Base Elements	Al, Mg, Cu, Zn
Alloying Elements	Al, Fe, Mg, Mn, Si, Pb, Cr, Ni, Cu, Zn (Sn in special configuration)
Laser	Class 3R Red, Class 4 IR-A
Spectrometer	High resolution. High throughout, thermally controlled, standard range -190-450nm, deep UV range available (optional, 175-430nm)
Working distance	248 +/- 7mm from front face of modules
Divert Signal Output	24V, 0.5A max (can be configured for other signals)
Communication	TCP / IP over ethernet 100 mbps
Communication Protocol	See “SpeedSorter Software Protocol Document”
Control Software	Client-side GUI, controls for setting recipes, viewing element ratios, number of pieces sensed / diverted, processed spectra, laser status, system temps, error and fault messages, saving data on device. Control up to 10 modules in Tabs, certain operations performed globally.
Memory	Onboard memory for saving several hours data per session
Power	24VDC 600w (Din rail mount power supply included)
Laser Safety	BNC remote laser interlock, E stop, onboard and remote laser status LEDs
Ventilation Requirements	150 CFM per module clean filtered air
Ambient Operating Conditions	0° - 40°C non-condensing 25%-85% RH
Storage Conditions	-10° - 65°C non-condensing 25%-85% RH
Dimensions	120 x 300 x 850mm
Weight	28kg

To learn more, email us at appliedsystems@oceaninsight.com.

Ocean Insight
Applied Systems

US +1 727-733-2447 • **EUROPE** +31 26-3190500 • **ASIA** +8621-6295-6600
info@oceaninsig **www.oceaninsight.com**

Ocean Insight

SpeedSorter™

The SpeedSorter™ LIBS Optical Sensor.

HIGH SPEED IN-LINE ALUMINUM SORTING

- Sort speed up to 5 tons / hour contingent on sorting system capabilities
- High purity, High yield results to maximize revenue
  Example Separations - wrought/cast,
- Aluminum/Magnesium, 5xxx/6xxx
- Ensures purity for secondary Al production

More Tons Per Hour Equals More Revenue.

SORT YOUR ALUMINUM TONS FASTER WITH OUR IN-LINE LIBS.

Ocean Insight's SpeedSorter™ is an industrial, high-throughput sensing module designed for integration into automated scrap-handling and recycling systems. It excels in aluminum alloy separations such as wrought from cast — as well as certain class separations like 5XXX and 6XXX. Which means fast throughput with our in-line LIBS, high purity, and high-yield results. Not to mention, maximum revenue.

APPLICATIONS:

- Scrap metal recycling
- Light metals analysis and sorting
- Magnesium analysis
- Incoming scrap material identification
- Positive material identification
- Converting production scrap
- Aluminum analysis
- Titanium analysis
- Quality control
- Separation into Alloy Classes

The SpeedSorter has been designed with simplicity and robustness at the forefront. The optics and sensitive electronics are fully sealed against the environment and the system contains no moving parts except for the cooling fans. It was designed to be an expandable, lane-based system, so that customers can start with a few modules and acquire additional modules as their needs grow. Each module interrogates material in one "lane." The software can control multiple modules simultaneously.

FEATURES AND BENEFITS

- High-powered laser burns through contamination and coatings. Pre-ablation laser not required
- Minimized downtime due to ruggedized optics design. No distance sensor or focus adjustments needed.
- Fast, in-line design to maximize throughput up to 5 TPH depending on number of channels and sorting system capabilities
- Much faster than handheld LIBS which is ~ 1 to 3 seconds per measurements
- Customized to your sorting system