

E-Mon Split Core and Solid Core Current Sensor Technical Notes

1. Split core current sensors are the standard for all Class 1000, 2000, 3200, 3400, 5000 E-Mon meters.
2. Option **SCS** = Solid Current Sensor are available only in **100** and **200** amp meter configurations.
3. Ordering example E50-480100-R01-**SCS**
4. Meters must use the original size and configuration as shipped from factory otherwise inaccurate readings will result!
5. The meters and sensors are calibrated together at factory and may not be changed in the field.
6. Once shipped, the meter cannot be reconfigured in the field. For example if the meter shipped with split core current sensors, it may only use the split core sensors it came with.
7. No exceptions! Field modifications are not possible such as changing from split to solid current sensors. Nor can the original meter sensor size be changed. For example, a 200-amp meter must only use 200-amp sensors.

Split Core vs. Solid Core

Split Core current sensor is the standard for Class 1000, 2000, 3200, 3400, 5000 E-Mon meters.



Split core current sensors can be taken apart, or 'split' into halves, which allows the installer leave the power on the circuit during installation. This saves installation time, and for critical loads that cannot be switched off, split core current sensors are essential. Highly accurate the split core current sensors are a little larger than solid core current sensors.

Solid Core current sensor option SCS for 100 or 200 amp Class 1000, 2000, 3200, 3400, 5000 E-Mon meters.



100 or 200 amps Interior diameter: 0.70\"

Solid core current sensor look like donuts with wires attached. These ring-shaped devices slip over the power lines and measure the electrical current flowing through the line. The current sensor wires connect to the electric submeter, facilitating power and energy calculations.

Solid core current sensors are smaller however, power must be turned off and the circuit opened, generally at a circuit breaker, so that the solid core sensor can be slipped over the circuit being monitored. After installation the power wire must be reconnected to close the electrical circuit.

Solid core current sensors are required by the State of California Weights and Measures for all residential submeter installations.