



NK Technologies

NK Technologies • 3511 Charter Park Drive • San Jose, CA 95136
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MADE IN
USA

DT SERIES, Large Aperture Current Transducers

Applications

Battery Banks

- Monitor load and charging currents.
- Verify operation.

Transportation

- Measure traction power or auxiliary loads.

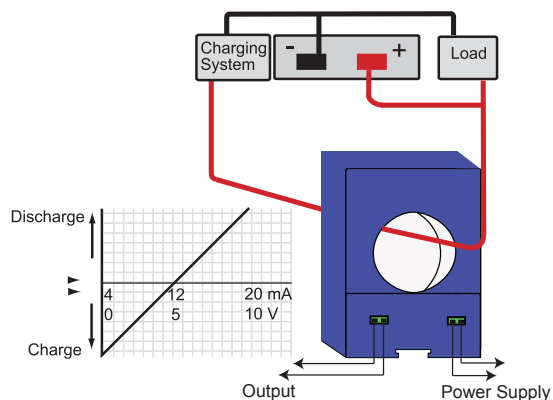
Wind and Solar Generated Power

- Measure the current produced or consumed.
- Detect mechanical problems before failure occurs.

Monitor DC Powered Motors

- Monitor current of cranes, saws, sorters and positioning equipment.

Battery Charging System



DT Series, Large Aperture Current Transducers combine a Hall effect sensor and signal conditioner into a single package for use in DC current applications up to 1200A. The DT Series has factory set and calibrated ranges and industry standard 4–20mA, 0–5VDC or 0–10VDC outputs. Available in solid-core DIN rail mounted enclosure.

Features

Factory Set and Calibrated Ranges

- No need for field calibration.
- Eliminates zero and span pots.

Isolation

- Output is magnetically isolated from the input for safety.
- Eliminates insertion losses, no added burden.

Internal Power Regulation

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

DIN Rail Mounted Enclosure

- Makes installation a snap.
- No drilling or screws to lose.
- Optional DIN Rail kit available for chassis mounting.*

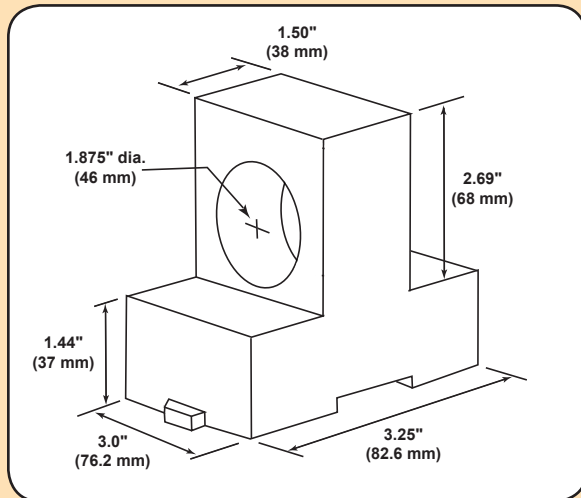
*See DIN Rail accessories data sheet for information on the kit.



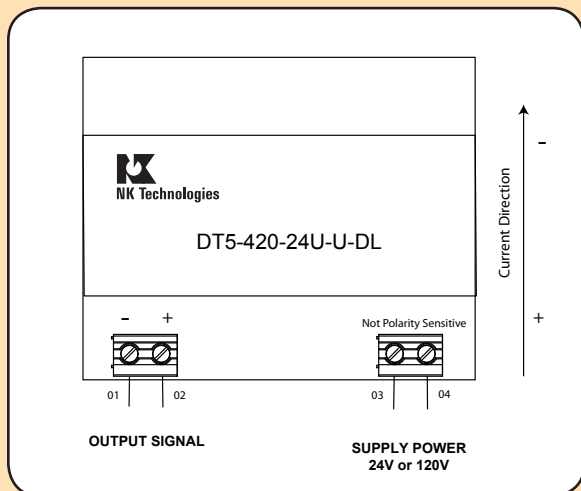
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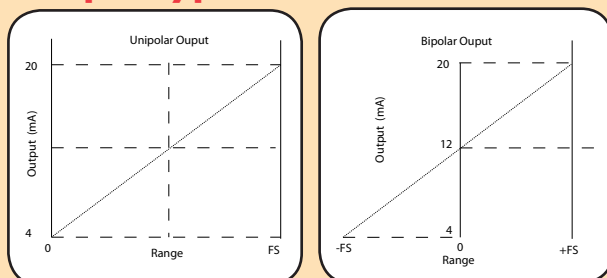
Dimensions



Connections



Output Type



Notes: Deadfront captive screw terminals.
12-22 AWG solid or stranded.
Observe polarity.
Unipolar Output: Signal With Current flowing
in one direction Only

Specifications

Output Signal	4–20mA, 0–5VDC, 0–10VDC
Output Limit	<ul style="list-style-type: none"> 4–20mA: 23mA 0–5VDC: 5.75VDC 0–10VDC: 11.5VDC
Accuracy	1% FS
Repeatability	1.0% FS
Response Time	100ms (to 90% of step change)
Frequency Range	DC
Power Supply	24VAC/DC, isolated from output
Power Consumption	2VA
Loading	<ul style="list-style-type: none"> 4–20mA: 650 Ω maximum 0–5VDC: 25k Ω minimum 0–10VDC: 50k Ω minimum
Isolation Voltage	3KV (monitored line to output)
Linearity	0.75% FS
Current Ranges	Ranges from 0–1200A DC
Sensing Aperture	1.875" (46 mm) dia.
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 (pending), CE (pending)

Ordering Information

Sample Model Number: DT6-420-24U-U-DL
Solid-core DC current transducer, 0–500A range, 24VAC/DC powered,
4–20mA, unipolar output.

(1)	(2)	(3)	(4)	(5)	
DT	-	24U	-	DL	
<div><div>(1) Full Scale Range</div><div>(2) Output Signal</div><div>(4) Output Polarity</div></div>					
5	300A	420	4–20mA	U	Unipolar
6	500A	005	0–5VDC	BD	Bidirectional
7	750A	010	0–10VDC		
<div><div>(3) Power Supply</div><div>(5) Case Style</div></div>					
8	1000A	24U	+24VAC/DC	DL	Solid-core, DIN mount
9	1200A				