

Batteryalarm

If the supplied voltage of the battery is not enough anymore to drive the device, the following warning is shown on the LCD: „PLou“.

In this case the battery has to be replaced by another 9 V blockbattery.

More specific details to the battery can be found inside this manual.

Do not drop the device . If this happens, please contact a professional, authorized technician to check the device.

The service of the device is only to be done by an authorized technician!

Counter with 2 light gates



This set of devices is especially designed for student experiments for measuring time.

The set consists of:

1 Counter, digital, SE

Solid, handy counter with LC display, digit height 12,5 mm, Accuracy 10 ms, battery powered

2 light gates

Infrared light gates, stable, with two magnets on the side for mounting the light gates on a magnetic panel, screw thread for mounting support rods, two 6-pin connection sockets, Bracket width: 78 mm

2 connection cables

6-pin connection cables, l = approx 135 cm each



Technical data

1) Power supply:

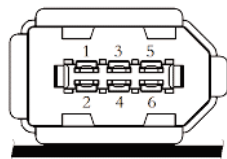
- Battery 9V (inside the timer)
- Battery Type: 6F22 (IEC), 1604 (ANSI), FC-1 (USA)
- Minimum operating voltage: 3.3 V
- Power consumption:
 - Operation with 1 light gate: Timer in sleep 8mA, active: 10mA
 - Operation with 2 light gate: Timer in sleep 15mA, active: 19mA

2) Gate timer + Lightgate



3) Pin assignment

- Plug. IEEE-1394 6-pin firewire
- Pin assignment:

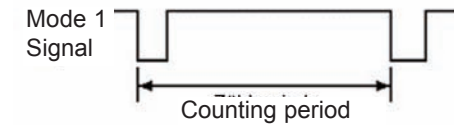


- DC + 3V output
- GND (externally)
- Not engaged
- Not engaged
- GND (recirculation)
- Lightgate signal input

Usage

Mode 1 (Standard):

- The gate timer is activated when connection to the light gate.
Gate timer - Port B light gate
- On the LCD screen the display „_.1_“ (Mode 1) is blinking for 3 seconds, afterwards “00.00” is shown.
- If the light barrier is interrupted or the ON/OFF button is pressed, the timer timer start to count.
If the light barrier is interrupted again or by pressing the button again, the timer stops to count.



- To perform an additional counting, the gate timer can be set to zero by pressing „Reset“.
- Light gates can also be connected in series, e.g for experiments in the field of motion.

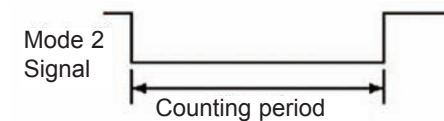
In this case you have to connect the 1. lightgate to the gate timer:

- Gate timer - Port B (1. Lightgate) and the
- 2. Lightgate with the 1. Lightgate
- Port A (1. Lightgate) -Port B (2. Lightgate)

The gate timer starts or stops if a light barrier is interrupted, therefore the order is not important.

Mode 2 (Interruption time):

- The gate timer is activated when connection to the light gate.
Gate timer - Port B light gate
- While the light gate is connected to the gate timer, the two buttons ON/OFF and Reset are being held.
- On the LCD screen the display „_.2_“ (Mode 2) is blinking for 3 seconds, afterwards “00.00” is shown.
- If the light barrier is interrupted or the ON/OFF button is pressed, the timer timer start to count.
The gater timer counts until the interruption is removed or the button is released.



- To perform an additional counting, the gate timer can be set to zero by pressing „Reset“.