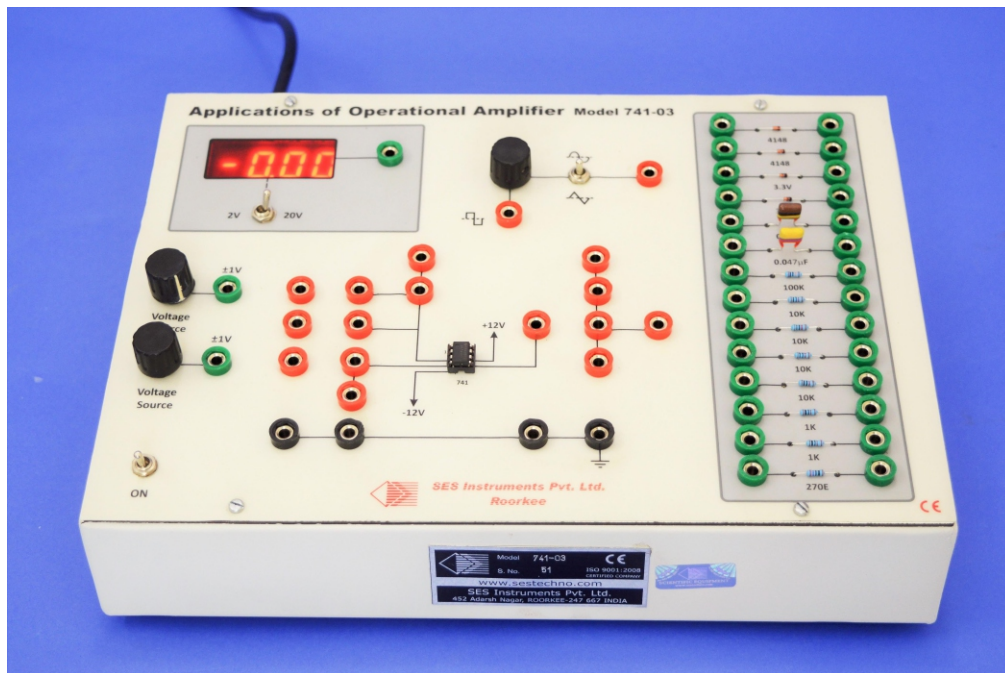


741-03

Study of Operational Amplifier Application



Features

- Study of linear and non linear applications as
 - Integrator
 - V - I converter
 - Clipper
 - Differentiator
 - I - V converter
 - Clamper
 - Summer
 - Astable Multivibrator
 - Peak Detector
 - Subtractor
 - Precision rectifier
 - Schmitt Trigger
- Built-in power supply
- Built-in square wave and triangular wave Generator
- Built-in current source
- All components for the experiments suggested are available on panel

Introduction

The operational amplifier (Op. Amp.) is a versatile device that can be used to amplify dc as well as ac input signals and was originally designed for such mathematical functions as addition, subtraction, multiplication, and integration. Thus the name operational amplifier stems from its original use for these mathematical operations. With the addition of suitable external feedback components, the modern day op-

amp can be used for a variety of applications such as Voltage to current converter, oscillator, comparators, clippers, clampers, peak detector, Schmitt trigger and others.

The experimental set-up on the study of Op. Amp. consists of a 741 IC with facilities for convenient connections, two regulated power supplies ($\pm 12V$), two variable voltage source and a multirange digital voltmeter with 3½ digit LED display. The resistances (0.1% metal film), capacitances, diodes etc. as required are mounted on the board separately, which may be connected through patch chords. The student can also connect external components also, if required.

The set-up is complete in all respect. An extra CRO would however be necessary for waveform studies.

