



METAL SCIENTIFIC

Measure with Precision



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Application:

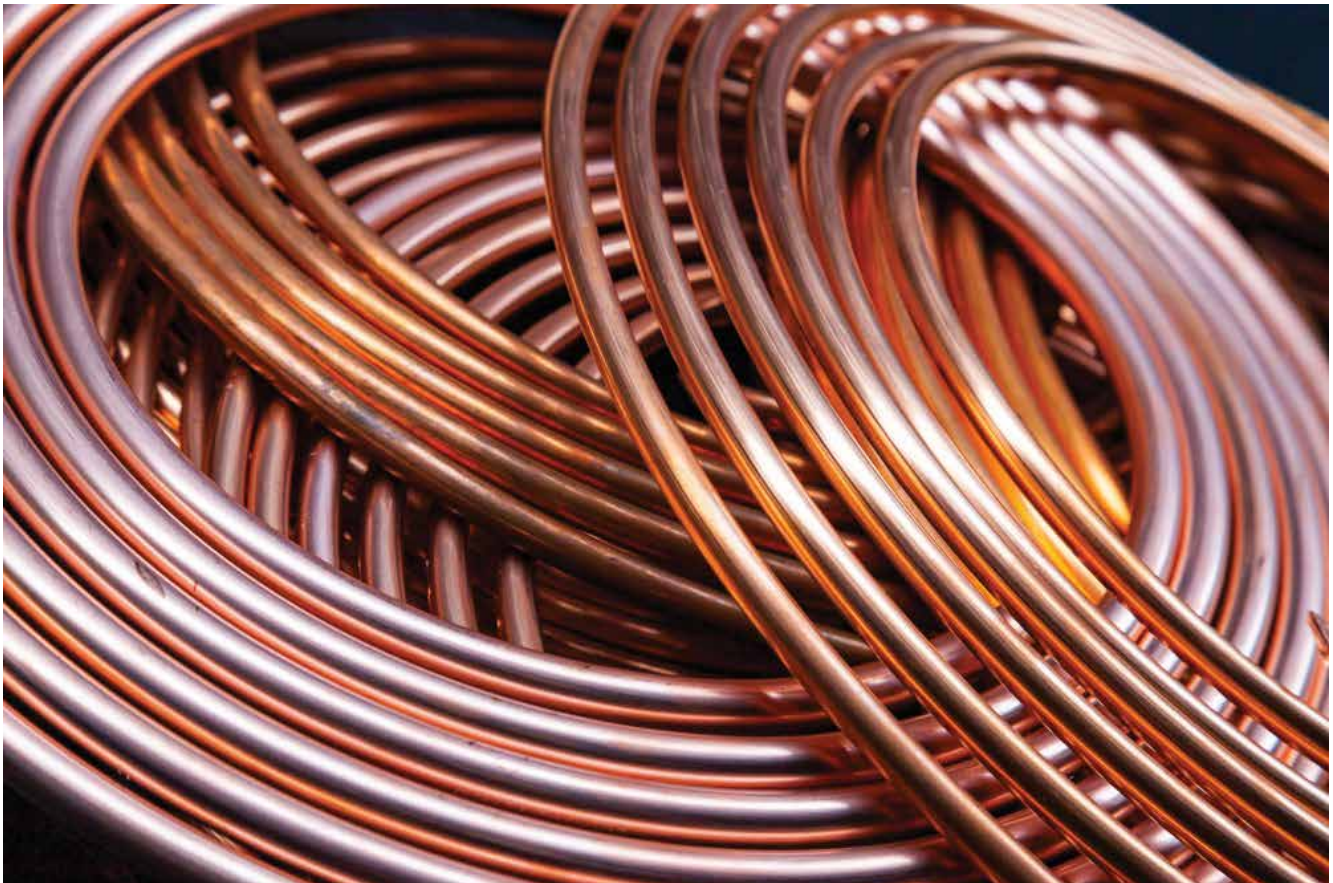
The Z4 Oxygen Nitrogen Hydrogen Analyzers are used to analyze oxygen, nitrogen and hydrogen concentrations in inorganic sample materials reliably, accurately and safely by inert gas fusion. Determination of oxygen, nitrogen and hydrogen in Iron, Steel, Cobalt, Nickel, Ferroalloys, Copper Production, Titanium, Zirconium and other Refractory Metals, Metal Processing, Aluminum and Magnesium, Magnetic Materials. For example, Determining the amount of oxygen and nitrogen is critical during the steel making process, the final alloy adjustment by addition of ferroalloy but also for the production of nickel- and cobalt-base alloys.

Technical Data:

Item	Index
The Scope of Analysis	Oxygen: 0.00001%~20% (Extendable measurement range) Nitrogen: 0.00001% to 30% (Expandable measurement range) Hydrogen: 0.00001% to 0.15% (extendable measurement range)
The Minimum Reading	0.000001%
Instrument Accuracy	Oxygen: SD:≤0.0001% or RSD≤1.0% Nitrogen: SD:≤0.0001% or RSD≤1.0% Hydrogen: SD:≤0.2ppm or RSD≤2.0%
The Time of Analysis	Oxygen: 120~180s Nitrogen: 120~240s Hydrogen: 120~180s/120~240s (Infrared absorption method/thermal conductivity method)
The electronic balance weighing accuracy (One ten thousandth)	0.0001 g
The Method of Analysis	Oxygen: Infrared absorption method Nitrogen: Thermal conductivity Hydrogen: Infrared absorption method/thermal conductivity method
Pulse Heating Furnace	Maximum current: 1500A Maximum power: 8KVA Maximum temperature: 3500°C
Carrier Gas	99.999% High purity argon/high purity helium, 0.40MPa
Power Gas	Ordinary nitrogen or purified compressed air (de-oil removal), 0.25MPa.
Chemical Reagent	Magnesium perchlorate, alkali asbestos

Features:

1. Digital closed-loop control pulse electrode furnace
2. Powerful 8.0KW impulse furnace for temperatures in excess of 3000°C
3. Temperature programming control power, with constant power, constant current, constant voltage, slope control and other ways to increase temperature
4. Instrument operation control circuit and data acquisition adopt modular, no drift design
5. The integrated design of the whole machine, the layout is more reasonable, and the gas system is more airtight
6. It has a high functionality, elegant design and innovative features
7. It is a reliable and precise measurement of Oxygen, Nitrogen, Hydrogen is an important part of quality control process.
8. It can available for the determination of single elements as well as for measuring combinations of ON, OH, and ONH.
9. The scientific concept of the Z4 series is based on flexible configuration options and the user-friendly software.
10. Quick results thanks to easy operation
11. The gas system is lead to the detectors to guarantee low detection limits and good reproducibility.
12. The Z4 during analysis breaks helps to reduce carrier gas consumption and hence operating cost.
13. The controlled catalyst with moisture filter ensures reliable oxygen measurement also for low concentrations.





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Z4

**Oxygen Nitrogen
Hydrogen Analyzers**

