



OBLF

GS 1000-II

Optical Emission Spectrometer
for High Precision Metal Analysis

The GS 1000-II, the most compact member of the OBLF family, is a single matrix, high precision spark emission spectrometer for all standard applications. Thanks to its compact and solid construction as well as its simple operation, it is ideal for use in production environments like foundries, but also for the purpose of incoming goods and materials control. In order to guarantee independence from the external conditions surrounding the spectrometer, the detectors (photomultipliers) and the integration system are housed in the temperature-stabilised vacuum optic. The analytic capability covers the precise analysis of short-wave elements like carbon, phosphorus, sulphur and nitrogen in steel or cast iron and phosphorus in aluminium.

Like with all OBLF spectrometers, the electrical spark is generated with the help of a Gated Digital Source (GDS), which enables simple determination of the best possible excitation parameters combined with short analysis times.

The maintenance needs are low thanks to the easily accessible, self-cleaning spark stand. Our special, patented gas-supply system was optimised to keep argon consumption to a minimum, which results in very low operating costs.

Apart from on-screen display and output via a printer, the analysis results can also be made available to superordinate systems via a network connection. Our spectrometer software, OBLFwin, whose parameters can be set to suit the tasks of the individual customer, contains materials control, automatic program selection and machine monitoring options using control samples. The customer-specific calibration of the spectrometer is usually performed at OBLF's premises, whereby we can also take samples provided by our customers into account.

Precise instructions on how to operate the spectrometer and use the software are naturally given during installation. The customer only has to ensure availability of a power and an argon supply.

Technical Specifications

1. Optical system

- Paschen-Runge line-up
- temperature stabilised

2. Vacuum system

- automatic vacuum control
- pump duty cycle < 5%

3. Spark stand

- optimized for low Ar consumption
- patented self-cleaning
- spark frequency up to 1 kHz

4. Spark generator

- Gated Digital Source (GDS)
- completely maintenance free
- fully semiconductor-based & digital control

5. GISS-Functions

- mini-GISS

6. Software Functions

- Windows[®] Software
- automatic precision control & averaging
- automatic reprofiling
- type calibration
- charge control
- data module for statistic process control
- ...

7. Applications

- all standard matrices

8. Installation

- dimensions approx. 60×110×108 cm (w×h×d)
- weight approx. 300 kg
- permissible operating temp. +10 to +40°C
- argon supply: 3 bar, Ar 4.8 or better
- power connection 230V, 50/60Hz, 1.0 kVA