Take measures
into your own hands

AURA® handheld NIR from ZEISS –
the portable spectrometer solution

ZEISS

Seeing beyond

www.zeiss.com/aura

A broad spectrum of quality

ZEISS – over 140 years of experience in spectroscopy

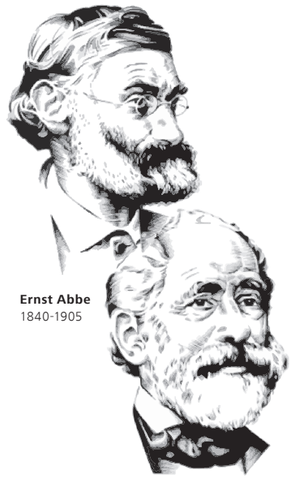
Ernst Abbe developed the world's first spectrometer for a company that Carl Zeiss founded 28 years earlier in Jena in 1874. Today, over 140 years after Abbe's spectrometer, ZEISS is one of the world's leading technology companies in the optical and optoelectrical industry with over 30,000 employees in nearly 50 countries and approximately 120 distribution, service, production and development facilities.

From the beginning, the name ZEISS has stood for continuity and foresight as well as for passion and responsibility. Most importantly of all, the name has stood for globally leading optical measurement technology. Our vision is the perfection of spectroscopy solutions for process and quality control. We've always been the first to bring high-quality technology to the marketplace. Like in 1924, when we developed a photometer that allowed us to measure colors. Or in 1968, when we created the SPECORD series of two-beam spectral photometers for laboratory analyses. Or in 1999, when we set new standards for the agricultural industry with an NIR spectrometer mounted onto a harvester.

Throughout our history, we have always developed new technology that has made processes reproducible and minimized production losses. By fulfilling the quality expectations for products "Made in Germany", we've helped our clients to fulfill their promises to their own customers. This has led to the development of a business area specializing in material analysis, spectroscopy and process analytics, which now plays a key role in the company's global success.

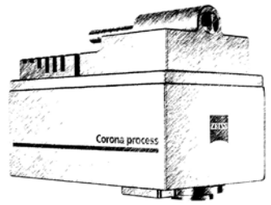
ZEISS spectrometers are as versatile as they are accurate, providing unparalleled performance. Regardless of whether they are a permanent fixture in your production, such as Corona® extreme and Corona® process from ZEISS or whether they are mobile and used in the field, such as AURA® handheld NIR from ZEISS, you can obtain the best results in almost any environment and our spectrometers are tailored to your process. This means that our solutions are not only sought after in areas such as food production and agriculture, but also beyond our own atmosphere: ZEISS high-performance gratings are used in satellites that monitor the air quality on earth, for example.

From food production to harvesting and space, the use of ZEISS equipment provides a technological edge. This is also what drives us every day: maximum efficiency and sustainability as well as long-term success and satisfaction for our customers.



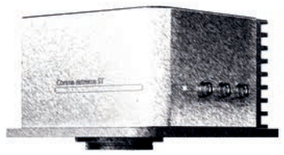
Ernst Abbe
1840-1905

Carl Zeiß
1816-1888



2019

The first connected spectrometer
with real time access to data for defined product quality

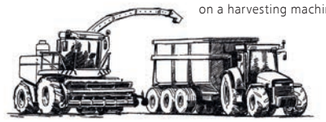


2013

The first process spectrometer
with the highest level of robustness and long-term stability

1999

The first process spectrometer
on a harvesting machine



2015

The first portable spectrometer
for convenient quality control and measurement out in the field or on the move

1997

The first NIR spectrometer
for the near infrared wavelength

1968

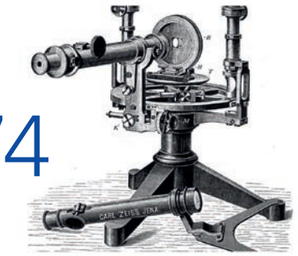
The first SPECORD series two-beam spectral photometer
for analyses in the laboratory

1933

The first quartz spectrograph
for spectral analyses in the ultraviolet wavelength

1874

The first spectrometer
for the spectral fracture of light with a prism system



Laboratory spectrometer quality on the move and in the field

Portable ZEISS performance
There are no limits to what AURA® handheld NIR can do. It provides the same performance as a full-size ZEISS spectrometer. This biggest difference is how small and portable it is. Get reliable, lab-quality results on the move and bring your spectrometer to the sample. AURA® handheld NIR is easy to use and can even be operated by novices, offering you high levels of performance and connectivity at low cost.

For maximum accuracy and convenience
Built around you and your spectroscopy needs, AURA® handheld NIR provides a wide variety of application possibilities and several different measurement parameters. Regardless of the environment, AURA® handheld NIR gives you the results you need to optimize your process and monitor quality in a more flexible way.

AURA Handheld NIR in the hand of a nutritionist or farmer to measure the quality of the feed for an optimal feed mixture.

Bring the benefits with you everywhere you go

AURA® handheld NIR offers you a multitude of advantages for the widest variety of environments.

- Bring the spectrometer to the sample and measure where you want, when you want
- Upload and store results from anywhere, thanks to WiFi connectivity
- Get accurate, lab-quality results in the field and on site in just about any weather conditions
- Take advantage of performance that is on par with larger, stationary spectrometers
- Maximize measuring time, thanks to long battery life and quick changes
- React to quality variations immediately and get the results you need to optimize your process and monitor raw materials
- Give anyone in your team the power of spectroscopy, with simple operation, even for non-experts
- Rely on unshakeable quality with a sapphire window and rugged housing

Measure beyond boundaries

Get lab-quality results anywhere but the lab

Sometimes you simply can not wait to take a sample to the lab – when it comes to measuring quality and making decisions on the spot, portable spectroscopy is the way to go. AURA® handheld NIR is the ideal solution for precise, lab-like results in just about any conditions. Robust, ergonomic and easy to use even for non-experts, take advantage of the power of mobile spectroscopy from ZEISS.

Adaptable, accurate and dependable

Touchscreen
user-friendly, easy to operate, clear software interface with a large result display

Full-scale spectrometer
to cover a wavelength range from 950 to 1650 nm

Sapphire window
virtually unbreakable and scratch proof – as hard as a diamond

Start measurement button
in an ergonomically sensible position, can be operated intuitively

Robust housing
degree of protection: IP54
operating temperature: 5 to 40 °C
storage temperature: -20 to 60 °C

Two status LEDs
show the current operational status of the system and battery

Interfaces
data exchange between AURA® handheld NIR and storage media or PCs is possible via Ethernet or USB 2.0 when WiFi is unavailable

Power ON button
performance at your finegrtips, instantly ready to go

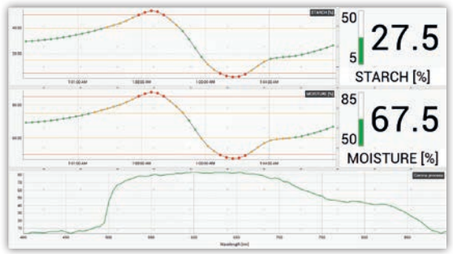
Battery pack
durable (2 hours of measurement possible), replaceable

Software to make sense
of hard data

Good software should be as powerful and versatile as it is intuitive and easy to use. Our InProcess software is designed not just to provide you with all the information you need quickly and easily, but also to fit around your specific needs, thanks to a range of customization options. InProcess provides the ideal platform to profit from connected spectroscopy and access your measurements from anywhere, at any time, thanks to easy cloud integration.

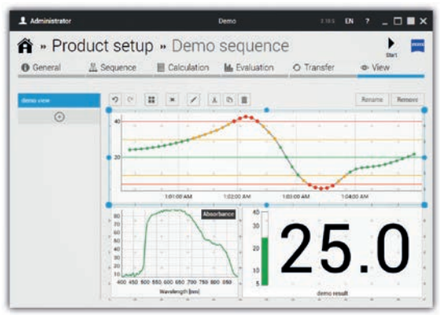
Measurement

Results can be displayed as a spectrum, value, or trend. For more automation, you can set up automatic measurement starts, alerts for when limit values are exceeded and the elimination of implausible spectra.



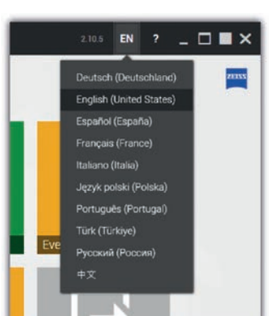
Product Setup

InProcess allows you to individually configure measurement behavior, calculation results and representation graphs and tailor these to your specific needs. Calibration can be performed with the support of common chemometrics software, such as GRAMS IQ™, Aspen Unscrambler™, SL Calibration Wizard or UCal™.



System Settings

Create and manage groups of users with various levels of access and use InProcess in many different languages.



Measurement History

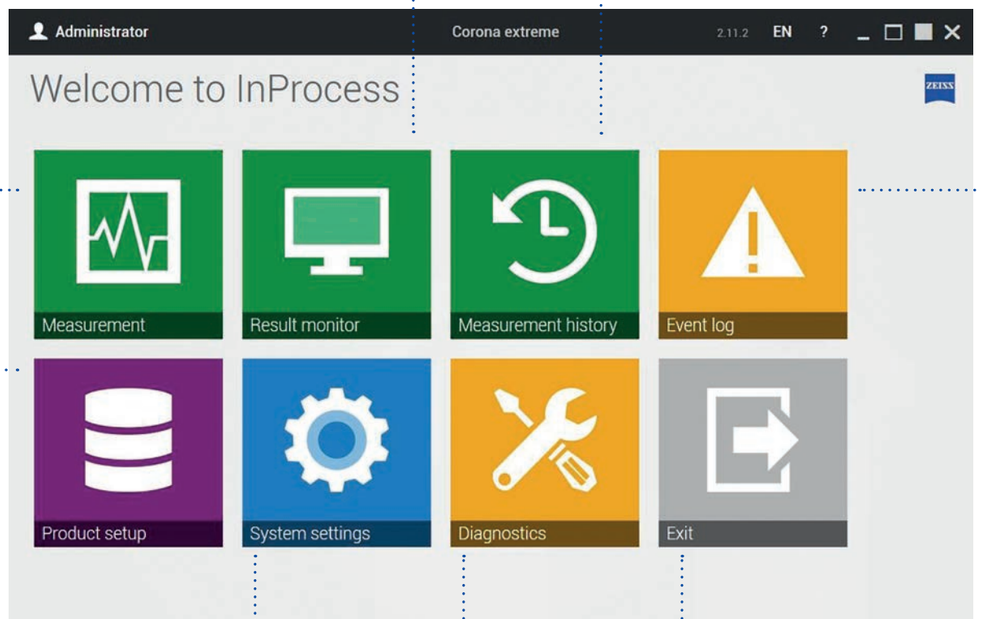
Access all previous measurements and results as well as spectrum data exports, measurement values and sample information.

Result Monitor

Control more than one spectrometer with just one piece of software. See measurement results from several device groups or various products in real time in one view.

Event log

See all the events that have occurred while InProcess has been in use and access all the relevant information, filtered by text search, levels and the state of the device.



Diagnostics

Spectrometer functionality can be verified with a self-test and important service information is available at the touch of a button and can instantly be sent to ZEISS Service for evaluation.

Exit

Software can be shut down when performing revision or maintenance work as well as during planned downtimes to conserve energy and resources.

Get a grip on your measurements in the field

AURA® handheld NIR technical specifications

Everything a large spectrometer can do, the AURA® handheld NIR can do too, but all in the palm of your hand and so easily that anyone can operate it. To fit all uses and preferences, we offer two different handles: the standard handle and the slanted handle. Discover the differences here at a glance and choose the version that suits you best.

	Standard handle	Slanted handle
Mechanical Parameters		
Dimensions (W × H × D)	234 × 298 × 100 mm	234 × 350 × 74 mm
Weight	2,58 kg (incl. battery)	2,58 kg (incl. battery)
Environmental Parameters		
Operating temperature	+ 5 °C to + 40 °C	+ 5 °C to + 40 °C
Storage and transport temperature	– 20 °C to + 60 °C	– 20 °C to + 60 °C
Proection class (IP)	IP54	IP54
Electrical Parameters		
Power supply (internal battery)	14.4 V DC, 3450 mAh, 49.7 Wh (Battery RRC2054)	10.8 V DC, 6900 mAh, 74.52 Wh (Battery RRC2040-02)
Power supply (external)	19.0 V DC	19.0 V DC
Maximum power	24 W	24 W
Interfaces		
Communication	Ethernet 1.000 MBit/s, 2x USB, Wifi	Ethernet 1.000 MBit/s, 2x USB, Wifi
Optical Specifications		
Usable spectral range	950 – 1,650 nm	950 – 1,650 nm
Wavelength accuracy	≤ 1.0 nm	≤ 1.0 nm
Light source	Halogen lamp 20,000 h (Replaceable only by authorized ZEISS partners)	Halogen lamp 20,000 h (Replaceable only by authorized ZEISS partners)
Measuring spot diameter	13.5 mm	13.5 mm

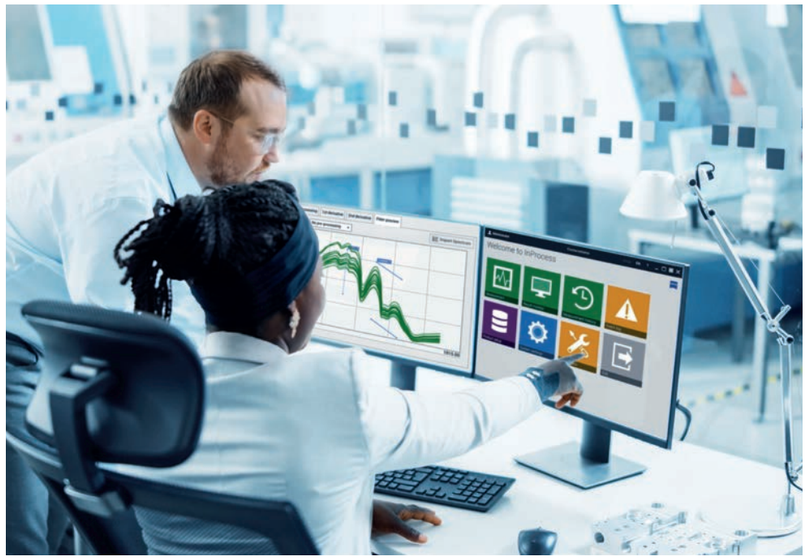
Standard handle

Slanted handle

Quality is measured by service. And vice versa.

We’re there for you – for the lifetime of a device

Good quality goes beyond product performance – it’s about the level of service you receive as well. We’re more than just a provider to our clients, we’re partners, which is why the service we offer is as important to us as the product we manufacture. We’re with you every step of the way, from first consultation to final purchase and then for the entire life cycle of the product.



We also understand that every client is different, which is why we can develop individual service packages that are tailored to your company, facility, process, or specific project. That’s what we mean by partnership and service quality: a relationship based on trust and a detailed understanding of individual needs and circumstances.

Furthermore, you can rely on our global distribution and service network. Regardless of whether it’s gratings, modules, spectrometers or solutions, hardware, software, or calibration, we’re the only ones who develop and offer all spectrometer components from a single source. Exclusive service packages guarantee optimal performance, increase service life and provide many years of reliable and precise results. You can also profit from our digital maintenance services, which provide you with user-friendly, location-independent solutions with no waiting times. And if something does need to be repaired on site, then our service technicians can be with you in next to no time.

Our expert service at a glance:

- Installation of equipment and software
- Application support for the whole product lifetime
- Preventive maintenance
- Customer-specific maintenance contracts
- On-site and in-house repairs
- Remote diagnostics, maintenance and repair

The partner that will accompany you anywhere

AURA® handheld NIR puts ZEISS performance in the palm of your hand. Regardless of whether you need to measure the quality of raw materials before processing or need to inspect parameters out in the field – in wind, rain and any weather, AURA® handheld NIR is the ideal, portable solution you can take anywhere. That’s why Ag Optix swears by AURA® handheld NIR.

Scan now to find out more about AURA® handheld NIR from ZEISS

»With AURA® handheld NIR from ZEISS, food producers can get accurate lab-quality results – anywhere and anytime they need them. From raw bulk goods to finished products, AURA® provides instant quality assurance and validation to food processes around the globe. This handheld device offers intelligent flexibility, accuracy and reliability that you can depend on.«

Jeff Lorton
Ag Optix (USA)

When the going gets tough, Corona® extreme gets going

From operating temperatures of –15 °C to 50 °C and shocks of up to 50 times the force of gravity, Corona® extreme from ZEISS is at home in difficult conditions. All the while providing accurate, repeatable and dependable real-time measurements results. From applications where the device needs to be in direct contact with samples, such as in closed transport systems for agricultural produce or food production lines and laboratories, Corona® extreme is designed for full flexibility and durability. Regardless of whether you need measurements in the lab or in-line and under constantly variable conditions, Corona® extreme allows you to optimize your processes and maximize efficiency, no matter how tough the going gets.

Your benefits:

- **Full-scale spectrometer** for the measurement of fat, dry mass, protein and more in the **950 to 1,650 nm wavelength range.**
- Measures in **direct contact** with the sample **without damaging it**
- Measures **various parameters** at the same time – **in real time**
- **Easily integrated** into the widest variety of spaces, from pipelines to trough chain conveyors
- Ideal for use **directly at the process line,** thanks to **IP protection level 66**

Scan now to find out more about Corona® extreme from ZEISS

Almost immeasurable opportunities with Corona® process

Corona® process from ZEISS gives you an almost unlimited number of measurement possibilities and can simultaneously evaluate the vast quantity of information that exists in the 380 to 1,650 nm wavelength range. With other forms of measurement, the filter or even the device itself needs to be changed, whereas our spectrometer can measure fat, color, salt, dry mass and spices precisely, consistently and irrespective of measurement distance. Ideal for use in the food industry, Corona® process allows you to monitor important quality parameters in real time, so that you can optimize production quality, while saving costs and energy.

Product highlights:

- **Full-scale in-line** spectrometer that covers both **visible and NIR wavelength ranges**
- Measure several **important quality parameters** at the **same time,** in real time, such as **fat, moisture, protein, sugar and color**
- **Two lamps** with automatic switching provides for **high levels of process security** and **no unplanned downtime**
- **Real time results** thanks to high measurement frequency
- Ideal for the measurement of **food products** on open transport systems, such as **conveyor belts** thanks to **hygienic design**

Scan now to find out more about Corona® process from ZEISS

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