

Protective Adapter, 2-pole 1009961

Protective Adapter, 3-pole 1009960

Instruction Sheet

08/22 HJB



- 1 Connector socket: cathode
- 1 / 2 Connector sockets: heater filament
- 3 / 5 Connector sockets: heater filament
- 4 Connector socket cathode

1. Safety instructions

The protective adapter conforms to safety regulations for electrical measuring, control and laboratory equipment as specified in DIN EN 61010 Part 1. It is to be operated in dry rooms as appropriate for the use of electrical equipment.

Safe operation of the adapter is guaranteed as long as it is used as stipulated. However, there is no guarantee of safety if the adapter is used incorrectly or carelessly.

If there is any suspicion that the adapter can no longer be operated without risk (e.g. if visible damage is detected), the adapter must immediately be withdrawn from use and secured in such a way as to prevent its inadvertent operation.

- Do not subject the adapter to high humidity, extreme temperatures or heavy shocks.
- Only use safety experiment leads for connecting circuits.

2. Description

The 2-pole or 3-pole protective adapters are for connecting the heater voltage for the D-series electron tubes via safety experiment leads and also provide protective circuitry to prevent excess voltage across the cathode heating element causing damage to the fragile filament.

A built-in relay cuts out when the heater voltage reaches approximately 10.5 V DC or 8.5 V AC and turns back on when the heater voltage has fallen back into range again.

The pin marked with a minus sign is connected to the brown socket. On the 3-pole, the red socket is connected to a 2-mm pin.

2-pole or 3-pole adapters should be chosen depending on the tube in use (for a list of which tubes match which adapter, see section 4).

3. Technical data

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|------------------|---|
| Terminals: | 4 mm safety sockets |
| Cut off voltage: | DC: 10.5 V approx. AC: 8.5 V approx. |
| Dimensions: | 75 mm x 45 mm dia. approx. |
| Weight: | 70 g approx. |

4. Operation

The protective adapters match the following tubes:

2-pole (1009961):

| | |
|----------------------------|---------|
| Diode D | 1000646 |
| Triode D | 1000647 |
| Luminescence tube D | 1000648 |
| Maltese cross tube D | 1000649 |
| Perrin tube D | 1000650 |
| Electron deflection tube D | 1000651 |
| Gas triode D | 1000653 |

3-pole (1009960):

| | |
|-----------------------------|---------|
| Electron diffraction tube D | 1013885 |
|-----------------------------|---------|

- Plug the adapter into the sockets of the tubes in use in such a way that the adapter pin marked with a minus sign (brown socket) plugs into the socket marked with a minus on the base of the tube.
- Insert the tube into the D-series tube holder and turn it on.

5. Care and maintenance

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

6. Disposal

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

