# **EA15-HP50**

# HEMISPHERICAL ENERGY ANALYSER





XPS | UPS\*

## DESCRIPTION

The PREVAC EA15-HP50 hemispherical energy analyser allows due to special designed extraction cones and automatic vacuum control, high-resolution PES measurements in static and dynamic environments **up to 50 mbar**.

Equipped with a total number of 11 slits, the analyser offers the possibility to choose between best energy resolution and best intensity. According to given photoelectron energy the analyser is set up with up to 9 predefined PE to satisfy customer's requirements.

### DETECTORS

- MCP-CCD detector
  - 40 mm diameter dual MCP detector
  - 656 energy channels available simultanously
  - 494 angular spatial channels available simultanously
    90 fps
- 7-MCD detector (for UHV)
- DLD detector (for UHV, on request)

# ANALYSER PACKAGE

#### The PREVAC analyser package includes:

- EA15-HP50 hemispherical energy analyser
- RUDI-EA2 high stable and low noise electronics
- SPECTRIUM acquisition and analyser control software with Windows OS computer system.

#### ADDITIONAL INFORMATION

EA15-HP50 hemispherical energy analyser can be controlled directly by LabVIEW programming environment.

#### TECHNICAL DATA

	Mounting flange		DN 200 CF
	Bakeout temperature		up to 120 °C
	Working distance		0.3 - 2 mm (dependent on cone opening)
	Analyser mean radius		150 mm
	Pass energies		5, 10, 20, 50, 100, 200, 250, 300, 500 eV
	Energy resolution	(PS	< 20 meV FWHM
	Kinetic energy range		0.5 - 1500 eV
	Acquisition modes		fixed, scan
	Lens acceptance angle (transmission mode)		+/- 9°
	Maximum energy window in fixed mode		12.5 % of pass energy (for MCP-CCD)

# SPECTRIUM SOFTWARE



Completely designed of non-magnetic materials



NOTE | The use of a mu-metal analysis vacuum chamber or an inner mu-metal shielded chamber in combination with PREVAC EA15-HP50 analyser is recommended in order to minimalize influence of external magnetic fields and to maximize performance of the analyser.



<sup>\*</sup> up to 0.1 mbar.



