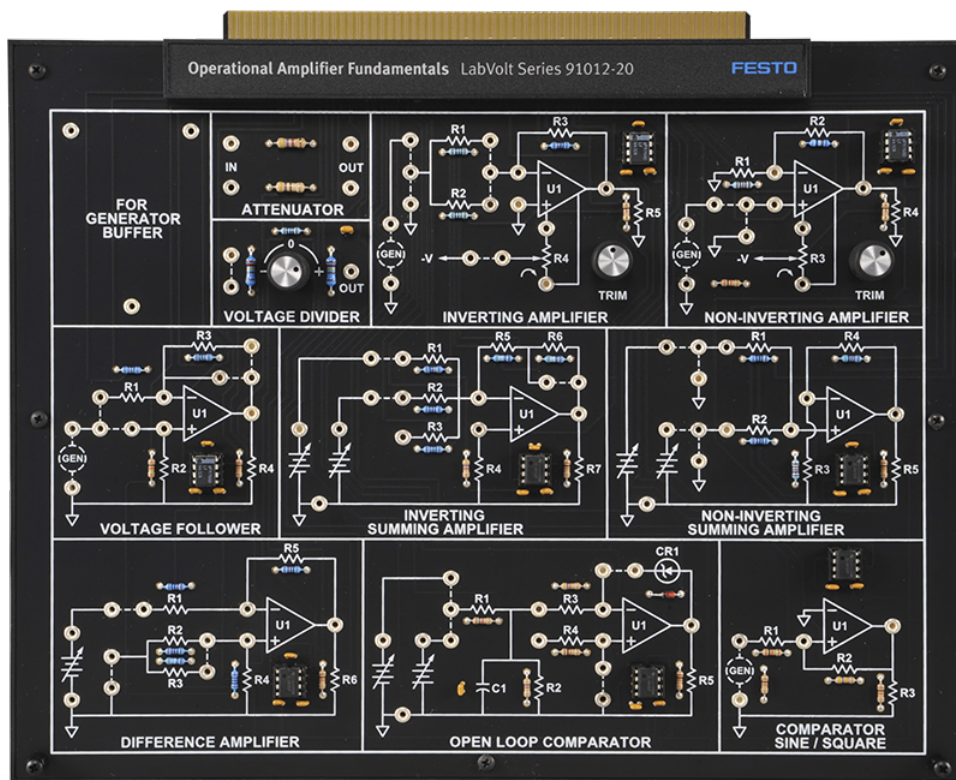


# Operational Amplifier Fundamentals FACET Board 581009 (91012-20)

**FESTO**

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.

Festo Didactic

en

11/2024

# Table of Contents

General Description \_\_\_\_\_ 3

Topic Coverage \_\_\_\_\_ 3

## General Description

The Operational Amplifier Fundamentals module introduces students to the circuitry used in analog applications.

The objective is to familiarize students with the following circuits:

- Inverting Amplifier
- Non-Inverting Amplifier
- Voltage Follower
- Inverting Summing Amplifier
- Non-Inverting Summing Amplifier
- Difference Amplifier
- Open Loop Comparator
- Sine/Square Comparator

## Topic Coverage

- Op Amp Types and Packages, Circuit Board Familiarization, Basic Op Amp Characteristics and Parameters
- Inverting and Non-Inverting Amplifiers Operation: DC and AC
- Voltage Follower DC Operation, AC Operation
- Typical Amplifiers Operation: Inverting Gain-of-One Amplifier, Inverting Summing Amplifier, Scaling, Averaging, Non-Inverting Summing, Difference Amplifier (AC/DC)
- Open-Loop Operation, Zener-Clamped Operation
- Sine Wave to Square Wave Converter
- Troubleshooting Basics and Troubleshooting Op Amp Circuits

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. 2024. 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](http://www.labvolt.com)**

**[www.festo-didactic.com](http://www.festo-didactic.com)**