

**НПП СД**

Научно-производственное предприятие  
Структурная Диагностика

**LIS-02**

**PORTABLE LASER SPECTROMETER**



Портативный лазерный  
спектрометр



- **Carbon analysis directly in air,  
No Argon gas required**
- **Fastest in world with test  
result in 1 second**





## AREAS OF USE


- > Input / output control of metals, alloys
- > Sorting scrap
- > Spectral analysis in laboratory studies
- > Positive metal identification
- > Quality testing of metal

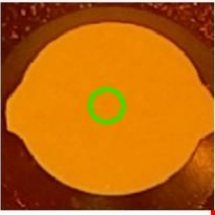
The LIS-02 Metal Analyzer is designed for operational input inspection of rolled metal products, determination of steel grades, scrap of non-ferrous and ferrous metals and alloys.

The spectrometer provides high speed in determining chemical elements: C, Si, Mn, Cr, Ni, Fe, Mg, Al, V, Cu, Zn, Sn, Mo, Ti, W, Nb, Pd, Ag, Cd, Pt, Au and others.

33.1 °C









**CE=0.72**

БД: Сталь

	Измерение	40X
<b>C</b>	0.40 ±0.04	0.36 - 0.44
<b>Si</b>	0.24 ±0.04	0.17 - 0.37
<b>Mn</b>	0.65 ±0.05	0.50 - 0.80
<b>Cr</b>	0.95 ±0.03	0.80 - 1.10
<b>Cu</b>	0.27 ±0.02	< 0.30
<b>Fe</b>	97.49 ±0.10	> 96.62
<b>Ni</b>		< 0.30

## FEATURES

**Carbon analysis.** The LIS-02 allows to measure carbon concentration in steels without using argon, directly in the air.

**Speed.** High speed analysis, result in 1 sec.

**Accuracy.** Provides unsurpassed resolution of 0.01 nm over the entire measurement range.

**Portability.** Small dimensions and weight comparable to a handheld power tool.

**Reliable.** Unlimited operating life, compared to X-ray fluorescence spectrometers (XRF).

**Built-in grade library.** Based on the results of the analysis, the steel or alloy grade is displayed on the screen.

**CE Value.** Measurement of carbon equivalent values

**Camera.** High resolution camera to capture the location of analysis.

## TECHNICAL CHARACTERISTICS

Source of radiation	Pulsed DPSS Laser 1064 nm
Measurement point size	50 microns
Measurement duration	1.0 sec
Laser emitter safety class	3b
Working spectral range	177-380 nm
Display	5" color touch screen display
Weight	2.2 Kg ( Including Battery )
Memory	32 GB
Data Transfer	WiFi and Bluetooth
Language	English, German and Russian
Security	Password Protection
Duration of autonomous work	More than 200 dimensions
Power	Replaceable Li-ion battery
Operating conditions : ambient air temperature	From -15 to +44 °C

## OTHER INCLUSIONS

- > Possibility to adjust the device operation parameters to the selected task
- > Free built-in client software
- > 12 months warranty
- > LisMobile software Free application for Android smartphones.

## DELIVERY SET

- > Portable laser spectrometer
- > Thermoprinter
- > Batteries
- > Transport case
- > Battery Charger
- > Reference sample

## DIFFERENT BASE AND ALLOY ELEMENTS

The basis	Elements
Fe	C, Si, Mn, Cr, Ni, V, Cu, Ti, Mo, Co, Al, Nb, W, Mg, Zn
Al	Si, Zn, Mn, Mg, Fe, Cu, Ni, Be, Ti, Cr, Cd, Sb, V
Cu	Si, Zn, Mn, Al, Be, Sb, Ni, Sn, Pb, Fe, Cr
Ni	Al, Si, Ti, V, Cr, Mn, Fe, Co, Cu, Nb, Mo, W, C
Ti	Mo, V, Al, Fe, Cr, Zr, Mn, Sn, Ni, Nb
Zn	Al, Cu, Fe, Sb, Sn, Mg, Pb

# Measurement Of Carbon Equivalent Values



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