

# **Digitimer**

## **D188 Remote Electrode Selector**



#### **Overview**

The D188 Remote Electrode Selector can be used to direct electrical stimuli from a single electrical stimulator to one of up to eight pairs of stimulation electrodes. It is particularly useful in applications where a stimulus needs to be presented to several stimulation sites, one site at a time, but only one electrical stimulator is available. A minimum of four TTL compatible digital inputs are required to permit external control of channel switching events, while the D188 can also be manually controlled via the supplied Windows compatible software. A pair of touch-proof stimulus input sockets is provided for connection to a compatible electrical stimulator and there are eight pairs of touch-proof stimulus outputs (channels), numbered from 1 to 8, each associated with a green LED to show when they are active. These LED's can be turned off for situations where it is important that

the subject or operator should not know which channel is active.

## **High Voltage Compatibility**

The D188 has been designed for safe use in humans with our range of isolated constant current stimulators, including the DS7A and DS5 and as a result has been specified to operate with stimulus sources of up to 400V. However, the D188 is not a medical device and use should be restricted to research applications.



Example screenshot of the D188 Virtual Front Panel Software

## Digital or Manual (PC) Control

The D188 is supplied with virtual front panel software which allows the device to be configured and controlled manually using a PC keyboard or mouse. The D188 can also be controlled by TTL compatible digital inputs applied to a socket at the rear. The D188 allows for 1:1 or 4:8 control which requires 8 or 4 digital inputs respectively, to switch between the 8 channels. An application programming interface (API) is available to allow third party software to control the D188. Details relating to the API are available upon request.



### **Specifications Overview**

Maximum Stimulus Input Voltage: 400V Maximum Stimulus Input Current: 1A

Minimum Switching Interval: <1ms (stimuli must not be applied during switching process)

Digital Input Requirements: TTL Logic (5V)

#### **Front Panel Connections:**

Stimulus Input (COM) Connection: One red, one black 1.5mm DIN 42802 touch-proof male sockets Electrode Connection Outputs: 8 pairs of red and black 1.5mm DIN 42802 touch-proof male sockets

#### **Rear panel Connections:**

USB Input (Type B Socket) for Win PC software control and/or setup Power Supply Input Socket (DC 9V, 0.5A)
Digital Communication Socket (15-way Female "D" Connector)

#### Indicators:

8 Green LEDs - One per channel used to indicate the active channel

#### **Control Software:**

Supplied on USB drive. Compatible with Windows 7 (32/64bit) or higher

#### Weight & Dimensions:

Size: 152 x 55 x 178 mm (w x h x d)

Weight: 500g (approx.)

#### **Environmental:**

Operating Range 10°C to 40°C 30 to 75%, non-condensing Storage Range -40°C to 70°C 10 to 100%, non-condensing Transport Range -40°C to 70°C 10 to 100%, non-condensing

#### **Supplied Accessories:**

9V Power Supply for 100-240V input with UK, North American or European plug adaptor(s)

USB Cable for host PC connection

Operator's Manual

Windows Compatible D188 Control App Software (supplied on USB Stick)

Digital Communication Cable (1m long, 15-way "D" connector to 10 tinned wires)

Two Stimulator Connection Cables (50cm long, fitted with 1.5mm DIN42802 plugs, one red/one black)

The Digitimer D188 is NOT a medical device and use is currently limited to human research applications

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