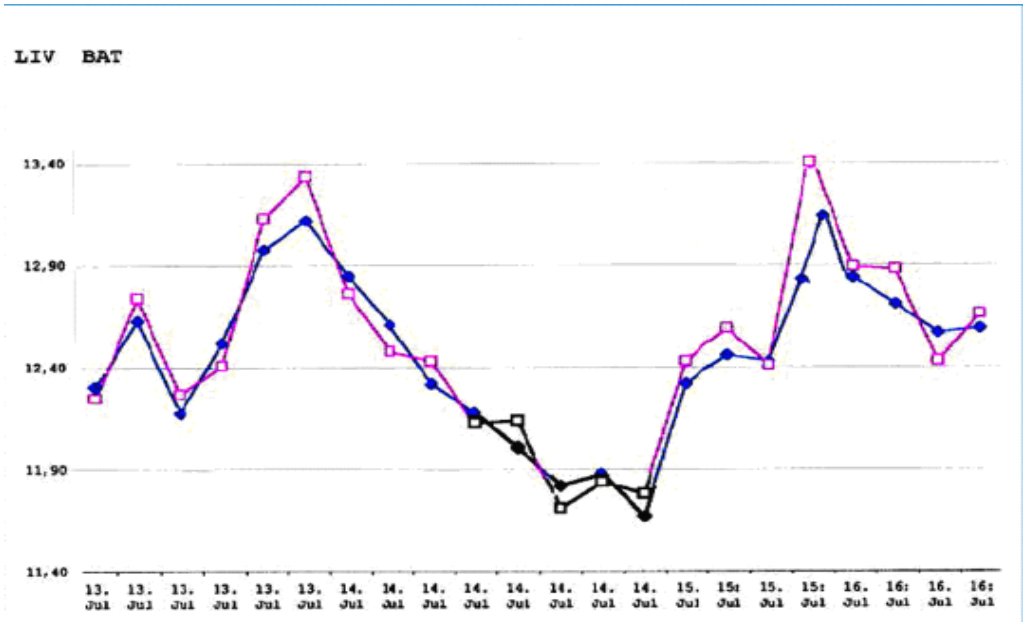
Non-contact on-line microwave analyzer M160S

Description

Non-contact on-line microwave moisture analyzer M160S is the latest designed product of Coliy Technology GmbH. It uses the latest technology of microwave measurement and electronic circuitry to make its operation simple and reliable. Its panel is ergonomically designed for easy operation. The large sized screen adopts VGA display. It displays all the required information very effectively and conveniently. Customer can select more than 10 kinds of different data settings for VGA display randomly or simultaneously. All operations are carried out simply by finger touch on the screen.

Non-contact on-line microwave moisture analyzer M160S is composed of a host and a probe. Adopting the principle of non-contact reflective measurement the probe has no requirement to contact the measured materials. The probe is made of high-strength stainless steel with power of 30mW; it is with locking water-proof linking pieces between host and probe along with a 3 metre connection cable. All parts are waterproof and dustproof the solid stainless steel shell can resist accidental impact and the unit can be work long-term under severe environmental conditions. Non-contact on-line microwave moisture analyzer M160S can measure the moisture content of most solids. With the characteristics of high reliability sturdiness and durability fast response and fine measurement accuracy it is designed to measure continuously the moisture content during the production process.

Non-contact on-line microwave moisture analyzer M160S adopts microwave absorption principle using microwave frequency with high reliability and anti-jamming ability. Measurement data can be gained within 100 milliseconds and the accuracy is as high as 0.5%. Measuring scope ranges between 0-40% or higher and it offers the fully automated range without user's adjustment. It can almost detect moisture in any solid material (not containing too much metal): coal, cement, mineral, paper, sugar, grain, popcorn, flour, seed, cut tobacco, tobacco leaf, quartz sand etc.. Coliy Technology GmbH can customize the product according to user's requirement.



Red: Laboratory data; Blue: on-site measurement data.
Supplied by Dusseldorf physical Laboratory Germany

While using the online microwave moisture analyzer M160S you only need to fix it on a place 200mm above the measuring materials or 200mm under the conveyor belt. And the moisture content will be detected without contacting the measuring materials. As the microwave is quite sensitive to water and when it penetrates the measuring materials its power and phase will be changed. By detecting this change M160S can measure the value of moisture content. Technicians of Coliy technology GmbH adopt the advanced software technology and combine it with engineering experience. M160S is easy to install stable and durable making its use very convenient. Besides analog output (4-20mA) online microwave moisture analyzer M160S offers RS232 relay and memory card as options to meet different needs.

Features

The physical principle of the measurement is based on the Law of microwave resonance. The water content of the product is determined by attenuation and frequency shift of microwave energy. Due to the small capacity of the microwave energy, it won't heat up the sample and microwave can fully penetrate the product. So all of the Physical moisture will be measured. It is not only applied to measure moisture content on the surface of objects but also within the objects. This microwave technology ensures a high moisture selectivity rate so it can assure the high-accuracy measurement of moisture content of all products and the results will not be affected by different colors and surface structure of the product.

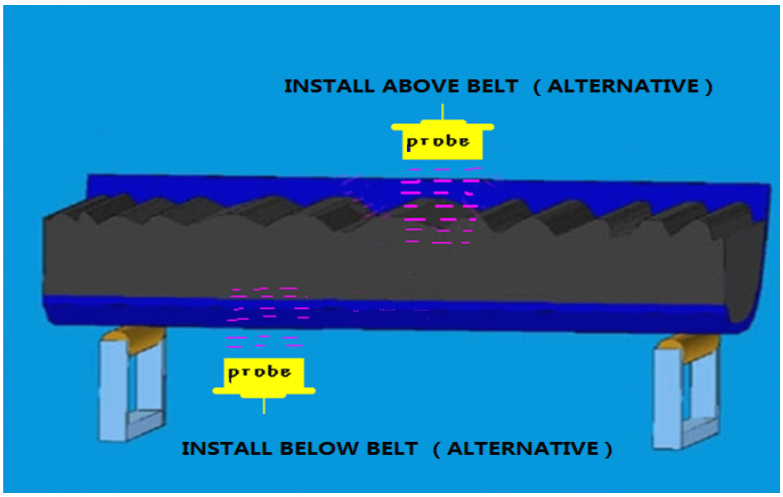
Accuracy	Measurement results of moisture content are not affected by the weight color or substance structure of product.
Calibration	All the physical moisture content in the sample is measured through patent methods; to a great extent the calibration is long-term stable and not affected by sorts.
Fast	Finish measurement within millisecond.
Stable	No moving parts water-proof and dust-proof maintenance-free.
Simple	The user-friendly menu makes operation very easy and it can carry out self-diagnosis automatically.
Applications	Detect the moisture content of solid on-site or in laboratory.

Specifications

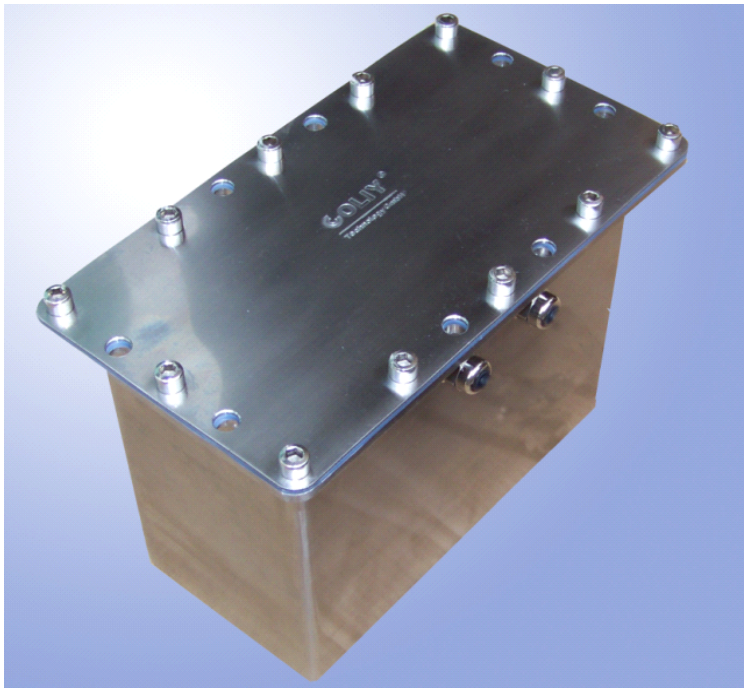
Mode of measurement	Non-contact online measurement
Measured moisture	measure moisture on surface and inside of solid
Range	0-30%
Resolution (Laboratory)	0.1%
Distance apart of probe and measured materials	150-250mm
Detectable materials	Coal,grain,plastic,flour,seed,tobacco,leaf,mineral powder, quartz sand and other objects
Precision (Laboratory)	0.5%
Mode of Detection	Microwave reflective
Screen	5” Industrial touch screen
Probe	A stainless all-weather microwave
Host power	15W
Weight	10Kgs
Power supply	100 - 230VAC 50/60Hz
Analog output	4-20mA
Protection level	IP67
Options	RS232 outputs, alarming relay output

Features:

1. Super large LCD touching display.
2. Touch input HMI with corresponding buzzer indication.
3. Connector of all analog input with fault alarm for exceeding up and down limits.
4. Connector of all analog input is available with protection to prevent strong electricity surges.
5. With isolated connector the unit won’t fail for at least one minute when subjected to under 1000V voltage.
6. Options of RS232 output and alarming relay output.
7. The optional memory card can store 100000 pieces of data.
8. Design with industrial grade materials with high stability solid and durable.



Picture of installation



Microwave probe: Stainless steel shell IP67 protection level

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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