

PYROLINE HZK 256N

High-Speed Infrared Line Camera for the Spectral Range 1.4 μm to 1.8 μm



Features

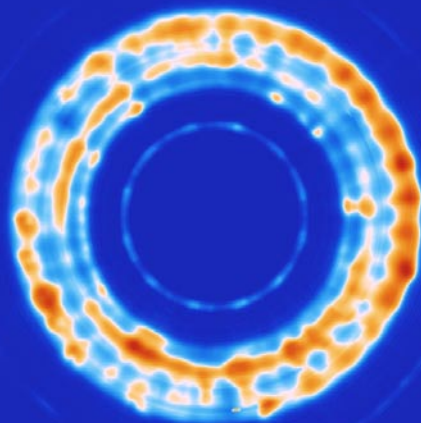
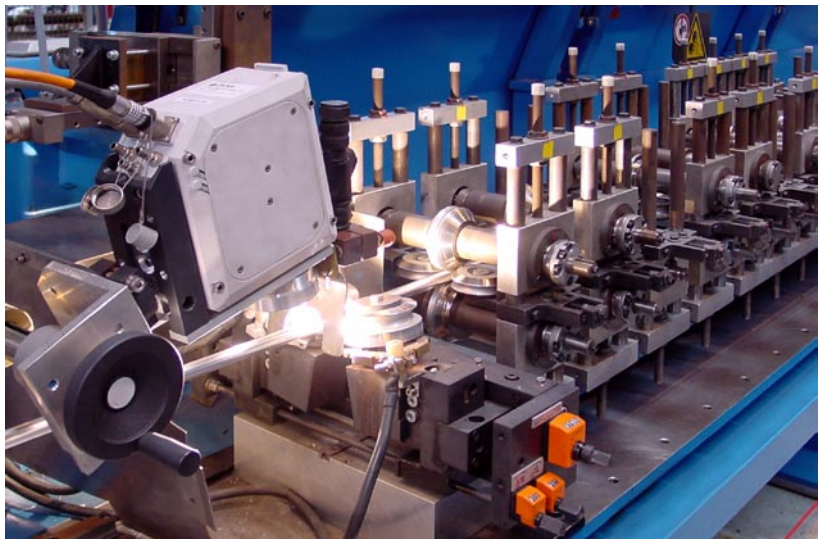
- Temperature measurement ranges from 250 °C to 900 °C, optional up to 1200 °C
- Measurement frequency 5000 lines per second
- Infrared InGaAs linear array with 256 pixels
- Lenses for different field of views
- Robust housing for industrial environments (IP 65) with optional water-cooling system and air purge
- Real-time data acquisition via fiber optic with 5000 lines per second
- Triggered measurements
- Alarm and threshold monitoring
- Large dynamic range and 16-bit A/D conversion
- 2 years warranty
- Customized system solutions with modified hardware and software

Applications

The high-speed infrared line cameras PYROLINE HZK 256N provide instant non-contact measurement of temperature distributions.

The cameras have been designed for the long-term measurement of temperature in industrial applications.

Special applications are measurements of temperature on brake disks and the online control of weld seams.



Software

The powerful online software PYROSOFT for Windows® allows you to control the camera and record, view, manipulate and store the measured data. Special features are:

- Real-time data recording
- Definition of zones and monitoring of alarm thresholds
- Analysis of trends
- Data export (text, bitmap, video)
- Process control via PROFIBUS, analog and digital inputs, outputs, and other interfaces

A programming interface (Windows®-DLL) is available for system integration.

PYROLINE HZK 256N/5000Hz

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Measurements on Brake Disks

Temperature Measurement Range ¹	250 °C to 900 °C (3 ranges)
Lens ¹	20° × 0.1°, Measurement distance > 50 cm
Noise Equivalent Temperature Difference ²	< 1 K (300 °C)

Weld Seam Control

Temperature Measurement Range ¹	300 °C to 700 °C (2 ranges)
Lens ¹	Macro 50 μm , Measurement distance appr. 5 cm
Noise Equivalent Temperature Difference ²	< 1.5 K (300 °C)

Spectral Range	1.4 μm to 1.8 μm
Sensor	Linear InGaAs array (256 pixels)
Measurement Uncertainty ²	2 K + 2 % of the measured value in °C
Measurement Frequency	internal 5000 Hz, selectable: 5000 Hz, 2500 Hz, 1250 Hz, ...
Response Time	internal 0.4 ms, selectable 2/Measurement frequency
Interface ³	PCI fiber optic (5000 Hz max)
Digital Inputs (Trigger)	2 electrically isolated inputs RS485/RS422
Digital Outputs (Alarm)	2 electrically isolated OC outputs
Connectors ³	Round plug connector with screw connection (16 pins), Fiber optic plug connector with self-locking (2 fibers), Water supply tube (nominal width 4 mm, 2 bar max), Compressed air tube (nominal width 6 mm, 2 bar max)
Weight	appr. 3.2 kg
Power Supply	18 V to 36 V DC, 10 VA to 20 VA
Housing	Protection to IP 65 Standard, optional water-cooling system and air purge
Mounting Base	Fixed or swivel mounting base
Camera Operating Temperature Range	0 °C to 50 °C (without water-cooling), -25 °C to 150 °C (with water-cooling)
System Cable Operating Temperature Range	-25 °C to 80 °C
Fiber Optic Operating Temperature Range	-10 °C to 70 °C
Storage Conditions	-20 °C to 70 °C, rel. humidity: 95 % max
Software	PC control and display software PYROSOFT for Windows®

¹ Others available.

² Specification for black body reference and ambient temperature 25 °C.

³ Depending on configuration.

Technical details are subject to change without notice. January 2006.