

Calibration Range

The Compact eco/PIN is calibrated for gold, silver and platinum. For calibration certified reference samples are used. Calibration is valid for the concentration ranges shown in table no. 1.

Alloy system	Au	Ag	Cu	Zn	Pd	Ni
Gold	30 - 100	0 - 70	0 - 40	0 - 10	0 - 30	0 - 20

Accuracy of Analysis :

An accuracy for Au of $\pm 0.1\%$ - or 0.05 Karat - can be achieved with an analysis time of 2minutes. For all other admixtures the accuracy is in the same range. The accuracy of the X-ray spectrometric determination of gold shall be validated by certified standards of jewellery alloy samples. The following table 2 enables to compare X-ray measured values (is) with these of gold standards (given).

Alloy system	Au		Ag		Cu	
	given	is	given	is	given	is
Au 1	33.32	32.40	66.59	67.59		
Au 2	33.35	33.38	44.65	45.19	21.98	21.42
Au 13	91.67	91.67	2.76	2.98	5.28	5.35
Au 15	98.60	98.78			1.40	1.21
Au 16	99.99	100.0				

Technical Parameters

Model	Compact eco/PIN
Tube Power	max. 50 Watt, application optimised
X-ray tube	long life, high efficiently tungsten target, air cooled optional motorised
Detector system	PIN-Diode, 25mm ² with digital pulse processor
Radiation safety	Complies with German low for highest safety
Dimensions	H 35cm x W 40cm x D 60cm
Mains supply	110V / 230V, 50Hz / 60Hz
HV-Generator	Max. 50kV. 1.2mA. programmable
Single Collimator	0.7mm Ø
Sample stage	manual, 50 mm height, optional motorised
Video System	Color CCD-Camera with electronic cross hair field of view 8 x 6 mm. about 20 x magnification
Weight	40 kg