

# The SpeedSorter™ LIBS Optical Sensor.

## HIGH SPEED IN-LINE ALUMINUM

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



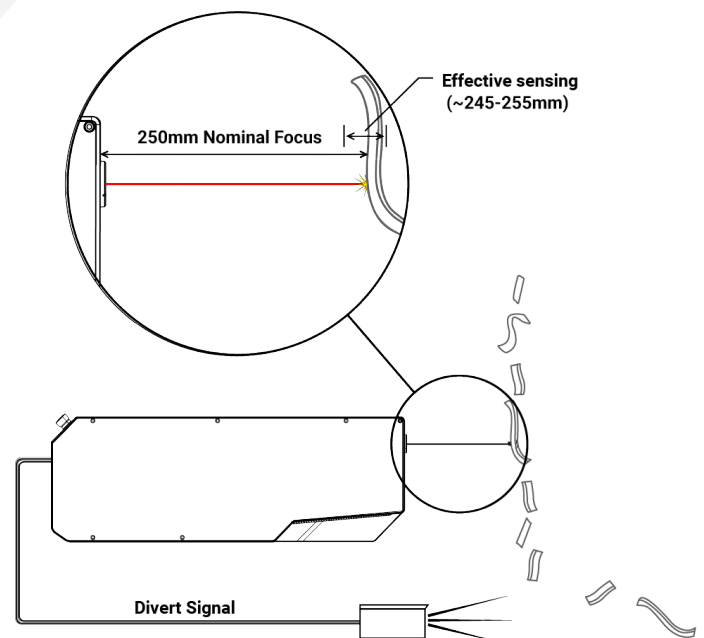
## APPLICATIONS:

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

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. Cleaning laser not required
- Minimized downtime due to ruggedized optics design. No distance sensor or focus adjustments needed.
- Each sensor can process 0.75 tons per hour, per lane, many systems have 6 lanes, totaling 4.5 tph
- Customized to your sorting system



<b>Base Elements</b> (Testing required in some cases)	Al, Mg, Cu, Zn
<b>Alloying Elements</b> (Testing required in some cases)	Al, Fe, Mg, Mn, Si, Pb, Cr, Ni, Cu, Zn (Sn in special configuration)
<b>Laser</b>	Class 4 IR, Class 3R for alignment
<b>Working distance</b>	250 +/- 5 mm, typical from front face of modules
<b>Divert Signal Output</b>	24V, 0.5A max (can be configured for other signals)
<b>Communication</b>	TCP / IP over ethernet
<b>Communication Protocol</b>	See "SpeedSorter Software Protocol Document"
<b>Control Software</b>	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. Change multiple modules in Tabs, certain operations performed globally.
<b>I/O (24VDC)</b>	Divert, Laser ON, Remote Interlock, Sync IN, Fan ON
<b>Power</b>	24VDC 600W (Din rail mount power supply included)
<b>Laser Safety</b>	Manual E-stop, remote interlock, system status LEDs
<b>Ventilation Requirements</b>	150 CFM per module clean filtered air
<b>Ambient Operating Conditions</b>	0° - 40°C non-condensing 25%-85% RH
<b>Storage Conditions</b>	-10° - 65°C non-condensing 25%-85% RH
<b>Weight/Dimensions</b>	60lbs (27.2kg); 90cm x 12cm x 30cm (35cm with back handle)

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