

<b>CLAMP-ON CURRENT SENSOR</b>	MODEL <b>CLSE</b>
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**BEFORE USE ....**

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below. If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

**■ PACKAGE INCLUDES:**

Clamp-on current sensor .....(1)

**■ MODEL NO.**

Confirm Model No. marking on the product to be exactly what you ordered.

**■ INSTRUCTION MANUAL**

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

**POINTS OF CAUTION**

**■ CONFORMITY WITH EU DIRECTIVES**

- This equipment is suitable for Pollution Degree 2 and Measurement Category III (input, transient voltage 6000V) with the maximum operating voltage of 480V.
- Altitude up to 2000 meters.

**⚠ Warning!** The primary conductor to be measured must be insulated with at least basic insulation for the working voltage 480V AC.

**■ GENERAL PRECAUTIONS**

- Before you remove the sensor module or mount it, turn off the input signal for safety. While the line is alive, the module's cores, attracted to each other, may be hard to separate.
- The over-voltage clamp element is incorporated at the output for safety. However, leaving the circuit open for an extended time period is not recommended.

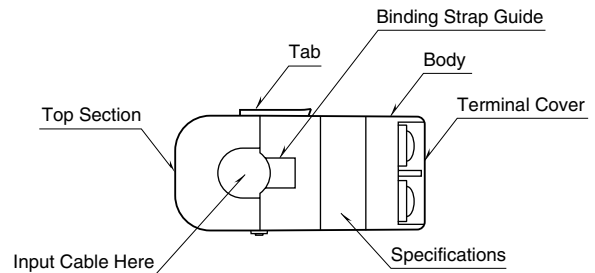
**■ ENVIRONMENT**

- Indoor use.
- When heavy dust or metal particles are present in the air, install the module inside proper housing with sufficient ventilation.
- Do not install the module where it is subjected to continuous vibration. Do not subject the module to physical impact.
- Environmental temperature must be within -10 to +55°C (14 to 131°F) with relative humidity within 0 to 95% RH in order to ensure adequate life span and operation.

**■ WIRING**

- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

**COMPONENT IDENTIFICATION**



Individual models have different shapes.

**INSTALLATION**

**■ CONNECTING THE INPUT CABLE**

- 1) Pull the tab and open the top section. Place the input cable inside. If it is used for a transducer input with polarity, confirm the direction (K, L).
- 2) Put back the top section and push in the tab securely.
- 3) Fix the sensor module at the input cable with a binding strap.

## TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

### EXTERNAL DIMENSIONS unit: mm (inch)

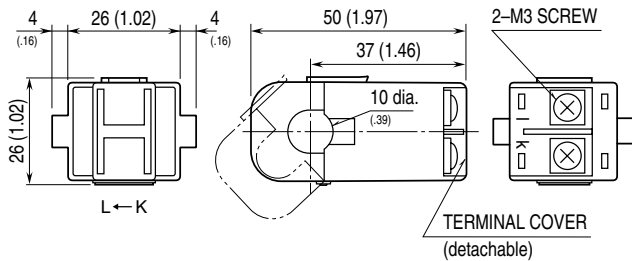
#### • CLSE-R5, 05 (≤ 5A or ≤ 50A use)

Applicable cable diameter: ≤ 10

#### Weight

CLSE-R5: 45 g (1.6 oz)

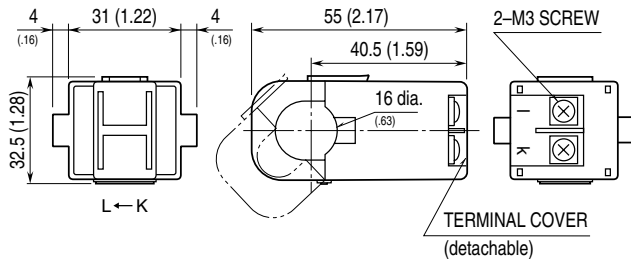
CLSE-05: 40 g (1.4 oz)



#### • CLSE-10 (≤ 100A use)

Applicable cable diameter: ≤ 16

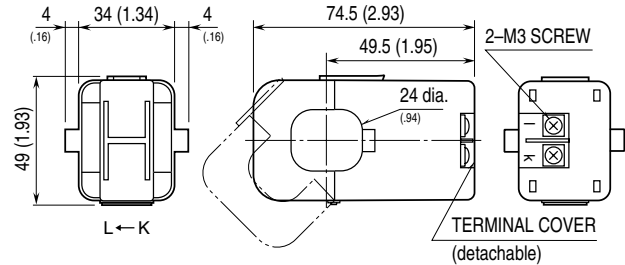
Weight: 75 g (2.6 oz)



#### • CLSE-20 (≤ 200A use)

Applicable cable diameter: ≤ 24

Weight: 180 g (6.3 oz)



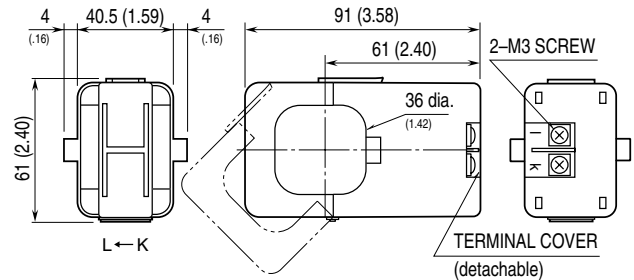
#### • CLSE-40, 60 (≤ 400A or ≤ 600A use)

Applicable cable diameter: ≤ 36

#### Weight

CLSE-40: 300 g (10.5 oz)

CLSE-60: 330 g (11.6 oz)



## WIRING INSTRUCTIONS

### OUTPUT WIRING

Use AWG22 or thicker wires for the output. Twist the paired wires, extendable up to 30 meters.

If the module is used for a transducer input with polarity, confirm the direction (K, L).

### SCREW TERMINAL

Torque: 0.3 N·m

## CHECKING

- 1) Terminal wiring: Check that all cables are correctly connected according to the connection diagram.
- 2) Input: Check the input signal.
- 3) Output: Check the output signal.