

**NEW**

**Fixed Mount Type Infrared Thermal Imager  
Thermo Tracer  
TS9260/TS9230**

**FA / Production line / Security for High performance Infrared thermography**



**TS9260**

**For Production line**

**TS9230**

**For security**

**For Production control**

**NEC UFPA detector built in** (Made in Japan)  
 TS9260: High resolution 640 x 480  
 TS9230: High performance 320 x 240

**Basic performance**  
 NETD: 0.06°C@30°C  
 Accuracy: ±2%(Reading) or ±2°C

**Compact & light weight**  
 TS9260: 80 x 87 x 211mm 1.2kg  
 TS9230: 65 x 65 x 209mm 1.0kg

**Toughness & high reliability**  
 Dust & splash proof, IP54  
 Rugged metal case,  
 Long-term continuous operation with high and reliable design.

**Maintenance free**  
 High reliability UFPA detector and optimization of moving mechanism make maintenance free

**Ethernet & IEEE1394**  
 Easy connection to PC  
 Real time image transfer and various system-up are available by high speed data transfer

**Alarm output**  
 Detects abnormal condition and outputs by itself. It makes cost down for the system

**High cost performance**  
 Optimizes necessary performance for each application and realizes high cost performance

**Rich options**  
 Protection housing, lenses interfaces, peripherals, software development kit etc.

## Specifications

Type	TS9260	TS9230
Temperature range	-40°C to 500°C (Range 1: -40 to 120°C, Range2: 0 to 500°C) (Select either standard or option) Option: 200 to 2000°C	
NETD	0.06°C (@30°C, 30Hz)	0.06°C (@30°C, 60Hz)
Accuracy	±2%(Reading) or ±2°C	
Spectral range	8 to 13µm	
Detector	NEC 640 x 480 UFPA	NEC 320 x 240 UFPA
Field of view (Standard lens)	21.7° (H) x 16.4° (V)	
I.F.O.V (Standard lens)	0.6 mrad	1.2 mrad
Focus (Standard lens)	50 cm to infinity	
Frame rate	30 frames /sec	60 frames/sec
A/D resolution	14bit	
Measuring function	Run/Freeze, Auto level/Sense, Level trace, Auto gain control	
S/N improvement	Σ2, 8, 16	
Correction	Emmissivity / Environment temp / Back ground	
Display functions	Color/white and black/Posi/Nega ISO thermal: max 4 bands Multilingual menu	
Image processing functions	Level/Sense Multi point(10), Multi emmissivity(10), Max/Min temperature display, Alarm Image filter (Median, Sharpness, etc.)	
Image Output	Composite video (NTSC/PAL)	
Interfaces	RS232C IEEE1394a (6pin): Option Ethernet (100/10baseT): Option	
Operating temp/humidity	-15°C to 50°C / 90%RH or less (Not condensed)	
Storage temp/humidity	-40°C to 70°C / 90%RH or less (Not condensed)	
Power supply	11 to 13V DC	
Power consumption	9W (TYP)	8W (TYP)
Shock & Vibration	294m/s <sup>2</sup> (S) / 29.4m/s <sup>2</sup> (V)	
Environmental protection	IP54 (IEC60529)	
Dimensions	80 x 87 x 211mm	65 x 65 x 208mm
Weight	1.2 kg	1.0 kg

## Option

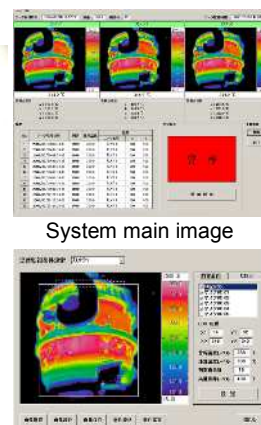
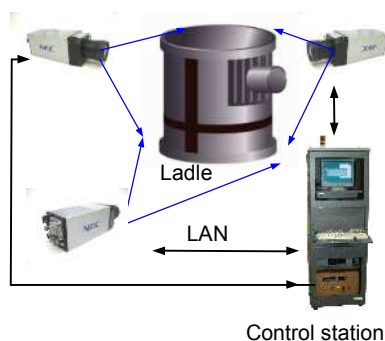
Type	TS9260	TS9230
High temp. range	200 to 2000°C	
Protection housing	Operation temp. -15 to 50°C Cool & Perge air	
IEEE1394	Frame rate: 30Hz	Frame rate: 60Hz
Ethernet	Frame rate: 7.5Hz	Frame rate: 30Hz
Lens	10.5° telephoto lens 42° wide angle lens	10.5° telephoto lens 30° wide angle lens
Software development kit	Windows2000, Windows XP, Windows Vista	

## System example

### Outline

•This system measures the steel ladle exterior temperature, analyses the data and signals any over-temperature situation.

### TS9260/TS9230



### Features

- Automatic monitoring of the steel ladle shell temperature with data analysis enables overheating to be signaled.
- Temperature distribution display indicates problem areas and location for prompt repair.
- Spillages of molten metal are prevented. Potential repair requirements are predicted and locations are automatically specified.

### User benefits

- Users can benefit from easy prediction for repairs and prevention of molten iron leakage.



**CAUTION  
FOR SAFETY**

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

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