

More Precision.



optris® PI

Thermal Imager with USB 2.0 Interface
for online applications



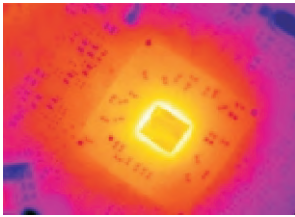
FEATURES

- High accuracy within temperature ranges of -20°C up to 900°C
- Easy to use - small size
- Excellent thermal sensitivity (NETD) of 0,08 K
- Exchangeable lenses with 9° FOV and 31° FOV
- Real-time thermography with 100 Hz frame rate
- USB 2.0 interface, USB powered device
- 1 m, 5m or 20 m cable length
- Windows XP / Vista - Software PI Connect
- Analog input and output, trigger interface
- Extremely lightweight (250 g) and rugged (IP65)
- Size 45 mm x 45 mm x 62 mm

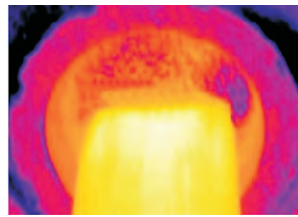
General specifications	
Environmental rating	IP 67
Ambient temperature	0 - 50°C
Storage temperature	-40 - 70°C
Relative humidity	20 - 80 %, non condensing
Shock	25G, IEC 68-2-29
Vibration	2G, IEC 68-2-6
Weight	250 g, incl. Lens
Electrical specifications	
Output	USB 2.0
Power supply	USB powered
Process Interface (electrically isolated)	0-10 V output 0-10 V input trigger input
Tripod mount	1/4-20 UNC
Measurement specifications	
Temperature ranges	-20°C to 100°C 0°C to 250°C 150°C to 900°C (optional)
Detector	Focal Plane Array (FPA) uncooled micro bolometer 35 x 35 μm
Thermal Sensitivity (NETD)	0,08 K with 31° FOV/F=0.7 0,3 K with 9° FOV/F=1.6
Refresh rate	100 Hz
Spectral range	7,5 - 13 μm
Optical resolution	160 x 120 pixel

System accuracy	±2 % or ±2°C
Resolution (Display)	0,1°C
Lenses	31° /f = 10 mm 9° /f = 36 mm
Configuration	Scaling of the measuring range automatic or manual, selectable and definable software layouts, language-translation-tool, adjustable measuring parameters (Emissivity 0.10 - 1.00, background radiation compensation, reference temperature)
Measurement Modes	Flexible spot with crosshair marking, fixed measurement field with automatic display of maximum-, minimum- or average value, automatic hot-spot- and cold-spot-finder, temperature profile, isotherm exposition
Exposition	Color reference bar, histogram, digital display of measuring field temperatures (with alarm signal), temperature profil, video control (play, pause, stop, detail screen forward and backward), full screen mode
Color Palettes	Iron, rainbow, black-white, black-white inverted, alarm blue, alarm green, alarm red
Data storage	Videorecording (radiometric) with adjustable frame rate (max. 100 Hz); detail screen saving in JPG (radiometric)
Process Interface (input)	External control of emissivity, background radiation compensation or reference temperature, triggered video- or detail screen shot, optional; adjustable via software
Process Interface (output)	Analog output for temperatures of main measuring area or alarm output (adjustable via software)

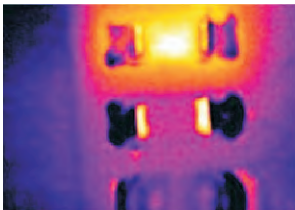
Applications



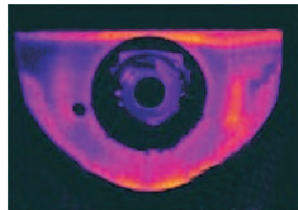
R&D electronic



Process control extrusion



R&D electronic devices



R&D mechanical components

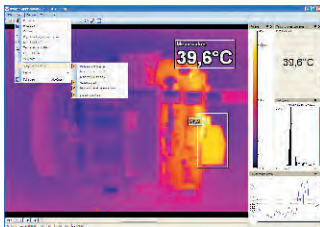


Process control calendaring



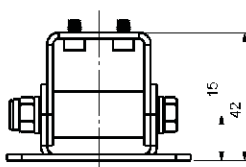
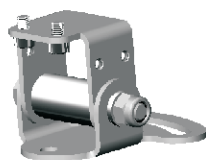
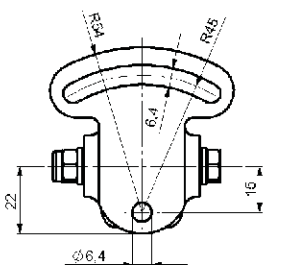
Production of solar panels

Software PI Connect



- Display of the thermal image in real time (100 Hz) with recording function (video, snap shot)
- Complete set up of parameters and remote control of the camera
- Detailed analysis of fast thermodynamic processes

Accessories



Mounting base with protective housing

Standard Scope of Supply

- PI process camera incl. one selected lens
- Tripod mount
- Rugged transport case
- Manual
- USB cable
- Software PI Connect: processing and analyzing thermal images

Dimensions

