

## Infrared Thermal Imager Thermo Tracer TH7716

Affordable with visual/thermal image fusion function



Manual Focus



Thermal



Visual



Fusion

### High performance UFPA detector

160x120 pixels microbolometer

### Visual/thermal image fusion function

Measures visual and thermal images simultaneously and displays fused image for easily identifying area of interest.

### Laser pointer

For easy determination of a measuring spot.

### Flip-up 3.5" color LCD

Reflective/transmissive LCD for clear view at indoors or not. Flip-up mechanism allows users to adjust the LCD position as they want.

### Temperature measuring range

-40°C to 500°C  
Range 1 : -40°C to 120°C  
Range 2 : 0°C to 500°C  
Resolution : 0.1°C (at 30°C, Range 1)

### Large storage capacity

Stores up to 4000 images in on-board memory. (SIX format)

### Basic performance

Resolution: 0.1°C (at 30°C)  
Accuracy: ±2% (of reading) or ±2°C  
Battery life: Approx. 3 hours (typ)

### Easy operation

Large control buttons for one-handed operation.  
Multilingual menu: English, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese, Finnish, Danish, Swedish, Norwegian and Dutch.

### Robust design

Dust/splash-proof: IP54  
Vibration-proof: 29.4m/sec<sup>2</sup> (3G)  
Shock-proof: 294m/sec<sup>2</sup> (30G)

## Specifications

|                             |   |              |
|-----------------------------|---|--------------|
| Measuring range             | Range 1   | -40 to 120°C |
|                             | Range 2   | 0 to 500°C   |
| Resolution                  | 0.1°C (Range 1 at 30°C)   |              |
|                             | 0.7°C (Range 2 at 30°C)   |              |
| Accuracy                    | ±2°C or ±2% of reading, whichever is greater  |              |
| Detector                    | Uncooled focal plane array (microbolometer)   |              |
| Spectral Range              | 8 to 14μm   |              |
| Thermal Image Pixels        | 160 (H) × 120 (V) pixels  |              |
| Focusing Range              | 30cm to infinity  |              |
| I.F.O.V.                    | 2.1mrad   |              |
| Field of View               | 19.1° (H) × 14.3° (V)   |              |
| Display                     | 3.5-inch color LCD  |              |
| Battery Life                | Approx. 3 hours<br>(at 20°C, RUN mode, LCD backlight off)   |              |
| Frame Time                  | 8.5 frames/sec  |              |
| Image Storage Capacity      | Up to 4000 images (SIX format)<br>(SIT&SIX file format: thermal & visual)   |              |
| Env. Temp. Correction       | Provided (including interval NUC)   |              |
| Background Compensation     | Provided  |              |
| Ambient Correction          | Provided  |              |
| Focus                       | Manual Focus  |              |
| Thermal/Visual Image Fusion | Provided  |              |
| Image Processing Functions  | Temperature display (1 point, movable)<br>Emissivity correction (1 point, movable)  |              |
| Display Functions           | Display color: color/monochrome, positive/negative<br>Gradation : 16, 32, 64, 128, 256<br>Color palette: rainbow, brightness, shine, hot-iron,<br>medical, fine |              |
| Laser Pointer               | Class 2 (1mW/650nm red)   |              |
| Video signal output         | NTSC/PAL, composite video signal, S-video   |              |
| Interfaces                  | USB 2.0/1.1 (Mass storage available)  |              |
| Operating temperature       | -15 to 45°C, 90% RH or less (not condensed)   |              |
| Storage temperature         | -40 to 70°C, 90% RH or less (not condensed)   |              |
| Power supply                | AC adaptor: 100 to 240V, DC 7.2V (nominal)  |              |
| Power consumption           | Approx. 5W (typ)  |              |
| Shock & vibration           | Shock : 294m/sec <sup>2</sup> (30G) (IEC60068-2-27)<br>Vibration: 29.4m/sec <sup>2</sup> (3G) (IEC60068-2-6)  |              |
| Environmental protection    | IP54 (IEC60529)   |              |
| Dimensions                  | Approx. 102 (W) × 217 (H) × 205 (D) mm<br>(excluding projections)   |              |
| Weight                      | 1.3kg (including battery and LCD)   |              |
| Standard accessories        | AC adaptor, battery pack (2 pcs), battery charger,<br>wrist strap, lens cap, carrying case, viewer software,<br>USB cable, operation manual                     |              |

\*\*Specifications are subject to change without prior notice.

\*\*Described company name and model are brand name or registration of trademark.

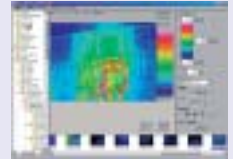
## Visual Camera

|                        |                          |
|------------------------|--------------------------|
| Effective image pixels | 640 (H) × 480 (V) pixels |
| Field of view          | 27.0° (H) × 20.0° (V)    |
| Focus                  | Pan focus                |
| Focusing range         | 50cm to infinity         |
| Auto exposure          | Provided                 |

## Applicable Software

### Viewer Software NS9205 (standard)

Thermal image playback  
 •Temp display setting  
 •Visual image display  
 •Point temp display (up to 20 points)  
 Data conversion: JPEG, BMP, AVI  
 Download of thermal image data  
 from internal memory.



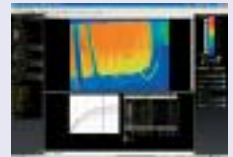
### Report Generator NS9200 (optional)

Helps to make reports easily with  
 thermal images and temperature  
 data on MS Word and Excel.  
 Fusion of thermal and visual images.  
 Subtraction (Entire image, specified  
 area, like-figures)  
 File management by database.  
 Detects abnormal temperature by  
 max/min temperature display.  
 Direct data transfer to MS Excel.



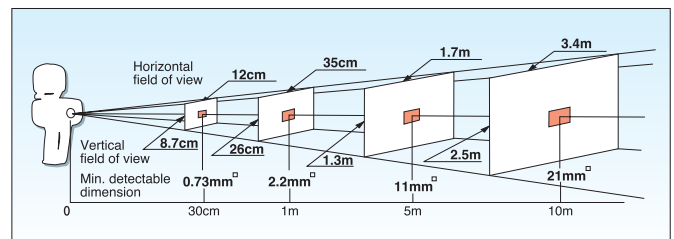
### Image Processor Pro NS9300 (optional)

Thermal/visual image fusion.  
 Patchwork  
 (Integrates multiple thermal images  
 into one and enables data analysis)  
 Sequence editor  
 (Converts multiple thermal image files  
 into thermal movie files)  
 Report generation  
 (MS Word, MS Excel, HTML and MRT)  
 Data output (Excel, BMP, JPEG and AVI)



\*\*NS9300 is available only for OFF line.

## Field of View Diagram (Thermal image)



**CAUTION  
FOR SAFETY**

Please read "WARNING" & "CAUTION" in the operation manual attached to the product carefully for proper operation before using the product.

NEC Avio Infrared Technologies Co., Ltd.

1-5, Nishi-Gotanda 8-chome, Shinagawa-ku,  
 Tokyo 141-8535, Japan  
 Phone: +81-3-5436-1614  
 Fax : +81-3-5436-1395  
 E-mail: osd@nec-avio.co.jp  
 Web : http://www.nec-avio.co.jp/en/

**NEC**

Catalog ref : NA008

Distributor:

**M E T R U M**  
 INFORMATION STORAGE

**Metrum Information Storage Ltd**  
 The Stables, The Grange Centre, 24 Barkham Ride,  
 Finchampstead, Berkshire RG40 4EU

Tel: +44 (0)118 9733000 Fax: +44 (0)118 9734363

E-mail: [enquiries@metrum.co.uk](mailto:enquiries@metrum.co.uk) [www.metrum.co.uk](http://www.metrum.co.uk)

I0804A5 Printed in Japan