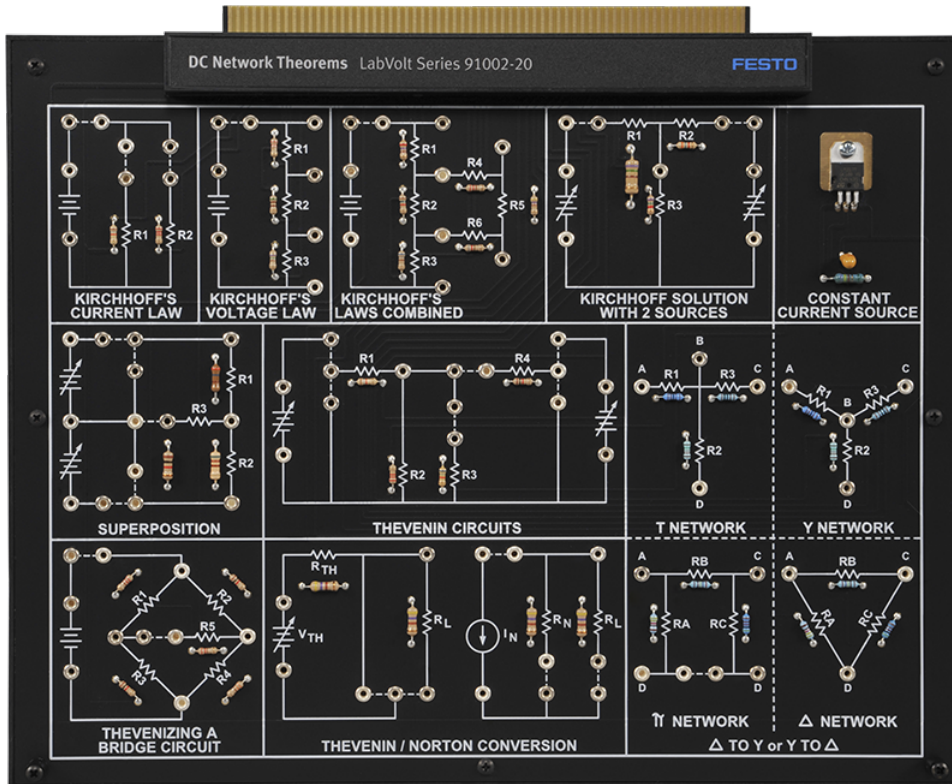


DC Network Theorems FACET Board 580889 (91002-20)



LabVolt Series

Datasheet



* The product images shown in this document are for illustration purposes; actual products may vary. Please refer to the Specifications section of each product/item for all details. Festo Didactic reserves the right to change product images and specifications at any time without notice.

Table of Contents

General Description	3
Topic Coverage	3

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.

Festo Didactic reserves the right to make product improvements at any time and without notice and is not responsible for typographical errors. Festo Didactic recognizes all product names used herein as trademarks or registered trademarks of their respective holders. © Festo Didactic Inc. 2025. All rights reserved.

Festo Didactic SE

Rechbergstrasse 3
73770 Denkendorf
Germany

P. +49(0)711/3467-0
F. +49(0)711/347-54-88500

Festo Didactic Inc.

607 Industrial Way West
Eatontown, NJ 07724
United States

P. +1-732-938-2000
F. +1-732-774-8573

Festo Didactic Ltée/Ltd

675 rue du Carbone
Québec QC G2N 2K7
Canada

P. +1-418-849-1000
F. +1-418-849-1666

www.labvolt.com

www.festo-didactic.com