DT-FD SERIES, HIGH VOLTAGE

DC Current Transducers

DT-FD series DC Current Transducers provide a large sensing window and the ability to monitor circuits with voltages up to 1500 VDC. The sensor can be mounted on a DIN rail or be attached to a back panel with screws. Easily accessible power supply and output-signal; finger-safe terminals are located on the top of the sensor to allow for a clean and trouble-free installation. The one-piece design combines the current sensing elements and the signal conditioning to provide an output compatible with most control systems, increasing the safety and accuracy of the installation.



DC Current Transducer Applications

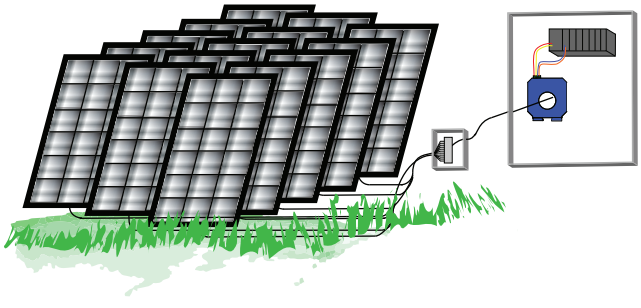
Monitor Large Solar Panel Installations

- Large utility connected photovoltaic generation systems will often produce DC power at higher voltages as the wire can be smaller for the same amount of power produced.

Monitor DC Motors

- Traction and drilling equipment use higher voltage DC motors to produce high torque output at low speeds.

Solar Array Application



Commercial and industrial ground mounted solar arrays are connected in series to combiner boxes, developing higher voltage and lower current to deliver the same power as with a lower voltage system.

DC Current Transducer Features

Industry Standard Analog Output

- Interfaces with PLCs, panel meters and data acquisition systems quickly, with simple programming by the installer.
- Compatible with most automation and control systems.

Externally Powered

- 24 VAC or VDC (output not isolated from the power supply).

No Need For Span or Range Adjustment

- Factory set calibration reduces setup time.
- Warranted to produce accurate signals for five years. (Our decades of experience designing and producing DC current transducers shows that the calibration stays accurate for many years beyond the warranty period).

Large Solid-core Case

- Sensing window provides ample space for single or multiple conductors.

DIN Rail or Panel Mount

- Simply snap onto DIN rail or attach with screws to a panel.*

UL/cUL and CE Approved

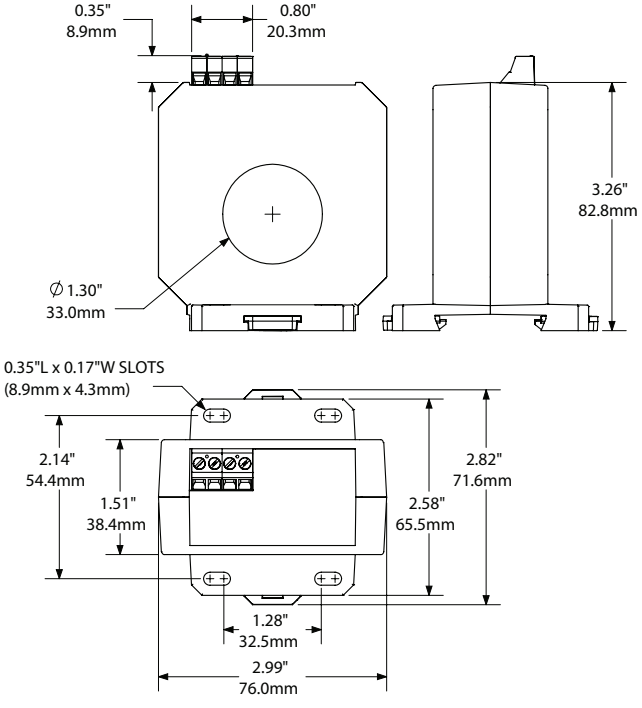
- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 147.

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

NK Technologies

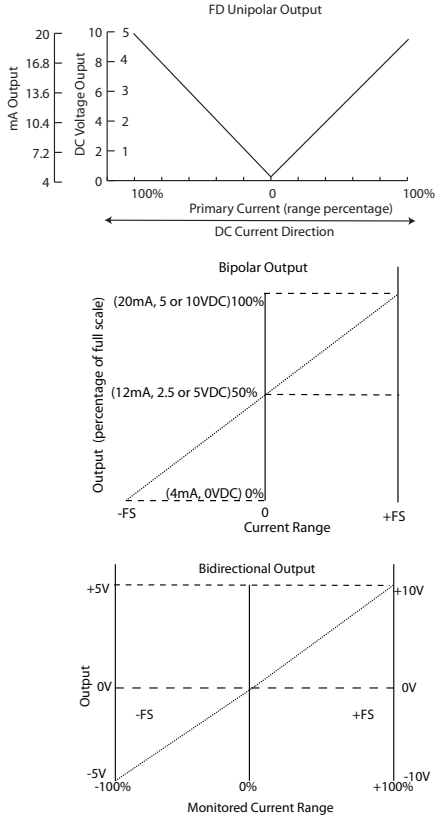
DC Current Transducer Dimensions



DC Current Transducer Specifications

Power Supply		24VAC/VDC (22–26 V) (Not isolated from output signal.)
Power Consumption		<3 VA
Output Signal		• Unipolar (output with DC current in both directions) • Bipolar (output 4–12–20 mA, 0–2.5–5 V or 0–5–10 V) • Bidirectional (output +/-5 or +/-10 VDC)
Ouput Limits		20.8 mA, 5.25 or 10.5 VDC (model dependant)
Accuracy		1.0% FS
Response Time		150 ms maximum
Input Range	2	0–200 ADC
	3	0–300 ADC
	4	0–400 ADC
Working Voltage		1500 VDC
Isolation Voltage		Tested to 5375 VAC
Frequency Range		DC
Environmental		-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings		UL/cUL, CE

DC Current Transducer Output



DC Current Transducer Ordering Information

Sample Model Number: DT2-420-24U-BP-FD

DC Current transducer, 0–200 A range, 4–20 mA output, 24 VAC/VDC powered, bipolar, large solid-core, DIN rail or panel mount case.

(1)	(2)	(3)	(4)	(5)
DT -	[ ]	[ ][ ][ ] -	2 4 U -	[ ][ ] - F D

(1) Range

2	0–200 ADC
3	0–300 ADC
4	0–400 ADC

(2) Output Signal

420	4–20 mA (U and BP only) (500 Ω load maximum)
005	0–5 VDC (U/BP=2 KΩ, BD=3 KΩ load minimum)
010	0–10 VDC (U/BP=2 KΩ, BD=3 KΩ load minimum)

(3) Power Supply

24U	24 VAC/VDC

(4) Ouput Type

U	Unipolar (output with current flowing in both directions)
BP	Bipolar (output indicates current flow direction)
BD	Bidirectional (output is positive with current in one direction, negative with current in the opposite direction)

(5) Case

FD	Large, solid-core, DIN rail or panel mount