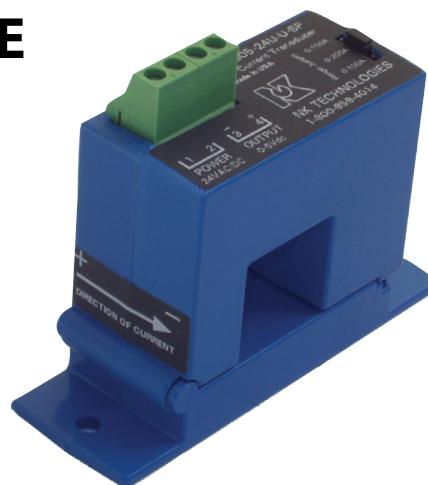


DT SERIES, 4-WIRE SPLIT-CORE

DC Current Transducers

DT Series DC Current Transducers combine a Hall effect sensor and signal conditioner into a single package for use in DC current applications up to 400 A. The DT Series DC Current Transducers unipolar and bipolar models have jumper-selectable current input ranges and industry standard 0–20 mA, 4–20 mA, 0–5 VDC or 0–10 VDC outputs. Bidirectional output models provide a single range. These transducers are available in a split-core case.



DC Current Transducer Applications

Battery Banks

- Monitor load current.
- Monitor charging current.
- Verify operation.

Transportation

- Measure traction power or auxiliary loads.

Welding Processes

- Measure the current used while welding.
- Log processing time and number of operations.

Photovoltaic Panels

- Monitor panel or string current output.
- Monitor combiner box output.

DC Current Transducer Features

Single Range or Three Jumper-selectable Ranges

- Reduces set-up time.
- Reduces inventory.
- Eliminates zero and span pots.

Isolation

- Output is magnetically isolated from the input for safety.
- Eliminates insertion loss (voltage drop).

Internal Power Regulation

- Works well, even with unregulated power.
- Cuts installation cost.

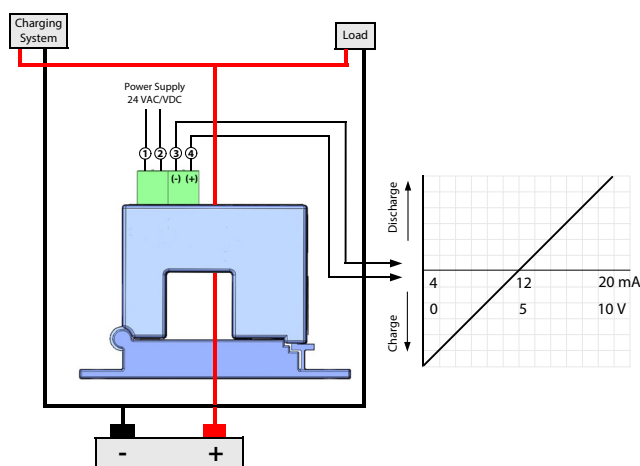
Split-core Design/Built-in Mounting Brackets

- Makes installation a snap.

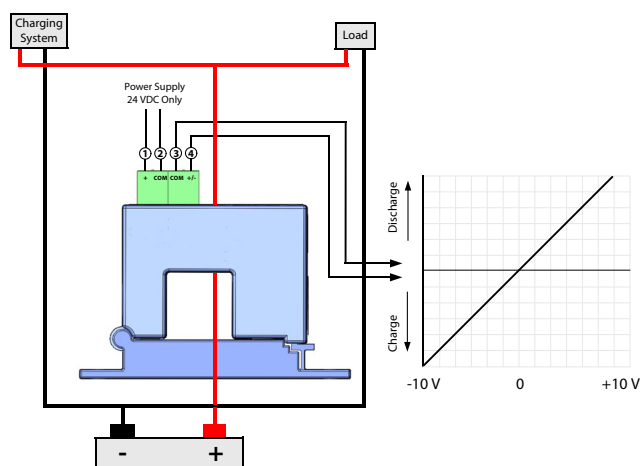
UL/cUL and CE Approved

- Accepted worldwide.

Battery Charging System - Bipolar Output



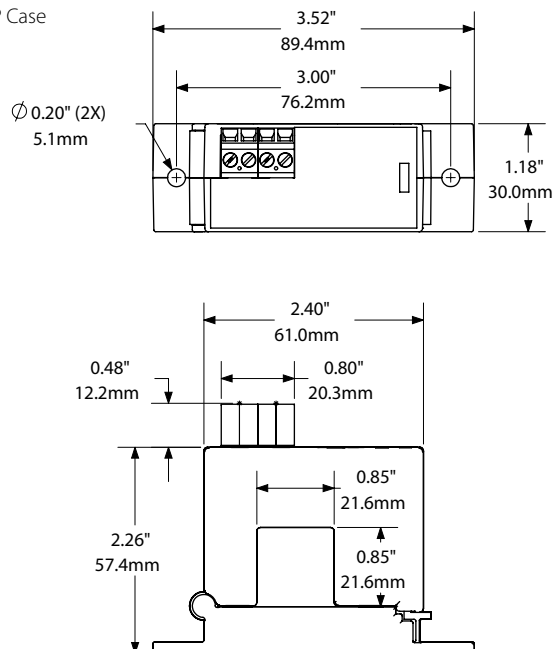
Battery Charging System - Bidirectional Output



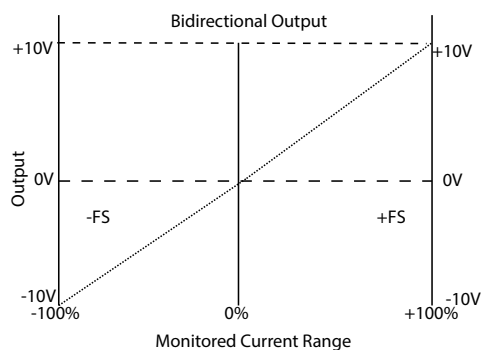
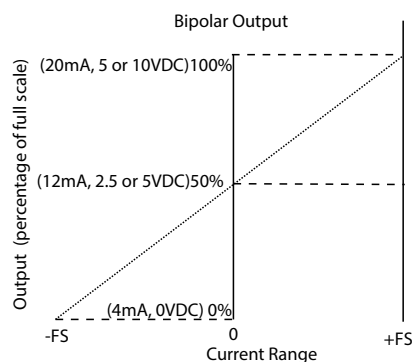
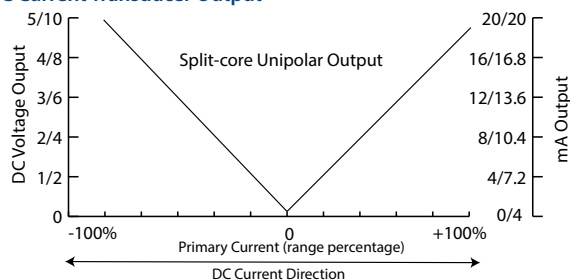
• For additional Application Examples,

DC Current Transducer Dimensions

SP Case



DC Current Transducer Output



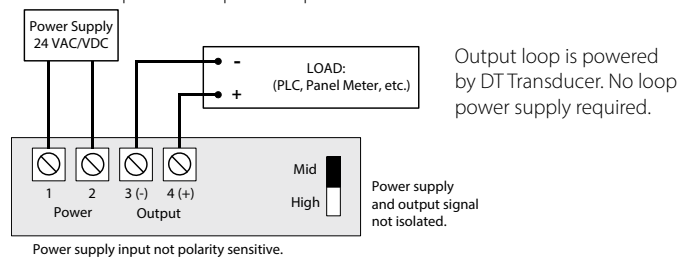
DC Current Transducer Specifications



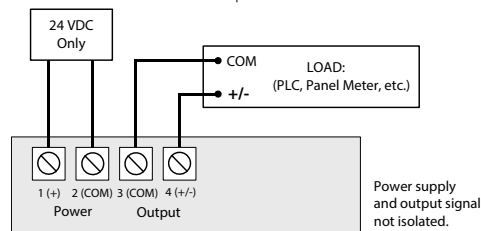
Power Supply	• 24 VAC/VDC (20–45 VDC, 22–38 VAC) • 24 VDC (20–45 VDC Bidirectional models only)	
Power Consumption	0–50, 75, 100 A	
Input Range	Unipolar & Bipolar Full Scale Range	Bidirectional Full Scale Range
	1 50, 75, 100 A	1 100 A
	2 100, 150, 200 A	2 200 A
	3 150, 225, 300 A	3 300 A
	4 200, 300, 400 A	4 400 A
Output Signal	• 0–20 mA, 4–20 mA, 0–5 VDC, 0–10 VDC • ± 10 VDC (Bidirectional models only)	
Output Limit	• 0–20 mA, 4–20 mA: 23 mA • 0–5 VDC: 5.75 VDC • 0–10 VDC: 11.5 VDC	
Output Loading	• 0–20 mA, 4–20 mA: 500 Ω max. • 0–5 VDC: 25 KΩ min. • 0–10 VDC: 50 KΩ min.	
Accuracy	2.0% FS	
Repeatability	1.0% FS	
Response Time	• 60 ms (90% step change) • 100 ms (Bidirectional models only)	
Frequency Range	DC	
Isolation Voltage	Tested to 3 kV	
Case	UL94 V-0 Flammability Rated	
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing	
Listings	UL Listed to UL 508 (NRNTE129625)	

DC Current Transducer Connections

DT Series Unipolar and Bipolar Output Models



DT Series Bidirectional Output Models



Notes:

Deadfront captive screw terminals. 30–12 AWG solid or stranded. Observe polarity.



DC Current Transducer Ordering Information

DT Series Unipolar and Bipolar Output Models

Sample Model Number: DT2-420-24U-U-SP

DC current transducer, 0–100/150/200 A range, 4–20 mA output, 24 VAC/VDC powered, unipolar polarity, split-core case. (DIN rail adapters are included)

DT ⁽¹⁾ - ⁽²⁾ - ⁽³⁾ 2 4 U - ⁽⁴⁾ - ⁽⁵⁾ S P

(1) Full Scale Range - Jumper Selectable

1	0 to 50, 75 or 100 A
2	0 to 100, 150 or 200 A
3	0 to 150, 225 or 300 A
4	0 to 200, 300 or 400 A

(2) Output Signal

020	0–20 mA
420	4–20 mA
005	0–5 VDC
010	0–10 VDC

(3) Power Supply

24U	24 VAC/VDC
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(4) Output Polarity

U	Unipolar (output with current in either direction)
BP	Bipolar

(5) Case Style

SP	Split-core
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DT Series Bidirectional Output Models

Sample Model Number: DT2-010-24D-BD-SP

DC current transducer, 0–200 A range, ±10 VDC output signal, 24 VDC powered, split-core case. (DIN rail adapters are included)

DT ⁽¹⁾ - ⁽²⁾ 0 1 0 - ⁽³⁾ 2 4 D - ⁽⁴⁾ B D - ⁽⁵⁾ S P

(1) Full Scale Range

1	0 to 100 A
2	0 to 200 A
3	0 to 300 A
4	0 to 400 A

(2) Output Signal

010	±10 VDC
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(3) Power Supply

24D	24 VDC
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(4) Output Polarity

BD	Bidirectional
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(5) Case Style

SP	Split-core
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