



## Thermal Conductivity

### Hypsometer, Regnault (ELP.105.118)

For the determination of the upper fixed points of thermometers and boiling points at barometric pressures other than atmospheric. Double walled copper cylinder 34 x 6 cm height x outer dia mounted on steam boiler. Fitted with thermometer tubulure at the top, side outlet draining tube and glass manometer mounted in tubulure with rubber bung.



### Hypsometer, Regnault (ELP.105.119)

As described in **Cat. No. ELP.105.118** but made of sheet metal.



### Absolute Expansion of Mercury, Apparatus (ELP.105.120)

Dulong and Petit For the determination of the co-efficient of absolute expansion of mercury. The lengths of glass tubing with vertical limbs contained within glass jackets approx. 460 x 25 mm height x diameter, closed by bungs and fitted with inlet and outlet tubes. Upper ends of the vertical limbs angled on emergence from the jackets to produce two short, adjacent limbs placed against a silvered glass scale 0 to 12 cm cm x 1 mm . Mounted on stand 610 x 230 mm, height x width. Overall height approx. 750 mm. Supplied without mercury.



### Conductivity apparatus, Inzen - Hausz (ELP.105.121)

Metal rods 150 x 3 mm length x diameter, one each of aluminium, brass, copper, glass and iron, embedded along one side of a metal tank size 150 x 90 x 100 mm. length x width x height.

### Conductivity apparatus, Inzen - Hausz (ELP.105.122)

Comprising six equal rods of copper, iron Lead, brass, zinc and aluminum, each 130 x 3 mm dia. Mounted in corks with their lower end in a tank 210 x 75 x 75 mm. The tank is supported on four legs at a height of approx. 170 mm above the bench. In use the rods are



lightly coated with paraffin wax and the rates of melting compared.

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### Set of rods for Conductivity apparatus (ELP.105.123)

A set of metal rods each 130 x 3 mm dia. Comprising each of copper, iron Lead, brass, zinc and aluminum.

### Thermal conductivity of metal apparatus (ELP.105.124)

Comprising strips of copper, iron, aluminium and brass fixed on wooden ring meeting in the centre, outer ends of the strips formed with small cups.

### Thermal conductivity Kit (ELP.105.125)

A class Kit of eight sets of different wires of rods each 250 mm long for comparing the thermal conductivity of different metals.

Type	Dia.	Conductivity
Glass	3	0.65 (nominal)
Aluminum	3	240 (nominal)
Copper	1.5 & 3	395 (nominal)
Brass	1.5 & 3	128 (nominal)
Iron	1.5 & 3	72 (nominal)
Zinc	1.5 & 3	112 (nominal)

### Thermal conductivity of copper, Searl's apparatus (ELP.105.128)

Cylindrical copper rod about 300 mm length 25 mm diameter, one end containing a steam chamber connected to inlet and outlet tubes, other end of copper rod has cavity connected via thermometer pockets to water inlet and outlet tubes. Through two thermometers support tubes 75 mm apart are inserted in the rod for finding the temperature at two points. Fitted in teakwood polished case packed with felt with removable front, supplied without thermometers.

### Thermal conductivity apparatus, Lee's & Charlton's (ELP.105.129)

For determination of the thermal conductivity of bad conductor. Cylindrical metal slab nickel-plated 110 mm. diameter, 12 mm thick, on this rests on a steam chest made of brass nickel-plated 50 mm height same diameter, fitted with riffled inlet and outlet tubes. Both are having radial holes for insertion of thermometers. Apparatus is suspended by strings attached to lower slab on retort stand with rectangular metal base. Complete with one each disc specimens of glass and ebonite annulus for determining the conductivity of liquids. Supplied without thermometers.



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### Convection tube (ELP.105.130)

To show the convection of heat in a liquid. Glass tube 20 mm, outer dia. bent into rectangle approx.380 x 300 mm, fitted with filling funnel. Made from Corning glass.

- .01 Size 200 x 15 mm.
- .02 Size 300 x 20 mm.



### Ventilation apparatus (ELP.105.131)

Comprising metal box, 220 x 100 x 165 mm. length x width x height, with sliding plate glass front, two glass chimney, standing over tubulures at top of box, candle holder fixed to the base of box beneath the left hand chimney. Supplied without candles.

### Pair of concave spherical mirrors (ELP.105.132)

For reflection of heat experiments. 300 mm diameter, 85 mm focal length approx. The mirrors are of spun brass, nickel plated and polished. with fitted boss to accept 9 mm diameter retort stand rod.

- .01 Complete Without Stand
- .02 Complete With stand



### Safety Lamp (ELP.105.133)

Davy original pattern, overall height 24 cm approx. Brass moulded and nickel-plated.

### Metal Rivets (ELP.105.143)

For specific Heat Capacity experiments. Lead is supplied as pellets, other metals as Rivets. Pack of 500 grams.

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- A Aluminum
- B Brass
- C Copper
- D Iron
- E Lead





**Set of specific heat cylinders, Equal in mass (ELP.105.144)**  
 Comprising six cylinders, diameter 16 mm., each being 100 gm approx. One each copper, lead, brass, zinc, iron, aluminum cylinders vary in length from 5 cm. to 19 cm. and are drilled for suspensor

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**Set of specific heat cylinders, Equal in Size (ELP.105.145)**  
 Comprising six cylinders, size 38 x 9.5 mm diameter, one each copper, lead, brass, zinc, iron, aluminum.

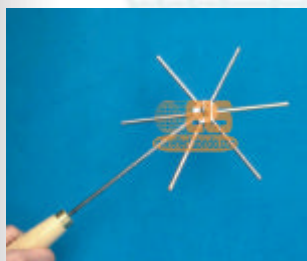
**Domestic heating model (ELP.105.146)**

This apparatus can be used to make convection current visible. This apparatus is made of glass mounted on wooden stand. Overall dimensions are 640 x 240 x 280 mm. It has double wall boiler fitted with 60 W heating coil. There is hot water storage tank, hot water tap. Model radiator connected between flow and return pipes, overflow to cold water and feed to hot tank. For use on 12 Volts AC/DC.



**Leslie's cube (ELP.105.168)**

For showing that different surfaces radiate heat at different rate. Made of tin plate 120 mm. side having a top opening. The vertical faces of the box are blackened dull, blackened bright, white and bright tin.



**Heat Conductivity Apparatus (ELP.105.205)**

For demonstrating the rate of heat conduction in five different metals. The kit consists of five metal rods, approximately 20mm in diameter and 40mm long equally spaced on a brass disc and mounted on an insulated handle. The rods are aluminium, brass, copper, iron and steel and each having a cavity at the end for holding paraffin.



**Conductivity apparatus, Inzen - Hausz modified (ELP.105.211)**

Metal rods 150 x 3 mm length x diameter, one each of aluminium, brass, copper, glass and iron, embedded along the circular surface metal tank.