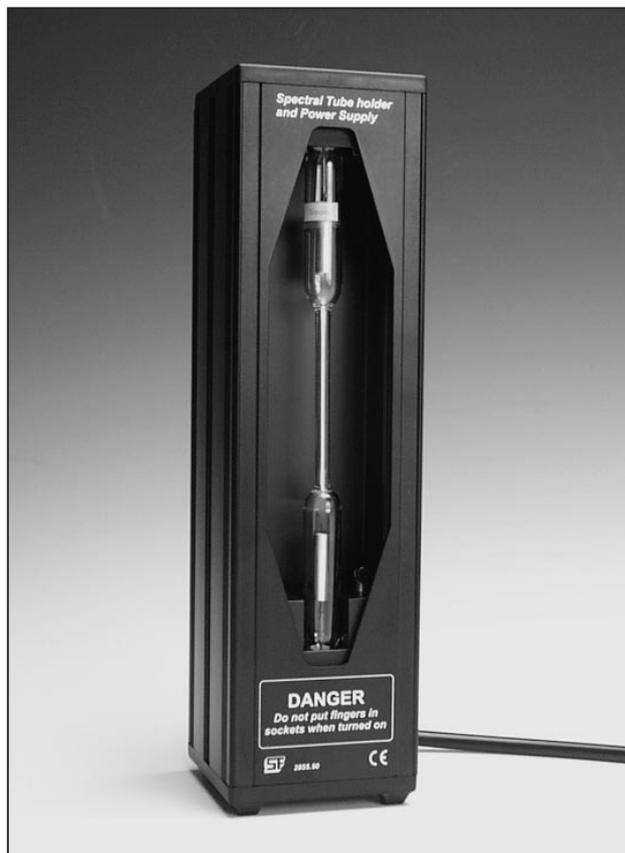


## Spectral Tube Holder and Power Supply

14.12.10

Ae 2855.50



### Description

This spectral tube holder is designed for use with spectral tubes, also called Geisler tubes. The housing has a self-contained, self-regulating power supply which can provide a maximum voltage of 6 kV and a maximum current of 2 mA. As soon as the spectral tube is turned on the voltage is automatically controlled thus significantly enhancing spectral tube service lifetimes.

The spectral tubes are mounted on insulated holders provided with contact electrodes. The lower electrode is spring-loaded and can be displaced vertically insuring easy mounting of the spectral tube.

### Necessary accessories

The housing is designed for use with spectral tubes with lengths of 21 to 24 cm. For connection to the mains supply.

The following spectral tubes can be supplied for the housing:

2850.00	Neon
2550.10	Mercury vapor
2850.20	Hydrogen
2850.30	Helium
2850.40	Argon
2850.50	Oxygen
2850.60	Krypton
2850.70	Nitrogen
2851.10	Water vapor
2851.20	Carbon dioxide
2851.30	Xenon

### Mounting, operation and maintenance

The spectral tube is mounted by placing the tube in the lowermost spring loaded holder, pressing it down and placing the other end of the tube in the uppermost holder. The spring loading insures that the tube always has the proper position.

When exchanging tubes it is recommended that the power is turned off. Be careful to allow the tube to cool, use a piece of cloth or paper to prevent contamination of the tube and to protect your fingers.

In order to ensure the maximum lifetime for the spectral tubes it is recommended that the power be turned off promptly when the observations measurements are completed. This should preferably be done within 15 minutes. The service lifetime can be expected to vary according to the type of gas inside the tube.



**WARNING!** Avoid touching the contact electrodes with your fingers!

**Technical data**

L x B x H:	305 x 78 x 78 mm
Mass:	1.65 kg
Supply voltage:	230 VAC, 50 Hz
Electrode voltage:	Max. 6 kV, self-regulating
Electrode current:	Max. 2 mA, self-regulating

**Additional accessories and spare parts:**

There are no user-serviceable parts in the spectral tube holder.

The following products for spectral measurements are recommended:

3210.05	Hand spectroscope, direct vision
3215.30	Spectrometer
3245.00	Diffraction grating, 300 lines/mm
3245.10	Diffraction grating, 600 lines/mm
3245.20	Diffraction grating, 1200 lines/mm

**Suggestions for experiments:**

The spectral tube holder is useful for experiments where students are to observe or measure the spectral lines of gaseous or vaporized elements or molecules.

For simple observations an optical grating is adequate. For quantitative observations the hand spectroscope (3210.05) is recommended.

For the measurement of spectral lines the spectrometer (3215.30) is a good choice.