

Handy Thermo TVS-200EX



THERMAL VIDEO SYSTEM

Handy Thermo TVS-200EX NEW

Specifications

	TVS-200EX
Measurement range	-20~500°C -2,000°C (with optional high temperature filter)
Temperature resolution	Better than 0.08°C with Averaging
Accuracy	±2°C or ±2% ※1
Frame time	1/60 seconds
Detector	Uncooled FPA, 320(H) × 240(V) VO× microbolometer
Wavelength	8~14μm
FOV	30.6°(H) × 23.1°(V) (with standard 14mm lens)
Spatial resolution	1.68mrad
Measurement distance	30cm~∞
Effective pixels	320(H) × 240(V)
Display	3.5" semi-transmissive color LCD monitor
Visible camera	640 × 480
Multi point temperature display	5 points
Mixing Image Display	Mixing of thermal image and visible image display with sequential ration change.
Max and min temperature position tracking	Yes
Auto temperature tracking	AS (auto sense), AP (auto point), PPM mode, R&D mode, Medical mode
Digital zoom	×2, ×4 (scroll display, area designation possible)
Freeze	On/Off
Isotherm function	Yes
Grid display	Yes
Alarm function	Displayed by setting the temperature (single/continuous)
Image recording	Interval recording with alarm as a trigger
Color palette	Rainbow/hot iron/iron bar/white black/black white/contrast
Image improvement function	Averaging process
Other functions	Emissivity correction, day and time display, battery volume, memo, last memory
Data storage	300/64MB. Up to 512MB.
Mode	CF format, delete, create directory, file name input, one shot recording, interval recording, one shot playback, gallery display, file name display
File format	IRI, BMP (thermal image)/JPG (visual image)/BMP (mixing image)/LOG Simultaneous recording of thermal image, visual image, and mixing image.
Interval recording	3S~23H59m59s
Number of frames	400 frames(Thermal image)
Frame time	60fps, 30fps, 20fps, 10fps, 5fps, 2fps, 1fps, 2s
Recording Mode	Continuous, Alarm, One shot
Temperature unit	°C / ° F / K
Image output	NTSC or PAL
PC interface	RS-232C, IEEE1394 (option)※2
Power	Battery (Li-ion), AC adapter, Long life battery (option)
Power consumption	Approx 14W
Battery run time	Approx 2H, approx 4H (when using optional long life battery)
Operational temperature/humidity	-10~50°C / RH80% or less (no condensation)
Dimensions	123(H) × 115(W) × 207(D)mm without protrusions
Weight	Approx 1.7Kg (without battery)
Environmental protection	IP54
Shock	30G JISCO041/IEC60068-2-27
Vibration	3G JISCO040/IEC60068-2-6

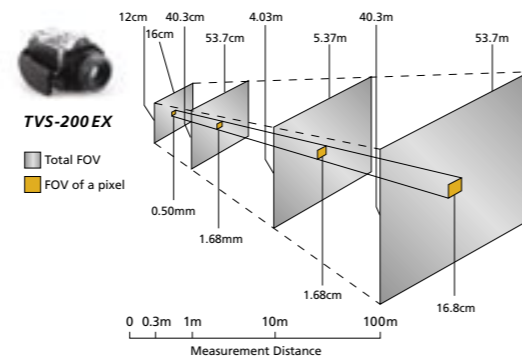
Options

- Close-up lens (100μm)**
Measurement distance: 56mm(Fixed)
FOV: 32mm(H) × 24mm(V)
- X2 wide angle lens**
Measurement distance: 15cm or longer
FOV: 61.3° (H) × 46.0° (V)
- X2 telescopic lens**
Measurement distance: 1.2m or longer
FOV: 15.3° (H) × 11.5° (V)
- X3 telescopic lens**
Measurement distance: 2.5m or longer
FOV: 10.2° (H) × 7.7° (V)
- Long life battery case**
The battery case can be used in direct connection to DC input terminal. (Two spare battery packs, sold separately, are required for use.)
Approx 4 hours continuous operation.
- IEEE1394 image transfer kit**
※ OS compatibility: Windows2000, XP(SP2) or higher
- Filter for high temperature measurement**
(for 900°C, 2000°C)
- Carrying case**
- LCD Hood**

Standard configuration

- TVS-200(with 14mm standard lens) ×1
- AC adapter ×1
- Battery pack ×1
- Battery charger ×1
- CF card ×1
- Card adapter ×1
- Neck strap ×1
- RS-232C cable ×1
- Operation manual ×1
- Pointer & Light ×1

Measurement Distance and FOV (with standard 14mm lens)



※1 Accuracy applies from -20 to 300°C
※2 IEEE and realtime memory are exclusive to each other

⚠ Precautions for use of this product.

- Please make sure to read the instruction manual carefully before use so that the equipment can be used safely.
- Do not leave equipment in a place where there is water, moisture, steam, smoke, etc. It may cause fire, electric shock or failure of the equipment.
- This company shall not be liable for any incidental damages (loss of business profit, change or loss of data, etc.) caused by the use or non-availability of this product.
- This company shall not be liable for any damages caused by malfunctions due to connection with other equipment or with equipment containing software developed by others.
- This company shall not be liable for any damages caused by using the product in a way other than those explained in the operation manual.
- The specifications and functions described in this brochure may be changed without notice for improvement.
- Company names and product names appearing in this brochure are trade names and trademarks of those companies.
- Windows is a trademark of Microsoft Corporation of the USA registered in the USA and other countries.
- Since the product contains an item under export control, delivery is subject to necessary export licenses by the authorities. It is strictly regulated to export the product to certain area.
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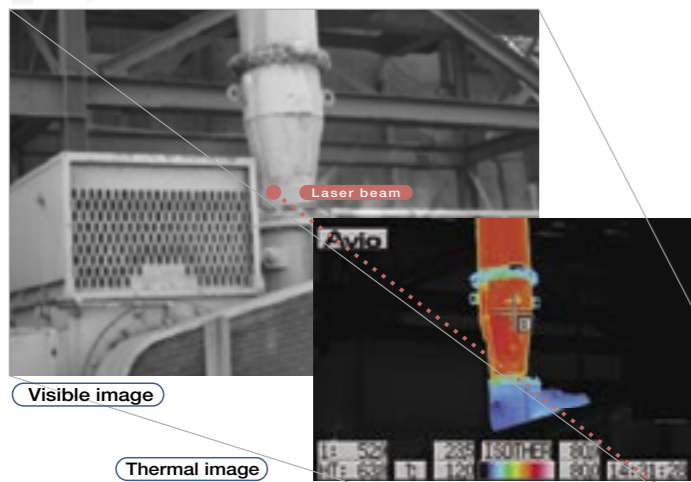
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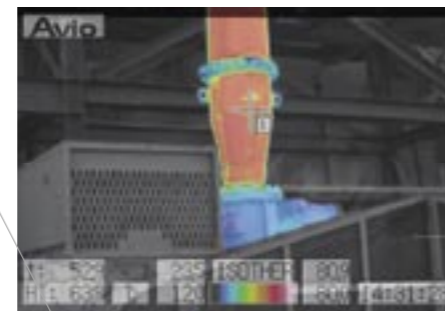
Features



Thermal image and visible image can be displayed completely simultaneously. **Patent pending.**

Image mixing function

A unique transmissive mixing function which shows background of the thermal image.



Laser pointer*1

Location of measured object is clearly indicated with laser pointer.

LED illumination*1

LED illumination is helpful to measure object in darkness.

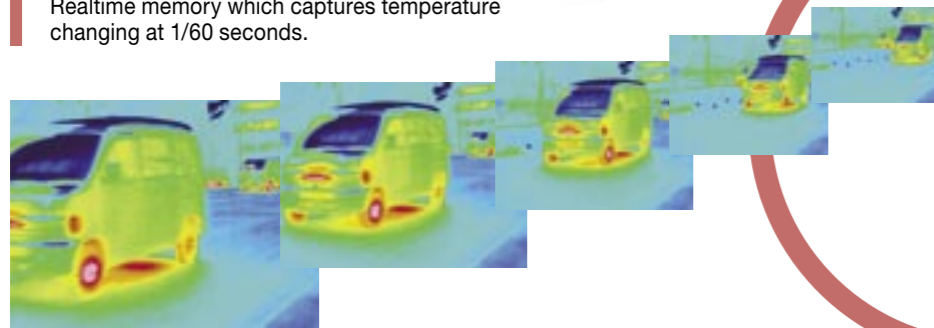
Wide angle lens

(30.6°×23.1°)

Wide area can be measured in one shot.

Realtime memory

Realtime memory which captures temperature changing at 1/60 seconds.



Realtime image transfer (option)
Image transfer to PC via IEEE1394



Latest Japanese infrared sensor (320×240)

High performance Uncooled FPA, 320(H) × 240(V) VOx microbolometer enables high quality thermal image.

0.08° temperature resolution

Even a small temperature difference is captured and displayed.

Easy operation

Windows-like intuitive operation system is adopted.



Monitor display



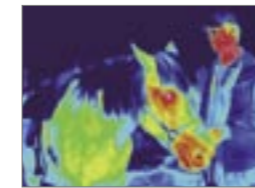
Operation panel



Cross key

Many useful functions are available

Zoom function

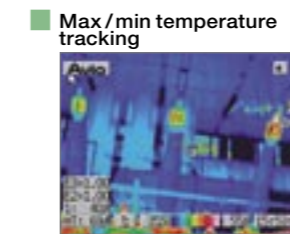


Specified area can be enlarged.

Isotherm display

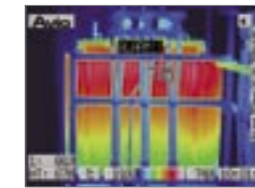


Certain temperature range is highlighted.



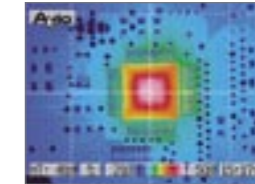
Maximum (minimum) temperature within the screen can be tracked. (area designation and alarm output are possible)

Alarm display



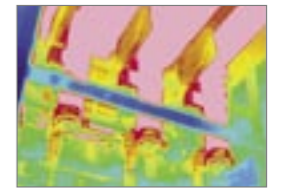
Abnormal temperature within the screen is reported.

Grid display



Grids are displayed in 100 pixel spacing. (with standard 14mm lens)

Auto function

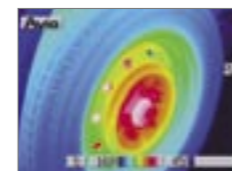


Suitable temperature range is set in one action.

Applications

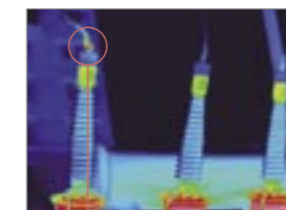
Evaluation, prototyping

Automotive, die-casting, electronic components etc.



Power facilities

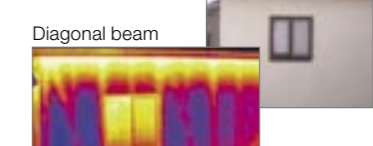
Checking of substations and power transmission lines etc.



Overheated bushing

Building inspection

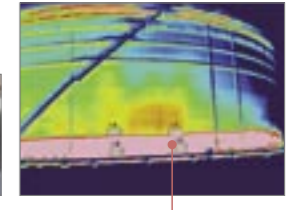
Inspection for water leakage, evaluation of heat insulation.



Water leakage

Plant maintenance

Inspection & maintenance of piping and facilities



Sludge

Software

Thermal image analysis software PE-Pro (option)

Various functions are available- thumbnail display of thermal images, temperature range adjustment, measurement of point temperature, profile, histogram, trend function, subtraction etc. Analyzed result can be exported to word processing or spreadsheet software for report writing.

