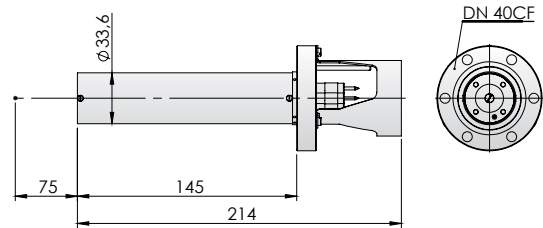


# FS 40A1

## FLOOD SOURCE



CHARGE NEUTRALIZATION

### DESCRIPTION

Low cost electron Flood Source for charge neutralisation of insulators or semiconductors in XPS/AES and SIMS applications. The Flood Source operates in two energy ranges, is fully software controlled and can also be supplied with custom insertion lengths (145 - 421 mm, other on request) and shielding materials, e.g. mu-metal, copper.

### FEATURES

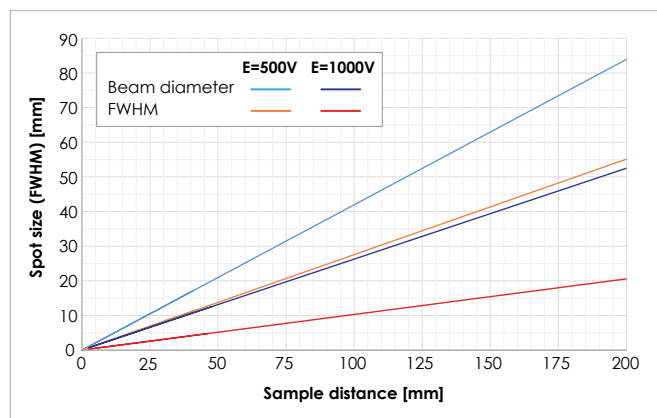
- High electron beam current
- Selectable energy ranges
- Stabilised emission
- Beam profile control

### OPTIONS

- Linear shift
- Customised insertion length
- Source shielding material ( $\mu$ -metal or copper)

### TECHNICAL DATA

Mounting flange	DN 40 CF (non-rotatable)
Energy range	0.01 - 1000 eV
Sample current	up to 100 $\mu$ A
Cathode type	thoriated tungsten
Shield	Cu (for $\mu$ -metal chambers) or $\mu$ -metal (for stainless steel chambers)
Insertion length	min. 145 mm (other on request) OD: 33.6 mm ( $\mu$ -metal), 35 mm (Cu)
FWHM	depending on working distance (e.g. 10 mm for distance 30 mm)
Typical working distance	20 - 100 mm
Bakeout temperature	up to 250 °C
Working pressure	$< 5 \times 10^{-6}$ mbar



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FS 40A1

# FS40A-PS

## FLOOD SOURCE POWER SUPPLY



### DESCRIPTION

The FS40-PS power supply allows fine adjustment of all instrument parameters for achieving a wide range of beam profiles; no additional electronics are required. All adjustable parameters are displayed on the large TFT display with touchscreen. All settings can be manually adjusted or can be stored and recalled automatically after unit switch on. The unit also features a built in timer and automatic standby mode. The FS40-PS can be supplied as a full width 19" rack mounting unit (3U height) or free standing. Unit can be remotely controlled via one of available interfaces. Unit also provides remote control of beam energy, emission current, focus and extractor voltages using analog interface. The unit is equipped with autosave function (the device save your parameters, preset and apply them automatically after restart).

### APPLICATION

The FS40-PS power supply is designed for use with the FS40A1 Electron Flood Sources which are used for charge neutralization of insulator and semiconductor samples in XPS/AES and SIMS applications.

### TECHNICAL DATA

Supply voltage	100 - 240 V, 50-60 Hz (power consumption max 70 W)
Beam energy (low energy range)	0.01 - 50 eV, resolution 0.01 eV
Beam energy (high energy range)	50 - 1000 eV, resolution 0.1 eV
Emission current	1 - 1000 $\mu$ A, resolution 0.1 $\mu$ A
Focus voltage	300 - 1000 V, resolution 0.1 V
Extractor voltage	0 - 150 V, resolution 0.1 V
Analog inputs	4 (0 - 10V)
Timer	dual mode timer 0 s - 99 h 59 m
Communication interface	RS232/485, Ethernet
Communication protocol	MODBUS-TCP
User interface	7" TFT display with touchscreen, digital encoder
Interface languages	English, German, Polish
Dimensions	483 × 133 × 435 mm (W×H×D), 19" rack mountable or alone
Weight (approx.)	5.2 kg



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