

DIAS Infrared GmbH

Your Professional Manufacturer and Partner for
Non-contact Temperature Measurement Systems



Products

DIAS Infrared GmbH has established itself as a leading supplier in the field of infrared technology. A particular focus being the non-contact temperature measurement in industrial processes. Our highly motivated, experienced and qualified employees develop, manufacture and market our innovative products:

Pyrometers **PYROSPOT** for non-contact temperature measurement

- Several temperature ranges from -40 °C to 3000 °C
- Adjusted spectral ranges for different applications
- Fixed, vario and fibre cable optics
- Standard outputs for industry (analog and digital)
- Robust housings with easy connection possibilities
- Convenient evaluation and parameterizing software PYROSOFT Spot
- Wide range of accessories
- Fixed and portable devices

Line cameras **PYROLINE** for the detection of temperature profiles

- Temperature measurements from 0 °C to 3000 °C
- Several spectral ranges for different applications
- Uncooled infrared line arrays (128, 256 or 512 pixels)
- Compact housing IP54 or industry protection housing IP65
- High measurement frequency of 256 lines per second, optional up to 2000 lines per second
- Real-time data transmission via Fast Ethernet

Infrared cameras **PYROVIEW** for the measurement of temperature distributions

- Temperature measurements from -20 °C to 3000 °C
- Adjusted spectral ranges for different applications
- Uncooled microbolometer or semiconductor 2D arrays
- Models with 384×288 , 512×384 , 512×408 , 640×480 , 768×576 pixels, 1600×1200 and 1920×1080 pixels
- Compact housing IP54 or industry protection housing IP65
- Measurement frequency 25, 50 or 60 frames per second
- Real-time image transmission via Ethernet interface, GigE Vision® compatible
- Alarm- and treshold monitoring
- Stand-alone operation (depending on the model)

Software **PYROSOFT** for display and processing of measurement data

- Camera control and monitoring
- Recording, visualization, processing and storage of the measured data
- Real-time data storage
- Definition of zones and alarm value monitoring
- Analysis of trends
- Data export (text, bitmap, video)
- Support of process interfaces, such as Profibus

Black bodies **PYROTHERM** for measurement and calibration tasks

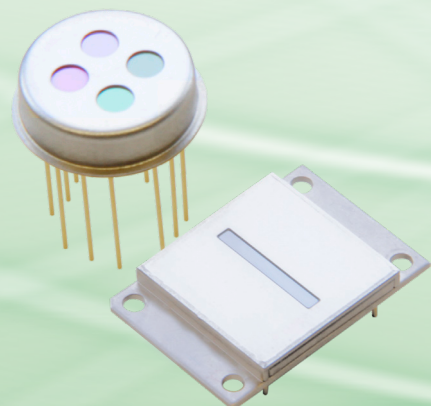
- Black body calibration sources from -15 °C to 1500 °C

Pyroelectric infrared detectors **PYROSENS**

- Pyroelectric single and multi element detectors
- Pyroelectric linear arrays
- For non-contact temperature measurements, gas analysis, spectroscopy and security applications

In addition we offer the following **services**:

- Calibration services
- Measurement services
- R & D services



The DIAS benefit:

Research, development, sales and service from one source



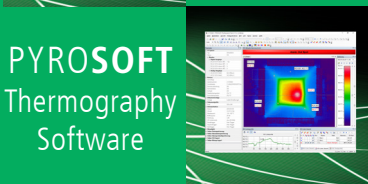
PYROSPOT
Pyrometers
fixed & portable



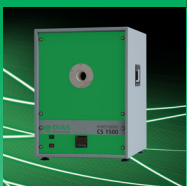
PYROLINE
Infrared
line cameras



PYROVIEW
Infrared
cameras



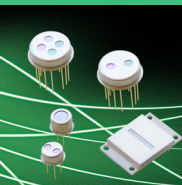
PYROSOFT
Thermography
Software



PYROTHERM
Calibration
Sources



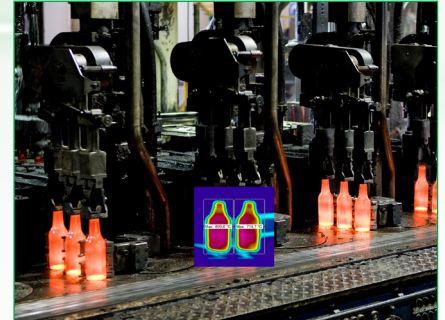
PYROSENS
Sensors &
Arrays



Application Areas and System Solutions

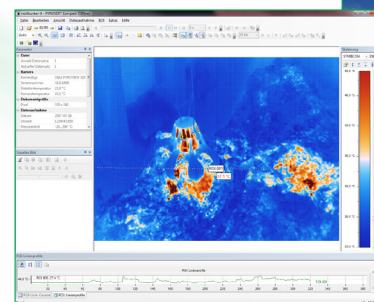
The **application areas** of our pyrometers, infrared cameras and detectors are very multi-purpose. A special focus being the non-contact temperature measurement for process control, process engineering, process automation and quality control in industry. Our products can be used advantageously in a variety of other applications. Examples include:

- Fire detection
- Metal industry
- Glass industry
- Semiconductor and solar industry
- Plastics manufacturing and working up
- Traffic supervision
- Combustion chamber monitoring
- Human and veterinary medicine
- Research and development



In addition a large number of standard products, we also develop and manufacture custom application specific **system solutions** with adjusted hard- and software. Examples are:

- Infrared fire detection systems PYROVIEW FDS
- Infrared temperature measurement systems PYROINC for combustion chambers
- Line camera systems PYROLINE WBS for plasterboards
- Infrared temperature measurement systems for traffic supervision
- Infrared temperature measurement systems for glass industry
- Non-contact iron stream temperature measurement
- High temperature measurement systems for forges, continuous casting machines and inductive hardening
- Testing of materials with active thermography



Temperature and spectral ranges

The measurement should be made at short wavelengths to minimize the temperature measurement error as a result from not precisely known emissivity. According to the material of the measurement object, infrared cameras and pyrometers can be chosen in the following typical temperature and spectral ranges:

Materials	Temperature range	Spectral range
Non-metals, coated metals	-40 °C to 1000 °C	8 µm to 14 µm
Glass surfaces	50 °C to 2500 °C	4.8 µm to 5.2 µm
Measurements through flames and combustion gases	100 °C to 2500 °C	3.9 µm
Ceramics, metals	20 °C to 1000 °C	3 µm to 5 µm
Metals, ceramics, graphite	200 °C to 2500 °C	1.4 µm to 1.8 µm
Metals, ceramics, glass melts	500 °C to 3000 °C	0.8 µm to 1.1 µm



Quality made in Germany: Made by DIAS



Our company building in Dresden, Germany

Prof. Dr.-Ing. Günter Hofmann, founder, former longstanding CEO and over 40 years experience in the field of infrared sensor technology and measurement technology



Non-contact Temperature Measurement: Safe and Precise

Based in Dresden (Germany), DIAS Infrared GmbH develops and manufactures high-quality infrared cameras, infrared line cameras, pyrometers, black bodies and infrared detectors for industrial temperature measurements. Our own software specifically designed for the display and processing of the measurement data is included as well. In addition, a large part of our orders are individual and application specific system solutions and services.

Our owner-managed company that was founded in 1992 employs over 60 high qualified colleagues. We develop and manufacture our products with high quality standards at our German headquarters in Dresden, Magdeburg and Saalfeld. Our products have proven themselves over many years with satisfied customers. Our company DIAS Infrared GmbH is certified for many years according to DIN ISO 9001.

For the sales and service of our products our colleagues and international sales partners are available for you. Our distribution network exists in many countries and is expanding continuously.

In order to always be on the cutting edge of science and technology DIAS works closely with the Technical University of Dresden and other research institutions. Our company is also an active member of AMA Association for Sensors and Measurement.

Advantages of non-contact temperature measurement

- Measurements on objects which are difficult to reach, moving, aggressive or very hot
- No influence on the temperature of the measurement object, reactionless measurement
- No material wear on the measurement object, non-destructive measurement
- Persistence of the measuring point, no abrasion on the measurement device

Why should you use non-contact temperature measuring technology made by DIAS Infrared?

- Worldwide unique product range of non-contact temperature measuring technology – from simple pyrometer to complex thermography complete solution
- Individual and professional advice, installation and service
- Development, manufacturing, sales and service from one source
- Qualified staff with longtime experience in the field of infrared measuring technology



ISO 9001
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Quality Management System
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