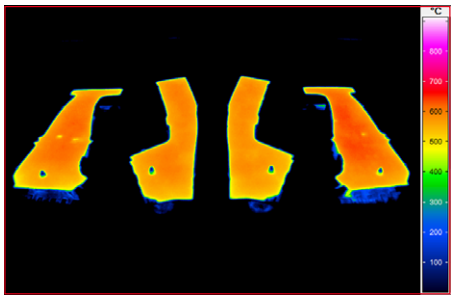
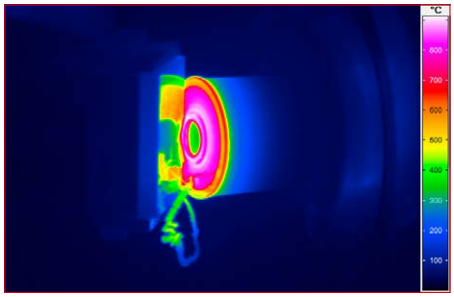
InfraTec.
Made in Germany



Heated sheet metal before the pressing process



Metal forming

PIR uc SWIR HD 800

Stationary Thermographic Camera for Industrial Use

1.280 × 1.024 Detektor

Detector Format
Efficient measurement of smallest structures on large-scale objects

1,280 × 1,024 60 Hz

Frame rate
Analysis of high-speed dynamic temperature changes and processes

Compact light metal housing
Reliable protection from climatically and mechanically extreme conditions

IP67

Protection Degree
Constant excellent optical and metrological performance

±2 %

Measurement Accuracy
Precise and highly repeatable measurements

The **high-resolution PIR uc SWIR HD 800** is a very compact thermographic camera designed for stationary use, which works in the **short-wave spectral range** and is used preferably **for contactless temperature measurement on metal surfaces** because of its spectral characteristics. The robust industrial camera is based on a high-resolution Si-CMOS array **with (1,280 × 1,024) IR pixels** and enables images in **HD quality.**

Already the outer appearance reveals the **perfect suitability for stationary industrial use.** The **high-quality light metal housing** can be integrated easily into numerous process environments thanks to its compact dimensions. The **protection degree IP67** enables installations even in environments where dirt and high temperatures are commonplace. The detector with its very high geometric resolution offers the possibility of detecting even the smallest details on large measurement objects quickly and precisely. Focusing on temperature measurements in the short-wave spectral range of (0.78 … 1.1) µm ensures that physically determined measurement errors, which occur due to the emission properties of metallic measurement objects, are minimised.

Technical Specifications

Spectral range	(0.78 … 1.1) µm
Detector	High-dynamic Si-CMOS array
Detector format (IR pixels)	(1,280 × 1,024)
Temperature measuring range	(650 … 1,000) °C
Measurement accuracy	± 1 °C or ± 1 %
Temperature resolution	< 1 K
Frame rate (full-frame)	60 Hz
Wide-angle lenses	4.8 mm (HFOV 72.5°); 8.0 mm (HFOV 45.0°)
Standard lens	12.5 mm (HFOV 31.5°)
Data interface	GigE Vision up to 60 Hz
Focus	Fixed focus, approx. (0.3 m … ∞)
Dynamic range	12 bit
Interfaces	GigE Vision
Power supply	Power over Ethernet (PoE)
Power consumption (at 12 V DC)	approx. 3.4 W
Storage and operation temperature	(-20 … 70) °C; (0 … 55) °C
Protection degree	IP67
Dimensions, weight	(Ø 100 × 255) mm; 2,0 kg
Further functions	Shutter-free operation, temperature alarm
Analysis and evaluation software*	IRBIS® 3, IRBIS® 3 plus, IRBIS® 3 professional, IRBIS® 3 view, IRBIS® 3 remote, IRBIS® 3 online, IRBIS® 3 process, IRBIS® 3 vision

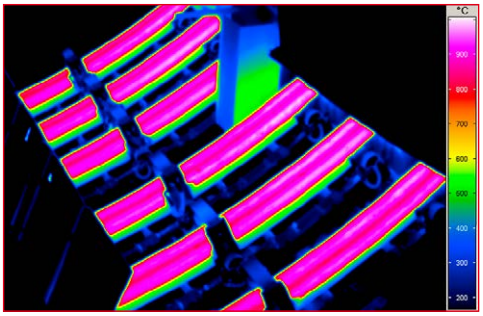
* Depending on model

PIR uc SWIR HD 800 is suitable for solving a wide range of measuring tasks in production and development – including process monitoring, quality assurance and product development. The PIR uc SWIR HD 800 demonstrates its strengths, for example, as a **component of PRESS-CHECK** – in the automation solution of InfraTec for quality assurance during press hardening. It is used there for measuring the surface temperature distribution of the metal sheets to be machined before the pressing process.

The **evaluation and analysis programs of the IRBIS® 3 software family** round off the flexible character of the PIR uc SWIR HD 800. Based on IRBIS® 3, IRBIS® 3 plus and IRBIS® 3 professional provide powerful tools for camera control and data acquisition that enable additional freedom for easy adjustment to the systems on site.

Application Examples

- Monitoring during the press hardening of sheet metal parts (PRESS-CHECK)
- High temperature applications
- Quality inspection in the metalworking industry



Slab production

Order Information

Item number	Thermographic system with lenses
M92717	PIR uc SWIR HD 800 (1,280 × 1,024) IR pixels; 4.8 mm
M94860	PIR uc SWIR HD 800 (1,280 × 1,024) IR pixels; 8.0 mm
M92730	PIR uc SWIR HD 800 (1,280 × 1,024) IR pixels; 12.5 mm

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