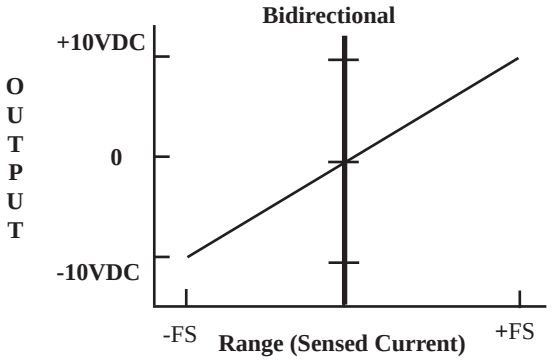
Specifications

Current Ranges	Field Selectable Ranges (See Model Number Key)
Custom Ranges	Available; consult factory.
Output Signal	-10 to +10VDC
Accuracy	1% FS
Output Polarity	Bidirectional: Full scale output in two current direction
	Frequency Range DC
Isolation Voltage	3kV (Monitored line to output)
Linearity	0.75%
Response Time	100 mS (to 90% of step change)
Repeatability	1% FS
Power Supply	20-45VDC Power and output signal are not isolated.
Power Consumption	2 VA
Case	UL 94V-0 Flammability rated thermoplastic
Environmental	-20 to 50 Deg. C, 0-95% RH, non-condensing
Temperature Drift	0.01% / Deg C

Output Polarity



Model Number Key

DT 1 - 010 - 24D - BD - SP

CASE STYLE
SP- Split Core

OUTPUT POLARITY
BD- Bidirectional

POWER SUPPLY:
24D- 24 VDC

OUTPUT:
010 0-10 VDC

RANGE
1 100 A
2 200 A
3 300 A
4 400 A

SENSOR TYPE:
DT - DC current sensor with analog output

Know Your Power

Other NK Technologies Products Include:
DC Current Switches, Ground Fault Sensors
AC & DC Current Switches
Power Transducers
Current & Potential Transformers (CTs&PTs)

NK Technologies
3511 Charter Park Drive, San Jose, CA 95136
800-959-4014 or +1-408-871-7510 Phone
+1-408-871-7515 FAX
sales@nktechnologies.com, www.nktechnologies.com

NK Technologies

INSTRUCTIONS

DT SERIES
Bidirectional
-10 to +10VDC Output

Quick "How To" Guide

1. Route wire to be monitored through aperture. Ensure current flow matches any arrow on sensor.
2. Mount the sensor to a surface if needed.
3. Connect output wiring.
   A. Use up to 14 AWG copper wires. Tighten terminals to 4 inch-pounds torque.
   B. Be sure output load is at least 50KΩ.
4. Connect Power
   A. Connect to DC power supply.

DT-BD Inst. Rev 2 03/16 P/N 291084306

Description

DT Series transducers combine a Hall Effect sensor and a signal conditioner into a single package. This provides higher accuracy, lower wiring costs, easier installation and saves valuable panel space. DT Bidirectional Series are available in split core with -10/+10 VDC output only.

Installation

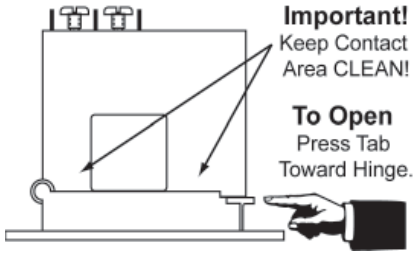
For All Versions

Run wire to be monitored through opening in the sensor. Bidirectional models accept current flow in both directions, with full output of +10 VDC in the primary direction, and -10VDC in the reverse direction.

DT Series transducers work in the same environment as motors, contactors, heaters, pull-boxes, and other electrical enclosures. They can be mounted in any position or hung directly on wires with a wire tie. Just leave at least one inch distance between sensor and other magnetic devices.

Split-Core

Press the tab in the direction as shown to open the sensor. After placing the wire in the opening, press the hinged portion firmly downward until a definite click is heard and the tab pops out fully.



KEEP SPLIT-CORE SENSORS CLEAN.

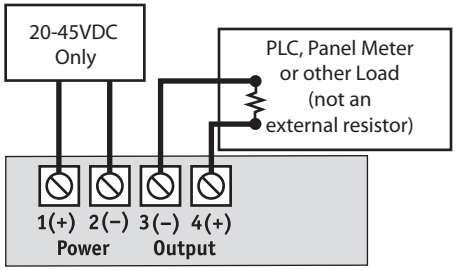
Silicone grease is factory applied on the mating surfaces to prevent rust and improve performance. Be careful not to allow grit or dirt onto the grease in the contact area. Operation can be impaired if the mating surfaces do not have good contact. Check visually before closing.

Output Wiring

Connect control or monitoring wires to the sensor. Use up to 14 AWG copper wire and tighten terminals to 4 inch-pounds torque.

-10 to +10 VDC:

Signal is powered by the DT Transducer. Minimum output load (impedance) is 50K Ω for the stated accuracy.



Single Range

DT Bidirectional Series transducers feature single ranges. The range is factory calibrated, eliminating time consuming and inaccurate field setting of zero or span.

1. Determine the normal operating amperage of your monitored circuit
2. Select the model with a range that is equal to or slightly higher than the normal operating amperage.

Trouble Shooting - -10 to +10 VDC Models

1. Output Signal Too Low

A. The jumper may be set in a range that is too high for current being monitored. *Move jumper to the correct range.*

B. Power supply is inadequate. *Check power supply. Make sure it is of sufficient voltage with all loads at maximum. DT Series draw 2.0 VA.*

C. Output load too low. *Check output load, be sure it is at least 50K Ω for 10 VDC.*

2. Output Signal is always at maximum

A. The jumper may be set in a range that is too low for current being monitored. *Move jumper to the correct range.*

3. Sensor has no output

A. Polarity is not properly matched. *Check and correct wiring polarity*

B. Monitored load is not DC or is not on. *Check that the monitored load is DC and that it is actually on.*

C. Split Core models: The core contact area may be dirty. *Open the sensor and clean the contact area.*