

DS4 Bi-phasic Stimulus Isolator

Output: Bi-phasic constant current proportional to the input voltage
Output Ranges: $\pm 10\mu\text{A}$; $\pm 100\mu\text{A}$; $\pm 1\text{mA}$; $\pm 10\text{mA}$ for a full scale input
Output Duration: $>2\mu\text{s}$
Compliance: $\pm 48\text{V}$ from 8x GP23A batteries
Linearity: $\pm 3\%$ of full scale output for each output range
Output Impedance: $>900\text{Mohms}$
Output Rise Time: $<5\mu\text{s}$ (1kohm load), $<40\mu\text{s}$ (1Mohm load)
Frequency Response: Expected DS4 output is maintained for frequencies up to 5kHz.

Inputs:

IN: **Ranges:** ± 1 ; ± 2.5 ; ± 5 ; $\pm 10\text{ V}$ full scale (selected by an internal jumper) with a limit of $\pm 12\text{V}$ max. without damage.

Input Impedance: 1Mohm

GATE: **Range:** TTL; Gate OFF if Low; Gate ON if High or open circuit. Limit of $\pm 15\text{V}$ max.

Input Impedance: 10kohm

Inactivity Sensor: The output is disabled if the voltage input remains within $0\pm 0.2\%$ of the full scale value for a user selectable period of 100ms, 200ms, 1s or 2s. This time period can be adjusted with an internal jumper.

Connections: **Output** - 2mm shrouded, touch-proof sockets (red and black) spaced at 0.75"
Input - Front panel BNC socket
Gate - Front panel BNC socket
Battery Test - Six 2mm sockets
Power - Socket for external power supply

Controls: **Gate** - On/Off toggle (Off overrides BNC input)
Output Range - 4 position rotary switch
Power - On/Off toggle switch

Indicators: Power ON LED Green (lit when the power supply is connected and DS4 is switched On)
Gate Enabled LED Amber (lit when Gate is On and the Gate Input is held TTL high)
Phase +ve LED Amber (lit when input exceeds $+0.2\%$ of full scale voltage)
Phase -ve LED Amber (lit when input exceeds -0.2% of full scale voltage)

Power: Included external power supply (input voltage 100V - 240V) providing $\pm 15\text{V}$ DC output.
10 x 12V GP23A Batteries.

Mounting: One or two stimulators may be mounted in a 19" rack using a specially fabricated frame (model D121-11) available from Digitimer Ltd.

Dimensions: 190 x 110 x 80 (w x h x d)

Weight: 500g (approx.)

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