PYROLINE compact

High-speed uncooled infrared line cameras

Non-contact temperature measurements from
0 °C to 1300 °C

alarm-monitoring bulk-material building-materials dynamic fast-ethernet fixe
mount glas high-speed industry linear-arrays long-term-use no
contact paper plastics real-time reliable robust steel-industry star
alone-operation threshold-monitoring uncooled water-cooling-jacket

DIAS
Infrared Systems

Quality

PYROLINE compact: High-speed uncooled and reliable infrared line cameras for industry and research

The infrared line cameras **PYROLINE compact** allow you high-speed non-contact measurement of temperature distributions.

The cameras are specially designed for long-term use in fixed-mounted applications. For general purpose use the spectral ranges from 8 μm to 14 μm and 3 μm to 5 μm are available. The spectral ranges from 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.

With an uncooled infrared linear array (128 or 256 pixels) you can realize non-contact measurement with 256 lines per second (512 lines per second optional) in temperature ranges from 0 °C to 1300 °C. The camera has an aluminium compact-housing (IP 54).

Different lenses with a field of view up to 90° are available. Measurement results can be transferred to your computer with real-time data transmission via fast ethernet with up to 512 lines per second. Stand-alone operation without computer is possible too. Alarm and thresholding monitoring as well as triggered measurements are practicable.

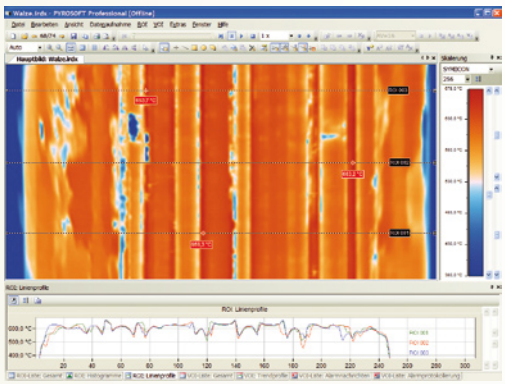
We grant you 2 years warranty and customized system solutions with modified hardware and software.

Software PYROSOFT

The powerful online software PYROSOFT for Windows® allows you to control the infrared line camera PYROLINE compact. Recording, viewing, manipulation and storage of the measured data are possible as well. 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.



Optional camera housings

Industrial housing IP 65 with water cooling system and air purge

ATEX housing

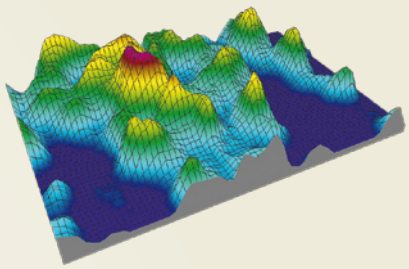
Weatherproof housing

made in Germany.

Spectral range 8 µm to 14 µm

Typical devices under test are wood, paper, plastics, gum, bulk materials, building materials, textiles and food.

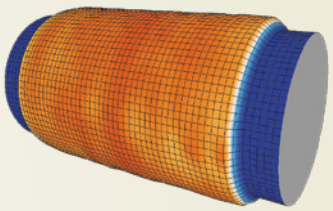
	Pixels	Measurement range[1,2]	NETD[3]
PYROLINE 128LS/256 Hz	128 × 1	0°C to 80 °C	0.2 K/0.5 K
PYROLINE 128L/256 Hz	128 × 1	50 °C to 550 °C	0.5 K/1.5 K
PYROLINE 256L/256 Hz	256 × 1		
PYROLINE 128LS/512 Hz	128 × 1	50 °C to 550 °C	0.5 K/2 K
PYROLINE 256L/512 Hz	256 × 1	100 °C to 800 °C	
Optics with manual or motor focussing: 40°, 56°, 90°[4]			



Spectral range 3 µm to 5 µm

Typical devices under test are ceramic building materials (clay, brick) and metals (non-ferrous metal, rolled steel).

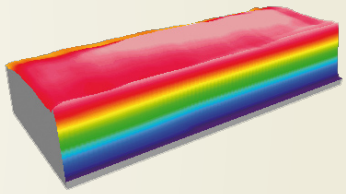
	Pixels	Measurement range[1,2]	NETD[3]
PYROLINE 128M/256 Hz	128 × 1	450 °C to 1250 °C	0.5 K/1.5 K
PYROLINE 256M/256 Hz	256 × 1		
PYROLINE 128MS/256 Hz	128 × 1	200 °C to 800 °C	
Optics with manual or motor focussing: 60°, 40°			



Spectral range 4.8 µm to 5.2 µm

Typical devices under test are glass (flat glass, container glass, glass bottles and glass melts).

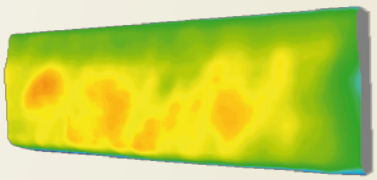
	Pixels	Measurement range[1,2]	NETD[3]
PYROLINE 128G/256 Hz	128 × 1	450 °C to 1250 °C	1 K/3 K
PYROLINE 256G/256 Hz	256 × 1		
PYROLINE 128GS/256 Hz	128 × 1	250 °C to 800 °C	
Optics with manual or motor focussing: 60°, 40°			



Spectral range 1.4 µm to 1.8 µm

Typical devices under test are metals in high temperature range (steel, stainless steel and steel melts).

	Pixels	Measurement range[1,2]	NETD[3]
PYROLINE 128N/256 Hz	128 × 1	600 °C to 1300 °C	1 K/3 K
PYROLINE 256N/256 Hz	256 × 1		
Optics with manual or motor focussing: 60°, 40°, 20°			



[1] Others available. [2] Specification for black body reference and ambient temperature 25 °C. [3] Noise equivalent temperature difference at 32 Hz and maximum test frequency. [4] Increase of NETD by a factor of 3.

Series PYROLINE compact - more technical data

Measurement uncertainty	2 K (measured temperature < 100 °C) or 1 K + 1 % of the measured value in °C
Interfaces	Fast Ethernet, electrically isolated digital inputs (trigger) and digital outputs (alarm)
Power supply	10 V to 36 V DC, 7 VA
Camera housing	Aluminium compact housing IP 54, 85 mm (L) × 175 mm (W) × 107 mm (H), without lens and connectors, approx. 1.6 kg
Camera operating temperature range	–10 °C to 50 °C

DIAS Infrared Systems

DIAS Infrared Systems

Your manufacturer and partner for industrial infrared systems

- R&D, manufacturing, sales, and service from one source
- German quality and reliability
- Two years warranty
- Certified to ISO 9001 for many years

Our product range includes:
- Pyrometers
- Infrared line cameras
- Thermal imaging cameras
- Infrared detectors
- Measurement and calibration equipment
- System solutions

Our dedicated experts are able to offer you the benefits of 25 years of practical and technical experience in infrared technology.

For any questions contact us!

DIAS Infrared GmbH
Gostritzer Straße 65
01217 Dresden • Germany

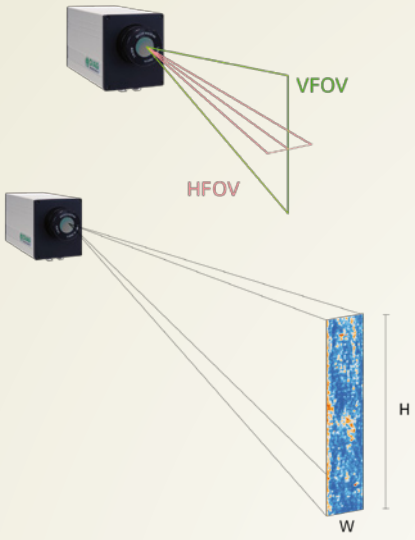
Telephone: +49 351 871 7228
Telefax: +49 351 871 7230

E-mail: info@dias-infrared.de
Web: www.dias-infrared.com

certificated after ISO 9001:2008

Technical details are subject to change.
March 2010.

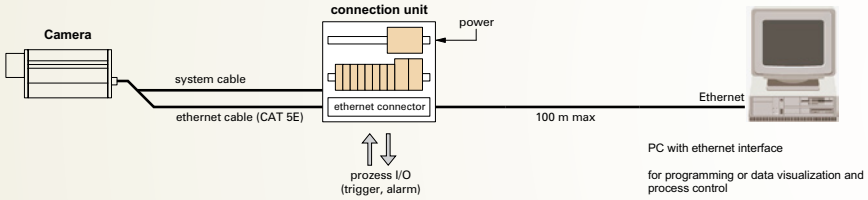
Lens variations

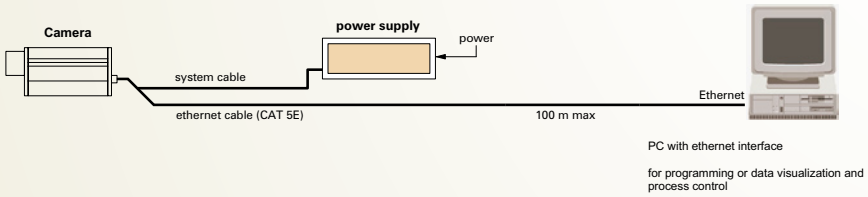


VFOV × HFOV	D (m)	H (mm)	W (mm)
20° × 0.2°	1	352	3
	3	1060	4
	10	3530	28
40° × 0.3°	1	728	6
	3	2180	17
	10	7280	57
56° × 0.5°	1	1060	8
	3	3190	25
	10	10600	83
60° × 0.5°	1	1160	9
	3	3460	27
	10	11500	90
90° × 0.8°	1	2000	16
	3	6000	47
	10	20000	156

D...Measurement distance • H...Field of view height • W...Field of view width

System configuration with Fast Ethernet





Dimensions