



Product Sheet XRF 11

S2 PUMA Series 2 with HighSense™ Detector

- Quality Control for High-Throughput Industrial Processes

The new HighSense™ and HighSense™ LE detectors bring the latest Silicon Drift Detector (SDD) generation to the S2 PUMA Series 2. The highlights are highest count rates, super-fast signal processing, and supreme sensitivity from F to U, setting new standards for benchtop EDXRF instruments.

A 5% better energy resolution and at least 300% higher count rates when compared to previous detectors means significant improvements on analytical performance. When measurement time

counts and the application demands precise analysis, the HighSense detectors perform!

The light element (LE) configuration of the new detectors uses a thin but robust high-transmission window for optimal detection of elements such as Na, F, and even C. In conjunction with the powerful 50 W X-ray tube with Ag anode target, the S2 PUMA offers unrivaled light element analysis.



Figure 1: S2 PUMA XY Autochanger with 20 sample positions and automatic sample grabber.

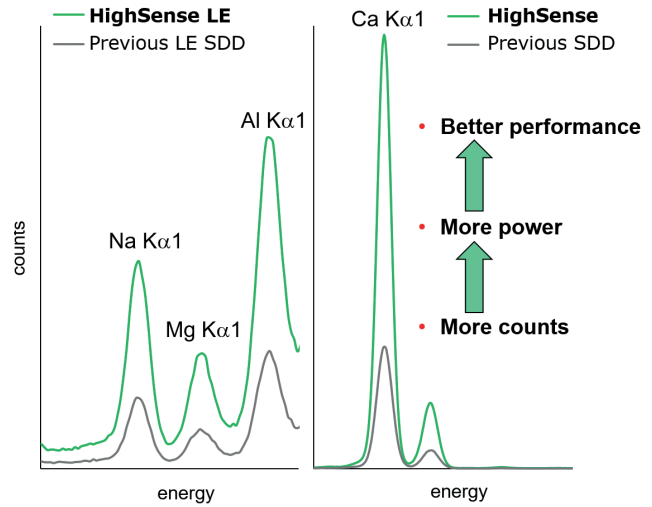


Figure 2: Superior performance – HighSense and HighSense LE detector vs. previous detectors.

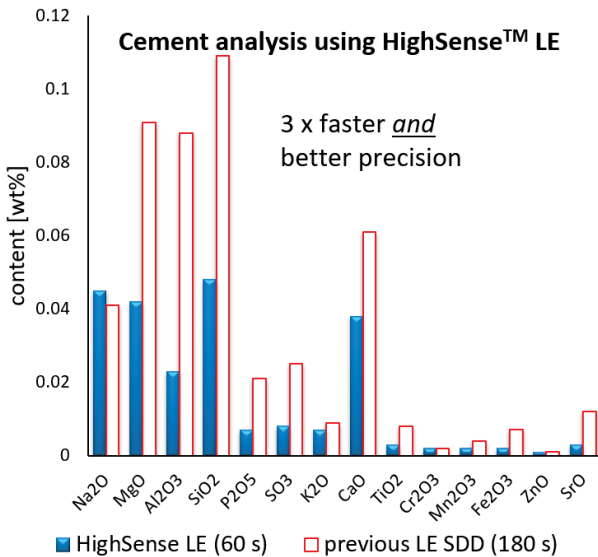


Figure 3: HighSense LE detector vs. previous SDD – A Performance test for cement applications.

Typical industrial applications include process control analysis on high volumes of samples. The S2 PUMA with HighSense detector technology is made for this, as the new detectors drastically reduce measurement times. For example, a threefold reduction of the measurement time goes without sacrificing analytical precision (see Figure 3)! The supremely high count rates without compromise on spectral resolution enable industrial users to get a denser data grid for optimized process control. Together with the S2 PUMA's unique features such as TouchControl™, SampleCare™, its XY Autochanger, and the Automation option, the S2 PUMA becomes the tailor-made high-performance elemental analyzer for industrial applications.

	HighSense	HighSense LE
Detector Type	Silicon Drift Detector	
Element Range	Na to U	(C) F to U
Window	Be	High-transmission polymer
Input count rates	more than 1,500,000 cps	
Energy Resolution	≤135 eV at Mn K α	
Cooling	Electric Peltier cooling (no liquid nitrogen, maintenance-free)	

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