



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

MADE IN
USA

Applications

Battery Banks

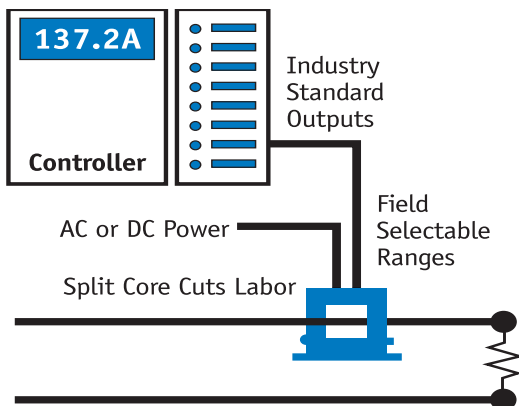
- Monitors load current.
- Monitors charging current.
- Verifies operation.

Transportation

Measures traction power or auxiliary loads.

Electric Heating Elements

Faster response than temperature sensors.



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

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).

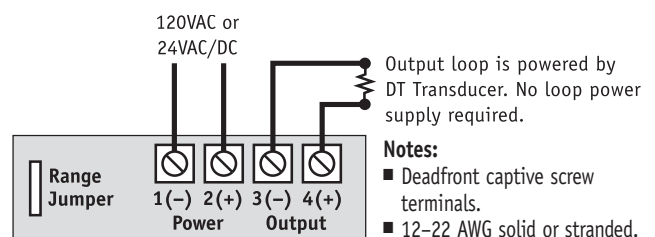
■ Internal Power Regulation

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

■ Easy Installation

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

Connections



Notes:

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

Specifications

Output Signal 0-20mA, 4-20mA, 0-3VDC, 0-5VDC or 0-10VDC

Output Limit

- 0-20mA, 4-20mA: 23mA
- 0-3VDC: 3.45VDC
- 0-5VDC: 5.75VDC
- 0-10VDC: 11.5VDC

Accuracy

- Fixed Core: 2% FS
- Split-core: 1% FS
- DT3:1.5%, DT4:2%

Repeatability 1.0% FS

Response Time

- 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

- 0-20mA, 4-20mA: 650Ω max.
- 0-3VDC: 15kΩ min.
- 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 (see Ordering Information)

Sensing Aperture

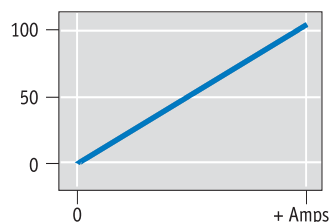
- FL Case: 0.75" (19.1mm) dia.
- SP Case: 0.85" (21.6mm) sq.

Case UL 94V-0 Flammability Rated

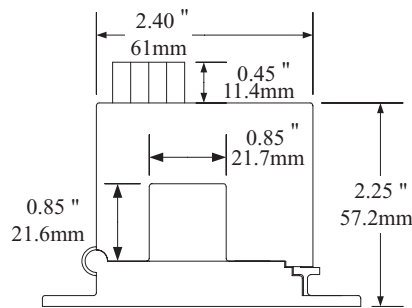
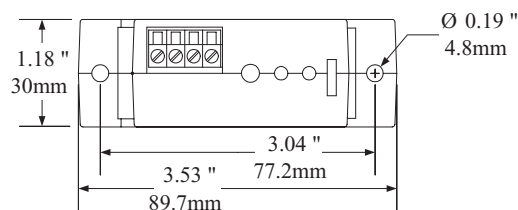
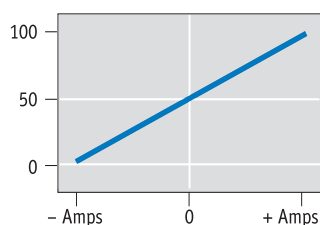
Environmental -4 to 122°F (-20 to 50°C), 0-95% RH, non-condensing

Output Polarity

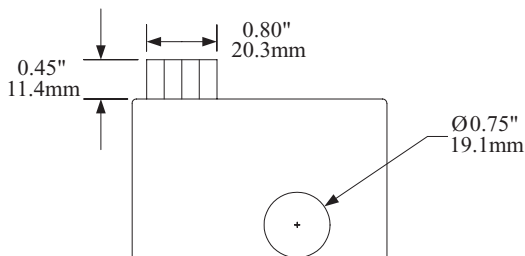
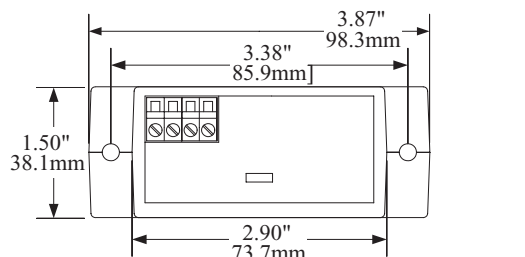
Output (%) *Unipolar (Magnitude Only)*



Output (%) *Bipolar (Magnitude Only)*



SP Case



FL Case

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

*0,1 Models FL case only

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

Case

FL Fixed Core
SP Split-core

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