Universal Kymographs

Universal Kymograph with Stimulator

The Kymograph is the same as described above. The built-in square wave stimulator has a maximum output of 25 volts with less than 25 $\Omega$ impedance. The frequency range is continuously variable from 0 to 100 Hz. There are six preset pulse widths. The output has three selections: continuous, single pulse by push button, and external trigger via the contact arms on the Kymograph spindle. All the controls are located on the front panel.

Specifications

- **Kymograph**: Same as Universal Kymograph
- **Stimulator Specifications:**
  - **Output Voltage**: 0 to 25 V, continuously variable in 3 ranges, 0 to 250 mV, 0 to 2.5 V and 0 to 25 V
  - **Sockets**: 2 x 4 mm sockets
  - **Impedance**: < 25 $\Omega$ at max. output current of 250 mA
  - **Pulse Width**: 6 preset widths of 0.05, 0.1, 0.5, 1, 2 and 5 ms
  - **Frequency**: 0.1 to 100 Hz continuously variable in 3 ranges, 0.1 to 1.0 Hz, 1 to 10 Hz and 10 to 100 Hz
  - **Mode Selection**: Continuous, single and trigger via contact arms on spindle
  - **Cylinders**: Not included, see next page
  - **Base Dimensions**: 460 x 230 x 220 mm (18.1 x 9 x 8.7 in), H x W x D
  - **Weight**: 7 kg (15.4 lb)

Universal Kymograph Assembly

This Assembly includes the Universal Kymograph with Stimulator plus a comprehensive set of accessories with a 165 page Applications Manual with detailed instructions for over 30 experiments. Some of the possible experiments include:

- **Frog Heart In Situ Preparation:**
  - Recording of cardiac activity
  - Effect of stimulation of the heart (refractory period compensatory pause)
  - Demonstration of conduction path (stimulus ligatures)
  - Effects of stimulating the vagus nerve (cardiac inhibition)
  - Effect of drugs

- **Muscle-Nerve Preparation:**
  - Effect of stimulating voltage (simple muscle twitch)
  - Effect of stimulation frequency (tetanus)
  - Staircase phenomenon (Treppe)
  - Effect of repeated stimulation (fatigue)
  - Effects of drugs on muscles
  - Effect of pre- and after-loading on muscle efficiency

For locust work, a special cork mounting block is supplied, which wedges vertically in the muscle chamber. The accessories for the Kymograph are listed on the following pages.

**Catalog No.** $ Product

| BS4 50-7384 | Universal Kymograph Assembly, 115 VAC, 60 Hz |
| BS4 50-7392 | Universal Kymograph Assembly, 230 VAC, 50 Hz |

Universal Kymograph

The Universal Kymograph has a spindle 320 x 19 mm OD (12-1/2 x 3/4 in OD) for mounting a cylinder (not included). The speed range, dependent on circumference of cylinder chosen, is infinitely variable by use of two controls. A manually operated stop is provided to allow the spindle to revolve either continuously or for a single revolution. The Kymograph is supplied without cylinder or stimulator.

Specifications

- **Speed Range**: Infinitely variable from 0.006 to 625 mm/sec with 500 mm circumference cylinder; 0.012 to 1250 mm/sec with 1000 mm circumference cylinder, cylinder not supplied
- **Spindle Rotation**: Either continuous or single revolution using manual start/stop control
- **Contact Arms**: Two fully variable ‘opto-triggering’ producing a short circuit across ‘contract’ sockets
- **Writing Medium**: Smoke or ink, dependent on recording cylinder chosen
- **Cylinders**: Not included, see next page
- **Base Dimensions**: 460 x 230 x 220 mm (18.1 x 9 x 8.7 in)
- **H x W x D**: 7 kg (15.4 lb)

**Catalog No.** $ Product

| BS4 50-7343 | Universal Kymograph, 115 VAC, 60 Hz |
| BS4 50-7350 | Kymograph, 230 VAC, 50 Hz |