

### Features

- 160 x 120 infrared resolution (19,200 pixels)
- 3.5" color TFT LCD touch screen with sun visor
- Built-in laser and white LED flashlight
- Video recording with voice annotations
- 4 image modes (infrared/visual camera/infrared overlay/picture in picture)
- Choice of 6 color palettes
- Expandable memory (Micro SD)
- Rechargeable li-ion battery
- Tripod mountable for continuous long-term monitoring
- Low battery indicator and auto shut off
- Includes 7.5mm lens and cap, micro SD memory card, video output and USB cable, headset, hood, tripod adapter, shoulder strap, two rechargeable batteries, AC adapter, software and hard carrying case

### Specifications

#### Imaging and Optical

Field of View (FOV):	29.8 x 22.6°
Minimum Focus Distance:	0.2m (0.66')
Spatial Resolution:	(IFOV) 3.33 mrad
Thermal Sensitivity (NETD):	<0.08°C (80mK)
Image Capture Frequency:	50Hz
Focus:	Manual

#### Measurement

Temperature Range:	Low Range: -4 to 302°F (-20 to 150°C) High Range: 32 to 752°F (0 to 400°C)
Accuracy:	±3.6°F (2°C) or ±2% of reading
Resolution:	0.1 or 1°F/°C

#### Detector

Detector Type:	Uncooled microbolometer, Focal plane array (FPA)
Spectral Range:	8 to 14μm
IR Resolution:	160 x 120 (19,200 pixels)

#### Image Presentation

Display:	3.5" color TFT touch screen
Image Modes:	IR image, visual image, picture in picture
Picture in Picture:	IR area on visual image or visual image area on IR
Color Palettes:	6 (Gray/Gray Inverse/Iron/ Iron Inverse/Rainbow/Feather)

### TECHNICAL DATA



REPLACEMENT LENSES

Continued...

### TECHNICAL DATA

#### Measurement Analysis

Spot Meter:	3
Emissivity:	Adjustable (0 to 1.00)
Line:	2 lines (horizontal and vertical)
Area:	3 boxes with max/min/avg
Automatic Hot/ Cold Detection:	Auto hot or cold spotmeter markers
Isotherm:	Detect high/low temperature/ interval
Measurement Corrections:	Emissivity, ambient temperature, distance, relative humidity, offset temperature

#### General Specifications

Zoom:	20x continuous, digital zoom
Digital Camera:	Yes (640 x 480 resolution)
Image Format:	JPEG on memory card >1000 pictures
Video Out:	Composite (PAL and NTSC)
Video Format:	MPEG-4, 640x480 @ 30 FPS on memory card >60 minutes

Video Camera and Annotations:	Yes
Laser Indicator:	Yes
LED Flashlight:	Yes
External Memory:	4GB micro SD card
Auto Shut-off / Sleep Mode:	Yes (user adjustable)
Tripod Mountable:	Yes
Low Battery Indicator:	Yes
Power Supply:	7.4V rechargeable lithium battery
Battery Life:	Approx. 4.5 hours
Charging System:	In Camera or with AC Adapter
PC Connectivity:	USB Cable
Software:	Yes (Included)
Software OS Compatibility:	Windows XP / 7 / 8 / 10
Supported Languages:	English, Chinese, French, German, Spanish

Laser Class:	II
Product Certifications:	CE, IP65, 6.6' (2m) drop test
Operating Temperature:	-4 to 122°F (-20 to 50°C)
Storage Temperature:	-40 to 158°F (-40 to 70°C)
Operating/Storage Humidity:	10 to 90%
Dimensions:	9.6 x 4.1 x 6.3" (243 x 103 x 160mm)
Weight:	2.1lbs (920g)



Model	Description
<b>R2100</b>	Thermal Imaging Camera
<b>RL-11</b>	Optional Lens, 20.6°/11mm
<b>RL-22</b>	Optional Lens, 10.4°/22mm
<b>RL-33</b>	Optional Lens, 6.9°/33mm
<b>R2100-7.4V</b>	Replacement Battery
<b>R2100-NIST</b>	Thermal Imaging Camera & NIST

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### TECHNICAL DATA

#### Industrial and Commercial Maintenance Use

- Temperature Measurement Range: -28 to 400°C [-4 to 752°F]
- Thermal Sensitivity: <0.08°C @ 30°C (86°F) / 80mK

- 1 3.5" touch screen with innovative sun visor
- 2 Interchangeable lenses
- 3 20x continuous zoom
- 4 Fusion display of IR and visible images
- 5 Area min/max with auto hot/cold spot markers
- 6 Picture-in-picture
- 7 Annotate images with voice and text
- 8 Video and snapshot storage on MicroSD Card

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### TECHNICAL DATA

#### High Resolution IR Images

19,200 pixels (160 x 120) Infrared resolution

#### Visible Light Digital Camera

640x480 resolution with flash provides sharp images regardless of lighting conditions

#### Picture in Picture

Displays thermal image super-imposed over a digital image

#### LED Flashlight

Allows the visual camera and fusion to be used in poorly lit environments

#### Wide Temperature Range

From -20 to 400°C targeting electrical and industrial applications

#### ±2% Accuracy

Reliable temperature measurement

#### Thumbnail View

Easy to view and analyze images quickly



#### Automatic Lens Recognition

Automatically identifies the temperature calibration data associated with each of the interchangeable lenses

#### Audio Recorded with the Video Image

A speaker to listen to audio recorded with the video image

#### Capacitive Touch Screen

More easy, productive and effective to operate

#### Lithium Polymer Rechargeable Battery

Lasts >4hrs continuous use; replaceable

#### Copy to USB

Easily uploads images from camera to USB memory card

#### Area (Min/Max) Mode

Shows the Minimum or the Maximum Temperature reading in the selected area

### Applications:

- Plant/General Maintenance
- HVAC/R & Plumbing
- Transportation/Automotive
- Cooling and Reheating
- Serving areas
- Food Service Equipment
- Cold Storage
- Home & Building Inspection
- Electrical & Mechanical Inspection
- Predictive Maintenance
- Health & Safety
- Equine & Veterinary
- Road Construction
- Workplace Ergonomics

### Replacement Lenses

- **RL-11 Replacement Lens (20.6°/11mm):**  
D:S; @ 100' (30.5 m): 36.3 x 27.2' Resolution = 2.7" (69.1mm)
- **RL-22 Replacement Lens (10.4°/22mm):**  
D:S; @ 100' (30.5 m): 18.2 x 13.7' Resolution = 1.37" (34.8mm)
- **RL-33 Replacement Lens (6.9°/33mm):**  
D:S; @ 100' (30.5 m): 12.2 x 9.1' Resolution = 0.91" (23.1mm)

### Included

- Standard Lens (29.8°/7.5mm): Distance to Spot Size;  
D:S; @ 100' (30.5 m): 53.3 x 39.9' Resolution = 4" (101.6mm)

Recognizable lenses increase camera resolution at longer distances.  
No camera calibration required.



11MM LENS  
RL-11



22MM LENS  
RL-22



33MM LENS  
RL-33