

Split Core Current Transformer



Datasheet



Split-core current transformers are used to monitor AC current for various devices. The current transformer input takes a high voltage current input and produces a proportional low-voltage, low-current signal for measuring and monitoring. Split-core current transformers are ideal for installing onto existing electrical wiring because they can snap around the individual conductors without having to disconnect any cables.

These split-core current transformers are compatible with Banner's Condition Monitoring Nodes (CM1L Series).

Models

Model Kits	Description	Connection
BWA-CURRENT-TRANSFORMER-20A	Includes CT20A; 20 A Input; 0.333 V Output	1 meter two-wire twisted pair cable
BWA-CURRENT-TRANSFORMER-150A	Includes CT150A; 150 A Input; 0.333 V Output	

Installing the Current Transformers

Observe the polarity when installing current transformers. Banner's current transformers indicate **k** as the source side and **l** as the load side, where source refers to the incoming power feed side to the device and the load side is the device side.

Banner's CTs have an etched arrow to indicate the directionality for installation (**k** -> **l**). As shown in [Figure 1](#) on p. 1, the source is the AC power supply and the load is the Motor. The CT direction arrow must point toward the load. Banner's current transformers can be installed on any conductor in a 2- or 3-phase AC line. Current transformers should only be installed on a single conductor. For correct installation, see [Figure 2](#) on p. 2.

Figure 1. Installing a current transformer relative to the power supply/motor.

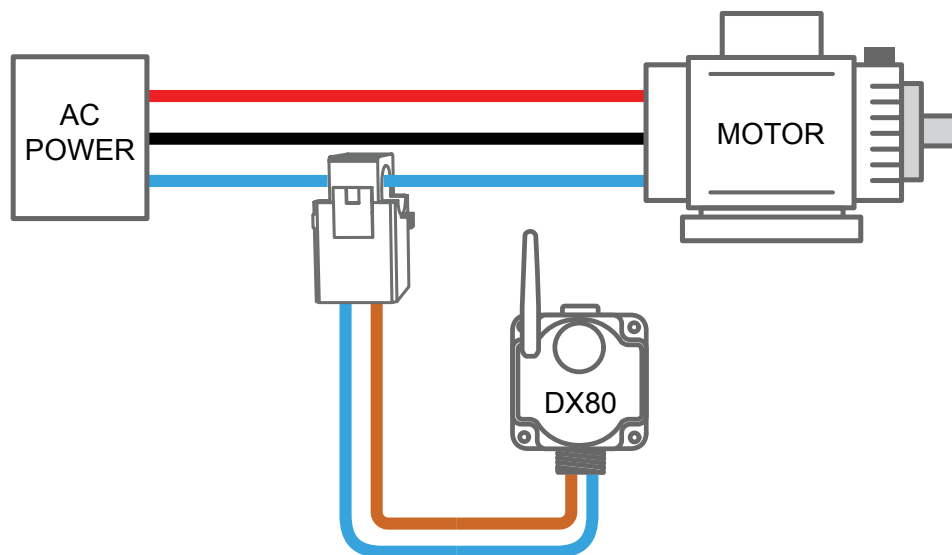
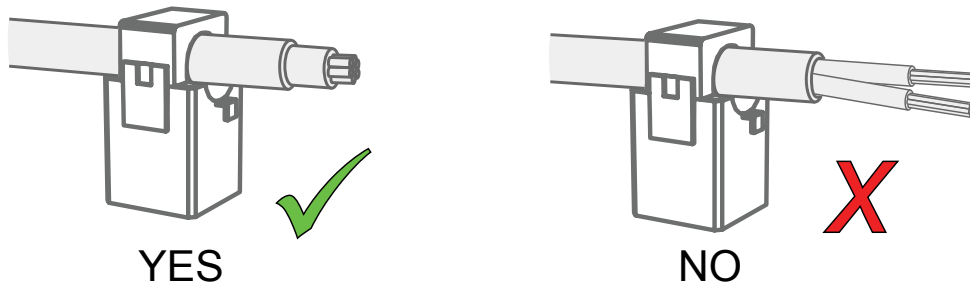


Figure 2. Installing a single conductor on the current transformer



Wire the Current Transformer

Figure 3. Current transformer wiring

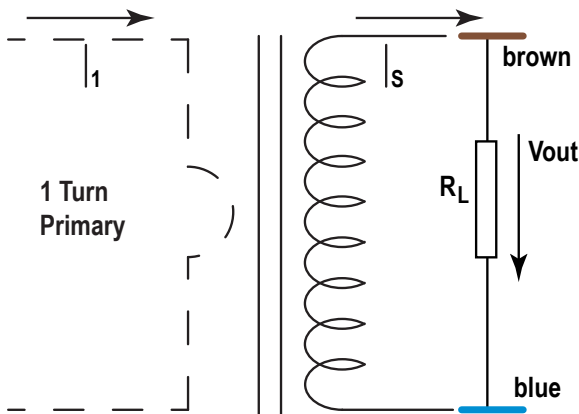
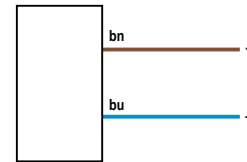


Figure 4. Current transformer wiring to Node



Key	Wire Color	Description
1	brown	Input from CT (K)
3	blue	CT ground (L)

Specification

Frequency

50 to 2000 Hz

Rating Input

CT20A: 0–20A

CT150A: 0–150A

Rated Output

0.333 V AC

Measuring Range

10% to 130% In

Ratio

≤ ±1%

Phase Angle

≤ ±60 min

Dielectric Strength

2.5 kV / 1 mA / 1 min

Insulation Resistance

DC5000 V / 1000 MOhm min

Construction

PA /UL94-VO case; PBT bobbin; silicon steel core; epoxy internal structure; tie construction

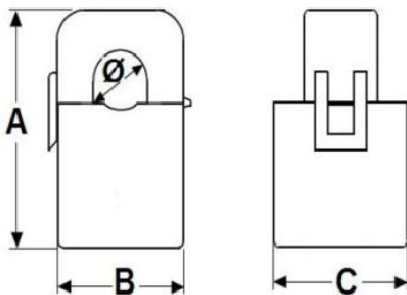
Operating Conditions

–25 °C to +75 °C (–13 °F to +167 °F)

85% relative humidity

Accuracy Class

0.5



Model	Diameter	A	B	C
CT20A	10 mm (0.39 in)	41 mm (1.61 in)	24 mm (0.94 in)	26.5 mm (1.04 in)
CT150A	16 mm (0.63 in)	45.5 mm (1.79 in)	29 (1.14 in)	31.5 mm (1.24 in)

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