FT-NIR PROCESS SPECTROMETER

BEAM

Single Point Analysis with full FT-Power

Innovation with Integrity

PRECISION MEETS INNOVATION

BEAM is the first dedicated single-point spectrometer unleashing the full power of FT-NIR spectroscopy, taking in-process control to the next level.

Contactless measurements – smart and efficient
The BEAM helps you to get the most out of your production by directly monitoring on the scene in real-time, improving your process variability. Optimized for solid and semi-solid material, it can be easily installed on pipelines, hoppers or over conveyor belts.

Broad spectral range & high resolution
Utilizing the full spectral NIR range only available to FT-NIR systems, the BEAM will master applications that were out of reach for most of the conventional single-point analyzers. Its high resolution gives you the best accuracy, time and again.

Precision & long-term stability with RockSolid™ technology
With its high-class optical components, the BEAM is immune to vibrations and other environmental influences. The rugged Rocksolid™ interferometer technology incorporating Cube Corner mirrors and a wear-free pivot mechanism ensures highest precision and long-term stability.

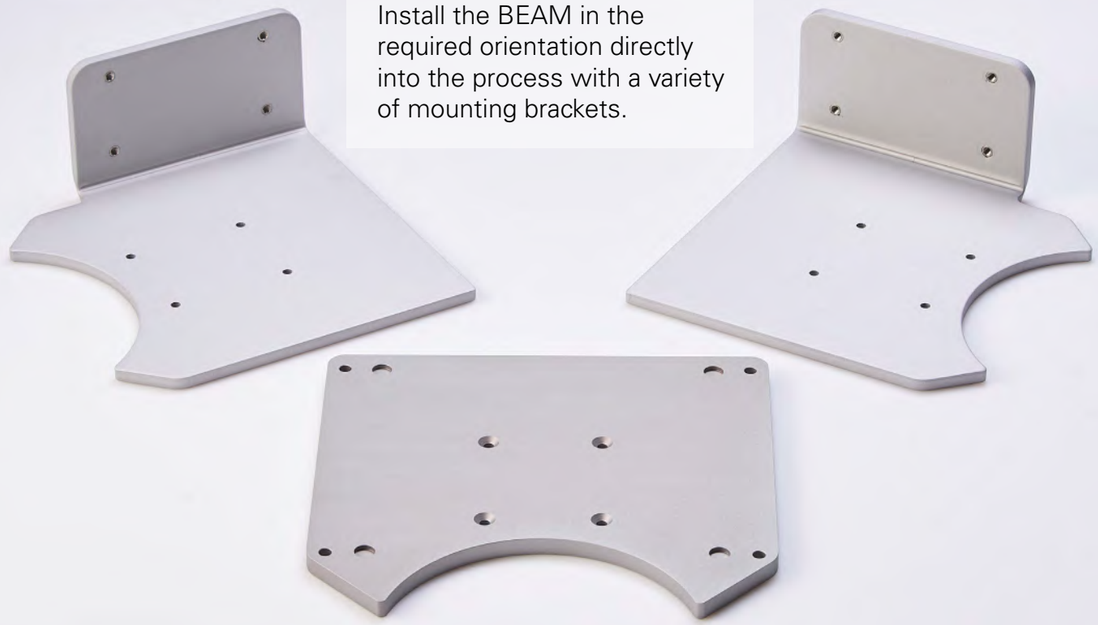
Fast & reliable in-process real-time analysis
The short measurement time of more than 250 scans/min delivers instant results, helping you to monitor and optimize your processes on the fly. Its dual source mode doubles the system availability by switching to the second source in case of blow out.

The solution for your industry
From inspecting incoming goods to process control and final product inspection, the BEAM can be applied at any level of the production chain across many industries. While improving control over the manufacturing process, process fluctuations can be reduced, and specifications more precisely met. This ultimately leads to cost savings by reducing waste and re-work and ultimately a fast ROI of the BEAM.

With Bruker at your side, you not only have decades of experience and the latest know-how in the field of process spectroscopy, but also state-of-the-art spectrometer technology: a combination for success!

INSTALL IT WHERE YOU NEED IT

Tri-Clamp Flanges
Connect the BEAM with Tri-Clamp flanges, a robust and safe connection to pipes and sight glasses. Due to its hygienic design, Tri-Clamp is the leading connection system in the food and pharmaceutical industries. To easily connect the BEAM to your process, various types of adapters are available.



Mounting Brackets
Install the BEAM in the required orientation directly into the process with a variety of mounting brackets.

Laboratory Stand
Develop your methods in the lab for an easy transfer to the production line. The stand takes care of the proper distance when using either a Petri dish turntable or the supplied holder.

RUGGED AND CONNECTED

Protected for harsh environments
The optical system of an FT-NIR spectrometer is the masterpiece of the instrument. This is why the optics of the BEAM are tightly sealed and encased in a robust metal housing. With its IP65 rating, it is dust-tight and protected from moisture challenges up to jetting water, giving you years of hassle-free operation.

Future-proof connectivity
With the OPC industry-standard interface, the system can transfer the acquired data to any process control environment using a wide range of standard communication interfaces and protocols, including

- 4-20 mA
- Profibus DP
- Modbus
- Ethernet
- OPC DA
- OPC UA

MADE FOR YOUR APPLICATION

FOOD
Controlling the manufacturing process is crucial, not only for enhancing the quality of products. It also brings significant financial advantages, such as increased yields and reduced energy costs, e.g. for spray drying of dairy powders or cheese production. Other application fields include meat, cereals, sugars, chocolate as well as sweet & savory snacks.

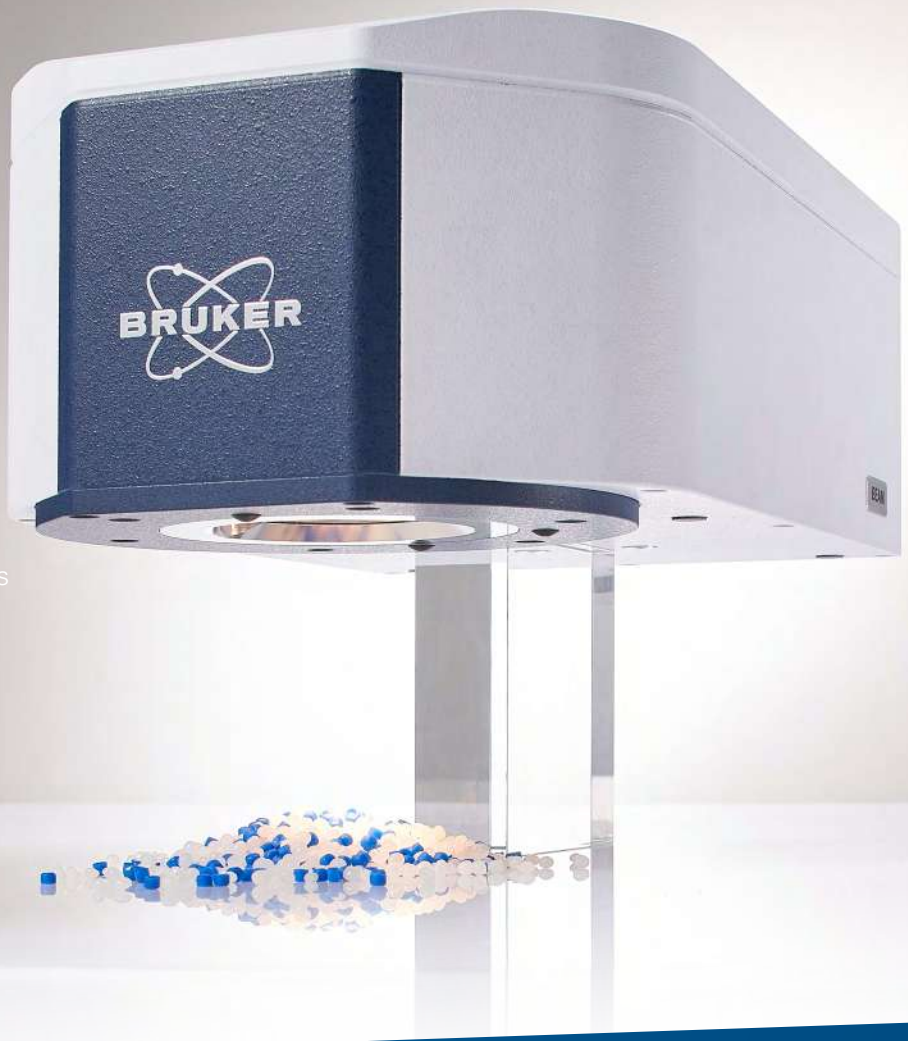
FEED
Monitoring the composition of the product at the various process stages with the BEAM helps to obtain the best value from the feed ingredients. Parameters like moisture, oil, protein, fiber and ash as well as more specialized parameters e.g. ADF, NDF and amino acids can be determined in the raw materials as well as in the finished feed.

POLYMER
FT-NIR is today an established tool for monitoring polymer production processes. The spectra provide a large amount of information, which allow a simultaneous high-precision analysis of various components and system parameters, including density, viscosity, degree of cross-linking, stabilizer, monomer content, and more.

PHARMA
The BEAM helps to move towards a lean production process by gaining an improved process understanding and closer control of manufacturing. Reduce waste, get it right first time and achieve a higher production asset utilization. Typical applications include the monitoring of mixing processes or the end point determination of API drying.

The BEAM at a glance:

- Full FT-power for all applications
- Maximum precision & long-term stability with RockSolid™ technology
- Dual-lamp operation mode for uninterrupted system availablility
- Compact and lightweight for easy installation
- IP65 protected for harsh environments
- Future-proof connectivity



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Bruker Optics is ISO 9001, ISO 13485, ISO 14001 and ISO 50001 certified.

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