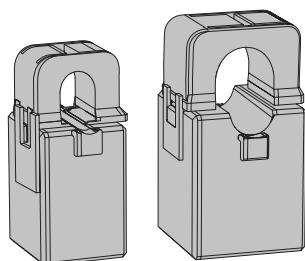


Split Core Current Transformer

Current Transformer Features



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 devices (CM1L or Q45CT Nodes, and the S15C-CT-MQ Converters).

Current Transformer 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	
BWA-CURRENT-TRANSFORMER-600A	Includes CT600A; 600 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, 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.

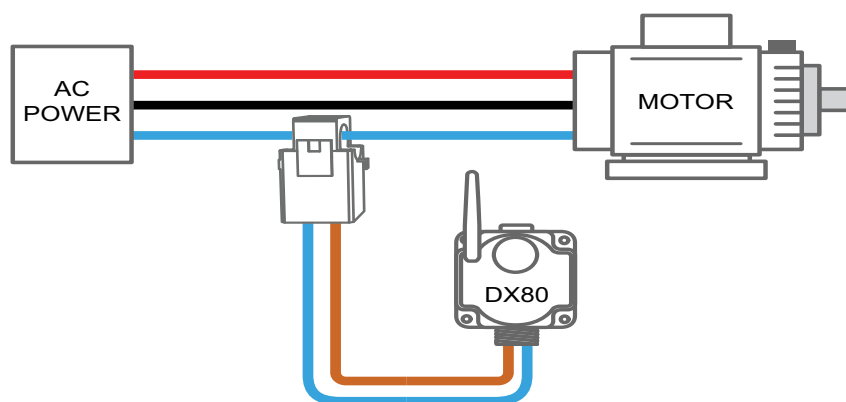


Figure 1: Installing a current transformer relative to the power supply/motor

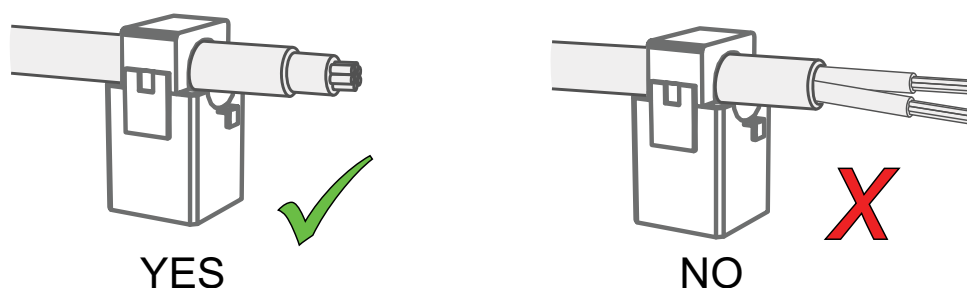


Figure 2: Installing a single conductor on the current transformer

Wire the Current Transformer

For more information on wiring and installing the current transformer, refer to the Split Core Current Transformer datasheet (p/n [212463](#)).

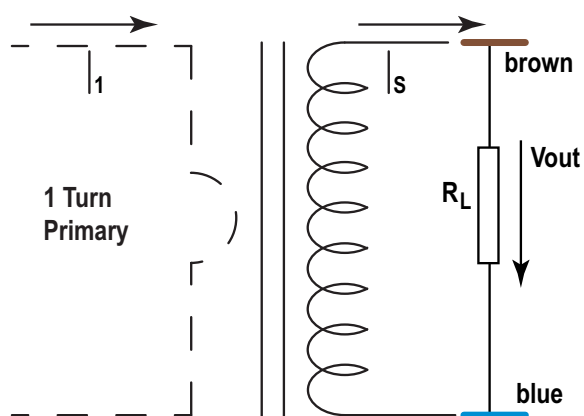


Figure 3: Current transformer wiring

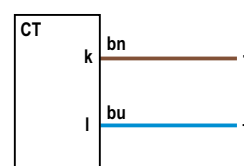


Figure 4: Current transformer wiring to Node
brown: input from CT (k)
blue: CT ground (l)

Current Transformer Specifications

Frequency
50 to 2000 Hz

Rating Input
CT20A: 0–20A
CT150A: 0–150A
CT600A: 0–600A

Rated Output
0.333 V AC

Measuring Range
10% to 130% I_n

Ratio
 $\leq \pm 1\%$

Phase Angle
 $\leq \pm 60$ 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

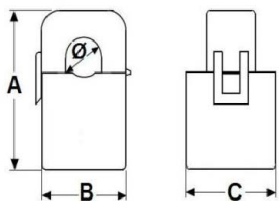
Certifications



Banner Engineering BV Park
Lane, Culliganlaan 2F bus 3, 1831
Diegem, BELGIUM



Turck Banner LTD Blenheim
House, Blenheim Court, Wickford,
Essex SS11 8YT, Great Britain

	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)
	CT600A	35.7 mm (1.41 in)	92.9 mm (3.66 in)	65.25 mm (2.57 in)	42 mm (1.65 in)

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 Revision: C
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