



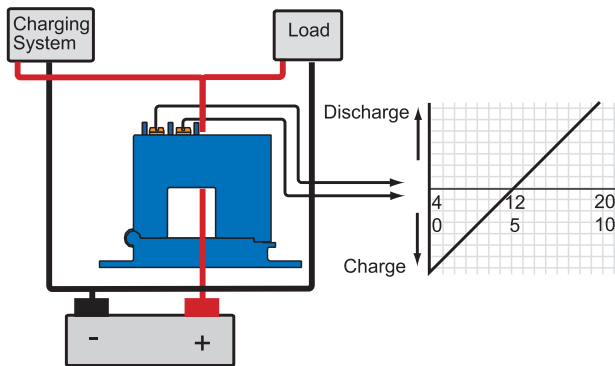
NK Technologies



MADE IN USA

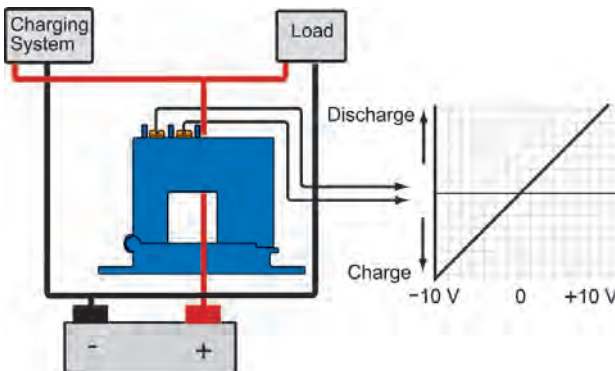
DT SERIES Current Transducers

Battery Charging System - Bipolar Output



NOTE: See page 48 of NK Product Catalog for DT Series bipolar and unipolar output graphs.

Battery Charging System - Bidirectional Output



DT Series Current Transducers combine a Hall effect sensor and signal conditioner into a single package for use in DC current applications up to 400A. The DT unipolar and bipolar models have jumper selectable current input ranges and industry standard 0-20mA, 4-20mA, 0-5VDC or 0-10VDC outputs. Available in split-core or solid-core enclosures.

DT Bidirectional Output models

produce a +10 VDC signal with current through the aperture in one direction, and -10 VDC with current passing in the reverse direction. Split-core enclosures only.

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.

Applications

Battery Banks

- Monitors load current.
- Monitors charging current.
- Verifies operation.

Transportation

- Measures traction power or auxiliary loads.

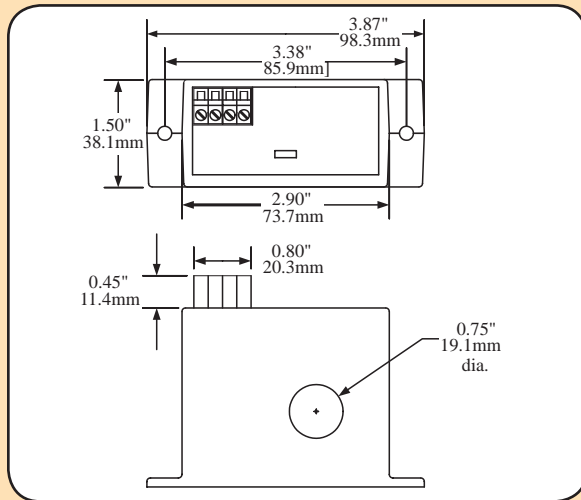
Electric Heating Elements

- Monitors heater loads.
- Faster response than temperature sensors.

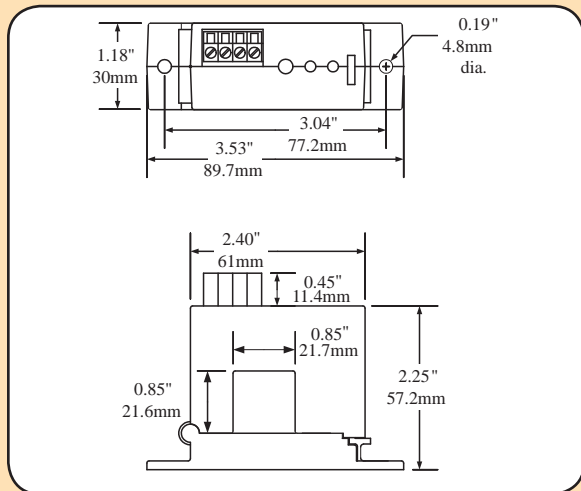


NK Technologies

Dimensions



FL Case



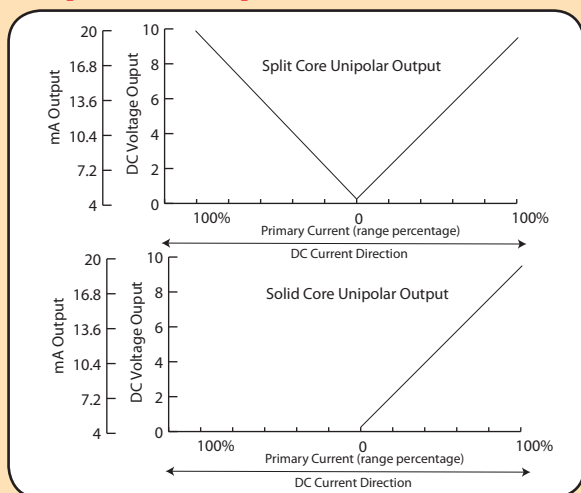
SP Case

Specifications

Output Signal	<ul style="list-style-type: none"> ● 0–20mA, 4–20mA, 0–5VDC, 0–10VDC ● +/-10VDC (Bidirectional models only)
Output Limit	<ul style="list-style-type: none"> ● 0–20mA, 4–20mA: 23mA ● 0–5VDC: 5.75VDC ● 0–10VDC: 11.5VDC
Accuracy	<ul style="list-style-type: none"> ● Solid-core: 1% FS ● Split-core: 2% FS
Repeatability	1.0% FS
Response Time	<ul style="list-style-type: none"> ● Solid-core: 20ms (to 90% of step change) ● Split-core: 100ms (to 90% of step change)
Frequency Range	DC
Power Supply	<ul style="list-style-type: none"> ● 120VAC ● 24VAC/DC, 2VA max.
Power Consumption	2VA
Loading	<ul style="list-style-type: none"> ● 0-20mA, 4-20mA: 500 max ● 0–5VDC: 25k min. ● 0–10VDC: 50k min.
Isolation Voltage	3KV (monitored line to output)
Linearity	0.75% FS
Current Ranges	<ul style="list-style-type: none"> ● Field Selectable Ranges from 0–400A ● Factory Set Ranges from 0-400A (Bidirectional Models only)
Sensing Aperture	<ul style="list-style-type: none"> ● FL Case: 0.75" (19.1mm) dia. ● SP Case: 0.85" (21.6mm) sq.
Case	UL94 V0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C), 0–95% RH, non-condensing
Listings	UL 508 Industrial Control Equipment (USA & Canada), CE



Unipolar Output

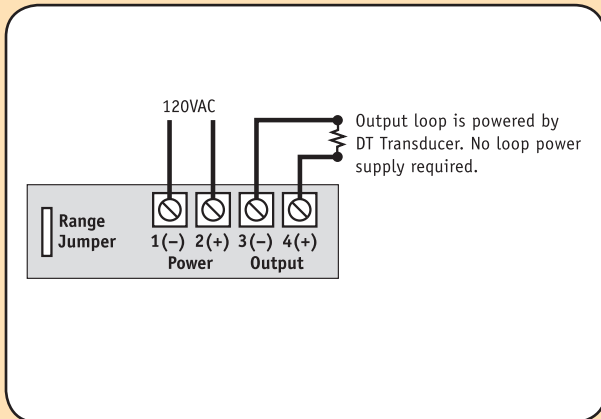




NK Technologies

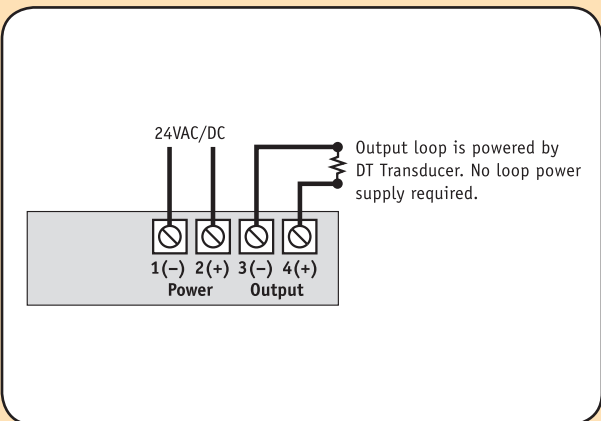
Connections

DT Series Unipolar and Bipolar Output Models



Notes: Deadfront captive screw terminals.
12-22 AWG solid or stranded.
Observe polarity.

DT Series Bidirectional Output Models



Notes: Deadfront captive screw terminals.
12-22 AWG solid or stranded.
Observe polarity.

Ordering Information

DT Series Unipolar and Bipolar Output Models

Sample Model Number: DT2-420-24U-U-SP
Split-core DC current transducer, 0-100/150/200A range, 24VAC/DC powered, 4-20mA unipolar output.



(1) Full Scale Range

0	5, 10, 20A*
1	50, 75, 100A
2	100, 150, 200A
3	150, 225, 300A
4	200, 300, 400A
C	Custom Range

(2) Output Signal

020	0-20mA
420	4-20mA
003	0-3VDC
005	0-5VDC
010	10VDC

(4) Output Polarity

U	Unipolar
BP	Bipolar

(5) Case Style

FL	Solid-core
SP	Split-core

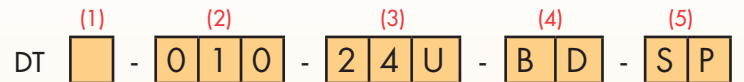
(3) Power Supply

24U	+24VAC/DC
120	120VAC**

*DT0 Models FL case only.
**120VAC power supply FL case only.

DT Series Bidirectional Output Models

Sample Model Number: DT2-010-24U-BD-SP
Split-core DC current transducer, 0-100/150/200A range, 24VAC/DC powered, +/-10 VDC bidirectional output.



(1) Full Scale Range

1	100A
2	200A
3	300A*
4	400A*
C	Custom Range

(2) Output Signal

010	10VDC
-----	-------

(3) Power Supply

24U	+24VAC/DC
-----	-----------

(4) Output Polarity

BD	Bidirectional
----	---------------

(5) Case Style

SP	Split-core
----	------------