



CONTROL CIRCUIT TRANSFORMERS



c3controls' line of Control Circuit Transformers are well-designed and optimized devices to cater not only to residential and commercial HVAC/Building Management Systems (BMS) but also a wide range of industrial applications. Due to the innovative design approach, you would find these products at never-seen-before prices.

Check out all the features this line has to offer.

Section 34

Control Circuit Transformers	4
Specifications	6
Wiring Diagrams	7
Dimensions	9



PROVEN



Conformity to Standards:

UL 5085-3, UL 5085-2
CSA C22.2 No.66.3, CSA C22.2 No.66.2
IEC 61558

Certifications:


UL File#: E533585, (Guide XOKV, XOKV7), E541700 (Guide XPTQ, XPTQ7)
CE Marked (per EU Low Voltage Directive
2014/35/EC and RoHS Directive 2015/863/EU)



CONTROL CIRCUIT TRANSFORMERS

Discover c3controls' exceptional line of Control Circuit Transformers, meticulously engineered to meet the needs of residential and commercial HVAC/Building Management Systems (BMS), as well as a wide array of industrial applications. Our innovative design approach not only ensures top-tier performance but also introduces these products at unprecedented, budget-friendly prices. Dive into the rich tapestry of features that this product line unfolds, and experience excellence like never before.

DELIVERING SUPERIOR PRODUCT QUALITY AND MANUFACTURING EXCELLENCE

✓ Proven	Our Series CCT Control Circuit Transformers are UL Listed and CE marked to meet global standards requirements and are compliant to the RoHS directives. 
✓ Environmentally Secure	Designed and tested for ensuring operation in extreme temperatures, to keep your application running.
✓ Easy to Install	Panel-mountable with four screws, one in each corner, for fast and simple installation as well as reliability in vibrating environments.
✓ Added Safety	The transformer windings are enclosed, providing much needed safety for a critical application.
✓ Visible Certifications	Our product certifications and electrical ratings are clearly marked on the outside of the device for easy reference during installation.
✓ Limited Lifetime Warranty*	Every product is backed by our limited lifetime warranty—unmatched in the industry—bringing you quality components that perform in the most demanding applications.
✓ Guaranteed Same-Day Shipping*	Product availability reduces inventory and improves cash-flow—saving you money. With c3controls any order for standard catalog items received by 6:00pm ET is guaranteed to ship same day.
✓ Advantage Pricing	Our approach to product development, manufacturing, and focus on servicing the OEM and Electrical Equipment Builder reduces cost. The result—the best value in the industry.

*See c3controls Terms & Conditions

CCT1-75-DSCS-C



CCT1-75-RMCS-C



CCT1-100-DSCS-C

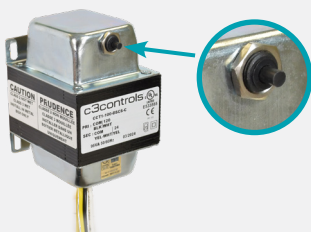


CCT1-100-RMCS-C



UNIQUE PRODUCT LINE FEATURES

OVERCURRENT PROTECTION



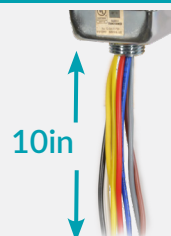
All our Class 2 devices come with an overcurrent protection option, either inherent or non-inherent, eliminating the need for additional protection in a panel.

CLASS 2 DESIGN



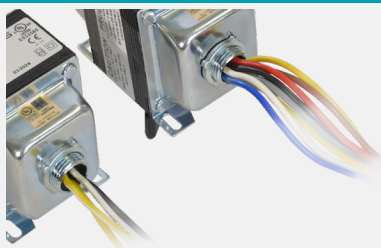
Transformers up to 100VA are Class 2 certified making them the safest device in your control application.

CONNECT TO ANYTHING



Primary and secondary wires are 10-inches long, making them easy to connect to a nearby load.

COLOR-CODED WIRES



Secondary as well as different taps on primary are uniquely color-coded to facilitate error-proof installation.

VERSATILE



Options are available to offer multiple voltages: 120V to 480V on primary side in a single device, making it usable in a variety of applications and saving on your inventory.

FIND IT FAST

Control Circuit Transformers



- Certifications
- Specifications
- Dimension Drawings
- Installation Instructions
- Easy to Buy

c3controls.com

IT'S EASY TO BUILD YOUR OWN CONTROL CIRCUIT TRANSFORMER

Simply pick the code number from each of the sections below and combine them to build your part number.

Control Circuit Transformers

CCT1 - I - II - III - IV **C** **S** - VII

Example: To build one of our most popular Control Circuit Transformers, the part number would be **CCT1 + II + III + IV + C + S + VII** or **CCT1-100-DSCS-C**



I. PRODUCT TYPE

CODE	DESCRIPTION
CCT1	Control Circuit Transformer

II. VOLT - AMPERES

CODE	DESCRIPTION	LIST
20	20	\$ 12.40
40	40	\$ 20.50
50	50	\$ 32.00
75	75	\$ 45.00
100	100	\$ 56.40
150	150	\$ 82.00
240	240	\$162.00
300	300	\$188.00

III. VOLTAGE (PRIMARY)

CODE	DESCRIPTION	FOR VOLT-AMP CODES	LIST
D	120V	20, 40, 50, 75, 100, 150, 240, 300	\$ 8.00
P	277/240/208/120 (P-277V)	20, 40	\$16.90
R	480/277/240/208/120 (R-480V)	50, 75, 100, 150, 240, 300	\$22.00

IV. TAPS (PRIMARY)

CODE	DESCRIPTION	FOR VOLTAGE (PRIMARY) CODES
S	Single	D
M	Multiple	P, R

V. VOLTAGE (SECONDARY)

CODE	DESCRIPTION
C	24

VI. TAPS (SECONDARY)

CODE	DESCRIPTION
S	Single

VII. PROTECTION TYPE

CODE	DESCRIPTION	FOR VOLT-AMP CODES	LIST
N	None	150, 240, 300	—
I	Inherently Protected	20, 40	\$10.00
F	Fuse	50	\$11.00
C	Circuit Breaker	50, 75, 100, 150, 240, 300	\$15.00

DISCOUNT
SCHEDULE **E**

SOME OF OUR POPULAR CONFIGURATIONS:

CONTROL CIRCUIT TRANSFORMERS

CATALOG NUMBER	DESCRIPTION	LIST
CCT1-100-RMCS-C	100VA, Primary 480/277/240/208/120V, Secondary 24V, Circuit Breaker Protection, UL 5085-3 (Class 2)	\$93.40
CCT1-100-DSCS-C	100VA, Primary 120V, Secondary 24V, Circuit Breaker Protection, UL 5085-3 (Class 2)	\$79.40
CCT1-50-RMCS-C	50VA, Primary 480/277/240/208/120V, Secondary 24V, Circuit Breaker Protection, UL 5085-3 (Class 2)	\$69.00
CCT1-40-DSCS-I	40VA, Primary 120V, Secondary 24V, Inherently Protected, UL 5085-3 (Class 2)	\$38.50

CONTROL CIRCUIT TRANSFORMERS

c3controls offers a comprehensive range of Control Circuit Transformers (CCT) designed with precise attention to detail, to cater to a wide array of applications. Whether it's residential and commercial HVAC systems, Building Management Systems (BMS), or the intricate demands of complex industrial environments, we offer a variety of options spanning from 20 to 300VA, featuring a 10-inch-long wire for seamless connectivity, having them color-coded for easy identification. These devices offer flexible primary voltage options ranging from 120 to 480V, with 24V secondary. Additionally, devices up to 100VA are Class 2, equipped with built-in overcurrent protection

Product features include:

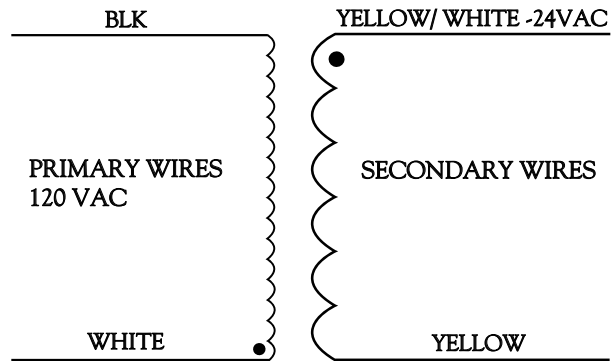
- Engineered for high efficiency, minimizing energy loss during conversion & isolation.
- Built with high-quality materials to withstand harsh environmental conditions & rigorously tested to meet the highest UL safety standards, ensuring industry-leading safety for your peace of mind.
- Equipped with an integrated grounding system for an additional layer of safety.
- Select models feature manual resettable circuit breakers, offering both protection and reliability. This feature enhances reusability, a capability not found in transformers with fuse or no protection.
- Designed with a space-saving footprint, allowing for installation in constrained environments.
- Designed with lead wires emanating from a single hub, allowing for easy connection to conduit for a secure and stable setup.
- Versatile for Class 2, Class 3, and general-purpose applications, with the added ability to accommodate a wide range of North American European voltages/frequencies. This universality makes them an adaptable energy source for various settings.
- Transformers are foot-mount, using M4 screws and are equipped with a 0.5" NPT hub which is compatible with both steel and PVC conduits.



SPECIFICATIONS:

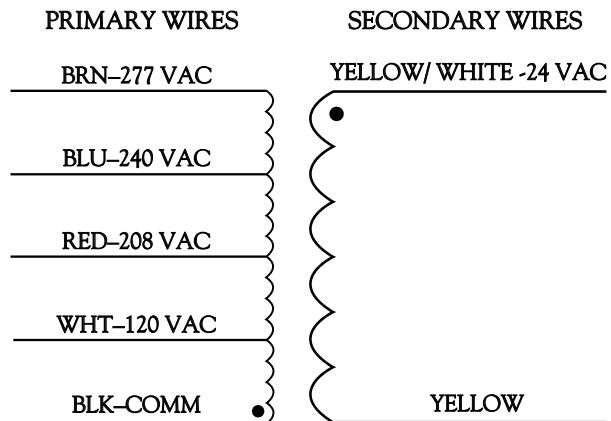
CONTROL CIRCUIT TRANSFORMER SPECIFICATIONS		
ELECTRICAL/ GENERAL		
	UNITS	
Rating	VA	20, 40, 50, 75, 100, 150, 240, 300
RATED VOLTAGE		
Primary	V	480/277/240/208/120
Secondary	V	24
OVERCURRENT PROTECTION		Inherently Protected, Fuse, Circuit Breaker, None (For Models Above 100VA)
MTBF	Hours	100,000
POWER FREQUENCY WITHSTAND VOLTAGE		
Primary		2.5kV RMS for 1 minute
Secondary	V	2.5kV RMS for 1 minute
ENVIRONMENTAL		
Operating Temperature	°C / °F	-34 to +60 / -30 to +140
WIRING		
Wire Size	AWG	16
Wire Length	Inch	10 (with 0.5-inches stripped)
COMPLIANCE		
Up to 100VA		UL 5085-3 (Class 2)
150VA and above		UL 5085-2
ROHS COMPLIANCE		For RoHS compliance documentation by product, refer to c3controls.com

CCT1-XX-DSCS-X



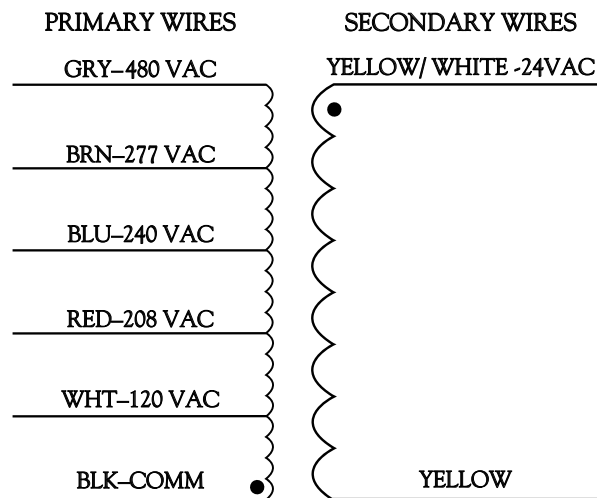
SECONDARY YEL/WHT WIRE IN PHASE WITH PRIMARY BLACK WIRE

CCT1-XX-PMCS-X



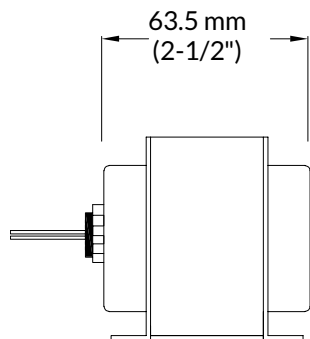
SECONDARY YEL/WHT WIRE IN PHASE WITH PRIMARY BLACK WIRE

CCT1-XX-RMCS-X

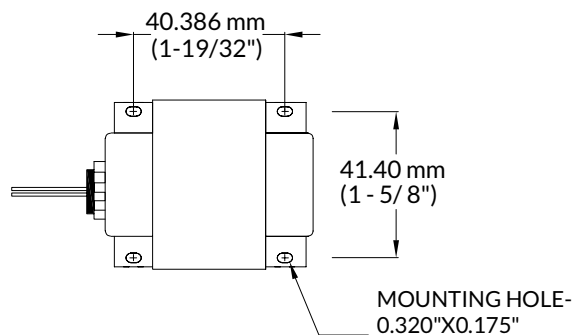


SECONDARY YEL/WHT WIRE IN PHASE WITH PRIMARY BLACK WIRE

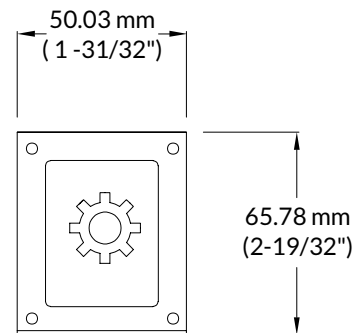
CCT1-20-DSCS-I



Front View

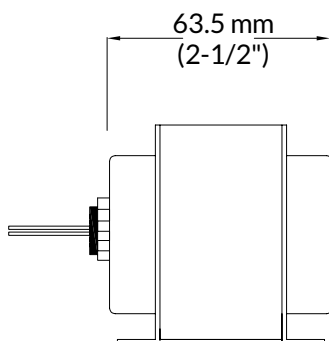


Top View

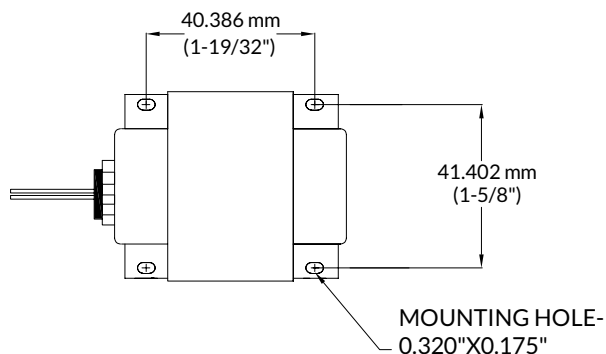


Side View

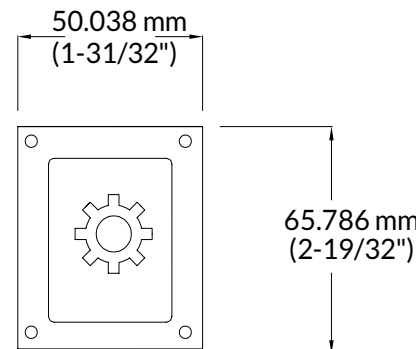
CCT1-20-PMCS-I



Front View

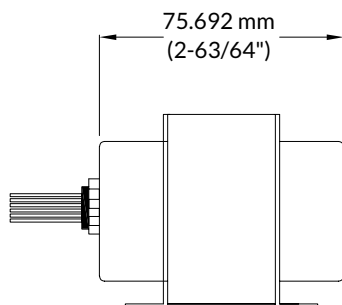


Top View

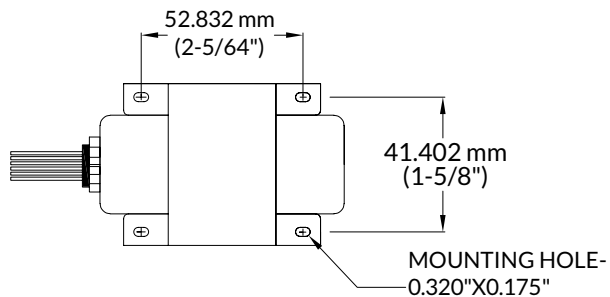


Side View

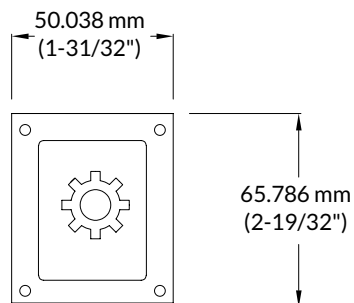
CCT1-40-DSCS-I / CCT1-40-PMCS-I



Front View

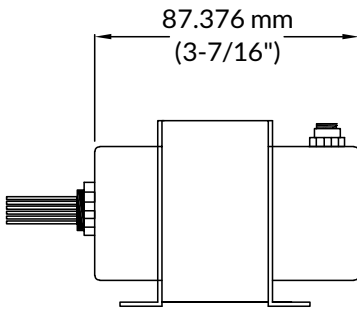


Top View

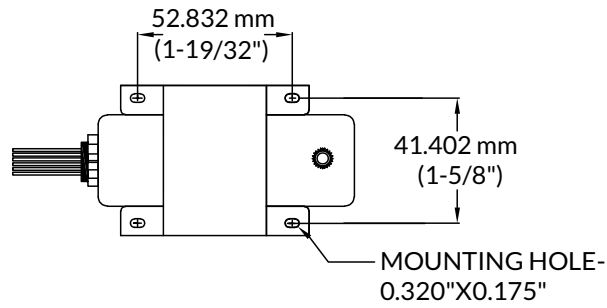


Side View

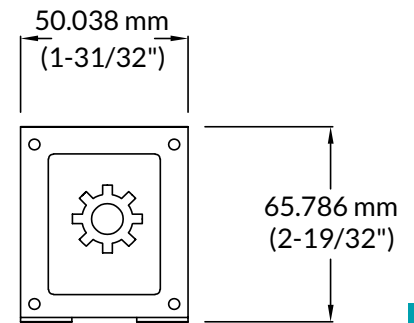
CCT1-50-DSCS-C



Front View

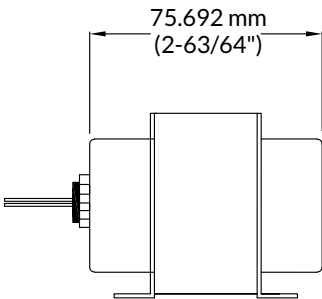


Top View

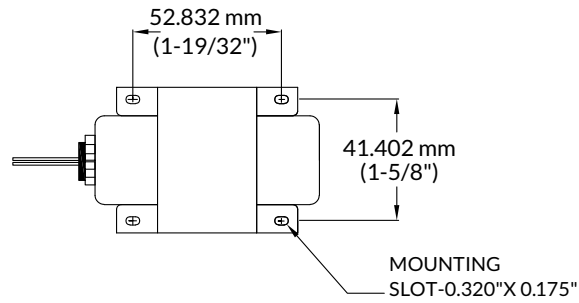


Side View

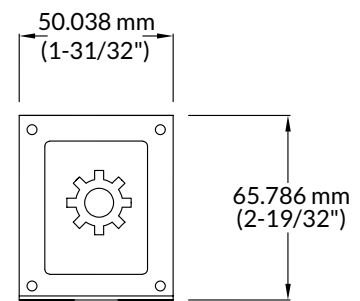
CCT1-50-DSCS-F



Front View

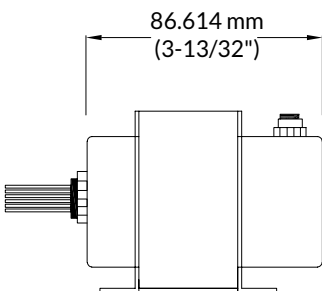


Top View

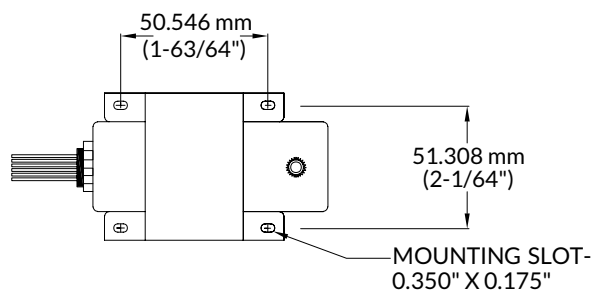


Side View

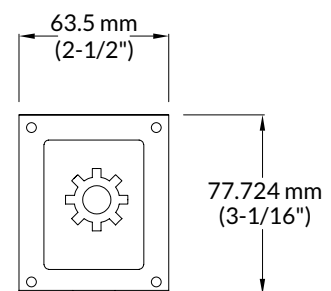
CCT1-50-RMCS-C



Front View

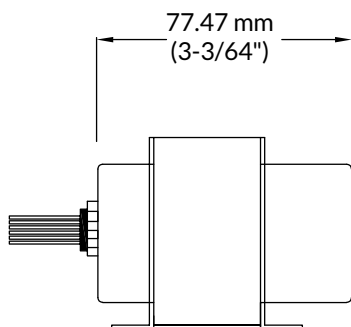


Top View

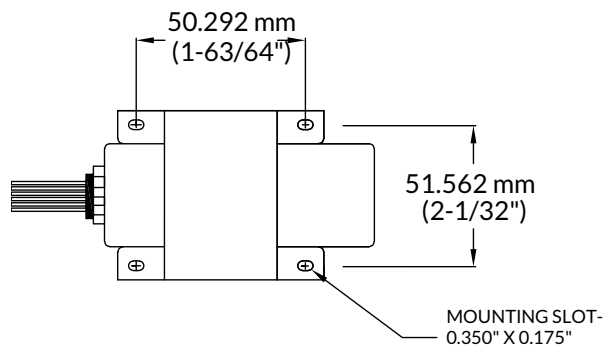


Side View

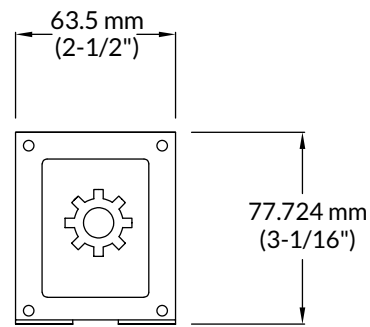
CCT1-50-RMCS-F



Front View

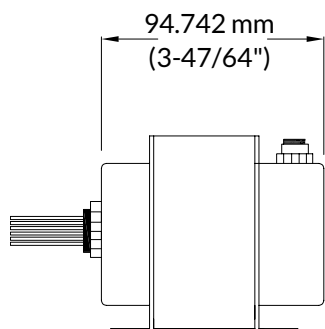


Top View

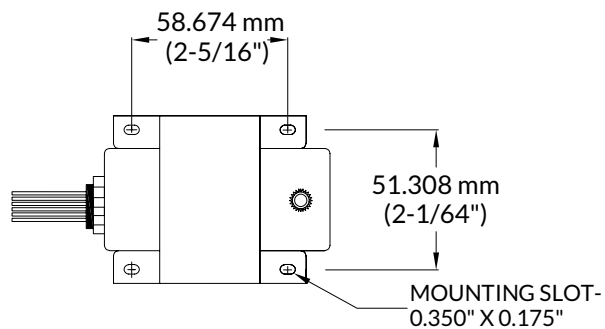


Side View

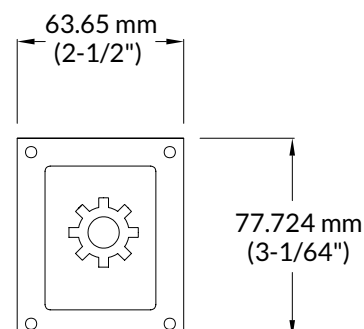
CCT1-75-DSCS-C



Front View

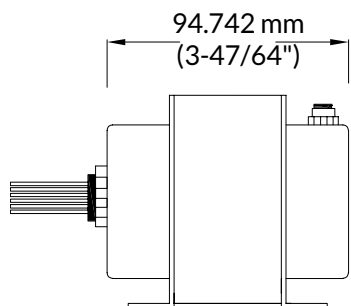


Top View

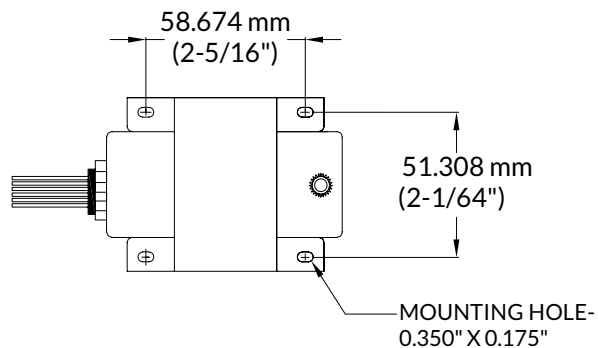


Side View

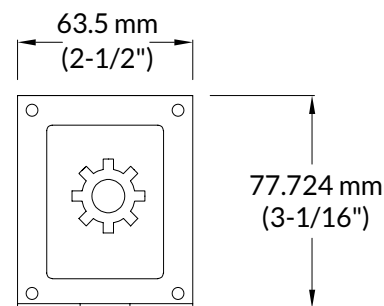
CCT1-75-RMCS-C



Front View

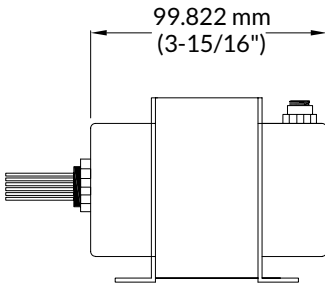


Top View

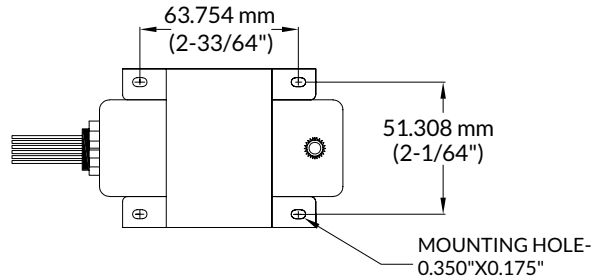


Side View

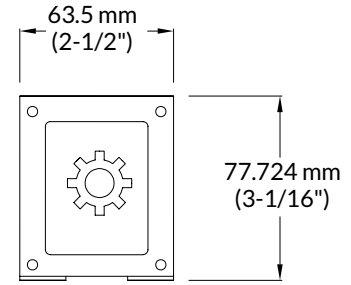
CCT1-100-DSCS-C



Front View

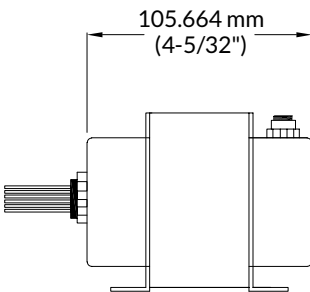


Top View

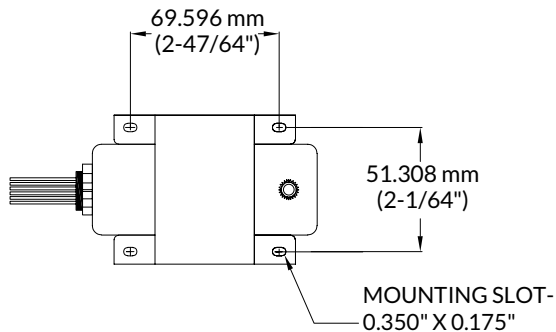


Side View

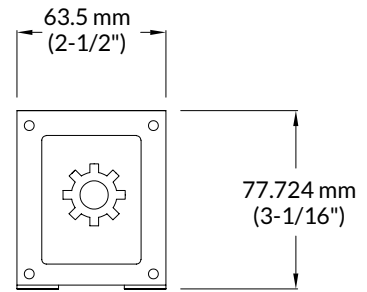
CCT1-100-RMCS-C



Front View

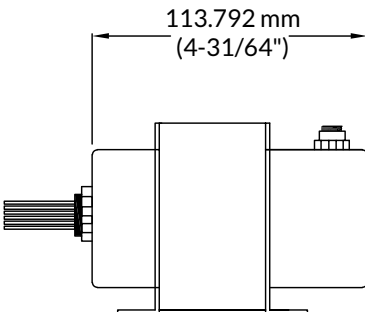


Top View

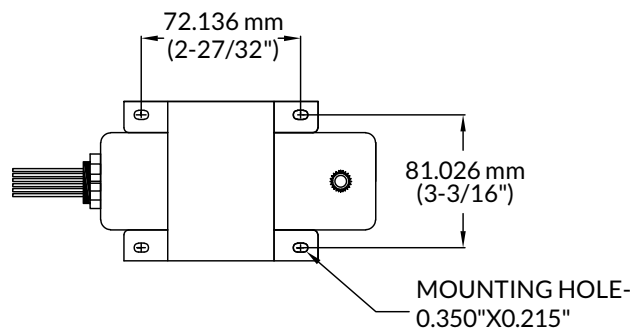


Side View

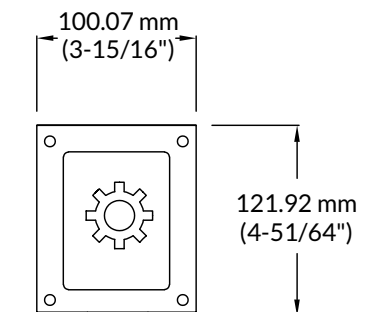
CCT1-150-DSCS-C / CCT1-150-RMCS-C



Front View

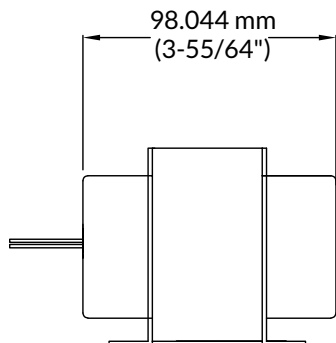


Top View

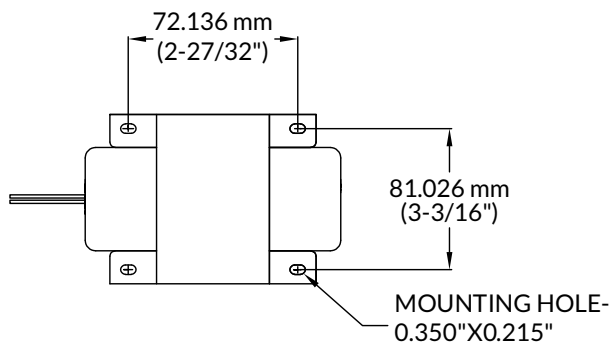


Side View

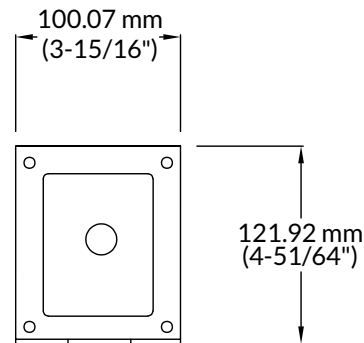
CCT1-150-DSCS-N / CCT1-150-RMCS-N



Front View

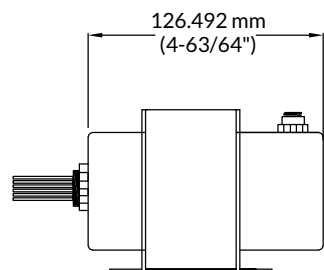


Top View

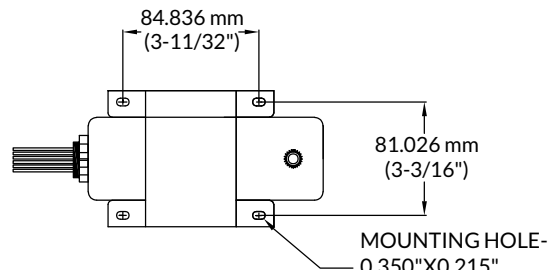


Side View

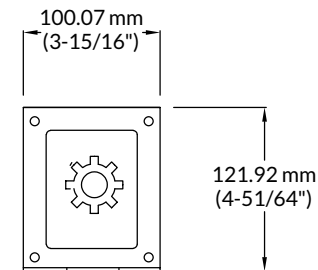
CCT1-240-DSCS-C



Front View

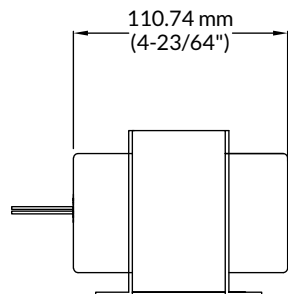


Top View

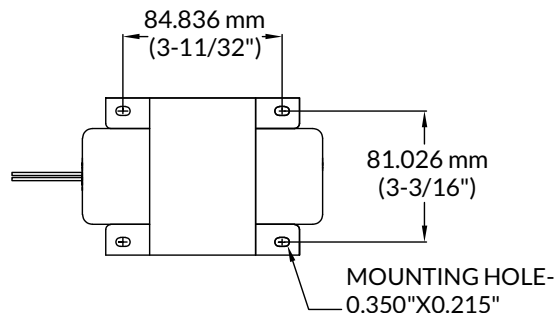


Side View

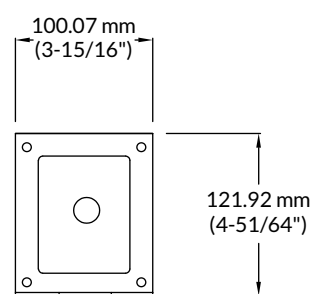
CCT1-240-DSCS-N / CCT1-300-DSCS-N



Front View

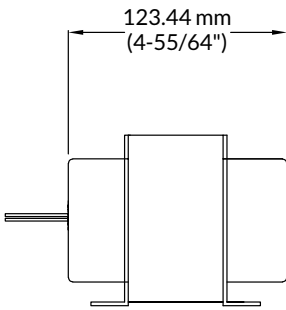


Top View

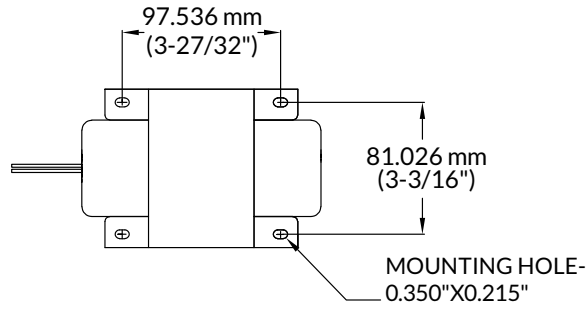


Side View

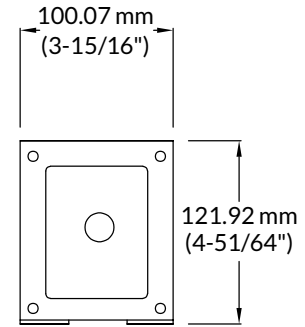
CCT1-240-RMCS-N



Front View

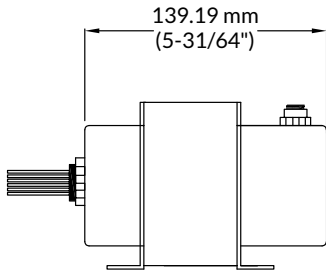


Top View

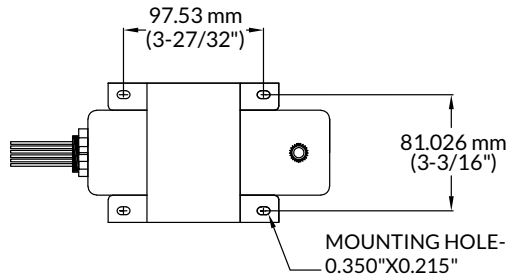


Side View

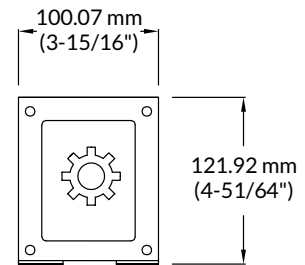
CCT1-240-RMCS-C / CCT1-300-RMCS-C



Front View

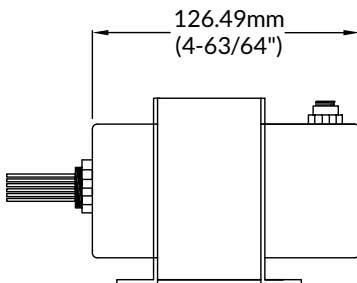


Top View

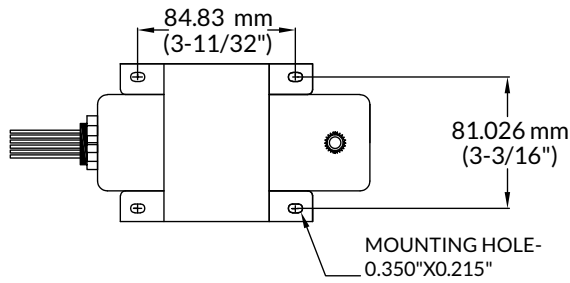


Side View

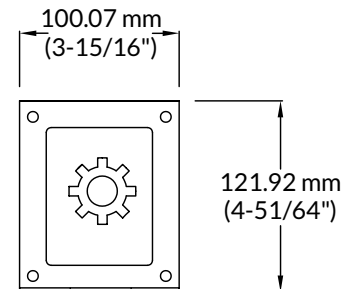
CCT1-300-DSCS-C



Front View

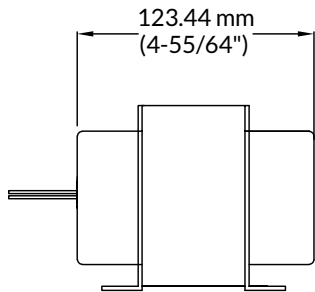


Top View

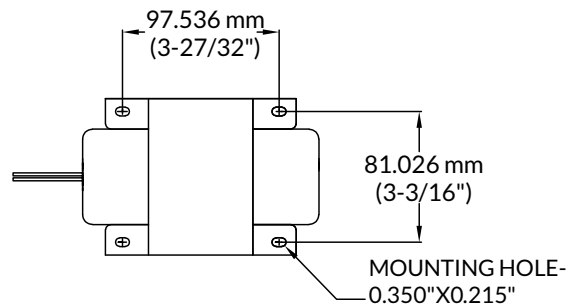


Side View

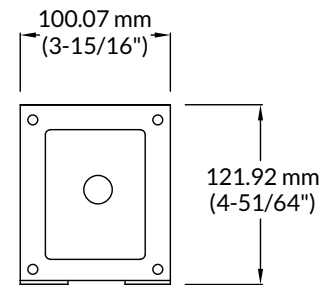
CCT1-300-RMCS-N



Front View



Top View



Side View

**VISIT C3CONTROLS.COM TO
DOWNLOAD CAD DRAWINGS**