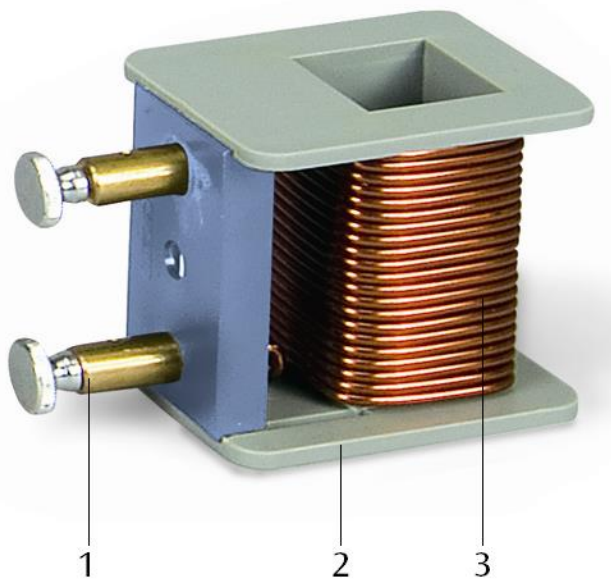


High Current Coil S 1000999

Instruction Sheet

06/08 ALF



- 1 Load connectors
- 2 Plastic housing
- 3 Coil-windings

1. Safety instructions

The safety of the operator and of the high current coil itself can only be guaranteed if it is used in accordance with the instructions and regulations.

- Experiments must be carried out on a heat-resistant base material. Remember that glowing or melting parts of the test specimen can flow downwards under gravity.
- Only use test specimens that can be passed through the holes in the load connectors.
- After the experiment, allow the test specimen to cool for at least 5 minutes.
- When assembling a transformer, the components may only be handled when the primary voltage is switched off.
- Always use safety leads for the experiments.
- Do not allow liquids to come into contact with the coil.

2. Description

The S-model high current coil is used in conjunction with an S-model transformer core (1001004) for generating high currents.

Test specimens such as paper-clips or short lengths of wire can be clamped between the two load connectors for experiments in which the specimen is intended to melt.

3. Technical data

Number of turns:	22
Maximum current:	10 A
Channel for inserting iron core:	20 × 20 mm ²

4. Operation

In order to carry out the experiments, the following additional equipment is required:

1 AC/DC power supply, 0-20V, 0-5A @230V
1003562

or

1 AC/DC power supply, 0-20V, 0-5A @115V
1003561

1 S-model transformer core 1001004

1 S-model transformer coil 1001000

- Assemble the transformer as shown in Fig. 1 and place it on a heat-resistant surface.
- Clamp the test specimen (short length of wire or a paper-clip) between the load connectors.
- Connect the AC current output terminals of the AC/DC power supply to the tapping points of the primary coil corresponding to 200 turns.

- Switch on the power supply and select a voltage between 10 V and 20 V.

After a short time the high current causes the test specimen to glow, and eventually it will melt through.

- Allow the remains of test specimens to cool for at least 5 minutes before removing them.

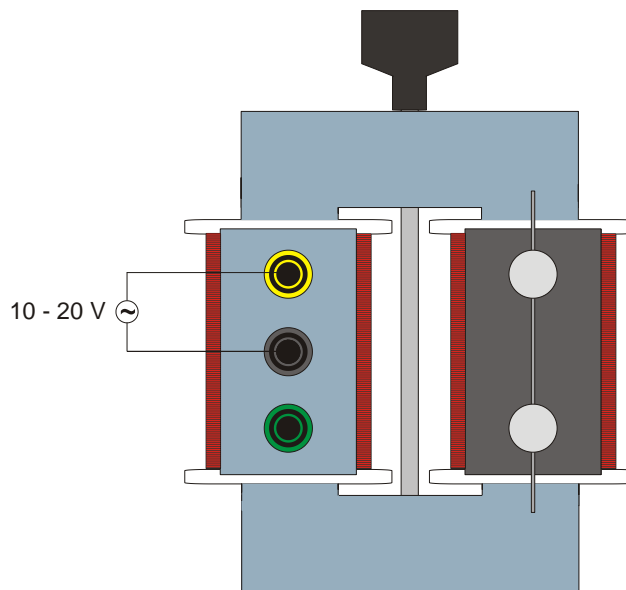


Fig. 1 Experiment set-up