



NK Technologies

NK Technologies • 500 Division Street • Campbell, CA 95008-6906
800.959.4014 • www.nktechnologies.com • sales@nktechnologies.com



MADE IN
USA

DT SERIES Current Transducers

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.

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 Series has jumper selectable current input ranges and industry standard 0-20mA, 4-20mA, 0-5VDC or 0-10VDC outputs. Available in solid- or split-core enclosures.

Features

Three Jumper Selectable Ranges

- Reduces inventory.
- Eliminates zero and span pots.

Isolation

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

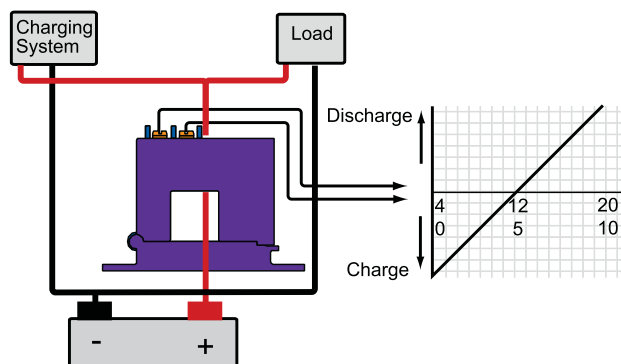
Internal Power Regulation

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

Split-core Design/Built-in Mounting Brackets

- Makes installation a snap.

Battery Charging System

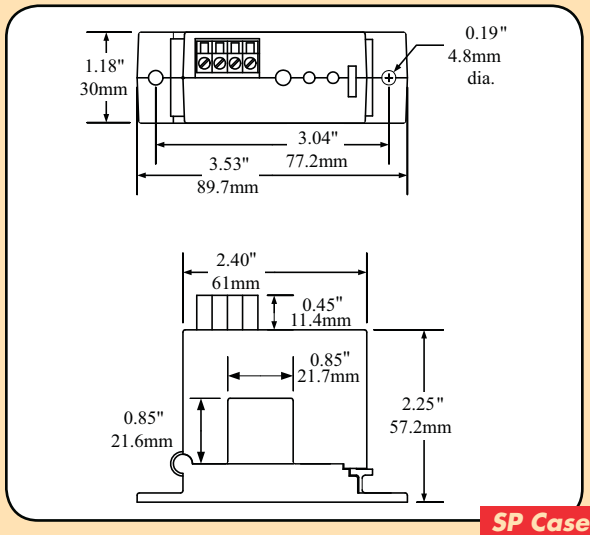
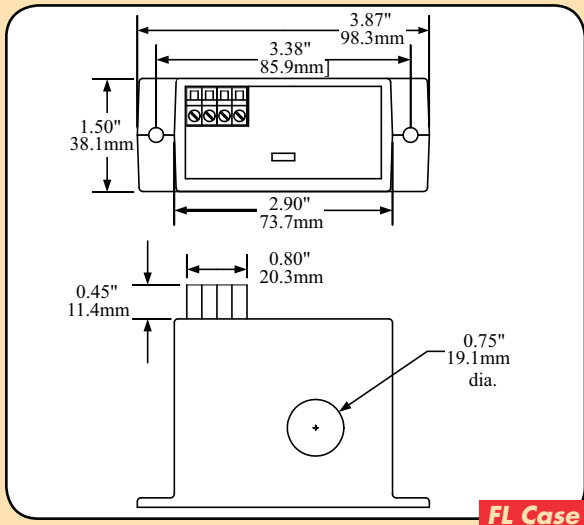




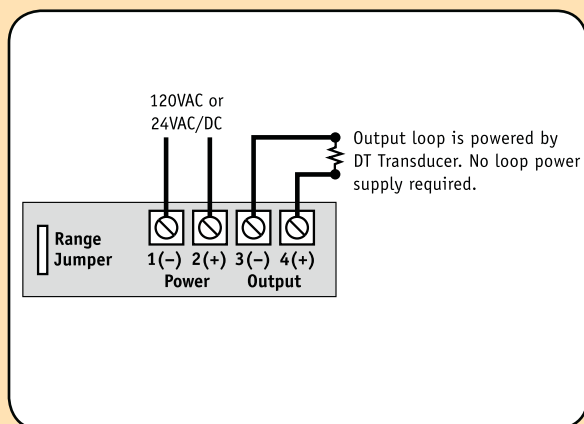
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Dimensions



Connections



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

Specifications

Output Signal	0–20mA, 4–20mA, 0–5VDC, 0–10VDC
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 DT3: 1.5%, DT4: 2%
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	24VAC/DC, 2VA max. or 120VAC (-FL only)
Power Consumption	2VA
Loading	<ul style="list-style-type: none"> 0–20mA, 4–20mA: 650Ω max 0–5VDC: 25kΩ min. 0–10VDC: 50kΩ min.
Isolation Voltage	3KV (monitored line to output)
Linearity	0.75% FS
Current Ranges	Field Selectable Ranges from 0–400A
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	CE, UL 508 Industrial Control Equipment (Pending, USA & Canada),



Ordering Information

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.

DT (1) (2) (3) (4) (5)

(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

*DT0 Models in FL case only

(2) Output Signal

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

(3) Power Supply

24U	+24VAC/DC
120	120VAC

(4) Output Polarity

U	Unipolar
BP	Bipolar (Solid-core models ONLY)

(5) Case Style

FL	Solid-core
SP	Split-core

DT Series