

# Extending the length of the CT leads

CTs may also be extended without splices or soldering using the eGauge [Sensorhub as a CT extension kit](#).

Do not use wire nuts to connect CT extensions. Wire nuts will degrade and interfere with the low-voltage CT signals.

Split core CTs can be extended with **twisted pair** wire to cover longer distances. Twisted pair wiring is recommended, as it will reduce noise and interference. If you need to extend a CT wire farther than approximately 100 ft (30m), voltage drop must be taken into account and a larger gauge wire should be used.

Note that CT leads longer than approximately 100ft (30m) can cause a decrease in accuracy. This is especially true of CTs with high maximum amperage ratings which are reading extremely low amperages.

eGauge typically recommends 22 AWG to 18 AWG 600 V rated twisted pair wiring such as the type sold [in our webstore](#). 600V rated CAT5 Ethernet cable can also be used, as it is generally easy to obtain and can be used to extend up to 4 CTs. However, any twisted pair wire with appropriate insulation and wire gauge can be used. Be certain to use twisted pair wire that is appropriately rated for the location and panels it will be run in. Shielded cabling may be helpful especially when running longer distances.

Connections should be made with solder and heat shrink tubing, butt connectors or inline lever connectors such as those sold with our [CT Extension pack](#). Wire nuts must *not* be used to extend CT leads.

Please see the [CT selection guide](#) for full details regarding CTs.

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Please visit [kb.egauge.net](http://kb.egauge.net) for the most up-to-date documentation.