

Switch Driver Series SD5902

For use with Series 333-*E Switches

Features

- Speed and Precision Modes of Operation
- GPIB
- USB
- 19" Rack Mountable
- Universal Line Supply



Model SD5902

Speed and Precision Modes of Operation

The Series SD5902 Waveguide Switch Driver is designed to control the Flann microwave range of Series 333-*E Precision Waveguide Switches. It provides the interface between an IEEE 488 Bus (GPIB) or Universal Serial Bus (USB) and Precision Waveguide Switches, and allows for manual operation with display of current status. The SD5902 will drive either a 2-channel or a 3-channel switch without the need to reconfigure.

The Series SD5902 operates on any mains supply voltage without the need to select.

An important new feature of our GPIB based driver, when used in conjunction with series 333-2E and 333-3E switches, is user selectable "Speed" or "Precision" operating modes. In "Speed" mode the switch repositioning time is minimised by using all possible rotor positions. In "Precision" mode only one of the 2 possible rotor positions is utilised providing optimum microwave path repeatability by ensuring the same rotor position is used each time a particular path is selected. Users who do not require such precision should use the "Speed" mode, to optimise the setting time.

Operation

The opto electronic position sensors provide either two or four signals depending upon the type of rotor (2 or 3 channel). The outputs of the sensors are TTL compatible, positive logic. The motor output shaft drives the microwave switch rotor through a loose coupling, which is designed to allow the precision indexing mechanism to operate correctly without excessive settling time. Full power is only applied to the motor during switch repositioning.

System Performance	Max Switching Time	(2-Channel)	180ms* (Speed Mode), 475ms* (Precision Mode – worst case)
		(3-Channel)	250ms* (Speed Mode), 500ms* (Precision Mode – worst case)
Power Requirements	Line Voltage	90 - 264 V AC	
	Line Frequency	47 - 63 Hz	
	Power Consumption	50 W Max (Motor Running), 25W Max (Motor Stationary)	
	Supply Fuse	20mm T2.5A Slow Blow (On rear panel)	
Electrical Specifications	GPIB Connector	24-Way, compatible with Amphenol 57 Series (IEEE488 Standard)	
	Switch Output Connector	15-Way D-Type Female	
	Switch Cable Length	5 m Max	
	Motor Steps per Revolution	500	
Mechanical Specifications	Operating Orientation	Any	
	Dimensions (mm)	58H × 483W × 300D (2.28"H × 19.0"W × 11.8"D)	
	Weight	2.15 kg (4.74 lb)	
	Direction of Rotation	Unidirectional: Counter-clockwise when viewed from the top	