



Connecting a Current Probe

Safety precautions

The following safety precautions apply to current probe connections in addition to those safety precautions stated on page 4-12.

- DO NOT attempt to measure current in any circuit in which the circuit to ground voltage exceeds the insulation rating of the current probe (600 Vrms max).
- Make sure the jaws of the current probe are tightly closed. Keep mating surfaces clean and free from foreign matter.

Medidas de seguridad

Las medidas precauciones de seguridad se aplican a las conexiones de la sonda actual además de las precauciones de seguridad que aparecen en la página 4-13.

- NO deberá intentar medir la corriente eléctrica en ningún circuito en que el voltaje del mismo a tierra sea mayor al promedio de aislamiento de la sonda eléctrica (600 Vrms máx).
- Verifique que la mordaza de la sonda eléctrica esté bien apretada. Mantenga las superficies de fusión limpias y libres de materia extraña.

Mesures de sécurité

Les mesures de sécurité suivantes doivent être respectées en plus des consignes de sécurité données en page 4-13 lors de la réalisation de connexions de sondes.

- NE PAS essayer de mesurer le courant dans un circuit où la tension est supérieure au régime d'isolation de la sonde (600 Vrms max.).
- S'assurer que les mâchoires de la sonde sont bien serrées. S'assurer que la surface de contact est propre et exempte de corps étrangers.

Sicherheitsvorkehrungen

Die folgenden Sicherheitsvorkehrungen treffen auf derzeitige "Probe"-Verbindungen zu und gelten zusätzlich zu den Sicherheitsvorkehrungen auf Seite 4-14.

- Versuchen Sie NICHT, den Strom in einem Schaltkreis zu messen, in dem der Durchgang zur Erdspannung den Isolierwert des Spannungsmeßfühlers (600 Volt Effektivwert) übersteigt.
- Stellen Sie sicher, daß die Klemmbanken des Spannungsmeßfühlers fest geschlossen sind. Halten Sie die zusammengehörigen Oberflächen sauber und frei von Fremdteilen.

Continued on next page

Connecting a Current Probe, Continued

Types of current probes Several types of current probes¹ (clamp-on current transformers) are available as optional accessories. These probes are shown in the figure on the next page and consist of the smallest current probe (Dranetz-BMI model CT10), used to monitor up to 10 amps rms max, to the largest current probe (Dranetz-BMI model CT3000) for measurements up to 3000 amps rms max.

Refer to Appendix H for complete probe specifications.

WARNING When using either the CT-10 or CT-150 current probe, **DO NOT** connect the probe jaws around a non-insulated wire. These probes are to be used to monitor current of insulated wire only.

ADVERTENCIA Cuando use la punta de prueba de corriente CT-10 o CT-150, **NO** sujete las mandíbulas de la punta alrededor de un cable sin aislación. Esta punta se usa para mediciones en cables aislados solamente.

AVERTISSEMENT Lorsque vous utilisez la sonde de courant CT-10 ou CT-150, **NE FERMEZ PAS** les mâchoires de la sonde sur un fil non isolé. Cette sonde ne doit être utilisée qu'avec des fils isolés.

WARNUNG Der Stromfühler CT-10 oder CT-150 **DARF NICHT** an ein unisoliertes Kabel angeschlossen werden. Dieser Stromfühler darf nur für die Überwachung von isolierten Kabeln benutzt werden.

Description Each probe has a polarized plug to fit any one of the four current input connectors (A, B, C, or D) on the rear panel of the Power Platform.

Maximum jaw openings are described in the specifications in Appendix H.

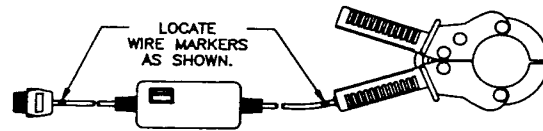
An arrow marking on the handle is a guide to ensure that you position the probe with the arrow pointing towards the load. Correct position of the probe is necessary for correct power measurements.

1. Portions of this product manufactured under license from BMI, Patent No. 5,089,979.

Connecting a Current Probe, Continued

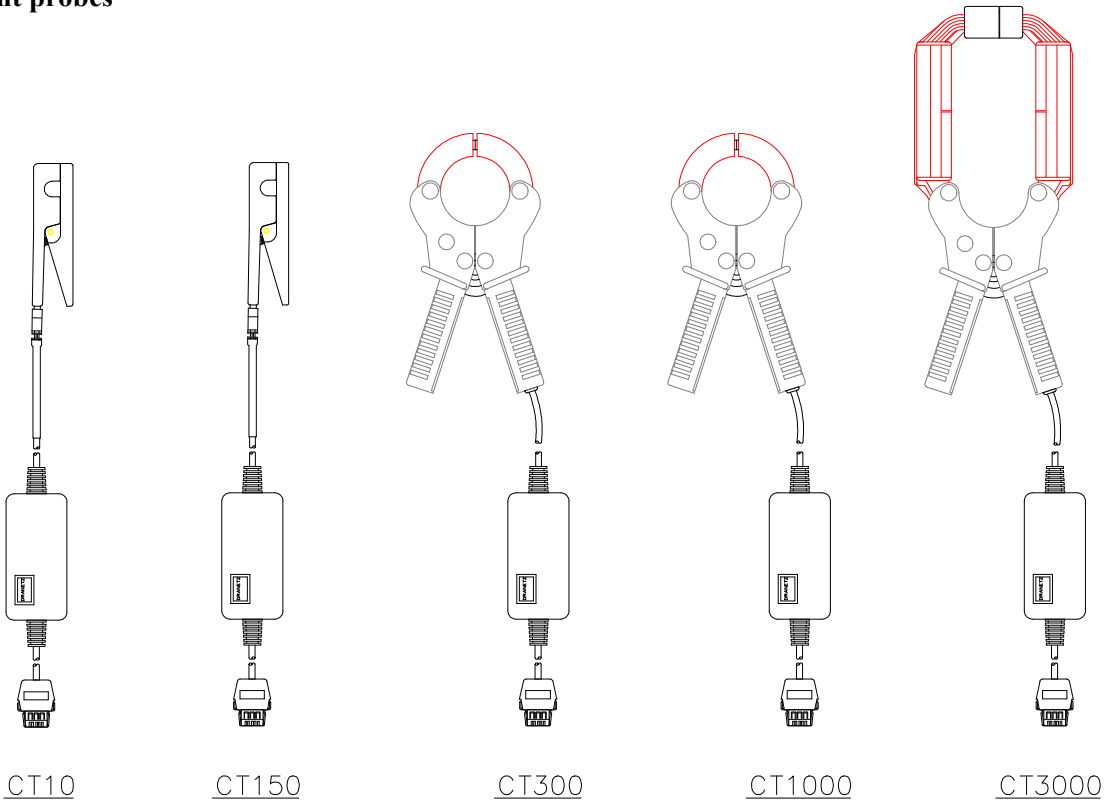
Wire marker kit The wire marker kit, supplied as a standard accessory, helps you identify which current probe is connected to each current channel input. This kit, part number 155520, contains adhesive backed color-coded marker labels to attach to the probe handle and the plug end of the probe. Use red label for channel A, yellow for B, and blue for C. Channel D is left unmarked. See figure for proper wire marker placement.

Wire marker placement



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Dranetz-BMI current probes



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Connecting a Current Probe, Continued

Connection guidelines

Follow these guidelines when making current connections.

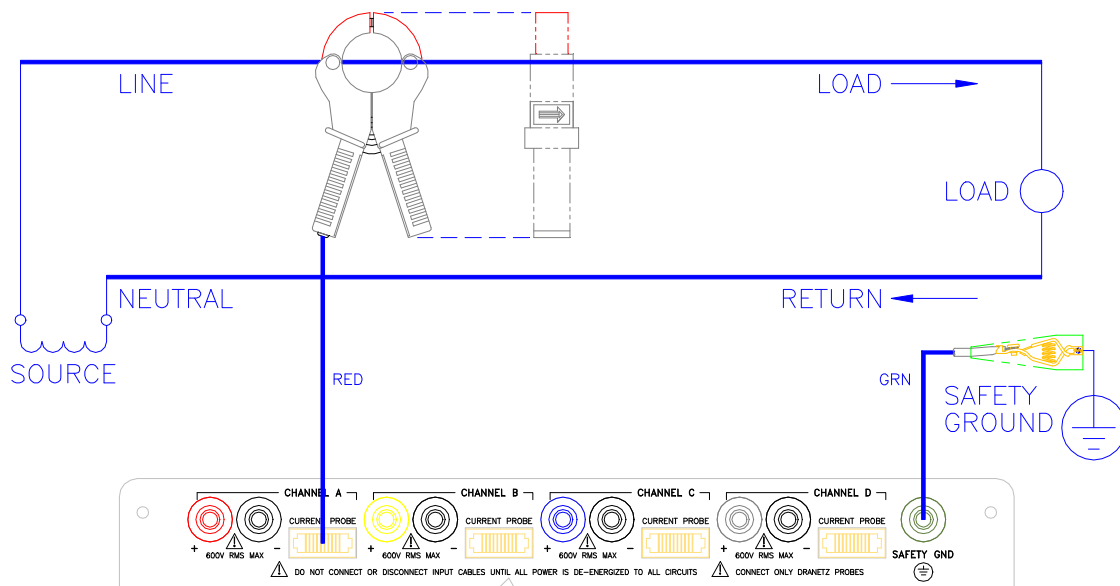
- Position the probe with the arrow on the handle facing the load.
- For greatest accuracy, use a probe that is rated at no more than twice the nominal value you expect to measure.

Example

The following figure shows how to connect a current probe to channel A for current monitoring of a single phase line.

The current probe may be connected to the return line if desired to measure the return current when checking for load current leakage, loop current relationships, etc.

Single phase current probe connection example



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8600-20

Note

The connection shown above is not recommended without a voltage connection to ensure frequency synchronization. If this configuration is used, then an internal frequency reference must be entered. Refer to page 5-8.

Connecting to a Current Transformer (CT)

Safety precautions

The following safety precautions apply to current transformer (CT) connections in addition to those safety precautions stated on page 4-12.

- Never energize a CT with the secondary open.
 - Never disconnect the secondary of a CT with primary energized.
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Medidas de seguridad

Las medidas de seguridad siguientes corresponden a conexiones de transformadores eléctricos (CT) además de las medidas de seguridad que aparecen en la página 4-13.

- Nunca deberá poner bajo tensión un CT con el transformador secundario abierto.
 - Nunca deberá desconectar el transformador secundario de un transformador eléctrico si el transformador primario está bajo tensión.
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Mesures de sécurité

Les mesures de sécurité suivantes s'appliquent aux connexions de transformateurs de couranten plus des mesures de sécurité données en page 4-13.

- Un jamais mettre un transformateur sous tension lorsque la bobine secondaire est ouverte.
 - Ne jamais déconnecter la bobine secondaire d'un transformateur lorsque la bobine primaire est sous tension.
-

Sicherheitsvorkehrungen

Die folgenden Sicherheitsvorkehrungen gelten für Anschlüsse an Transformatoren und gelten zusätzlich zu den Sicherheitsvorkehrungen auf Seite 4-14.

- Führen Sie einem Transformator niemals Strom zu, wenn die Niederspannungsseite geöffnet ist.
 - Lösen Sie niemals die Verbindung der Niederspannungsseite eines Transformators, wenn die Oberspannungsseite unter Strom steht.
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WARNING

Refer to the manufacturer's instructions related to the CT for exact information for connections for current monitoring. Do not exceed manufacturer's ratings.

Continued on next page

Connecting to a Current Transformer (CT), Continued

ADVERTENCIA

Consulte las instrucciones del fabricante referentes a TC (transformador de corriente) para la información exacta de las conexiones a fin de monitorear la corriente. No exceda las capacidades nominales del fabricante.

ADVERTISSEMENT

Se reporter aux instructions du fabricant relatives au transformateur de courant (Current Transformer - CT) pour obtenir les renseignements exacts sur les connexions utilisées pour la surveillance du courant. Ne pas dépasser la puissance recommandée par le fabricant.

WARNUNG

Genaue Informationen zu Verbindungen für die Stromüberwachung entnehmen Sie bitte den Anleitungen des Herstellers (siehe Stromumwandler). Die Grenzwerte des Herstellers sollten nicht überschritten werden.

Note

Current Transformers are not manufactured by Dranetz-BMI and are discussed here for informational purposes only.

Description

Current transformers, also known as instrument transformers, reduce high level currents to low level currents so they can be safely monitored. These devices are similar to PT's used for voltage measurements in that both reduce values for safe measurement. The reduction, or step-down ratio, is stated as a scale factor that is used by the PP1-8000 to step-up the measured value to its original value.

Types of CT's

There are single-phase CT's and polyphase CT's dependent on the source transformer used. Current reduction ratios vary widely and are also dependent on the source transformer used. Rating plates attached to the CT provide information as to the ratio and current limitations.
