



5012 24 – Way Programmable Switch

- **24 Switches with LED Display**
- **2 Pole Changeover**
- **IEEE/GPIB/IEC/HPIB**
- **Local and Remote operation**
- **Self – test feature**



Introduction

The introduction of the 5000 series sees the replacement of the 9812 programmable switch with the 5012 programmable switch.

The 5012 is a microprocessor controlled, 24 channel switch which may be operated either manually or by the IEEE – 488 interface bus.

The 5012 offers a wide variety of switching solutions. Applications include A.T.E., production, process control and environmental monitoring.

Special relays with multi-layered contacts have been used to give the performance needed for switching thermocouples to switching currents.

Local operation is easily performed by entering the required channel on the keyboard. The LED's directly indicate the selected channels.

Features available in the local mode prove invaluable during system design and for troubleshooting. The step left and right keys will move all selected channels left or right one channel. An 'All Off' key will immediately turn off all selected channels and the self test function will select each channel in turn without external bus control.

Operation over the IEEE – 488 bus is also very simple. To operate a channel just send the number to the 5012. Again the LED's will indicate the selected channels.

Another feature of the 5012 is the timing feature. If timing is critical in your application, delays may be specified before a channel is turned on or off.

The 5012 is constructed in a standard size 19" 2 units high metal case, suitable for rack mounting.



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Specifications

INTERFACE

INTERFACE TYPE:	IEEE-488 GPIB/HPIB
DEVICE ADDRESS:	Rear panel switch 0 -31
BUS CONNECTION:	Standard 24 pin IEEE-488 connector
BUS ISOLATION:	All switches are isolated from the bus up to 350V

SWITCH SPECIFICATION

TYPE:	24 way double pole changeover, break before make.
CONTACT RES:	<150 mΩ per switch
CONTACTS:	Gold Layer
OPERATION TIME:	20 milli seconds
OPERATION LIFE:	Up to 200 million operations
CONNECTIONS:	Four 37 way 'D' connectors
RATING:	1 Amp @ 30V D.C. (100V A.C.)
THERMAL EMF'S:	Less than 1uV per switch

PROGRAMMING

Programming of the 5012 is identical to the earlier switch, the 9812. Each switch is addressed by its physical position number as shown on the front panel (1-24). Either a single switch or several may be selected by one command string. The commands to each switch are separated by a semi-colon (;) and the delay option specified by '/X/Y' where 'X' is the turn on delay and 'Y' is the turn off delay, both in 1/10ths of a second. The complete command string is terminated by either a carriage return (CR) or line feed (LF).

PROGRAM MODES

DECIMAL:	Switches to be turned on are specified by decimal commands. All other switches are turned off.
MEMORY +:	Switches to be turned on are specified by a positive decimal command. All other switches remain unchanged.
MEMORY -:	Switches to be turned off specified as a negative decimal command. All other switches remain unchanged.
DELAY OPTION :	Delays the decimal memory + or - commands by a specified amount (0.1s - 25s). On and Off delays are specified separately.
HEXADECIMAL :	Turn on switches by a hexadecimal string. All others turn off.
G.E.T.:	Sets the 5012 to execute commands after the Group Execute Trigger command has been received.
GOTO LOCAL :	Sets the 5012 into local mode.
TRANSMIT LOCAL:	Instructs the 5012 to send back all its settings.

General Information

Dimensions	482 x 381 x 89 mm Rack Mount Version	436 x 381 x 103 mm Bench Version
Weight	8.5 kg Rack Mount Version	8 kg Bench Version

Ordering Information

Description	Order Code
24-Way Programmable Switch (Including 19" Rack Mountings)	5012