PYROLINE 128 & PYROLINE 256

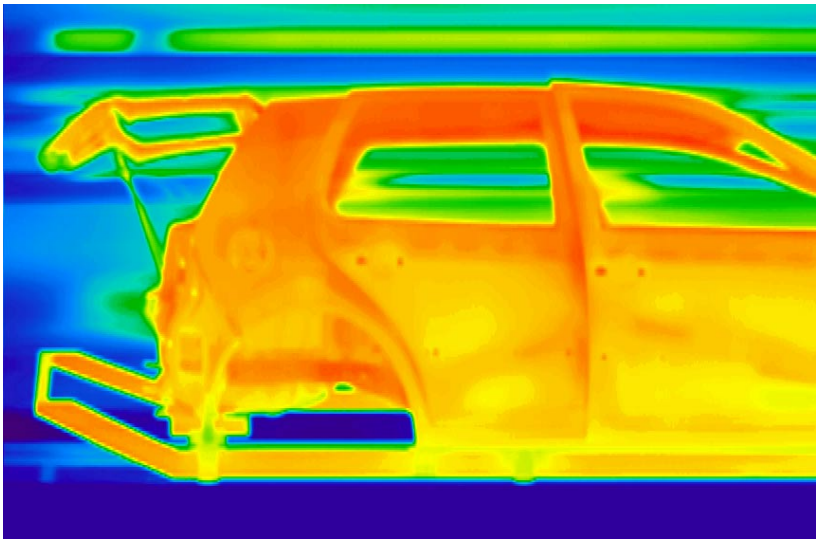
High-Speed Uncooled Infrared Cameras

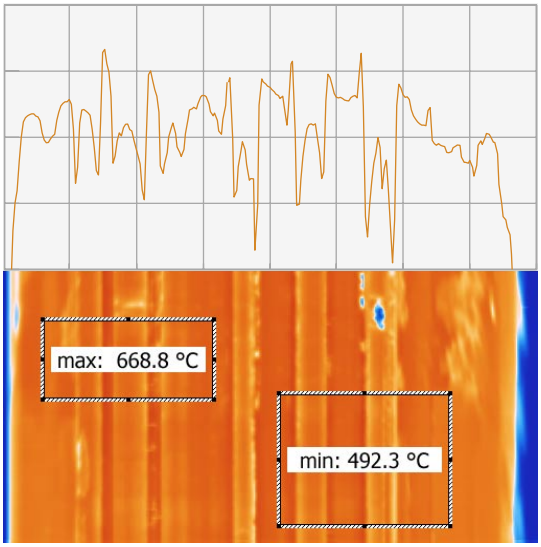
Features

- Precise non-contact temperature measurement over the range 0 °C to 1300 °C in different spectral ranges
- Measurement frequency 256 lines per second, optional up to 512 lines per second
- Robust housing for industrial environments (IP 65) with optional water-cooling system and air purge
- Uncooled infrared linear array with 128 or 256 pixels
- No opto-mechanical scanner
- Real-time data acquisition via fiber optic or Fast Ethernet with up to 512 lines per second
- Option of stand-alone operation without computer
- Triggered measurements
- Alarm and threshold monitoring
- Large dynamic range
- 16-bit A/D conversion
- Customized system solutions with modified hardware and software

Applications

PYROLINE cameras provide instant non-contact measurement of temperature distributions. All models have been designed for the long-term measurement of temperature in industrial applications. For general purpose use the spectral ranges of 8 μm to 14 μm and 3 μm to 5 μm are available. The spectral ranges of 4.8 μm to 5.2 μm (which is particularly suitable for the measurement of temperature distributions in glass) and 1.4 μm to 1.8 μm (for metal) are for special applications.





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 tresholds
- 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.

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Model	Array Size (Pixels)	Temperature Measurement Range[1]	NETD[2] at 32 Hz / f_{meas}	Field of View[1]
8 µm to 14 µm				
Standard Models (256 Hz Measurement Frequency)				
PYROLINE 128L	128 × 1	50 °C to 550 °C	0.5 K / 1.5 K	40° (optional 56°)
PYROLINE 256L	256 × 1			
PYROLINE 128LS	128 × 1	0 °C to 80 °C	0.2 K / 0.5 K	
High-Sensitive Models (128 Hz Measurement Frequency)				
PYROLINE 128 LS/128Hz	128 × 1	0 °C to 80 °C	0.1 K / 0.2 K	40° (optional 56°)
High-Speed Models (512 Hz Measurement Frequency)				
PYROLINE 128L/512Hz	128 × 1	50 °C to 550 °C	0.5 K / 2 K	40° (optional 56°)
PYROLINE 256L/512Hz	256 × 1	100 °C to 800 °C		
PYROLINE 128LS/512Hz	128 × 1	0 °C to 80 °C		
3 µm to 5 µm				
Standard Models (256 Hz Measurement Frequency)				
PYROLINE 128M	128 × 1	450 °C to 1250 °C	0.5 K / 1.5 K	60° (optional 40°)
PYROLINE 256M	256 × 1			
PYROLINE 128MS	128 × 1	200 °C to 800 °C		
4.8 µm to 5.2 µm				
Standard Models (256 Hz Measurement Frequency)				
PYROLINE 128G	128 × 1	450 °C to 1250 °C	1 K / 3 K	60° (optional 40°)
PYROLINE 256G	256 × 1			
PYROLINE 128GS	128 × 1	250 °C to 1250 °C		
1.4 µm to 1.8 µm				
Standard Models (256 Hz Measurement Frequency)				
PYROLINE 128N	128 × 1	600 °C to 1300 °C	1 K / 3 K	60° (optional 40°, 20°)
PYROLINE 256N	256 × 1			

Measurement Uncertainty[2]
2 K (measured temperature < 100 °C) or 1 K + 1 % of the measured value in °C
Interfaces[3]
RS232 (32 Hz max), RS422 (64 Hz max), Fast Ethernet (512 Hz max) or PCI fiber optic (512 Hz max), electrically isolated digital inputs (trigger) and digital outputs (alarm)
Camera Housing
Protection to IP 65 Standard. Options include integrated water cooling system and air purge, and fixed or swivel mounting base. Wt. approx. 3.2 kg.
Camera Operating Temperature Range
0 °C to 50 °C (without water-cooling), –25 °C to 150 °C (with water-cooling)
Software
Control and imaging software PYROSOFT for Windows®, customized modifications on request

[1] Others available. [2] Specification for black body reference and ambient temperature 25 °C.

[3] Depending on configuration. PYROLINE 256/512Hz available only with PCI fiber optic interface.

Technical details are subject to change without notice. May 2005.

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