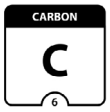
PINE
Partner for Test & Measurement Equipment Services and Data Solutions

Nondestructive Testing (NDT)
Positive Material Analyzer (PMI & LIBS)

SEE VIDEO: https://youtu.be/flVK49AF8O8



CARBON!
You want to measure carbon in alloys, and the Z is the only handheld analyzer on the planet that accomplishes this.

SciAps

Z-200 C+ LIBS Analyzer

Pine Item #52324

DESCRIPTION:

The world's only handheld analyzer that delivers carbon content in stainless, steels, and cast irons…yes even L-grades. The Z-200 C+ is a dedicated analyzer for alloy analysis including carbon content. It analyzes carbon content in stainless, down to 0.007 ppm, for dependable separation of L and H grades. The C+ also analyzes carbon steels, including carbon equivalents (CE) for weldability. The analyzer is available in two versions. The Z-200 C comes with iron-base calibrations including carbon. The Z-200 C+ includes both iron and stainless bases and carbon.

The Z uses the technique laser-induced breakdown spectroscopy (LIBS), which has many similarities to spark OES. LIBS has been an established laboratory technique for 20+ years. It fires a pulsed laser at the material to create a plasma, instead of a continuous electric spark-like spark OES. Light from the plasma is measured with an onboard spectrometer to determine individual wavelengths and thus what elements are present. The elemental content is quantified via onboard calibrations.

FEATURES:

- High-purity Argon and Purge. Argon purge is essential for quantitative analysis with LIBS and OES, and for carbon it is critical
- High laser pulse energy and frequency. The SciAps laser delivers 5-6 mJ/pulse on the sample, with a 50 Hz repetition rate
- Laser Raster. Rastering is a must for accurate carbon tests with LIBS. The laser is typically 100 um diameter beam and even the best sample prep may not completely remove surface contamination on this distance scale

APPLICATIONS:

- Refinery companies
- Inspection companies
- Carbon analysis in alloys in the field in seconds
- Carbon analysis in L, H and Standard Grade Stainless

Contact a Pine branch near you to request a quote or place an order

VISIT OUR U.S. AND CANADA WEBSITES TO FIND A BRANCH NEAR YOU

United States
www.pine-environmental.com

Canada
www.pine-environmental.ca

Product Specifications

Weight	4 lbs with battery
Dimensions	8.25" x 11.5" x 4.5"
Display	5" color touchscreen Smartphone type display – PowerVR SGX540 3D graphic
Sample viewing	On-board camera/video for viewing sample before, during analysis, laser spot finder to show where laser strikes sample.
Auto-focus	Z-direction stage, computer controlled for manually or automatically adjusting laser focus location on sample. Essential for liquids analysis.
Comms/Data Transfer	Wifi, Bluetooth, USB. Connectivity to most devices, including SciAps Profile Builder PC software.
Available Apps	Alloy, Geochem (Mining), Empirical, Environmental Apps. New Apps are added regularly please check with company or website.
Excitation Source	5-6 mJ/pulse, 50 Hz repetition rate, 1064 nm laser source
Processing Electronics	ARM Cortex -A9 dual-core / 1.2 GHz Memory: 1 GB DDR2 RAM, 1 GB NAND
Spectral Data Acquisition	Spectral data collected in either ungated or gated operation, with user settable gate delays
Operation/Argon Purge	On-board, user replaceable argon cartridges for operating in argon purge environment. Air-based operation optional. Argon canister provides approximately 600 tests before replacement.
Laser Raster	On-board XY stage for rastering laser to discrete locations for targeted analysis or averaging. Raster pattern up to 16 x 16 grid, 256 locations.
Calibration Check	Internal shutter is also 316 stainless for totally automated calibration and wavelength scale validation.
Power	On board rechargeable Li-ion battery, rechargeable inside device or with external charger, AC power.
Drift Correction	Only needed for higher accuracy analysis (argon purge). Automated drift correction using factory provided or user provided reference materials.
Grade library (alloy)	500+ grades, multiple libraries supported, grades may be added on analyzer or via PC software package (ProfileBuilder).
Data Storage	Results Storage: 8 GB SD
Security	Password protected usage (user level) and internal settings (admin).
Regulatory	CE, RoHS, USFDA registered. Class 3b laser. Sample sensor on-board, allows for operation under Class 1 conditions, subject to local LSO approval. CE, RoHS, USFDA registered.

Video:
https://youtu.be/flVK49AF8O8

Local Delivery & Pick-up

In-Stock Equipment

Repair & Calibration