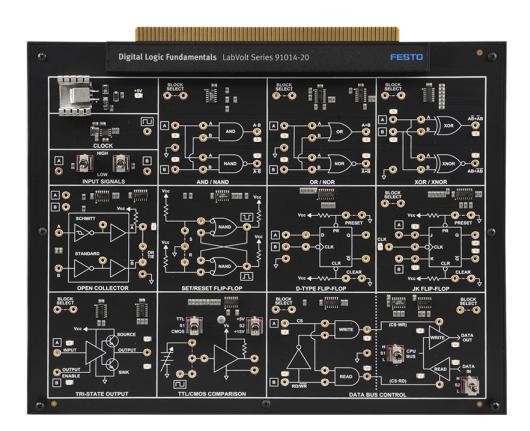
Digital Logic Fundamentals FACET Board 581033 (91014-20)



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
Features & Benefits	3

© Festo Didactic 2

General Description

The Digital Logic Fundamentals module enables students to perform practical exercises that demonstrate concepts and fundamentals of digital logic circuits.

The circuit board contains the following circuits:

- Clock
- Input Signals
- Open Collector
- Tri-State Output
- AND/NAND
- Set/Reset Flip-Flop
- TTL/CMOS Comparison OR/NOR
- D-type Flip-Flop
- Data Bus Control
- JK Flip-Flop and XOR/XNOR circuit blocks for students to understand and troubleshoot

Topic Coverage

- Component Location and Identification
- Operation of General Circuits and IC Package Fundamentals
- Logic Functions: AND, NAND, OR, NOR, Exclusive OR, NOR Gates
- Dynamic Response of XOR/XNOR Logic Gates
- DC Operation of a NOT and an OR-TIE
- Transfer Characteristics of a Schmitt and a Standard LS TTL Gate
- Flip-Flops: Set/Reset, D-Type, Static JK, Dynamic Operation
- Tri-State Gate: Output Enable Control, Sink and Source Control
- TTL and CMOS: Static Trigger Levels, Dynamic Transfer Characteristics
- Static and Dynamic Control of a Data Bus
- Troubleshooting Basics and Troubleshooting Digital Circuits

Features & Benefits

- +5 V regulated supply
- Built-in clock circuit
- Manual input signal control

3 © Festo Didactic

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

© Festo Didactic 4