

Non-Contact Infrared Online Moisture Analyzer

GY1000

Features

- Non-contact, non-destructive, real-time dynamic online testing system
- Replaceable ultra-long-life halogen tungsten light source with higher luminous efficiency;
- Equipped with PBS infrared detector for enhanced temperature stability;
- 4-wavelength 8-beam optical path technology ensures more accurate and stable results;
- High-speed brushless motor guarantees more precise signal sampling;
- Dynamic dark current correction and digital filtering eliminate interference, reducing thermal noise and other external impacts;
- HD touchscreen displays real-time measurement data and stores up to 30 days of records;
- Modular design allows one controller to connect with multiple probes;
- Robust industrial design with dustproof and waterproof features, adaptable to various industrial environments;
- Simple maintenance and easy servicing.

Application

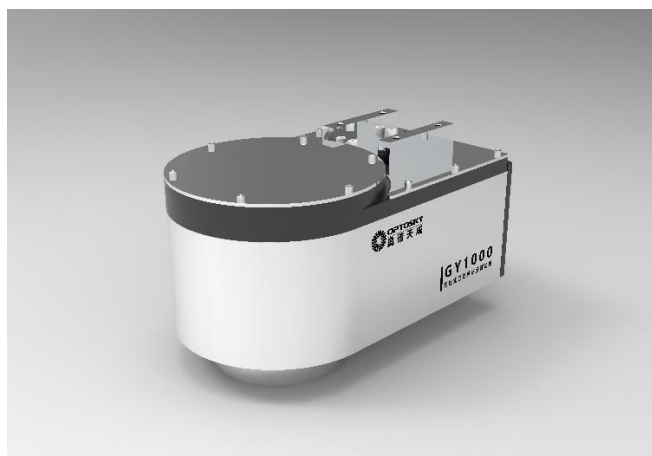
- Textile industry: fabrics, yarns, garments, wallpaper, etc.
- Food industry, food processing, tea, ceramic industry, glass industry, cement industry, pharmaceutical industry, chemical industry, wood industry, paper industry, etc.
- Steel industry: sintering mixture, pellet raw material, before and after drying, pelletizing, etc.
- Non-ferrous metals: bauxite, copper concentrate, mineral sand, nickel ore, gold, silver, lead and zinc concentrate, alumina and non-ferrous smelting, etc.
- Tobacco industry: cigarette packs, tobacco stems, tobacco leaves, shredded tobacco, re-drying, tobacco sticks, etc.

Description

GY1000 is a real-time online measurement system for measuring the moisture content of substances developed by using the absorption principle of moisture in the near-infrared band.

GY1000 uses the optimized optical path system and perfect signal processing technology and algorithm, combined with the spectral analysis technology accumulated by Optoelectronics over the years, to provide users with a new generation of leading online moisture measurement solutions.

The composition of GY1000 mainly includes detection probe, display, supporting power supply and cables. The probe is used as a photoelectric detection and signal processing system, and the display shows the measurement results and provides a human-computer interaction interface. In order to meet the needs of industrial production, GY1000 provides data storage and warning functions, and supports network linkage with other industrial equipment, further improving the intelligence of industrial production.



1. Parameter

GY1000	
Optical Parameters	
Measurement Wavelength	4 Wavelengths, 8 Beams
Detector	Infrared Detector (PbS)
Testing Speed	25ms
Measurement Distance	250mm±100mm
Detection Area	Ø50mm (Circular)
Measurement Accuracy	<0.3% (Absolute Mean Value)
Measurement Repeatability	<0.1%
Measurement Range	0~70% H ₂ O
Electrical Parameters	
Motor Speed	3750RPM/M
Light Source	12V/20W, Lifetime ≥5000H
Probe Cable	3M Shielded Twisted Pair (Custom Length Available)
Input Power Supply	DC 24V/5A
Operating System	Window10
Industrial PC Screen (Optional)	10" Capacitive Touchscreen
Communication Method	Ethernet (Modbus TCP)
Signal Output Method	4-20mA Analog
Storage Temperature	~20°C ~ +65°C
Operating Temperature	0 ~ 50 °C
Operating Humidity	40%~60%
Physical Parameters	
(IP) Rating	IP65
Material	Stainless Steel
Installation Method	Overhead Fixation
Dimensions	352.6×200×204.5mm
Weight	10Kg

2. Selection Guide

Model	Description
GY1000-H	High Moisture Content Samples: >45% water content
GY1000-L	Standard Samples: ≤45% water content

3. Product Images



4. Accessories

Standard Accessories	
1	Ethernet Cable
2	Power Adapter
Optional Accessories	
1	Probe Mounting Bracket
2	Anti-Kink & EMI-Resistant Cable (Custom Length Available)
3	Probe Lens Cleaning Kit
4	Probe Protective Cover (Material Options Available)
5	Industrial PC

5. Application Scenarios & Measured Data



Tea Processing - Moisture Content Testing During Withering Stage