      | 100(L)×60(W)×26(D)mm                                                                                                     | 128(L)×81(W)×36(D)mm                                                                                                     | 186(L)×129(W)×53(D)mm                                                                                                     |
| Weight                          | Approx. 150g                                                                                                             | Approx. 240g                                                                                                             | Approx. 510g                                                                                                              |
| Accessories                     | 9095 (Portable case)                                                                                                     | Instruction manual Cable marker                                                                                          | 9094 (Portable case) Instruction manual Cable marker                                                                      |
| Options                         | 7146 (Banana φ4 adjuster plug) 7185 (Extension cable)                                                                    |                                                                                                                          |                                                                                                                           |

## Load current detection types

### KEW 8121



AC 100A

φ24

IEC61010

### KEW 8122



AC 500A

φ40

IEC61010

### KEW 8123



AC1000A

φ55

IEC61010

|                                 |                                                                                |                                                                             |                                                      |
|---------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------|
| Conductor size                  | φ24                                                                            | φ40                                                                         | φ55                                                  |
| Rated current                   | AC 100A                                                                        | AC 500A                                                                     | AC 1000A                                             |
| Output voltage                  | AC 500mV/100A (AC 5mV/A)                                                       | AC 500mV/500A (AC 1mV/A)                                                    | AC 500mV/1000A (AC 0.5mV/A)                          |
| Accuracy                        | ±2.0%rdg±0.3mV (50/60Hz)<br>±3.0%rdg±0.5mV (40Hz~1kHz)                         |                                                                             |                                                      |
| Phase Shift                     | —                                                                              |                                                                             |                                                      |
| Withstand voltage               | AC3540V for 5 seconds                                                          | AC5350V for 5 seconds                                                       | AC5350V for 5 seconds                                |
| Cable length : Output connector | Approx. 2m : MINI DIN 6pin                                                     |                                                                             |                                                      |
| Operating temperature ranges    | -0~40°C, less than 85% RH (without condensation)                               |                                                                             |                                                      |
| Output impedance                | Approx. 9.5Ω                                                                   | Approx. 1.9Ω                                                                | Approx. 1.5Ω                                         |
| Applicable standards            | IEC 61010-1 : 2002,<br>IEC 61010-2-032 : 2002<br>CAT.Ⅲ 300V pollution degree 2 | IEC 61010-1 : 2002, IEC 61010-2-032 : 2002<br>CAT.Ⅲ 600V pollution degree 2 |                                                      |
| Dimensions                      | 100(L)×60(W)×26(D)mm                                                           | 128(L)×81(W)×36(D)mm                                                        | 170(L)×105(W)×48(D)mm                                |
| Weight                          | Approx. 150g                                                                   | Approx. 260g                                                                | Approx. 360g                                         |
| Accessories                     | 9095 (Portable case)                                                           | Instruction manual Cable marker                                             | 9094 (Portable case) Instruction manual Cable marker |
| Options                         | 7146 (Banana φ4 adjuster plug) 7185 (Extension cable)                          |                                                                             |                                                      |

# Leakage current detection types

## MODEL 8141



## MODEL 8142

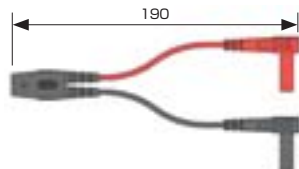


## MODEL 8143

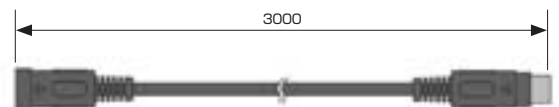


|                                 |                                                            |                       |                                        |
|---------------------------------|------------------------------------------------------------|-----------------------|----------------------------------------|
| Conductor size                  | φ24mm                                                      | φ40mm                 | φ68mm                                  |
| Rated current                   | AC 1000mA                                                  | AC 1000mA             | AC 1000mA                              |
| Output voltage                  | AC 100mV/1000mA(AC 100mV/A)                                |                       |                                        |
| Accuracy                        | ±1.0%rdg±0.1mV(50/60Hz)<br>±2.0%rdg±0.1mV(40Hz~1kHz)       |                       |                                        |
| Phase Shift                     | —                                                          |                       |                                        |
| Withstand voltage               | AC3540V(50/60Hz) for 5 seconds                             |                       |                                        |
| Cable length : Output connector | Approx. 2m : MINI DIN 6pin                                 |                       |                                        |
| Operating temperature ranges    | -0~50°C, less than 85% RH (without condensation)           |                       |                                        |
| Output impedance                | Approx. 180Ω                                               | Approx. 200Ω          | Approx. 120Ω                           |
| Applicable standards            | IEC 61010-1, IEC 61010-2-032 CAT.Ⅲ 300V pollution degree 2 |                       |                                        |
| Dimensions                      | 100(L)×60(W)×26(D) mm                                      | 128(L)×81(W)×36(D) mm | 186(L)×129(W)×53(D) mm                 |
| Weight                          | Approx. 150g                                               | Approx. 240g          | Approx. 490g                           |
| Accessories                     | 9095(Portable case)                                        | Instruction manual    | 9094(Portable case) Instruction manual |
| Options                         | 7146(Banana φ4 adjuster plug) 7185(Extension cable)        |                       |                                        |

## Options



## MODEL 7185



## Overall diameter

| Overall Diameter (mm) | IV 600V Single Core | SV(VVR) 600V Three Cores | CV(CE) 600V Single Core | CV(CE) 600V Three Cores | CVT 600V Three Cores | CV(CE) 3300V Single Core | CV(CE) 3300V Three Cores | CV(CE) 6600V Single Core | CV(CE) 6600V Three Cores |
|-----------------------|---------------------|--------------------------|-------------------------|-------------------------|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8                     | 6.0                 | 18.4                     | 8.6                     | 16.0                    | —                    | 13.5                     | 24                       | 16.5                     | 32                       |
| 14                    | 7.6                 | 19.9                     | 9.5                     | 17.5                    | 21.0                 | 14.0                     | 26                       | 17.5                     | 34                       |
| 22                    | 9.2                 | 23.5                     | 11.0                    | 21.0                    | 24.0                 | 15.5                     | 29                       | 18.5                     | 37                       |
| 30                    | 10.1                | 25.7                     | 12.0                    | 24.0                    | —                    | 16.0                     | 31                       | 19.5                     | 39                       |
| 38                    | 11.4                | 28.7                     | 13.0                    | 25.0                    | 28.0                 | 17.5                     | 33                       | 21.0                     | 41                       |
| 50                    | 12.6                | 31.5                     | 15.0                    | 30.0                    | —                    | 19.5                     | 38                       | 22.0                     | 44                       |
| 60                    | 13.6                | 34.8                     | 16.0                    | 31.0                    | 33.0                 | 21.0                     | 40                       | 23.0                     | 46                       |
| 80                    | 15.5                | 38.3                     | 17.0                    | 35.0                    | —                    | 22.0                     | 43                       | 25.0                     | 49                       |
| 100                   | 17.0                | 41.9                     | 20.0                    | 40.0                    | 41.0                 | 24.0                     | 46                       | 26.0                     | 52                       |
| 125                   | 18.9                | 46.4                     | 21.0                    | 43.0                    | —                    | 25.0                     | 50                       | 28.0                     | 55                       |
| 150                   | 20.5                | 50.1                     | 23.0                    | 46.0                    | 47.0                 | 27.0                     | 53                       | 29.0                     | 58                       |
| 200                   | 23.0                | 56.6                     | 26.0                    | 54.0                    | 55.0                 | 30.0                     | 60                       | 32.0                     | 60                       |
| 250                   | 25.5                | 62.0                     | 28.0                    | 59.0                    | 60.0                 | 32.0                     | 65                       | 35.0                     | 70                       |
| 325                   | 28.6                | 69.2                     | 32.0                    | 65.0                    | 66.0                 | 35.0                     | 71                       | 38.0                     | 77                       |
| 400                   | 31.3                | —                        | 34.0                    | 72.0                    | 72.0                 | 39.0                     | —                        | —                        | —                        |
| 500                   | 34.4                | —                        | 38.0                    | 81.0                    | 80.0                 | 42.0                     | —                        | —                        | —                        |

## Measurement categories

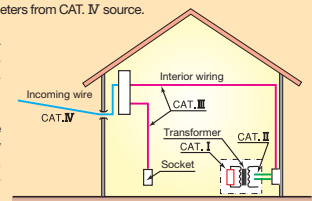
To ensure safe operation of measuring instruments, IEC61010-1 establishes safety standards for various electrical environments, categorized as CAT. I to CAT. IV, and called measurement categories. Higher-numbered categories correspond to electrical environments with greater transient energy (that can be very dangerous), so a measuring instrument designed for CAT. IV environments can endure greater transient energy than one designed for CAT. III or lower.

CAT. I : Secondary electrical circuits connected to an outlet through a transformer or similar device. Secondary electrical circuit parts inside equipments like TVs, PCs, Copiers, etc.

CAT. II : Primary electrical circuits or equipments connected to an outlet by a power cord. Outlets at more than 10 meters from CAT. III source, or at more than 20 meters from CAT. IV source.

CAT. III : Primary electrical circuits of the equipment connected directly to the distribution panel. Switchboards, busbars and feeders from the distribution panel to outlets.

CAT. IV : The circuit from the service drop to the service entrance, and to the power meter and primary over current protection device (distribution panel). Circuits close to the secondary side of low voltage power transformer.



## Safety Warnings :

Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

For inquiries or orders :



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