

IC 78XX as Positive Voltage Regulator with Digital Meters

Model : SB-117DM

SINCOM SB-117DM IC 78XX as Positive Voltage Regulator with Digital meters is a remarkable self contained simply designed trainer useful to study the operation and line regulation characteristics of IC 7805 and IC7809 as a Positive Voltage Regulator in a simple experimental way. The Trainer is equipped with on board Digital voltmeter & Digital Ammeter.

Features

- ❖ User friendly Design
- ❖ TO220 three pin IC Package
- ❖ IC LM7805 and IC LM7809 positive voltage regulators are provided
- ❖ IC includes Current limiting, thermal over load protection and safe operating area protection
- ❖ +5V and +12V Two Fixed Regulated DC Output voltage
- ❖ Low Output voltage Ripples
- ❖ Variable Unregulated DC Input source using Center Tap Full Wave Rectifier and Capacitor Filter circuit
- ❖ High operating Temperature range
- ❖ Separate Facility to vary wide range of applied DC Input voltages
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is screen printed on the front of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ On Board 3^{1/2} Digit Digital Voltmeter and Ammeter
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

■ AC Mains Power Supply	: 230V \pm 10%, 50Hz
■ DC Power Supply	: IC Regulated Variable 0V to +12V/500mA
■ Transformer ratings	: Center tap Step Down 12V-0V-12V/500mA/50Hz
■ Rectifier and Filter	: Full Wave Center Tap Rectifier with Capacitor filter
■ Unregulated DC Input Vin	: Two Nos. Variable 0V to 12V DC Input for IC7805 and IC7809
■ Regulated DC Output Vo	: +5V and +9V
■ Input Voltage Control	: By two 10K Ω Potentiometers
■ IC Used	: IC LM7805 and 7809 positive Voltage regulator
■ IC Package	: 3 Pin TO-220 Package
■ IC Output Current	: 0.5A Max
■ Load Resistor	: 10K Ω Resistive Load
■ Regulation type	: Line Regulation
■ Total Digital Meters	: 02
■ Digital Voltmeter	: 0-20V (2 No.)



An ISO 9001:2015 Co.

▪ Meter Display	: Red Color, 3 ^{1/2} Digit , LED Display
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50 ⁰ C, 80% RH

Learning Scope

- To Study IC 7805 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study IC 7809 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study Change in O/P Voltage w.r.t. change in I/P Voltage with Load RL constant (Line Regulation)
- To Study Change in O/P Voltage w.r.t change in Load RL with I/P voltage constant (Load Regulation)

Other Instruments Required : Nil

Accessories Included : Set of Patch Cord and Details Instruction Manual