



DT Series

'DT' Current Transducers from NK Technologies 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, 0–3VDC, 0–5VDC or 0–10VDC outputs. Available in solid or split-core packages.

DC Current Transducers
0–3/5/10VDC or 4–20mA Output



Applications

Battery Banks

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

Transportation

Measures traction power or auxiliary loads.

Electric Heating Elements

Faster response than temperature sensors.

Features

Three Jumper Selectable Ranges

- Reduces inventory.
- Eliminates zero and span pots.

Isolation

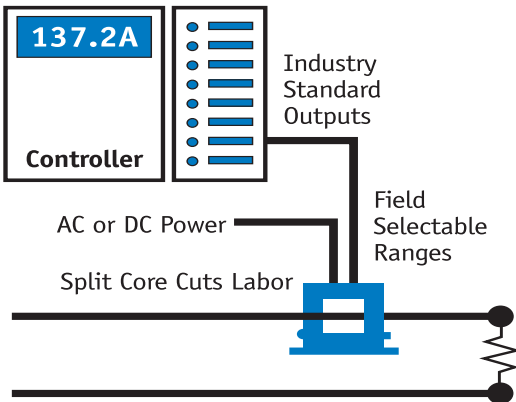
- Output is magnetically isolated from the input for safety.
- Eliminates insertion loss (voltage drop).

Internal Power Regulation

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

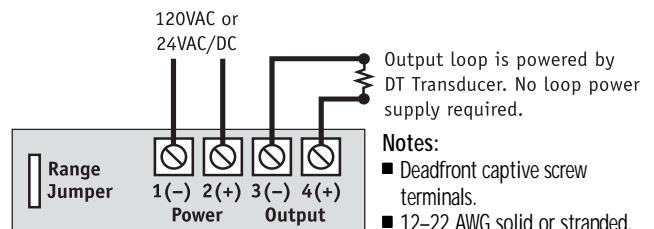
Easy Installation

Split-core design with built-in mounting brackets makes installation a snap.



DC Current Transducers
0–3/5/10VDC and 4–20mA Output

Connections



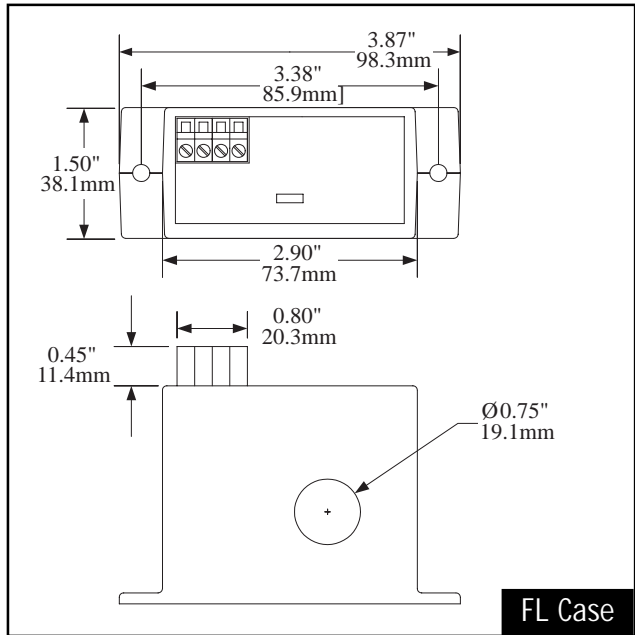
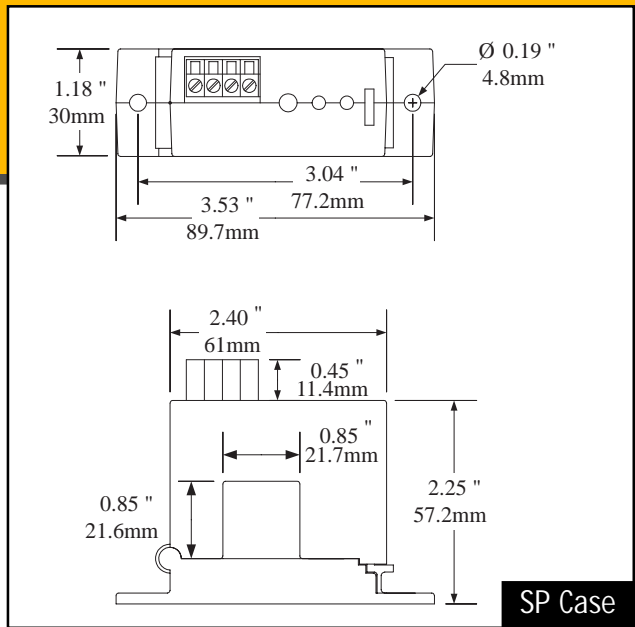
Notes:

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

Know your power...
because with knowledge comes control.

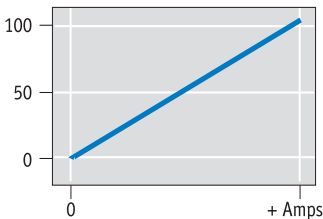
Specifications

Output Signal	0-20mA, 4-20mA, 0-3VDC, 0-5VDC or 0-10VDC
Output Limit	<ul style="list-style-type: none"> ■ 0-20mA, 4-20mA: 23mA ■ 0-3VDC: 3.45VDC ■ 0-5VDC: 5.75VDC ■ 0-10VDC: 11.5VDC
Accuracy	<ul style="list-style-type: none"> ■ Fixed Core: 2% FS ■ Split-core: 1% FS
Repeatability	1.0% FS
Response Time	<ul style="list-style-type: none"> ■ Fixed Core: 200 ms (to 90% of step change) ■ Split-core: 100 ms (to 90% of step change)
Frequency Range	DC
Power Supply	120VAC or 24VAC/DC, 2VA max
Power Consumption	2VA
Loading	<ul style="list-style-type: none"> ■ 0-20mA, 4-20mA: 650Ω max. ■ 0-3/5/10VDC: 250kΩ for rated accuracy; 25kΩ, add 1% error.
Isolation Voltage	3kV (monitored line to output)
Linearity	0.75% FS
Current Ranges	Field Selectable Ranges from 0-400A (see Ordering Information)
Sensing Aperture	<ul style="list-style-type: none"> ■ -FL Case: 0.75" (19.1mm) dia. ■ -SP Case: 0.85" (21.6mm) sq.
Case	UL 94V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C), 0-95% RH, non-condensing

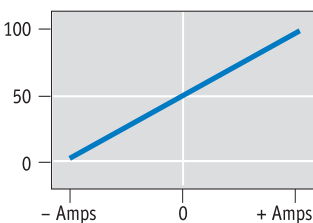


Output Polarity

Output (%) *Unipolar (Magnitude Only)*



Output (%) *Bipolar (Magnitude Only)*



Ordering Information

Example: DT2-420-24U-U-SP

Split-core DC current transducer, 0-100/150/200A range, 24VAC/DC powered, 4-20mA unipolar output.

DT	□	-	□□□	-	□□□	-	□	-	□□
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								
Output Signal	020 0-20mA		420 4-20mA		003 0-3VDC		005 0-5VDC		010 0-10VDC
Power Supply	24U +24VAC/DC		120 120VAC						
Output Polarity	U Unipolar		BP Bipolar (Solid-core models ONLY)						
Case	FL Fixed Core		SP Split-core						

DC Current Transducers
0-3/5/10VDC and 4-20mA Output