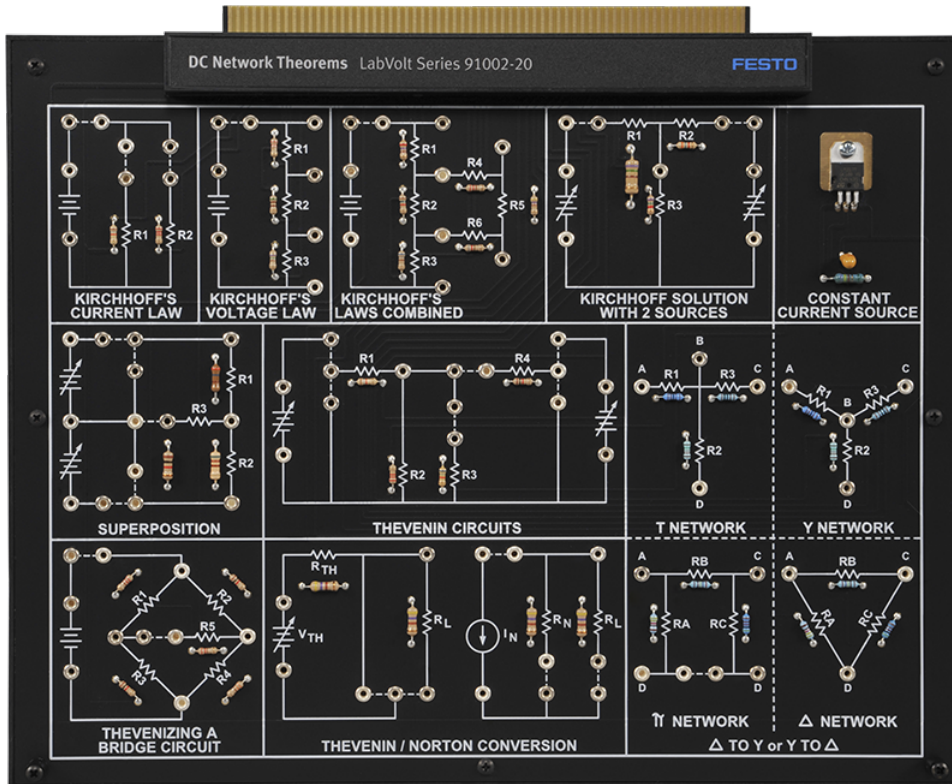


DC Network Theorems FACET Board 580889 (91002-20)



LabVolt Series

Datasheet



Festo Didactic
en
11/2024

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General Description

Comprised of nine training circuit blocks and a constant-source current block, the DC Network Theorems Module enables students to perform practical exercises that demonstrate theoretical dc principles.

When a circuit has two voltage sources in different branches, theorems are used to solve for voltage and/or current in these circuits where Ohm's Law cannot be applied.

The circuits found on this board include:

- Kirchhoff's Current Law
- Kirchhoff's Voltage Law
- Kirchhoff's Laws Combined
- Kirchhoff Solution with 2 Sources
- Constant Current Source
- Superposition
- Thevenin Circuits
- Thevenizing a Bridge
- Thevenin/Norton Conversion
- T Network
- Y Network
- Pi Network
- Delta Network

Topic Coverage

- Component Location and Identification
- Circuit Board Operation
- Currents and Node Currents in a Two-Element Branch Circuit
- Voltages in a Three-Element Series Circuit
- Algebraic Sum of Voltages in a Series Circuit
- Generating Loop Equations and Node Equations
- Kirchhoff's Voltage and Current Laws with a Two-Source Circuit
- Mesh Solutions, Superposition Solution and Millman's Theorem Solution of a Two-Source Circuit
- Thevenizing a Single-Source Network and a Dual-Source Network
- Thevenin Resistance (RTH) and Voltage (VTH) of a Bridge Circuit
- Thevenin-to-Norton Conversion
- Norton-to-Thevenin Conversion
- Tee and Wye or Pi and Delta Networks
- Transformation of Delta and Wye Networks
- Troubleshooting Basics and DC Networks

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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