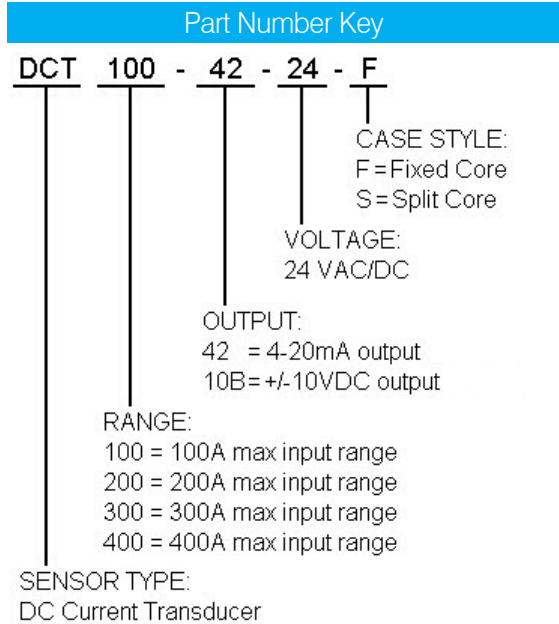


DCT Series Specifications		
Models Available	10B	42
Power Supply	20-45 VDC	20-45 VDC, 22-38 VAC; Units 500A and over 24 VAC/DC - use Class 2 power supply. Power and signal are isolated.
Power Consumption	2VA	
Output Signal	+/-10VDC	4-20 mA sourcing
Output Load	50kΩ minimum	500Ω maximum
Output Limit	11.5 VDC	23mA
Accuracy	Split-core: 2% FS	Fixed-core: 1% FS; Split-core: 2% FS
Response Time	Split-core: 100ms	Fixed-core: 20ms; Units 500A and over 100ms Split-core: 100ms
Repeatability	1.0% FS	1.0% FS
Input Ranges	Fixed 0-100A, 0-200A & 0-300A	Jumper selectable from 0 to 400A; Fixed ranges on units 500A and over
Sensing Aperture	Split-core: 0.85" [21.6 mm] sq.	Fixed-core: 0.75" [19.1 mm] dia.; Units 500A and over 1.77" [45mm] dia. Split-core: 0.85" [21.6 mm] sq.
Isolation Voltage	3kV (monitored line to output)	
Frequency Range	DC	
Case	UL 94V-0 Flammability Rated	
Environmental	Operating Temperature: -4 to 122°F [-20 to 50°C]	
	Relative Humidity: 0-95% RH, non-condensing	
	Pollution Degree 2	
	Altitude to 2000 meters	
Agency Approvals*	UL/cUL (E197592), CE	

Ranges and Maximum Amps		
Type	Maximum Input Amps	
	Continuous	5 Sec
DCT100	200 A	300 A
DCT200	400 A	500 A
DCT300	600 A	700 A
DCT400	800 A	900 A



DCT SERIES INSTALLATION INSTRUCTIONS



Quick Start Guide

1. Run the wire to be monitored through aperture. Ensure current flow matches the direction of the arrows on the sensor.
2. Mount the sensor.
3. Connect power and output wiring.

A. Connect the appropriate power supply.



CAUTION: FOR OUTPUT WIRING, DO NOT CONNECT GROUNDED AC SUPPLY TO OUTPUT NEGATIVE TERMINAL. THIS MAY DAMAGE SENSOR OUTPUT CIRCUIT.

B. Use up to 14 AWG copper wires. Tighten terminals to 5 inch-pounds torque.

C. For current output models, ensure output load is no more than 500Ω.

D. For voltage output models, ensure output load is at least 50KΩ.

4. Select Range

A. For current output models choose correct range by positioning the Range Jumper.



AutomationDirect.com (ADC)
3505 Hutchinson Road, Cumming, GA 30040
Phone: (800) 633-0405 or (770) 889-2858
Fax: (770) 889-7876

Description

DCT Series Transducers combine a Hall Effect sensor and a signal conditioner into a single package. This provides higher accuracy, lower wiring costs, easier installation and saves valuable panel space. DCT Series are available in fixed-core and split-core with 4-20 mA or +/- 10 VDC outputs.

Installation

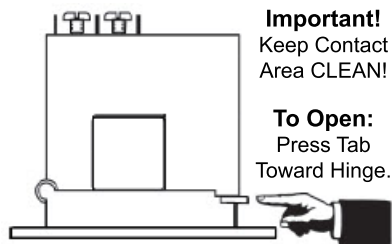
Place wire to be monitored through sensor aperture. Care should be taken to ensure current flow is in accordance with any directional arrows on sensor.

DCT Series transducers work in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. They can be mounted in any position or hung directly on wires with a wire tie. For optimal performance, ensure unit has been energized for a period of 20 minutes prior to sensing operation.

- **4-20 mA:** The current loop is powered by the DT Transducer. Maximum loop impedance is 500 Ω .
- **+/- 10 VDC:** Signal is powered by the DT Transducer. Minimum output load (impedance) is 50 K Ω .
- **Current Direction:** Ensure the direction of monitored current is the same as the direction shown on the sensor. The unit will not operate properly if the current is opposite the direction of the arrow.

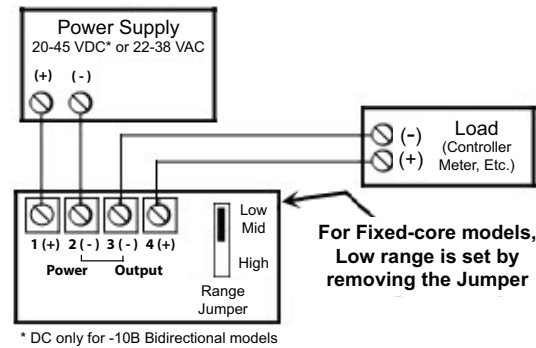
For Split-Core Versions

To open, press the tab in the direction shown. After placing the wire in the opening, press the hinged portion firmly downward until a definite click is heard and the tab pops out fully.



Keep Split-Core Sensors Clean. Silicone grease is applied on the mating surfaces to prevent rust and improve performance. Be careful not to allow grit or dust to accumulate on the grease in the contact area. Operation can be impaired if the mating surfaces do not have good contact. Inspect visually before closing.

Power and Output Wiring



Connection:

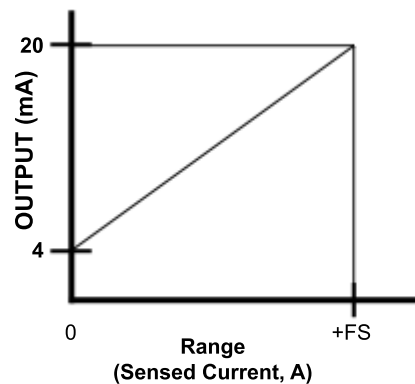
- Terminals 1 and 2: Power supply.
- Terminals 3 and 4: Output control signal.
- Polarity: Ensure proper polarity connection.
- Connection wire capacity: 26 - 14 AWG
- Screw thread: M 3
- Screw torque: 4.4 - 5.3 inch-pounds.

Range Select

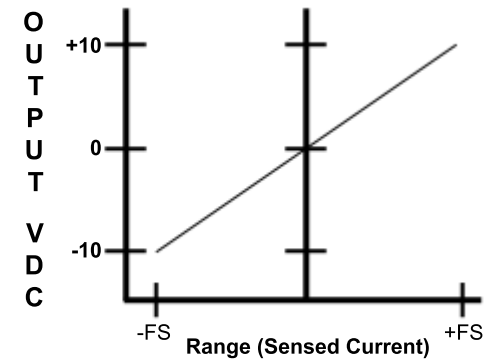
DCT transducers with current output feature field selectable ranges. Ranges are factory calibrated.

1. Determine normal operating amperage of your monitored circuit.
2. Select the range that is equal to or slightly higher than the normal operating amperage.
3. Place the range jumper in the appropriate position.

Output Characteristics



+/-10 VDC Output Bidirectional Input



Troubleshooting

1. Incorrect Output Signal
 - A. The jumper may be set in a range that is too high for current being monitored.
Move jumper to the correct range.
 - B. The jumper may be set in a range that is too low for current being monitored.
Move jumper to the correct range.
 - C. Power supply is inadequate.
Check power supply. Make sure it has sufficient voltage with all loads at maximum. DCT Series draw 2.0VA.
 - D. Current output load too high.
Check output load. Ensure it does not exceed 500 Ω .
 - E. Voltage output load too low.
Check output load. Ensure it is a minimum of 50 K Ω .
2. Sensor has no output
 - A. Polarity is not properly matched.
Check and correct wiring polarity.
 - B. Monitored load is not DC or is not ON.
Check that the monitored load is DC and confirm that it is ON.
 - C. Dirty core contact area (Split-Core models only).
Open the sensor and inspect the contact area. Clean contact area if needed.