DT SERIES, 3–WIRE
DC Current Transducers



DT Series DC Current Transducers provide a low cost way of measuring DC current in a small and easy-to-install case. The series is stable at a wide range of temperatures. The single range design and the use of a common for the power supply and output signal provide a price competitive option in an international market. Similar in concept to the DLT current output sensors, this design produces a choice of 0–5 or 0–10 VDC to interface with controllers or data acquisition systems lacking the current signal capacity.

DC Current Transducer Applications

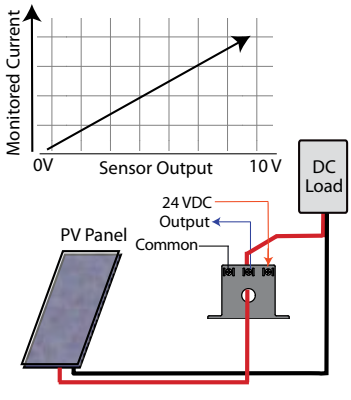
Photovoltaic Panel Monitoring
- Accurate and reliable indication of how much power is produced by a single panel or a string of panels.

Hoists
- Detect overloads and jams.
- Detect undercurrent conditions from coupling slip or breakage.

DC Motor Protection
- Detect imminent bearing failures.

Wind Driven Generators
- Measure and monitor power production from alternative sources.

Monitoring a Photovoltaic Panel Power Output



For additional Application Examples, go to www.nktechnologies.com/applications

DC Current Transducer Features

Industry Standard Outputs
- 0–5 or 0–10 VDC proportional to the DC current.
- Compatible with most automation systems.

24 VDC Powered
- Power supply and output share common.

No Span or Zero Adjustments Needed
- Reduces field calibration errors.
- Factory calibrated without potentiometers.

Solid-core Case
- Compact size requiring very little panel space.

Built-in Mounting Feet
- Simple, two-screw panel mounting or attach with DIN rail brackets (included).*

Designed for UL/cUL and CE Approval
- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 140.

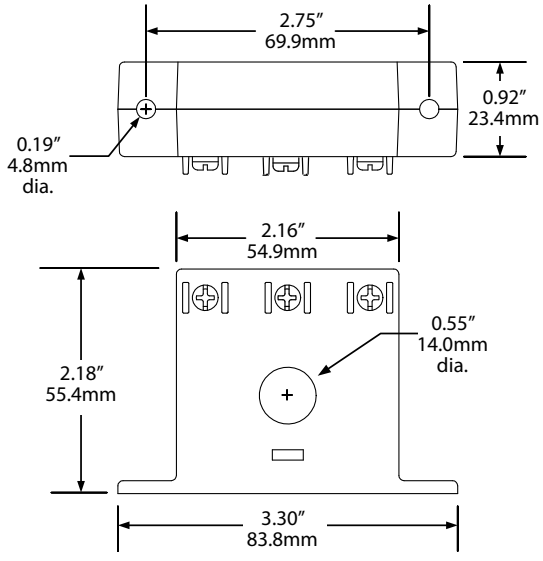
OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

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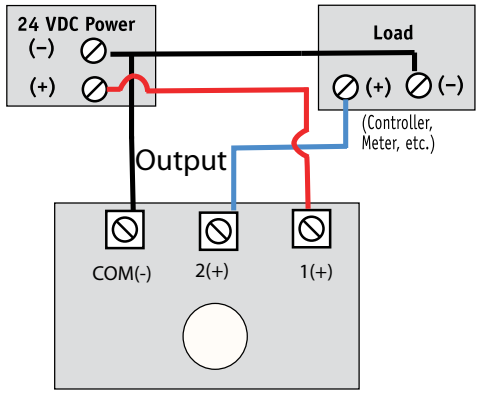
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DC Current Transducer Dimensions

FF Case



DC Current Transducer Connections



DC Current Transducer Specifications

Power Supply	24 VDC (19–30 V)
Power Consumption	<2 VA
Output Signal	0–5 or 0–10 VDC
Output Impedence	10 KΩ min.
Response Time	500 ms
Range	• 0–50 A • 0–100 A
Frequency Range	DC
Isolation Voltage	UL listed to 1270 VAC, tested to 5 KV
Case	UL94 V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	Designed for UL/cUL and CE approval

DC Current Transducer Ordering Information

Sample Model Number: DTB-010-24D-U-FF

DC current transducer, 0–50 A, 0–10 VDC output, 24 VDC powered, unipolar, solid-core case. (DIN rail adapters are included)

(1)	(2)		(3)			(4)	(5)	
DT		–			–	2 4 D	– U	– F F

(1) Range

B	0–50 ADC
C	0–100 ADC

(2) Output Type

005	0–5 VDC
010	0–10 VDC

(3) Power Supply

24D	24 VDC

(4) Output Design

U	Unipolar (output with current in one direction)

(5) Case Style

FF	Solid-core, front terminals

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