

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 emissivity(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 ² (S) / 29.4m/s ² (V)	
Environmental protection	IP54 (IEC60529)	
Dimensions	80 x 87 x 211mm	65 x 65 x 208mm
Weight	1.2 kg	1.0 kg

Option

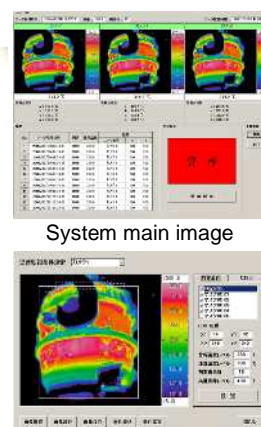
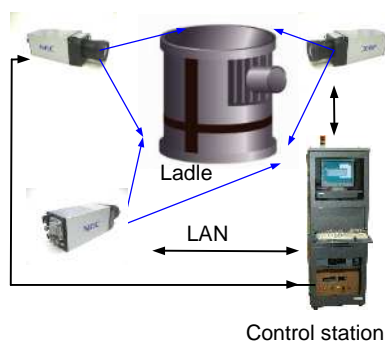
Type	TS9260	TS9230
High temp. range	200 to 2000°C	
Protection housing	Operation temp. -15 to 50°C Cool & Perge air	
IEEE1394	Frame rate: 30Hz	Frame rate: 60Hz
Ethernet	Frame rate: 7.5Hz	Frame rate: 30Hz
Lens	10.5° telephoto lens 42° wide angle lens	10.5° telephoto lens 30° wide angle lens
Software development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