## 3B SCIENTIFIC® PHYSICS



# Digital output box 1000570

#### Instruction sheet

11/15 Hh



## 1. Safety instructions

 Connect the digital output box to the 3B NETlog<sup>TM</sup> "Digital Outputs" socket only. The wiring is not suitable for connection to the digital inputs.

#### 2. Scope of delivery

- 1 Digital output box
- 1 Mini DIN connecting lead 8-pin, 60 cm length

#### 3. Description

The digital output box fans out the four  $3B \ NET log^{TM}$  digital interface outputs A/B/C/D to eight 4-mm safety sockets.

The digital signal can be read from the red sockets as a TTL output. The blue sockets are connected to ground.

#### 4. Technical data

Output signal: 5 V TTL level,

short-circuit-protected

Each digital output

is fanned out to 2 x TTL inputs on the

digital output box

## 5. Operation

Connect the digital output box to the "Digital Outputs" socket of the 3B NETlog<sup>™</sup> equipment using the included mini DIN lead.

The digital signal can be linked to various events in the 3B  $NETlab^{TM}$  software, or it can be selected directly.

### 6. Sample experiment

High and low control signals relative to voltage levels at analog inputs A and B that are adjusted to provide an arbitrary comparator threshold.

Construction of a binary weighted digital-toanalogue converter (DAC) with an R-2R ladder resistor ladder.

Programmable logic control using 4-bit programmable logic (PLC), e.g. for a stepper motor