



Electron Source ES40C1

with **ES40-PS Power Supply**

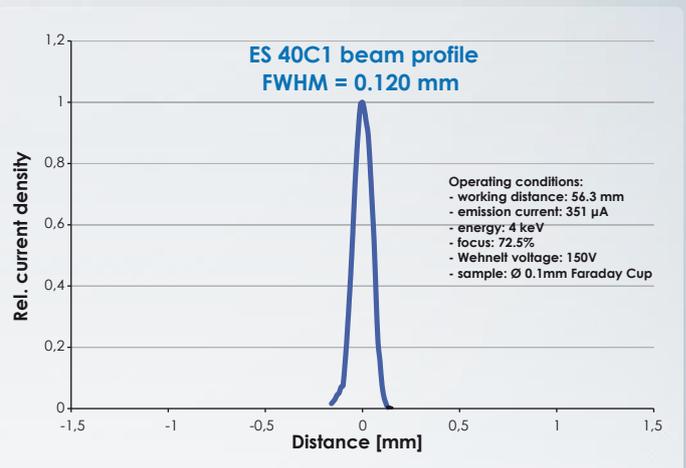
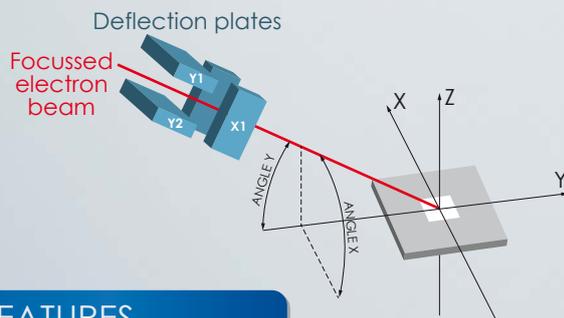


DESCRIPTION

The ES 40C1 Electron Source is a scanable electron gun with small spot profile.

Due to the high transmission of its Einzel-Lens, the ES 40C1 delivers a high electron beam current over a wide energy range. The ES 40C1 is designed for a stable and reliable operation in e.g. AES, scanning applications, imaging, EELS and electron pulse or desorption experiments.

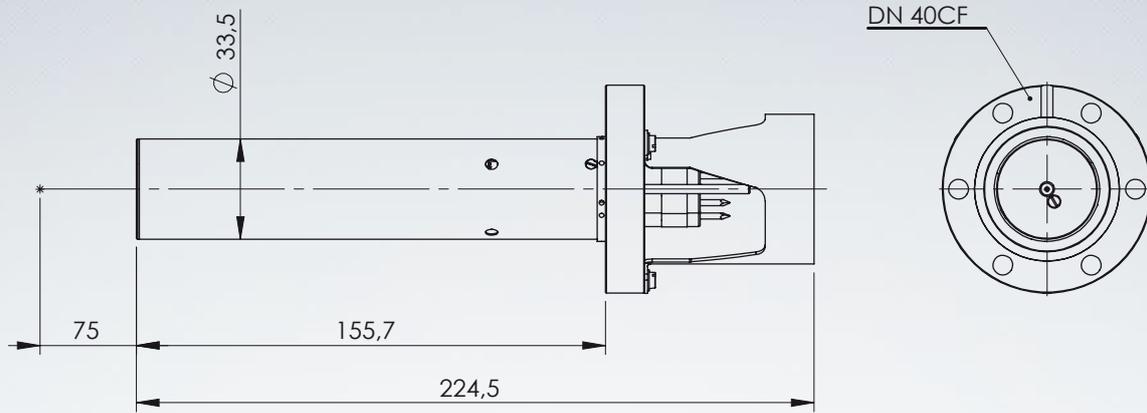
- Fine focus microformed tip cathode
- Scannable electron source with a small spot profile
- Integrated scan and deflection unit
- Correction of incident electron beam angle



FEATURES

Insertion length	min. 155.7 mm, other on request, OD: 34.5 mm
Energy range	1 eV - 5 keV
Spot size	120 μ m (for optimum distance)
Scan area	10 mm x 10 mm (for working distance of 75 mm)
Cathode type	Thoriated Tungsten
Shield	Copper or mu-metal
Mounting flange	DN 40CF
Bakeout temperature	250°C
Water cooling	not required





ES40-PS

Electron Source Power Supply



DESCRIPTION

The **ES-40 Power Supply** allows fine adjustment of beam energy, density, position on the sample and also beam profile. Advanced scanning features allow for independently controlled scanning range and scanning speed. All settings can be stored and recalled automatically after unit switch on, or else manually adjusted. The unit also features a built in timer and automatic standby mode. The **ES40-PS** can be supplied as a full width 19" rack mounting unit (3U height) or free standing.

APPLICATION

The **ES40-PS Power Supply** is intended to use with the **ES40C1 Low Energy Electron Source** or **Double Pass Mini Cylindrical Mirror Analyzer CMA 40CF**. The power supply allows fine adjustment of the electron beam profile to achieve a small spot at high energy and emission currents.



SPECIFICATION

Supply voltage	110V - 240V, 50Hz/60Hz
Beam energy (U_{eng})	0 - 5000eV, resolution 10eV, ripple < 200mV
Emission current (I_{emis})	0.1 - 300µA, res. 0.01µA (ES mode) / 1 - 3000nA, res. 1nA (CMA mode)
Focus Voltage (U_{foc})	60 - 100% of energy, resolution 0.1%
Wehnelt voltage (U_{wehn})	0 ÷ 150V, res. 0.1V (ES mode) / -12 ÷ 12V, res. 0.1V (CMA mode)
Beam position (Px,Py)	resolution 0.01mm, middle pos. ± 5mm
Scanning range (Dx, Dy)	10x10mm, resolution 0.01mm
Scanning speed (time/dot)	20µs - 30ms
User interface	7" TFT display with touchscreen. Digital encoder
Communication interface (in standard)	RS232/485, EtherNet/IP
Dimensions [mm]	483 x 133 x 435 (W x H x D), 19" rack mountable or desktop device
Weight, approx	12 kg

If you need any further information, please do not hesitate to contact our sales department



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