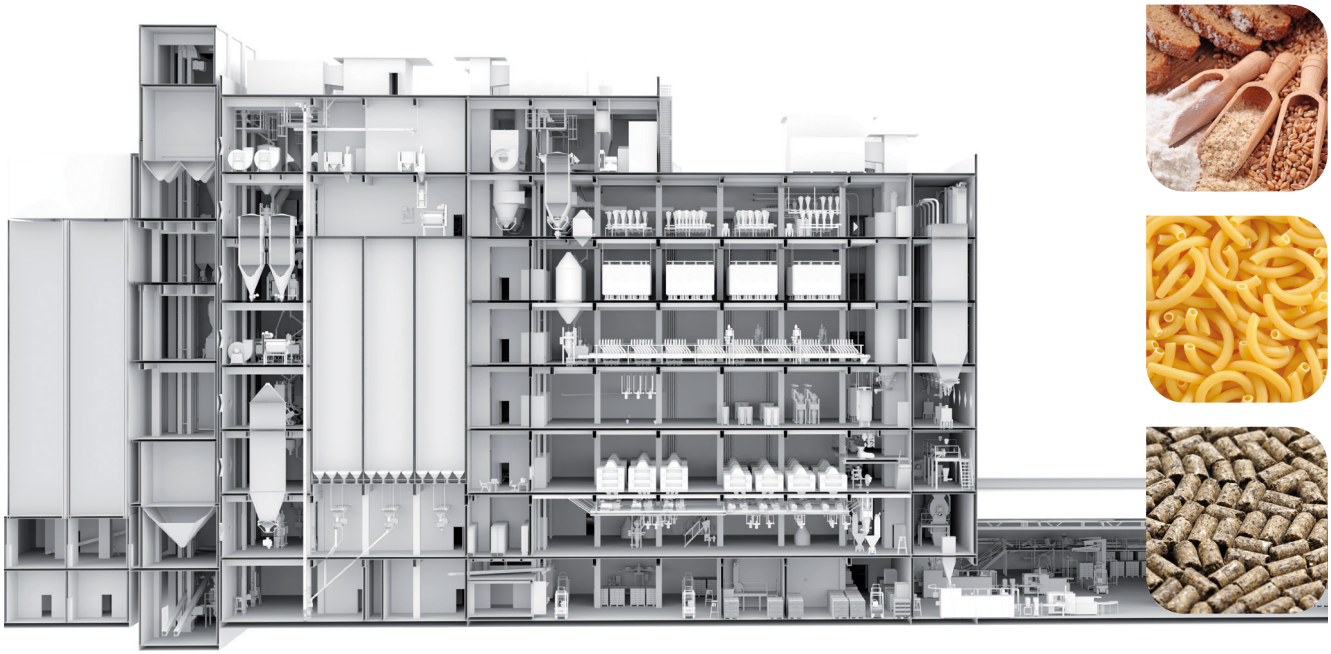
Real-time **process monitoring and control.**

Innovations for a **better world.**

BÜHLER

NIR Multi Online Analyser.
Instant process and product quality assurance.

Bühler NIR Multi Online Analyser allows cost-efficient real-time quality analysis from raw material to end product. Precise and continuous control of ongoing production secures optimum product quality and resource savings. With Bühler NIR technology, one spectrometer evaluates up to 6 measuring points.



Online monitoring of the whole process from intake to end-product.

Reliable and convenient results.

The NIR Multi Online Analyser is outstanding in its durability, reliability and ease of use:

- Accurate pre-calibrated applications are provided by Bühler from our extensive database.
- Only the robust sensor head is located in the harsh production environment.
- The control cabinet stabilizes the optical and electronic components against environmental changes and dust.
- Compact sensor heads retrofit to gravity spouts and existing machines like scales and mixers.

Your benefits.

- Reliable measurement results from day one
- Consistent production with complete documentation and traceability
- Optimize your product quality and yield in real-time
- Low maintenance efforts and fast user training

Increase efficiency with **lastest near-infrared technology.**

The compact NIR sensor head is suited to retrofit existing production plants.

High accuracy NIR measurements for continuous optimization of mixtures.

MultiNIR software and automation.

MultiNIR offers a clear and comprehensive user interface showing current values and historical trend charts of all measurement points.

Notifications can be generated when product quality leaves recipe specifications.

The NIR Multi Online Analyser delivers accurate information for smart automatic control of moisture, protein, fat and ash content.

The system can be operated as a stand-alone solution or integrated in a process control.

Compatibility and flexibility.

NIR Multi Online Analyser can be extended by up to six measurement positions. It can also be combined with a Color and Specks Measurement System.

Bühler calibrations and services.

The scope of supply includes pre-calibrated applications, which are developed and maintained by Bühler.

Long-term experience allows reliable ready-to-use applications such as various cereal grains and their produce measuring traditional quality parameters like protein, moisture, fat and ash content. Other properties are also available.

Bühler offers ongoing support to maintain your online NIR at peak performance. Services include calibration updates, software upgrades, hardware maintenance and additional training.

Example applications **and properties.**

Grains **Soft/hard wheat, rye, barley, oats and maize[1]**		
Moisture	%	7 – 19
Protein	% db	7 – 17
Crude fat[1]	% db	2 – 6
Grain produce **Wheat semolina, wheat and rye flour, bran[2]**		
Moisture	%	6 – 17
Protein	% db	5 – 23
Ash	% db	0.3 – 2.5
Wet gluten	% wb	10 – 45
Starch[2]	% db	5 - 80
Maize grits and flour		
Moisture	%	7 – 15
Protein	% db	4 – 14
Crude fat	% db	0 – 16
Fiber	% db	0 – 5
Animal feed **Feed meal and pellets**		
Moisture	%	6 – 16
Protein	% db	9 – 54
Crude fat	% db	2 – 13
Oil seed produce **Colza and soy extraction meal**		
Moisture	%	4 – 14
Protein	% db	30 – 60
Crude fat	% db	1 – 6

Technical **Data.**

Sensor head	W x H x L mm	100 x 190 x 80
Control unit (with cabinet)	W x H x L mm	800 x 1300 x 505
Technology		Diode Array
Wavelength range	nm	850 – 1650
Ambient conditions probe	°C	-20 to +50
Ambient conditions cabinet	°C	+10 to +40
Measurement duration	s	0.5 – 2
Max. distance cabinet to sensor	m	200

Option of color and specks measurement.

High accuracy measurements of product color and classification of specks are provided by option MYHB. Color sensor heads are calibrated inter alia on Minolta Spectrophotometer using CIE 1976 color space (L*, a*, b*) for color measurements and classification of brown and black specks by size in soft / hard wheat flour and semolina.

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