NanoMaster µ-X-ray analyser

Citizen®
ISO 9001 : 2008 CERTIFIED

Made in Germany

New, innovative µ-XRF System

The miniaturisation of modern electronic equipment leads to increasingly smaller components, particularly at points of contact. Based on cost- and environmental reasons the coatings are becoming increasingly thinner, down to the nanometer range.
This generates measurement tasks that can not be solved by conventional coating thickness analysers.
The new, innovative concept of the NanoMaster offers a solution. In addition the NanoMaster allows material analysis with high precision and low limits of detection. Further, measurement to conform to the WEEE and RoHS guidelines can be performed.

The outstanding highlights of the NanoMaster a re:

- Silicon-semiconductor detector with electrical cooling
- various options to form the X-ray beam
- vacuum sample chamber for enhanced element range from Al
- excellent price/performance ratio.
- HiSpeX spectrometer with digital pulse processing
- available beam diameter down to 25 µm
- user-friendly operation due to XMaster s oftware
- versatile for production, incoming inspection and laboratory environments

Technical Data

HV Generator	25 - 50 kV, max. 1.2 mA, software controlled
X-ray tube	Microfocus X-ray tube, spot ≈ • µm, tungsten target with thinned glass window
(Option)	Rh-target X-ray tube with Be-window or Mo-target X-ray tube with Be-window
X-ray power	max. 50 VA., optimised for the application
X-ray beam	Quadruple collimator changer, software controlled 0.2, 0.4, 0.6, 0.8 mm ⅈ
X-ray optic	Parallel Mono-Capillary, 0.3 or 0.1 mm ⅈ
(Option)	formed capillary 50 µm ⅈ, Poly-Capillary ≤ 30 µm spot, energy depending
X-ray detector	Peltier-cooled Si-semiconductor detector (PIN-diode)
	25 mm ⁄ active area, ≤ 500 µm thick., Be-entrance window
	resolution ≈ •
(0ption)	Silicon Drift Detector, resolution ≤ 133 eV, 100.000 cps
Sample chamber	Vacuum tight chamber, 330 mm ⅈ, 350 mm deep
Vacuum-system	Vacuum pump with Pirani meter and LED-indicator
Sample stage	Motorised X-Y-Z-stage, 100 x 120 x 100 mm travel software controlled, step width 1.5 µm, ≤ 5 µm
precision.	
Dimensions	Height x width x depth 560 x 780 x 455 mm
Mains supply	110/220 Volt, 50/60 Hz

X-MasteR	Operating software with WINDOWS XP / NT using modern PC Technology
µ-MasteR	Evaluation module for coating thickness measurement
Fun-MasteR	Calibration module using fundamental parameter mathematics
%-MasteR	Qualitative material analysis for up to 8 elements
Liquid-MasteR	Plating bath analysis
Data-MasteR	Data base and statistic software for long term process control and documentation
Report-MasteR	Software module for customised reports.
	(Technical specifications can change without further notice)

WORLDWIDEMARKETING:

CITIZEN SCALE (I) PVT. LTD.

Unit No. E2, Plot No. 11, WICEL Estate, Opp. Seepz Gate No.1, Andheri (E), Mumbai 400 093. (INDIA)
Tel. : +91-22-4243 7700 • Fax : +91-22-4243 7800 • E:mail : sales@citizenscales.com • Web : www.citizenscales.com