

## Specification for EDXRF

<b>Element range</b>	Sodium (11) to Uranium (92).
<b>Mode of Analysis</b>	Energy Dispersive, Direct excitation X-ray fluorescence analysis (EDXRF). Simultaneous analysis (with live update of results), or Sequential operation with live updates after the first measurement condition.
<b>Number of elements</b>	Sodium (11) to Uranium (92) – qualitative, quantitative or semi-quantitative using empirical calibrations
<b>Concentration range</b>	ppm to 100% m/m
<b>Sample form</b>	Solids, liquids, powders, pastes, granules, films, filter papers, etc.
<b>Sample size</b>	Sample holders for liquids/ powders/ pellets/ films/ paper and glass beads analysis. Liquids and powders 13 ml, solid disk 28-40 mm (1.1-1.5") diameter, Maximum sample height 60mm (2.3").
<b>Sample tray</b>	Automated multi-position (Minimum 10 Position) sample tray, with ability to fit secondary safety windows in each location for liquid analysis.
<b>Sample chamber</b>	Air with optional helium and sample rotation specified by application.
<b>X-ray Tube</b>	X-ray tube 4-30kV (3 Watts max), with W Target. Programmable excitation conditions with primary beam filtration from 4kV and 5 $\mu$ A.
<b>Detector</b>	High resolution Silicon Drift Detector (SDD), electronically cooled, typical resolution 145eV at Mn K alpha X-ray energy.
<b>Cooling</b>	Unique Wind Tunnel design ensures Zero dust ingress with efficient cooling of Spectrometer. This keeps all the electronics and critical components e.g. Tube, detector, etc. dust-free to give highly stable performance and long life.
<b>Data processing</b>	Spectrum processor with multi-channel analyser.
<b>User interface/PC</b>	Full computer control. Computer with core i3 or better processor, 1TB HDD, 4 GB RAM, 4 USB PORT, 19" LCD monitor.

<b>Key Pad</b>	Dust and solvent proof membrane keypad, ensuring long term reliability This is essential for liquid samples with corrosive / reactive properties.
<b>Software</b>	Resident Analytical Software Package includes: facility for simple routine operation, drift correction, qualitative, and full quantitative analysis, comprehensive X-ray correction models, ability to store results, monitor QC check sample, display spectrum scans, download calibrations, export data, and simple data back-up routine.  Fundamental Parameters s/w module for standard less analysis.
<b>Operating Environment</b>	Min/Max operating temperature from 10 <sup>0</sup> C to 35 <sup>0</sup> C, storage temperature -30 <sup>0</sup> C to 50 <sup>0</sup> C, operating humidity 15-80% non-condensing. Maximum altitude for operation 2000m (6560ft).
<b>Power requirements</b>	Single phase 220-240 V AC; 50 Hz; 400 VA max.