TECHNICAL SPECIFICATION

	IR16DE	IR16DB	IR16DS	IR16DH
Field of View (FOV)	20° X 15°			
Focus	Manual			
Minimum Focus	30cm			
Spectral Response	8µm to 14µm			
Thermal Sensitivity	NETD ≤80mK(0.08°C) @ 23°C and 30°C Scene Temperature	NETD ≤50mK(0.05°C) @ 23°C and 30°C Scene Temperature	NETD ≤80mK(0.08°C) @ 23°C and 30°C Scene Temperature	
Detector	160 X 120 Pixels uncooled microbolometer			
Image Storage	Over 1000 images on supplied micro SD card			
Display	3½" colour LCD with LED backlight, 8 colour palettes			
Display Options	Picture in Picture Thermal above and Thermal below	Thermal images or visible images or mixed thermal and visible images including picture in picture with blending Thermal above and Thermal below		
Laser Pointer	A built in class 2 laser highlights the central measurement area			
Measurement				
Temperature Range	-10°C to +250°C	-20°C to +125°C	-10°C to +500°C	-10°C to +900°C
Radiometry	Two moveable temperature measurement cursors with temperature difference measurement	Four moveable temperature measurement cursors with temperature difference measurement and individual emissivity correction		
Emissivity correction	User selectable 0.1 to 1.0 in steps of 0.01 with reflected temperature compensation			
Accuracy	The greater of ±2°C or ±2% of reading in °C for ambient temperatures between -15°C and +45°C			
Battery	Rechargeable field replaceable Lithium Ion			
Operation time	5 hours			
AC operation	AC adaptor supplied			
Mechanical				
Housing	Impact resistant plastic with overmoulded soft elastomer			
Dimensions	130mm X 95 X 220mm			
Weight	0.8KG			
Mounting	Handheld and tripod mounting ¼" BSW			
Environment				
Temp. Operating range	-15°C to +50°C			
Humidity	10% to 90% non condensing			
Temp. storage range	-20°C to +70°C			
IP rating	IP54			
Vibration	MIL-PRF-28800F class 2 section 4.5.5.3.1			
Shock	MIL-PRF-28800F class 2 section 4.5.5.4.1			
Drop test	MIL-PRF-28800F class 2 section 4.5.5.4.2 2m drop test			

IR16 Series – Dual View Thermal Imaging Cameras
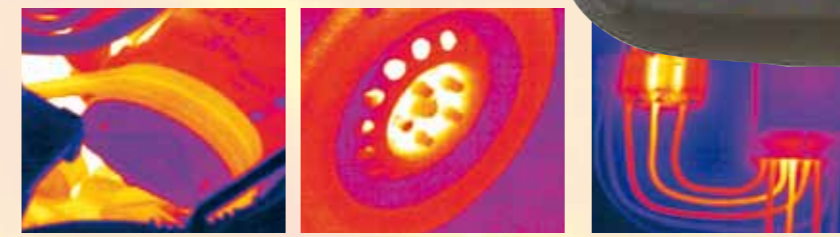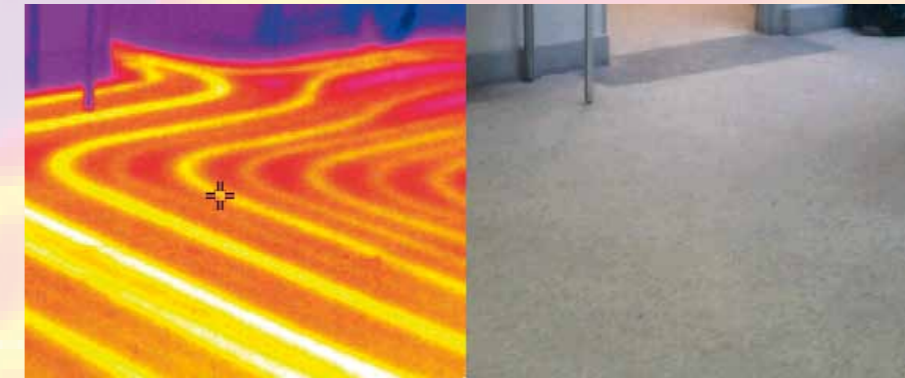
IR16DE – General purpose Thermal Imager
Ideal for use by both thermographers and maintenance engineers. The high quality images may be captured and manipulated in the camera allowing problems to be resolved on the spot. Images can also be downloaded to a PC for analysis and reporting. The camera comes with an industry leading 3 ½" display. Typical applications for the IR16DE include:

- Predictive and Preventative Maintenance
- Electrical and Mechanical inspections
- Process Monitoring
- HVAC & R Troubleshooting and Maintenance
- General Industrial/Domestic Inspection

IR16DS – Dual temperature range Thermal Imager
The IR16DS has all the features and functions of the IR16DE with the additional capability of:

- Multiple viewing options, with fused images
- User selectable temperature range allowing measurements up to 500°C
- Alarms
- Sequence recording

IR16DB – Building Thermal Imager
The IR16DB offers better sensitivity making it especially suitable for building applications. The temperature range of -20°C to 125°C also makes it suitable for a variety of general purpose and maintenance applications:

- Building Inspection
- Energy loss audit
- Commercial refrigeration
- Building and services maintenance

IR16DH – High Temperature Range Thermal Imager
The IR16DH combines the temperature range of the standard IR16DS with an extended range of up to 900°C, allowing users to monitor plant and equipment operating at higher temperatures. The IR16DH is especially suitable for use where high temperature measurement is required, such as the following industries:

- Petro-chemical
- Glass
- Cement
- Metal Industries

Key Features

Image Fusion
The camera can display a thermal image, a visual image only or a fusion of both thermal and visual images, or as a fused PiP(Picture in Picture) or thermal above or below. An LED illuminator is available for dark environments.

Voice Annotation
Record voice notes to each image saved. Playback on the camera through its speaker or through headphones and on the PC, once the image has been transferred using the supplied software.

Alarms
The camera can detect hot & cold spots and be set to alarm when the temperature is above or below the alarm threshold. Alarms are both audible through the camera speaker or headphones and visual via the camera display.

Time Sequencing
Allows unattended monitoring of equipment over a period of time to observe changes in equipment performance. This can be at regular timed intervals or on user defined threshold temperature alarms.

Individual cursor emissivity settings
Four moveable cursors allowing easy comparison of components and items in a scene with individual emissivity settings to get a more accurate measure of actual temperatures.

Battery Life
Long battery life (5 hours) which is also replaceable, allowing a typical shift to be worked without recharging.

IR16 Thermal Imager features-at-a-glance

Features	IR16DE	IR16DB	IR16DS	IR16DH
Visual Camera	√	√	√	√
Voice Annotation	√	√	√	√
Alarms		√	√	√
Sequencing		√	√	√
PiP	√	√	√	√
Fusion		√	√	√
Thermal Thru	√	√	√	√
2 Moveable Cursors	√			
4 Moveable cursors		√	√	√
Individual emissivity adjustment		√	√	√
-20°C to +125°C		√		
-10°C to + 250°C	√		√	√
+200°C to +500°C			√	√
+200°C to + 900°C				√
Illuminator	√	√	√	√

Settings and Controls (not all settings listed below are on all models)

- Auto/user selectable span and level control
- Readout in °C or °F
- Four moveable temperature measurement cursors with individual emissivity values and temperature difference between two points.
- User selectable emissivity setting for each measurement cursor.
- Auto hot and cold seeking or hot only or cold only.
- User selectable reflected temperature compensation.
- Area analysis– 3 options.
- X-Y thermal profiles.
- Isotherms with temperature difference.
- Voice and or text annotation.

- Image capture; time and date.
- Palette selection.
- User selectable integration.
- Image fusion control: 0 to 100% adjustment on whole image and on picture in picture.
- Threshold control on thermal above and below display.
- Electronic zoom, x2 , x4.
- Multi-language options.
- Battery power indicator.
- Image browser showing thumbnails and voice annotation playback.
- Time or Alarm sequence recording.