

NFU 120

Spectrum Tubes and Holder



This economical special holder allows an external power source to be used for 26cm long spectrum tubes. Fitted with 4mm safety sockets on a black panel. This holder is fitted with a bosshead which allows it to be clamped onto any laboratory stand.

Before mounting a tube in the holder, secure the holder onto your retort stand. To mount the tube into the holder, insert the plain end (without the bend), into the bottom of the holder, and gently push down far enough to allow the other end of the tube to be inserted to the top end of the holder. Do not use excessive force as the spectrum tubes are delicate.

Connect to your power supply using 4mm plug leads. With the voltage set at zero, switch on the power supply and slowly adjust the voltage upto the strike voltage of the inserted tube.



These Spectrum Tubes use research-grade gasses and vapours to provide bright-line spectral lines of the highest clarity. They are designed for optimum intensity and line resolution when examined with a student grade spectrometer equipped with a ca.200 line/mm (5000 line/inch) diffraction grating.

The pressure of the various gasses in spectrum tubes are carefully controlled ensuring they all produce the maximum quality of brightness and clarity of the spectral lines.

For some tubes it is not necessarily the same value of pressure that produces maximum continuous operating life of the spectral lines. Tubes should be energized with an EHT Power Supply. Tube life is extended if operation is cyclic for no more than 30 seconds "on", 30 seconds "off".

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Tubes using neon, helium and other gases found in cold cathode display signs can run continuously with less deterioration of the quality of the spectral lines. The others, such as hydrogen, the halogens and water vapor, require more care in processing to increase the life. Pure nickel electrodes and the best research grade of gases are used, and meticulous care is taken in processing to increase service life.

Gas	Strike Voltage	Colour	Wavelength
Xenon R06992	2000 - 5000V	Blue	4700
		Blue	4700
		Green	4850
		Green	4850
		Green	5000
		Green	5000
		Red	6250
		Red	6400
Oxygen A46553	3000V - 4200V	Violet	4400
		Violet	4400
		Blue	4900
		Green	5250
		Green	5400
		Green	5400
		Green	5500
		Green	5650
		Red	6150
		Red	6250
		Red	6600
		Red	6650
Nitrogen A46541	3000V - 4200V	Violet	4000
		Violet	4050
		Violet	4100
		Violet	4150
		Violet	4200
		Violet	4250
		Violet	4400
		Violet	4450
		Blue	5000
		Blue	5050
		Blue	5200
		Green	5300
		Green	5400
		Green	5500
		Green	5600
Krypton R06991	4000 - 5000V	Violet	4300 (Hazy)
		Violet	4400 (Hazy)
		Violet	4500
		Violet	4550
		Blue	4900
		Green	5600
		Green	5650
		Green	5700
		Yellow	5900

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		Red	6100
		Red	6300
		Red	6500
		Red	6650
Neon A46565	2000V - 3200V	Blue	4750
		Blue	4900
		Green	5100
		Green	5250
		Green	5600
		Green	5700
		Yellow	5800
		Yellow	5900
		Yellow	6000
		Red	6050
		Red	6100
		Red	6150
		Red	6200
		Red	6600
		Red	6650
		Red	6700
		Red	6850
		Red	7050
		Red	7150
Mercury R06990	2000V - 4000V	Violet	4500
		Violet	4500
		Violet	4500
		Violet	4500
		Green	5000
		Green	5050
		Green	5600
		Yellow	5900
		Yellow	5900
		Red	6100
		Red	6250
		Red	6600
		Red	6800
		Red	7200
		Red	7300
Helium R06986	2000V - 4000V	Violet	4000
		Violet	4000
		Violet	4000
		Blue	4500
		Blue	4550
		Blue	4550
		Blue	4800
		Green	5000
		Green	5100
		Yellow	5850
		Red	6500
		Red	6800
		Red	7200

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Hydrogen A46539	2500V - 3500V	Violet	4200
		Violet	4400
		Blue	4900
		Red	6700
		Red	6700
Argon R06989	2000V - 4000V	Violet	4200 (Hazy)
		Violet	4400 (hazy)
		Violet	4600
		Green	4950
		Green	5250
		Green	5500
		Green	5500
		Green	5600
		Green	5700
		Yellow	5950
		Red	6100
		Red	6250
		Red	6300
		Red	6400
		Red	6500
		Red	6600
		Red	6700
		Red	6800
		Red	7100
		Red	7200

Warranty, repairs and spare parts:

The Spectrum tubes are guaranteed for a period of one year from the date of delivery to the customer. This warranty does not apply to defects resulting from the action of a user such as misuse, improper wiring, any operations outside of its specification, improper maintenance or repair, or unauthorized modification.

Our liability is limited to repair or replacement of the product. Any failure during the warranty period should be referred to Customer Services.

In the event of a fault, apart from replacing the instrument fuse in the IEC socket, the power supply should be referred to the Philip Harris recommended repair agent.

Please contact Customer Services or techsupport@philipharris.co.uk for advice

Supplier details:

Philip Harris Education, 2 Gregory Street, Hyde, Cheshire SK14 4RH

Orders and Information Tel: 0845 120 4521

Fax: 0800 138 8881

Repairs Tel: 0845 120 3211

E-mail: techsupport@philipharris.co.uk

Website: www.philipharris.co.uk

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