FT-NIR SPECTROMETER

TANGO II

Measure faster. Work smarter.

Innovation with Integrity

Measure faster. Work smarter.

TANGO II simplifies NIR spectroscopy like never before.

Designed for simplicity, TANGO II empowers every user to perform measurements with confidence. Its intuitive interface, available on the optional high-performance Touch Tablet PC or any standard computer, supports 17 languages and enables users of all skill levels to perform measurements with ease.

Logical: Sample handling the easy way.

Designed for operational efficiency, TANGO II cuts down on the need for sample preparation. Measurements are performed directly through glass containers. No chemicals or reagents involved, ensuring consistent results with minimal effort.

Compact: Less space, maximum utility.

In busy laboratories where space is at a premium, equipment must fit seamlessly into existing workflows. TANGO II is designed with a compact footprint that allows easy integration into crowded lab benches or at-line environments.

Automatic: Background measurements.

TANGO II ensures reliable FT-NIR performance through fully automated background measurements. The system performs the alignment independently and can do so with a sample in position, helping ensuring reliable measurements in routine QC workflows.

Practical: Designed for efficiency.

TANGO II simplifies routine tasks with a rugged, easy-to-clean design. The light source and the desiccant cartridge can be exchanged in seconds, supporting uninterrupted workflows in demanding lab and at-line environments.

Low Impact: Engineered for sustainability.

Consuming typically just 40 W, the TANGO II helps reduce power usage in daily lab routines. The system requires no solvents, or gases, eliminating chemical waste and improving workplace safety. Combined with reliable quality control that minimizes production waste, it can contribute to more sustainable and responsible laboratory practices.

Connected: Integration made simple.

TANGO II integrates seamlessly into digital lab environments via Ethernet. It is fully compatible with Bruker's ONET networking software, which enables centralized instrument management, remote monitoring, and secure data exchange. This streamlined connectivity makes TANGO II ideal for multi-instrument QC networks, supporting traceable workflows and compliance with data integrity standards.

1 The sample is simply filled into the measurement cup and placed onto the spectrometer.

2 The product is selected by either pressing on the respective product icon or by using a barcode reader.

3 A simple touch on the screen starts the measurement.

4 The result view shows the quality of the analyzed product immediately.

The Specialist at Your Side.

Designed for reliable results across all applications.

Select the TANGO II you need:

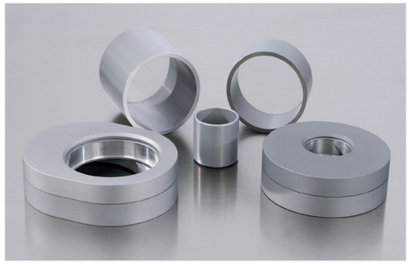
- The reflection analyzer TANGO-R II for solids.
- The transmission analyzer TANGO-T II for liquids.
- With or without Touch Tablet PC.

Reflection measurements: Efficient analysis of solids.

TANGO II Reflection dedicated for solid and semi-solid samples is equipped with a gold-coated integrating sphere for diffuse reflection measurements. This setup delivers highly reproducible results, even for inhomogeneous samples. The measurement spot is approximately 10 mm in diameter and using sample rotators, the measured area is enlarged, allowing for a more representative analysis of heterogeneous samples.

Transmission measurements: Highest precision for liquids.

TANGO II Transmission for liquid analysis features a built-in active sample heater/cooler as standard. Sample temperatures can be precisely set between +20 °C and +80 °C. A dedicated sensor continuously monitors the vial temperature, enabling a precise control and ensuring quick, reliable results.



Optional accessories like different rotating devices and cups as well as different vials for transmission and reflection measurements ensure optimal sample preparation.

Reliable: Consistent results under demanding conditions.

TANGO II is designed to deliver reliable and reproducible results in environments where high standards apply to raw materials, intermediate products, and final goods. It supports fast measurements with minimal operating costs, making it suitable for routine use in quality control.

Typical areas of use include:

- Testing of incoming raw materials to ensure specification compliance
- Analytical support during production processes
- Inspection of final products before release

Flexible: Custom applications.

TANGO II enables efficient and cost-effective analysis for both identification and quantification across a wide range of industries. Whether you are working with powders, liquids, or pastes, Bruker's application specialists help you define the best measurement approach. This includes selecting suitable accessories and software tools that match your specific requirements.

The system is flexible and can be adapted to meet the needs of different workflows, whether in routine analysis or in more specialized tasks.

Ready-to-use: Calibrations for standard markets.

In sectors where products are standardized, TANGO II is available as a complete, pre-calibrated solution. For the food and feed industries, Bruker offers ready-to-use application packages that simplify implementation and reduce setup time.

These packages include validated calibrations, optimized measurement parameters, and documentation to support quality assurance. For further details, please contact your local NIR expert.

Supportive: Where you need it.

Bruker's expertise is available wherever you operate. From the first consultation to installation and ongoing support, our specialists are familiar with both NIR spectroscopy and the practical requirements of laboratory environments.

With service centers located throughout Europe, North and South America, Asia, and Oceania, Bruker ensures fast and qualified technical support. This includes professional installation, responsive after-sales service, and optional remote diagnostics to minimize downtime.

Educational: Grow your skills.

Bruker offers regular training courses as well as customized sessions at your location. These programs are designed to help lab personnel and quality managers use the system effectively and stay informed about best practices and new developments.

For more information, visit:
www.bruker.com/trainingcourses-optics

Typical application fields include:

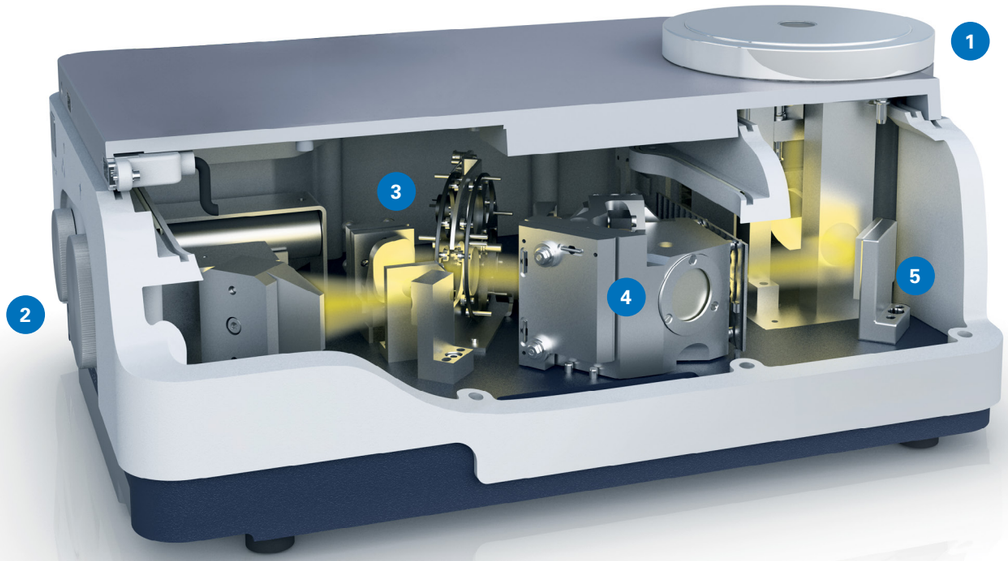
Food & Beverage | Feed & Petfood | Pharma & Biotech | Chemical & Petro | Polymers

Sturdy housing, precise core.

TANGO II simplifies NIR spectroscopy like never before.

The TANGO II connects industrial design with modern technology and intuitive handling. The result is measurements with extraordinary precision and reliable stability.

The exchange of the light source, if required, can be done in a few seconds. Also the desiccant cartridge, which keeps the inside low on humidity can be changed easily.



1 Sample area for solid and liquid samples. The background is recorded automatically if necessary.

2 Light source and desiccant cartridge can be easily exchanged by the operator.

3 The Internal Validation Unit guarantees that the TANGO II is performing at its optimum.

4 The Rocksolid™ interferometer with Cube Corner technology is the heart of the TANGO II.

5 Highly reflective gold coated optics ensure optimized light throughput.

Durability: Built for industrial use.

Designed to perform reliably in tough conditions, TANGO II uses encapsulated housing protects sensitive optics, while the robust construction resists temperature fluctuations and mechanical stress. The principle behind the design is simple: eliminate error sources from the start rather than correcting them later.

Precision: FT-NIR with Cube Corner technology.

When it comes to precision, there is no alternative to Fourier Transform technology. Unlike FT-systems conventional flat mirrors, TANGO II uses Cube Corner mirrors for the interferometer to ensure exceptional precision and stability in the optical path.

This design minimizes alignment errors and makes the system highly resistant to vibrations, a key advantage for consistent, high-quality measurements in demanding environments.

Focus: Quality, precision and usability.

We are never satisfied with the common market standards. This is where our own research and development departments play a major role: here new ideas are turned into innovative products - in more precision, advanced user comfort and unrivalled reliability.

To us, it is obvious that these highest demands are also valid for our production process. High-quality materials, careful workmanship and, if necessary, especially developed production processes and test routines ensure the quality that is common to all Bruker Optics spectrometers.

Manufacturing: Built to last.

We at Bruker follow globally recognized standards for quality, safety, environmental responsibility, and energy efficiency in every step of production.

High-quality materials, precise assembly, and dedicated testing routines ensure consistent performance. All Bruker NIR spectrometers, including TANGO II, come with a 10-year warranty on the moving parts of the interferometer.

THE TANGO II AT A GLANCE:

- Proven FT-NIR technology by Bruker
- Easy-to-use touch screen operation optional
- Robust and precise optics
- Automated background management
- User-friendly maintenance
- GUI available in 17 languages
- Small footprint
- Low energy use (typically 40W)
- Direct calibration transfer to/from all Bruker FT-NIR spectrometers
- Data exchange via network
- Complies with 21 CFR Part 11 requirements

Can't decide? The MPA III does both.

The MPA III can measure liquid as well as solid and semi-solid samples with a single analyzer. It is a powerful tool for developing sophisticated calibration methods for your laboratory or process needs, yet an easy-to-use QA/QC instrument for routine work. With its modular design, it can be configured individually for each analytical task.
www.bruker.com/MPA

Standards and Approvals - CE labeled and complies with the following directives:
EMC Directive 2014/30/EU, Low Voltage Directive 2014/35/EUWEEE Directive 2012/19/EU, RoHS II Directive 2011/65/EU, RoHS III 2015/863/EU

Laser class 1 product. Technologies used are protected by one or more of the following patents: US 7034944

Bruker Optics is continually improving its products and reserves the right to change specifications without notice.
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Bruker Optics is ISO 9001, ISO 13485, ISO 14001 and ISO 50001 certified.

Online information
www.bruker.com/TANGO