

<b>Low Voltage Coil D</b>	<b>1000985</b>
<b>Coil D, 600 turns</b>	<b>1000988</b>
<b>Coil D, 900 turns</b>	<b>1012859</b>
<b>Coil D, 1200 turns</b>	<b>1000989</b>
<b>Coil D, 6000 turns</b>	<b>1000990</b>

## Instruction sheet

02/14 ALF



### 1. Safety instructions

The coils conform to the safety regulations for electrical test, control and laboratory equipment as specified in DIN EN 61010 Part 1. They are intended for use in dry rooms suitable for electrical equipment or installations.

Safe operation of the coils is guaranteed, provided they are used correctly. However, there is no guarantee of safety if the coils are used in an improper or careless manner.

If it is deemed that the coils can no longer be operated without risk (e.g. visible damage has occurred), the coils should be switched off immediately and secured against any inadvertent use.

In schools and training institutions, operation of the coils is to be responsibly supervised by trained personnel.

Depending on the set-up of the transformer, it may be possible to come into contact with dangerous voltages at the secondary coil.



Coils 1000988, 1012859, 1000989, 1000990 can be subject to high or low voltages when used as secondary coils. They are not suitable for experiments performed by students.

- Only intervene in the structure of a transformer when the primary voltage is switched off.
- Always use safety cables for experiments.
- Do not exceed the maximum voltage over any length of time.
- Do not open the coils' cases.
- Do not allow the equipment to come into contact with liquids.
- If the coils should become overloaded, they must be allowed to cool before switching on the current again.
- Do not cover the air vents.

The resulting magnetic fields can cause damage to or even destroy electrical/electronic components and equipment or electromagnetic storage media. Such items must be kept away from the coil by at least the amount specified for safety.

## 2. Description

Coils, safe to touch, for use as primary or secondary coils in combination with the transformer core D (1000976).

Coils with a variety of winding turns and intermediate taps. A suitable choice of coil enables all experiments to be performed safely at low voltage. Simple whole-number winding and intermediate tap ratios allow the transformer laws to be derived in clear and understandable fashion.

Coils are made of impact-resistant plastic. The ends and taps for the coils are equipped with safety sockets. Number of turns, maximum current for long-term operation, effective resistance, direction of windings and inductance are specified on the case of the coil. The current may reach approximately double the long-term maximum for short periods (10 seconds).

The coil with 900 windings has a reversible temperature cut-out inside, which trips when the winding temperature reaches 85°C. It resets after about 10-20 minutes depending on the ambient temperature.

	Winding turns	Tap(s)	Resistance	Max. current	Inductance
<b>1000985</b>	72	6/30/54/66/72	0,1 Ohm	12 A	0.23 mH
<b>1000988</b>	600	200/600	3 Ohm	2.2 A	15 mH
<b>1012859</b>	900		4.8 Ohm	5 A (7 min)	34 mH
<b>1000989</b>	1200	400/1200	12 Ohm	1.2 A	60 mH
<b>1000990</b>	6000	2000/6000	300 Ohm	0.2 A	1.5 H

## 3. Accessories

Mains coil D with connecting lead (230 V, 50/60 Hz)  
1000987

or

Mains coil D with connecting lead (115 V, 50/60 Hz)  
1000986

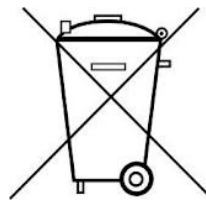
Transformer core D  
1000976

## 4. Care and maintenance

- Before cleaning the coil, disconnect it from its power supply.
- Use a soft, damp cloth to clean it.

## 5. Disposal

- The packaging should be disposed of at local recycling points.
- Should you need to dispose of the coil itself, never throw it away in normal domestic waste. Local regulations for the disposal of electrical equipment will apply.



## 6. Technical data

Connections:: 4-mm safety sockets  
Dimensions: 120 x 90 x 70 mm<sup>3</sup>  
Opening for iron core: 42 x 42 mm<sup>2</sup>