

Special developments

Our innovative technology and more than 30 years of experience in the gas field enable us to offer you a wide range of services in research as well as applications in thermal process technology. In addition to our broad portfolio of probe technology, we continue to offer solutions for inspection, process and flame monitoring specifically adapted to your plant.

We look forward to advising you personally.

Advantages

- Products specially adapted to your plant
- High process temperatures and pressures (100 bar, 2000 °C)
- Modules for flame monitoring
- Various camera solutions from UV to IR, as well as high-resolution high-speed cameras
- Specially adapted safety devices
- Integration into the control system
- Hydraulic and mechanical traversing devices
- Permanent monitoring of processes

Selected References



Independent company group of **DVGW**

DBI
Gruppe

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OPTISOS®

Optical probe systems:
Evaluation and assessment of thermoprocessing
and boiler plants



www.dbi-gruppe.de

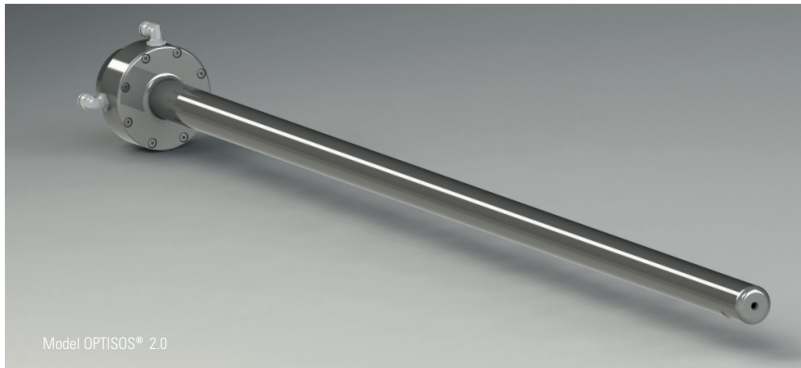
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 Energy with Future. Environment and Responsibility.

OPTISOS® 2.0

The OPTISOS® 2.0 probe offers the possibility to look live into your running process, to monitor, evaluate and analyze it. Detect changes in your system before problems occur with state-of-the-art analysis technology from the DBI Group. We enable condition analyses in the visible spectral range, detect heat sinks and determine temperature distributions inside the system and on the product.



Advantages

- Two viewing directions for maximum viewing range
- 64° HFoV image aperture angle for both cameras
- 2592x1944 Pixel maximum resolution
- 60 frames per second maximum refresh rate
- Two-dimensional thermography with high accuracy (1% at > 1.000 °C, relative accuracy of 1.2 K)
- Only 40 mm necessary diameter of the access opening
- Permanent monitoring of process and plant
- Anticipatory planning of downtimes and maintenance
- Control of previously invisible process steps
- Detailed evaluation of your plant

Operating conditions

- Furnace chamber temperature up to 2.000 °C
- Pressure range from high vacuum to overpressure
- Various inert gas and furnace atmospheres
- Easy use in loaded, corrosive or heavily polluted combustion chambers

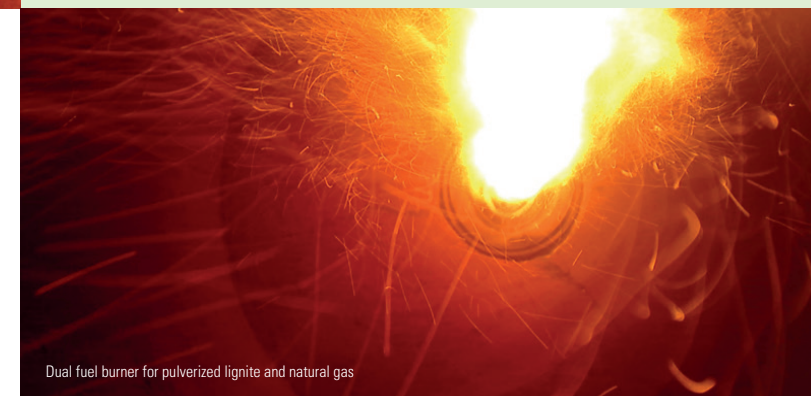


Combustion pulsations

Plant vibrations and combustion pulsations in boiler plants often have hidden causes. We diagnose your boiler, find the vibration exciters and work out solutions to create calm in the boiler house and avoid consequential damage.

Advantages

- Visualization of the flame pattern and combustion chamber condition
- Determination of operation-specific frequencies of the firing system and system periphery
- Detection and documentation of excitation (ab-)normal vibration behavior
- Evaluation of the plant condition and identification of critical excitation frequencies
- Expert opinion in case of malfunction and damage



- The plant evaluation is based on the regulations VDI guideline 3842, DIN-ISO 10816 and DIN EN 15502.

Take a real-time view into your process and see more than others!