



Hellma[®]

NEW



NEW Spectroscopy Products 2024!

IMPROVE YOUR PLANT PERFORMANCE
IN QUALITY AND OUTPUT

USE PROCESS ANALYTICAL TECHNOLOGY
FOR CONTINUOUS MANUFACTURING

IT'S ALL ABOUT

Reliability Plant Performance
Efficiency
Process Transparency
Safety

Hellma's **Process Analytical Technology** products and solutions can help you improve ALL these points. Individually for your process application with maximum flexibility.



Spectroscopy System Components

Immersion Probes and
Flow Cells

Analytical Solutions

Turnkey solutions tailored to
your individual applications

PROFIT FROM

- Shorter production times
- Reduced energy input
- Higher product quality
- Higher output, fewer by-products
- Increased process safety
- Better understanding of the process
- Acceleration of your process analytics
- Cost cutting
- Real-time analysis of reaction processes

TIDUS LUMIO

Laser-integrated ATEX Raman Probe



✓ Laser source on board (532 nm)

✓ Works together with almost any Raman spectrometer

✓ Applications range from laboratory research to large-scale manufacturing

✓ Operation even with sensitive Vis spectrometers for qualification purposes

✓ Multiple process interface configurations possible

✓ Thus, affordable Raman systems can be upgraded for ATEX use

✓ Excellent for upstream and downstream processes



Perfect for **Instrument Manufacturers**,
System Integrators to extend their portfolio
or **Endusers** with spectroscopy knowledge.

TIDUS FLEX RAMAN PROBE



The Tidus Flex is a Raman probe that ensures highest flexibility in terms of easy adjustment to ensure operability with several Raman spectrophotometers and process interfaces for almost any type of samples.

- For use in liquids and solid samples as well as gases and vapors
- Can be easily connected to standard Raman spectrophotometers via fibre optic cables
- Unique flexibility based on the combination of standardized optical head and interchangeable filter modules and objective lens assemblies
- Typical use in lab, pilot scale and process environments
- Perfect in biopharma, chemical and petrochemical applications
- Designed to enable ATEX-compliant operation



Get more details on our website:
www.hellma.com/en/tidus



BRANCHES WE SERVE

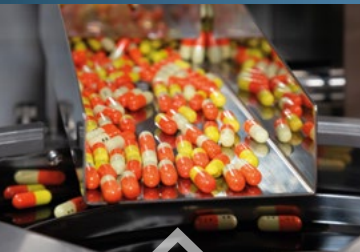
Food
Beverages



Agriculture



Cosmetics
Bodycare



Pharmaceutical
Biotechnology



Chemistry
Petrochemistry



Plastics
Polymers

Contact us to discuss and
evaluate possibilities.

Find all international contacts:
www.hellma.com/en/contact



APPLICATION EXAMPLES

- **Acrylic acid and monomers** in solution polymerization
- **Active ingredient verification** in pharmaceuticals
- **Butyl glycol** in paints
- **Fatty acids** in cosmetics
- **Glucose and ethanol** in yeast fermentation
- **Hydrocarbons** in petrochemicals
- **Iodine number** in palm oil or **C8-C14** in soap noodles
- **Moisture** in fertilizers
- **Nutrients and metabolites** in biopharmaceuticals
- **Sulfathiazole discrimination** in pharmaceuticals
- ... and many more



Find all information
about Hellma at:
www.hellma.com



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WE LIVE PASSION FOR PROCESS ANALYTICS

- ✓ **100 years of experience** in analytical spectroscopy
- ✓ The world's largest program of **inline/atline/online spectroscopy probes and flow cells**
- ✓ **Smart Sensors** to evaluate or realize the metrological concept quickly
- ✓ Independent, owner-based company, which guarantees **fast and flexible results**
- ✓ Hellma stands for **continuity and reliability** – all products and solutions are engineered and
MADE IN GERMANY



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