Speed Control of Universal Motor using SCR Scientech 2714



Scientech 2714 is a platform which is very useful for Students to understand the concept of Thyristor firing method & working of speed control of motor using SCR by two different firing method. This platform is provided with inbuilt power isolation circuit to observe the high voltage output signal on Oscilloscope. This platform is provided with inbuilt AC/DC power supplies & exhaustive learning material.

Features

- Built in AC & DC Power Supply
- On board firing circuits
- Firing angle control: 0 to 180 degree
- Speed measurement: RPM counter circuit with LCD display
- Selection of open/close loop control
- SCR circuit: Bridge rectifier and anti-parallel connected SCR
- Isolation between SCR power circuit and firing circuit
- Test point to observe output of different blocks

Scope of Learning

Study the Speed control of

- Universal motor using anti- parallel connected SCR.
- Universal motor using bridge rectifier.
- Universal motor using bridge rectifier in close loop.

Technical Specifications

On board firing circuits:

TCA785 based firing method

Ramp & Pedestal firing method

SCR : 4 SCRs 2P4M, 400V/2A,

2 SCRs,TYN616 600V 16A

Pulse transformer : PT4503, 1:1:1

Test points : 4 nos

Interconnections : 2mm sockets

Mains Supply : 220V/110V, 50/ 60 Hz

Product Tutorial : Online on www.ScientechLearning.com

Dimensions (mm) : W 420 x D 255 x H 100

Weight : 1 Kg. (approximately)

Operating Conditions : 0-40°C, 85% RH

Included Accessories : 2mm Patch cords (blue) 16"-5 nos.

BNC – BNC cable-1 no.

Mains cord-1 no.

AC Motor-1 no.

DIN Connector cable-1 no.