



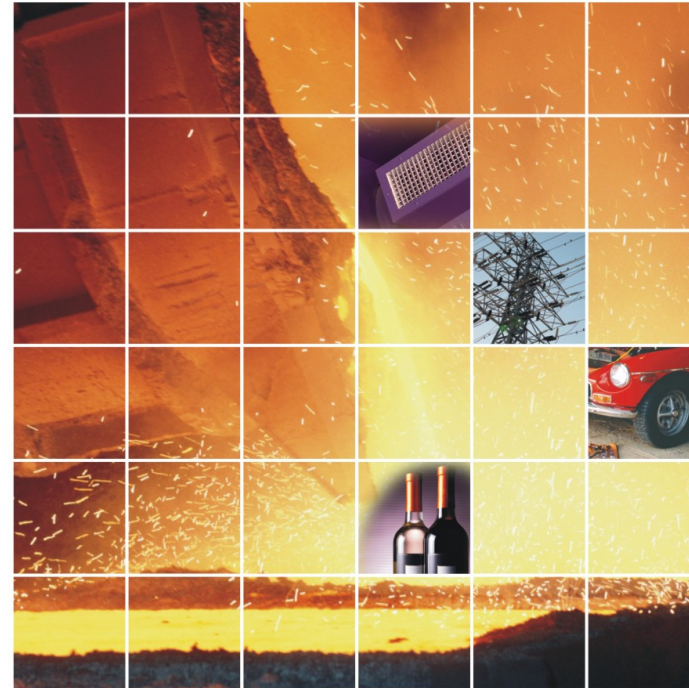
INNOVATION
RADIANT

Radiant Innovation Inc.

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ZyTemp

A new way to measure temperature



- Industry
- HVAC
- HACCP
- Tools -DIY
- AUTO
- Laboratory
- Electric Power

catalog

**Non-Contact
Infrared Thermometer**

<http://www.ZyTemp.com>

About ZyTemp

About Us



- ▶ Radiant was ranked 28th of the Taiwan's 50 fastest growing enterprise by "Common wealth Magazine"
- ▶ Radiant Temperature Calibration Laboratory was certified by TAF
- ▶ Radiant was certified by Taiwan Corporate Governance Association (TCGA) with the Provisions of CG6004 General Assessment Criteria of the Corporate Governance System
- ▶ Radiant's stock has been officially listed in the OTC market (went public)
- ▶ Radiant won Taiwan's the 10th Rising Star Award
- ▶ Radiant has obtained the Symbol of Deloitte-TECH Fast 50 Taiwan acquire
- ▶ Radiant wins "Year 2004 Taiwan's Prestigious Symbol of Excellence Award"
- ▶ Radiant Innovation Inc. wins Year 2002 Taiwan Incorporation Competition [TIC] Silver Award from the Ministry of Economic Affairs
- ▶ Receive the Symbol of Excellence Awards in Taiwan

Founded in July 2000, ZyTemp belongs to world-class Infrared Technology-oriented thermometer manufacturer - Radiant Innovation Inc. and become a premier provider of infrared temperature measurement devices. Originally started from a professional team of engineers specializing in infrared thermometry, this company is now emerging as worldwide well-known manufacturer of infrared thermometers (IRT). Our growing production lines include various IRT that can be widely used in expansive array of scientific, professional, academic, and personal applications.

A Strong and Highly Experience Technical Team

ZyTemp is an engineering-based company with extensive experience in product development which composed of technical professionals with experience in Optoelectronics, Semiconductor, and Biotechnologies. We have been successfully certificated for quality management, development, and production because of our expert knowledge in electronics, machinery, software, firmware programming, quality control and manufacturing.

Certification

Comply with CE0197 "EC Directive 93/42/EEC Annex II, Article 3. Full Quality Assurance System Medical Devices", our TH-series infrared ear thermometers also certified by the FDA. ZyTemp thermometers have been tested by the ACTS laboratory and passed with high-achieving results. Our ear thermometers meet the ASTM E1965-98 and EN12470-5:2003 standards. In December 2009, our temperature calibration laboratory also get the Certificate of Accreditation by TAF in the fields of both infrared and contact type thermometer. Please contact us for more detailed test result.

Certificate of Temperature Calibration Laboratory of TAF



Taiwan Accreditation Foundation



Traceable

ZyTemp has maintained a traceable Temperature Primary Standard. Please refer to the website for further details. <http://www.zytemp.com/qualitysystem/traceable.asp>



Performance

The high performance of our product line make ZyTemp become leading brand in the market. Aiming to be the top infrared thermometer supplier, we have set high standards in quality control and assurance systems. For this reason, our product repair rates never exceeded 0.03% since our establishment.



Industry
Steel-Making



Auto



HVAC



HACCP
Food\ Drink\ Beverage\ Brewery



Tools-DIY



Laboratory



Electric Power



Others
Hobby\ Meter\ Household\
Fire Protection\ 3C\ Promotion

Gun Type

TN568, TN42, TN498, TN419, TN43, TN418, TN410, TN40, TN458, TN468

P1-P12

IR & Thermocouple Thermometer

TCT103 Series, TCT303 Series, TCT012, TCT013, TCT053

P11-P12

Palm Type

TN205 Series, TN253, TN288

P13
P14

Compact Pocket Size

TN1 Series, TN602C

P15-P17

Ultra Compact Size

TN00, TN002, TN00SC, TN00SK, TN00W

P18-P20

Infrared Module Products

TN90 Series, TN0pm2

P21

Fixed Infrared Sensors

ZF210C

P22

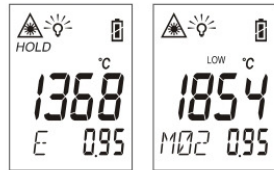


Dual Laser Infrared Thermometer

TN568 SERIES



TN568 SERIES



LCD Display Memory LCD Display

- Wide Measurement Range: Infrared up to 2400°C (4352°F)
- Dual Laser Points for the Target Spot Size
- High DS (Distance to Spot) Ratio 100:1
- Under Memory Mode, record and display the specific temperature with emissivity

	TN568LC2	TN568LC1	TN568LC0
Description	IRT + Dual Laser + Thermocouple socket		
Measurement Range	200–2400°C (392–4352°F)	100–1800°C (212–3272°F)	-60–1500°C (-76–2732°F)
Full Range Accuracy (Tamb=23±3°C)	±2% of reading		Tobj=-60–0°C: ±2°C+0.05°C/C Tobj=0–1500°C: ±2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	100:1		
Emissivity Range	0.95 default adjustable 0.1 to 1 step .01		
Resolution	0.1°C/0.1°F at -83.2–999.9(°C/°F), otherwise 1°C/1°F		
Wave Length	1.1–3.7μm	2.3–5μm	8–14μm
Mode	Real Time, Max/Min, Dif, Ave, Lock, Hi/Low Temp Alarm		
Memory	Detailed 24 Memories with Temperature & Emissivity		
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off		
Measurement Range*	-64–1400°C (-83.2–2552°F)		
Probe Accuracy	+/-1% of reading (Test under Tamb=23±6°C)		
Power Supply	AA x2		

*Actual temperature range depends on the TC probe selected. Specifications are subject to change without notice.



Dual Laser



Built-in Socket



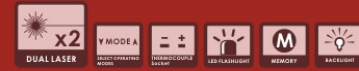
Memory Mode



Blue Backlight

Applications

- Steel-Making
- Electric Power
- Petrochemical



Dual Laser Infrared Thermometer

TN475 SERIES TN42 SERIES



Memory Mode

TN475 SERIES TN425 SERIES



TN423 SERIES



Dual Laser Magnetic Stand (optional) Attach to metal surface Built-in socket

- Infrared up to 1600°C
- Dual Laser Points for the Target Spot Size
- Detailed 24 Memories with Temperature & Emissivity <TN425LN(E)/TN425LM(E)>
- High DS (Distance to Spot) Ratio up to 75:1 (TN475) / 50:1 (TN425)
- Mini Thermocouple Socket up to 1400°C (Optional)
- Best Cost/Performance Ratio

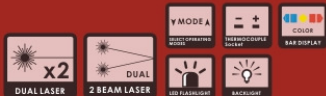
	TN475LC(E)	TN425LN(E)	TN425LB(E)	TN425LA(E)	TN425LM(E)
Description	IRT + Dual Laser + Thermocouple socket, (E) with LED Flashlight (optional)				
Measurement Range	-60–1600°C (-76–2912°F)	-60–1500°C (-76–2732°F)	-60–1200°C (-76–2192°F)	-60–1000°C (-76–1832°F)	-60–1000°C (-76–1832°F)
Full Range Accuracy (Tamb=23±3°C)	Tobj=0–1600°C: ±2% of reading or 2°C(4°F) whichever is greater; Tobj=-60–0°C: ±2°C(4°F) whichever is greater	Tobj=-33–1500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–1200°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–1000°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–1000°C: ±2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	75:1	50:1			
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step 0.1				
Resolution	0.1°C/0.1°F at -83.2–999.9(°C/°F), otherwise 1°C/1°F				
Mode	Ave, Dif, Hi/Low Alarm, Real Time Max / Min, Lock				
Memory	-	Detailed 24 Memories with Temperature & Emissivity	-	-	Detailed 24 Memories with Temperature & Emissivity
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off				
Measurement Range*	-64–1400°C (-83.2–2552°F)				
Probe Accuracy	+/-1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)				
Power Supply	AAA x2				

Applications

- Steel-Making
- Electric Power
- Petrochemical

	TN425L(E)	TN425LC(E)	TN423LA(E)	TN423LB(E)	TN423LC(E)
Description	IRT + Dual Laser + Thermocouple socket, (E) with LED Flashlight (optional)				
Measurement Range	-60–1000°C (-76–1832°F)	-60–1500°C (-76–2732°F)	-60–1000°C (-76–1832°F)	-60–1000°C (-76–1832°F)	-60–860°C (-76–1580°F)
Full Range Accuracy (Tamb=23±3°C)	Tobj=-33–1000°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–1500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–1000°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–860°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-33–860°C: ±2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	50:1	35:1			30:1
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step 0.1				
Resolution	0.1°C/0.1°F at -83.2–999.9(°C/°F), otherwise 1°C/1°F				
Mode	Ave, Dif, Hi/Low Alarm, Real Time Max / Min, Lock				
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off				
Measurement Range*	-64–1400°C (-83.2–2552°F)				
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)				
Power Supply	AAA x2				

*Actual temperature range depends on the TC probe selected. Specifications are subject to change without notice.



Dual Laser/ Dual Beam Laser IRT

TN49 SERIES



TN499LB(E)



TN498LB(E)
TN498LB(Y)(E)



LC(E) / LD(E) / LCY(E) Black Label



* Dual beam laser specify the approximate measurement area for excellent aiming and targeting.



Color Bar Display-<TN499> User Friendly Interface Built-in Socket

- Infrared up to 760°C
- Dual Laser / Dual Beam Laser (Model with Y) for better targeting
- High DS (Distance to Spot) Ratio 30:1
- Color bar displays temperature in Max/Min mode (TN499)
- Mini Thermocouple Socket up to 1400°C (optional)
- Best Cost/Performance Ratio & Large LCD display with Power Backlight

	TN499LB(E) TN498LB(E) TN498LB(Y)(E)	TN498LD(E)	TN499LC(E) TN498LC(E) TN498LCY(E)
Description	IRT + Dual Laser/ Dual Beam Laser (Model with Y) + Thermocouple socket, (E) with LED Flashlight (optional)		
Measurement Range	-60~760 °C (-76~1400°F)	-60~625 °C (-76~1157°F)	-60~550 °C (-76~1022°F)
Full Range Accuracy (Tamb=23±3 °C)	Tobj=-60~0°C: ±(2+0.05°C)°C, Tobj=0~760°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-60~0°C: ±(2+0.05°C)°C, Tobj=0~625°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-60~0°C: ±(2+0.05°C)°C, Tobj=0~550°C: ±2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	30:1	16:1	12:1
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01		
Resolution	0.1°C/0.1°F at -83.2~999.9(°C/°F), otherwise 1°C/1°F		
Mode	Ave, Dif, Lock, Real Time Max/Min, Hi/Low Temp Alarm		
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off		
Measurement Range*	-64~1400 °C (-83.2~2552 °F)		
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)		
Power Supply	AAA x 2		

*TN498L1(E) and TN498LC(E) are the same spec. but TN498L1(E) without thermocouple socket.
*Actual temperature range depends on the TC probe selected.
Specifications are subject to change without notice

Applications

- Electric Power
- Fire Protection
- Laboratory
- HVAC
- AUTO
- HACCP



Dual Laser Infrared Thermometer

TN419 SERIES



TN419LB(E)



TN419LC(E) / TN419LD(E) Yellow Label



Dual Laser User Friendly Interface Built-in Socket

- Infrared up to 760°C
- Dual Laser for better targeting
- High DS (Distance to Spot) Ratio 30:1
- Mini Thermocouple Socket up to 1400°C (optional)
- Best Cost/Performance Ratio
- Large LCD display with Power Backlight

	TN419LB(E)	TN419LD(E)	TN419LC(E)
Description	IRT + Dual Laser + Thermocouple socket, (E) with LED Flashlight (optional)		
Measurement Range	-60~760 °C (-76~1400°F)	-60~625 °C (-67~1157°F)	-60~550 °C (-76~1022°F)
Full Range Accuracy (Tamb=23±3 °C)	Tobj=-60~0°C: ±(2+0.05°C)°C, Tobj=0~760°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-60~0°C: ±(2+0.05°C)°C, Tobj=0~625°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj=-60~0°C: ±(2+0.05°C)°C, Tobj=0~550°C: ±2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	30:1	16:1	12:1
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01		
Resolution	0.1°C/0.1°F at -83.2~999.9(°C/°F), otherwise 1°C/1°F		
Mode	Ave, Dif, Lock, Real Time Max/Min, Hi/Low Temp Alarm		
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off		
Measurement Range*	-64~1400 °C (-83.2~2552 °F)		
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)		
Power Supply	AAA x 2		

*Actual temperature range depends on the TC probe selected.
Specifications are subject to change without notice

Applications

- Electric Power
- Fire Protection
- Laboratory
- HVAC
- AUTO
- HACCP





Valuable Infrared Thermometer

TN43 SERIES



TN430LC
TN430L2
TN430L1
TN430L0



TN436L2
TN436L1
TN436L0



Laser sight technology Large LCD Screen Built-in Socket (TN430LC)

- User Friendly Interface
- Real time maximum temperature reading (except TN430L1/0, TN436L1/0)
- Recall the last reading by pressing °C/°F key while power off
- Large LCD Screen, with bright amber color Backlight

	TN430LC	TN430L2 TN436L2	TN430L1 TN436L1	TN430L0 TN436L0
Description	IRT + Laser + Thermocouple socket	IRT + Laser		
Measurement Range	-60~550°C (-76~1022°F)	-50~460°C (-58~860°F)	-38~365°C (-36.4~689°F)	
Full Range Accuracy (Tamb=23±3°C)	Tobj=0~550°C: ±2% of reading or 2°C(4°F) whichever is greater Tobj=-60~0°C: ±(2°C+0.05°C)°C	Tobj=0~460°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater Tobj=-50~0°C: ±(2.5+0.05°C)°C	Tobj=0~365°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater Tobj=-38~0°C: ±(2.5+0.05°C)°C	
Distance:Sopt	12:1			
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01		0.95 or 0.70 (The default emissivity is 0.95)	
Resolution	0.1°C/0.1°F at -83.2~999.9(°C/°F), otherwise 1°C/1°F		0.2°C/0.5°F at -9.9~199.9°C, otherwise 1°C/1°F	
Mode	Ave, Dif, Hi/Low Alarm, Real Time Max / Min, Lock		Real Time Max, Lock	
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off			
Measurement Range*	-64~1400 °C (-83.2~2552 °F)			
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)			
Power Supply	AAA x2			

*Actual temperature range depends on the TC probe selected. Specifications are subject to change without notice

Applications

- AUTO
- HACCP
- HVAC
- Power
- Industry
- Laboratory



Valuable Infrared Thermometer

TN43 SERIES



TN438L0



TN439L0



Laser sight technology Large LCD Screen Comfortable Ergonomic Handle (TN439L0)

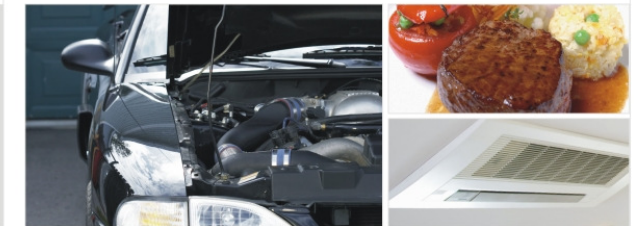
- Laser sight technology
- Large LCD Screen, with bright amber color Backlight
- Real time maximum temperature reading
- Last reading memory recalled by pressing °C/°F key while power off
- Auto Power Off: 15 sec
- Longer battery life than traditional 9V thermometer

	TN438L0	TN439L0
Description	IRT + Laser	
Measurement Range	-38~365°C (-36.4~689°F)	
Operating Range	0~50°C (32~122°F)	
Accuracy (Tobj=15~35°C, Tamb=25°C)	±1.5°C (2.7°F)	
Full Range Accuracy (Tamb=23±3°C)	Tobj=0~365°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater Tobj=-38~0°C: ±(2.5+0.05°C)°C	
Distance:Sopt	8:1	
Emissivity Range	0.95 Fixed	
Resolution	0.2°C/0.5°F at -9.9~199.9°C, otherwise 1°C/1°F	
Response Time (90%)	1 sec.	
Mode	Real Time Max	
Power Supply	AAA x2	

Specifications are subject to change without notice

Applications

- AUTO
- HACCP
- HVAC
- Power
- Industry
- Laboratory





Dual Functions/ Dual Beam Laser IRT

TN418 SERIES



TN418LA(E)
TN418LB(E)
TN418LC(E)
TN418LD(E)
TN418LDZ(E)
TN418L9(E)



Laser sight technology

Dual Beam Laser Technology
(TN418L9, TN418L0Z, TN418LDZ)

* Dual beam laser specify the approximate measurement area for excellent aiming and targeting.



Built-in Socket



Relative Humidity
(TN418LR)



TN418LR Gray Label



Laser sight technology

User Friendly Interface

Built-in Socket (optional)

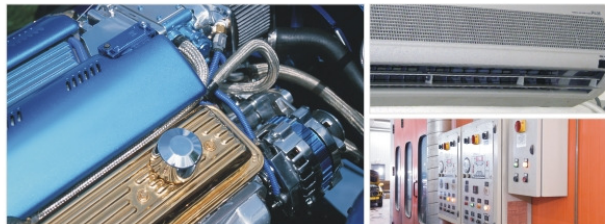


TN418L0Y(E) / TN418L0Z(E) /
TN418L0(E) / TN418L1(E) / TN418L2(E) /
TN418L3(E) / TN418(L)H(E) One Key

- Dual Beam Laser sight (TN418L0Y, TN418L0Z, TN418LDZ)
- Various Measurement Range & DS Ratio for optional
- Precise K type Thermocouple Thermometer available (optional)
- User Friendly Interface
- With Relative Humidity (TN418LR)
- With White LED Flashlight (optional)
- Auto Power Off time is 15sec.
- New Low voltage technology, no more 9V battery
- Large LCD Screen, with bright amber color Backlight

Applications

- Industry
- Power
- HVAC
- HACCP
- AUTO
- Laboratory



Dual Functions Infrared Thermometer

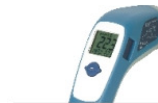
TN410 SERIES



TN410LA(E)
TN410LB(E)
TN410LC(E)
TN410LD(E)



TN410L9(E) Black Key



TN410L0(E) / TN410L1(E)
TN410(L)H(E) One Key



TN410L2(E) / TN410L3(E) One Key

Applications

- Industry
- Power
- HVAC
- HACCP
- AUTO
- Laboratory

	TN418LDZ(E) TN418LD(E)	TN418LB(E) TN418LB(E)	TN418LA(E) TN418LA(E)	TN418L9(E) TN418L9(E)	TN418LC(E) TN418LC(E)
Description	IRT + Laser / Dual Beam Laser - Model with Z+ + Thermocouple socket, (E) with LED Flashlight (optional)				
Measurement Range	-60~625°C (-76~1157°F)	-60~760°C (-76~1400°F)			-60~500°C (-67~932°F)
Full Range Accuracy (Tamb=23±3°C)	Tobj=0~625°C ±2% of reading or 2°C (4°F) whichever is greater. Tobj=-60~0°C; ±1/2°C+0.05°C/C	Tobj=0~760°C, ±1.2% of reading or 2°C(4°F) whichever is greater. Tobj=-60~0°C, ±1/2°C+0.05°C/C			Tobj=-33~500°C, ±1/2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	16:1	30:1	20:1	12:1	
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01				
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F				
Mode	Ave, Dif, Hi/Low Alarm, Real Time Max / Min, Lock				
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off				
Measurement Range*	-64~1400°C (-83.2~1999°F)				
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)				
Power Supply	AAA x 2				

*Actual temperature range depends on the TC probe selected.

	TN418L2(E) TN410L2(E)	TN418L0Z(E) -	TN418L3(E) TN410L3(E)	TN418L1(E) TN418L0Y(E) TN410L1(E)	TN418L0(E) TN410L0(E)
Description	IRT + Laser / Dual Beam Laser - Model with Y & Z+ , (E) with LED Flashlight (optional)				
Measurement Range	-60~625°C (-76~1157°F)	-60~550°C (-76~1022°F)	-60~500°C (-76~932°F)		-50~400°C (-58~752°F)
Full Range Accuracy (Tamb=23±3°C)	Tobj=0~625°C ±2% of reading or 2°C(4°F) whichever is greater. Tobj=-60~0°C; ±1/2°C+0.05°C/C	Tobj=0~550°C, ±2% of reading or 2°C(4°F) whichever is greater. Tobj=-60~0°C, ±1/2°C+0.05°C/C	Tobj=-33~500°C, ±2% of reading or 2°C(4°F) whichever is greater		Tobj=-33~400°C, ±2% of reading or 2°C(4°F) whichever is greater
Distance:Spot	16:1	12:1		9:1	
Emissivity Range	0.95 Fixed				
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F				
Mode	Real Time Max				
Power Supply	AAA x 2				
	TN418LR		TN418(L)H(E) TN410(L)H(E)		
Description	IRT + Laser + RH		IRT + Laser (optional) + LED Flashlight (optional)		
Measurement Range	-60~500°C(-76~932°F)		20~80°C (68~176°F)		
Full Range Accuracy (Tamb=23±3°C)	Tobj=0~500°C, ±2% of reading or 2°C (4°F) whichever is greater. Tobj=-60~0°C, ±1/2°C+0.05°C/C		±0.5°C(0.9°F) from 30~45°C, ±5°C otherwise		
Relative Humidity (Tamb=23±3°C)	1~99%, accuracy: ±1% from 20~80%, otherwise ±1.5%		NA		
Dew point	-50~50°C, accuracy: ±2.5°C from 20~30%RH; ±2°C from 31~40%RH, ±1.5°C from 41~95%RH		NA		
Distance:Spot	12:1				
Emissivity Range	0.95 default adjustable 0.1 to 1 step .01			0.77 Fixed	
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F				
Mode	Real Time Max				
Power Supply	AAA x 2				

Specifications are subject to change without notice



Dual Functions Infrared Thermometer

TN40 SERIES



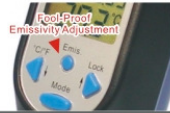
TN408LC
TN409LC



TN40ALC



Laser sight technology



User Friendly Interface
(except TN403L/ TN400 series)



Built-in Socket
(except TN403L/ TN400 series)

- Various Measurement Range & DS Ratio for option
- Precise K type Thermocouple Thermometer available (optional)
- User Friendly Interface (except TN403L/ TN400 series)
- Large LCD Screen, with bright amber color Backlight
- Auto Power Off: 15sec

	TN40ALC	TN409LC	TN408LC
Description	IRT + Lasers + Thermocouple socket		
Measurement Range	-60~760 °C (-76~1400°F)		-60~500°C (-76~932°F)
Full Range Accuracy (Tamb=23±3 °C)	±2% of reading or 2°C(4°F) whichever is greater		
Distance:Sopt	20:1		12:1
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01		
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F		
Mode	Ave, Dif, Hi/Low Alarm, Real Time Max / Min, Lock		
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off		
Measurement Range*	-64~1400 °C (-83.2~1999 °F)		
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)		
Power Supply	AAA x2		

*Actual temperature range depends on the TC probe selected.

	TN403L	TN400L1	TN400L
Description	IRT + Laser		
Measurement Range	-60~500°C (-76~932°F)		-50~400°C (-58~750°F)
Full Range Accuracy (Tamb=23±3 °C)	±2% of reading or 2°C(4°F) whichever is greater	0~600°C: ±2% of reading or 2°C(4°F) whichever is greater, -60~0°C: ±(2°C+0.05°C)°C	±2% of reading or 2°C(4°F) whichever is greater
Distance:Sopt	12:1		9:1
Emissivity Range	0.95 Fixed		
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F		
Mode	Real Time Max		
Power Supply	AAA x2		

Specifications are subject to change without notice

Applications

- AUTO
- HACCP
- HVAC
- Power
- Industry
- Laboratory

Excellent for HACCP



Dual Functions Infrared Thermometer

TN468 SERIES
TN458 SERIES



TN468LC(E)

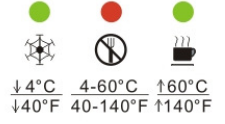


TN458LC



Infrared Reading

Probe Reading



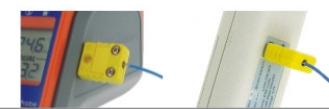
↓4°C 4~60°C ↑60°C
↓40°F 40~140°F ↑140°F

Dual LCD

HACCP Check



Laser sight technology



Built-in Socket (optional)

- Excellent for food and HACCP temperature monitoring
- Laser sight technology
- Select operating modes and adjust parameters easily
- Built-in jack support and K-type TC probe with "mini" style connector
- White LED Flashlight (TN468 optional)

	TN468LC(E)	TN458LC
Description	IRT + Laser + Thermocouple, (E) with LED Flashlight (optional)	
Measurement Range	-55~250°C (-67~482°F)	
Full Range Accuracy (Tamb=23±3 °C)	Tobj=-33~0: +/- (1°C+0.1°C)°C; Tobj=0~65: +/- 1°C ; Tobj=65~250: +/-1.5% of reading	
Distance:Sopt	12:1	
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01	
Resolution	0.2°C/0.5°F at -9.9~199.9°C, otherwise 1°C/1°F	
Mode	Real Time Max / Min, Lock, Food Code Zone Display	
Thermocouple Probe	Small Socket, K type, 12 minutes auto power off	
Measurement Range*	-55~330 °C (-67~626 °F)	
Probe Accuracy	±1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)	
Power Supply	AAA x2	

*Actual temperature range depends on the TC probe selected.
Specifications are subject to change without notice

Applications

- HACCP
- HVAC
- Laboratory
- Power
- AUTO
- Industry



Excellent for HACCP



IR & Thermocouple Thermometer

TCT1 SERIES
TCT2 SERIES
TCT3 SERIES



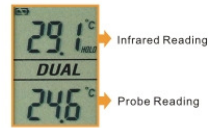
TCT303
(Black Panel Label)
IP65
Splash Proof
NSF
TCT303F



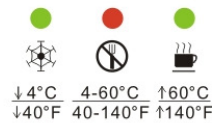
IP54
Splash Proof
TCT23N



TCT103
(Blue Panel Label)
TCT103F



Dual LCD



HACCP Check



Infrared Measurement



Thermocouple Measurement

- HACCP Zone Display (TCT303 Series)
- IP65 Protection (TCT303 Series)
- IP54 Protection (TCT23 Series)
- Bright White LED as pointer (TCT303 Series)
- 2in1 design: Infrared + Foldable Thermocouple Probe
- °C/°F Switch Mode & Auto Power Off

	TCT303	TCT303F	TCT23N	TCT103	TCT103F
Description	IRT + Probe				
Meas. Range	Infrared: -55-250°C (-67-482°F) Thermocouple: -55-330°C (-67-626°F)		-33-220°C (-27-428°F)	-33-220°C (-27-428°F)	-55-330°C (-67-626°F)
Infrared Accuracy (Tamb=23±3°C)	Tobj=-33-250°C: ±2% of reading or 2°C(4°F) which is greater		Tobj=-33-0°C: ±(1°C+0.1°C) which is greater	±2% of reading or 2°C(4°F) which is greater	±2% of reading or 2°C(4°F) which is greater
Thermocouple Accuracy (Tamb=23±6°C)	Tobj=-33-250°C: ±1% of reading or 0.8°C(1.4°F) which is greater		below -5°C: ±1°C, -5-65°C: ±0.5°C, above 65°C: ±1% of reading	±1% of reading or 0.8°C(1.4°F) which is greater	Tobj=0-65°C: ±1.5°C, else ±2% of 2°C(4°F)
Distance: Spot	2.5:1		1:1		
Emissivity Range	0.95 default, adjustable from 0.1 to 1 step .01				
Resolution	0.2°C/0.5°F at -9.9-199.9°C, otherwise 1°C/1°F		0.1°C/0.1°F at -9.9-199.9°C, otherwise 1°C/1°F		
Mode	Max, Min, Lock, Food Code Zone Display		Max, Min, Lock		
Power Supply	AAA x 2		CR2450 X 1	CR2032 x 1	

Specifications are subject to change without notice

Applications

- HACCP
- AUTO
- Power
- HVAC
- Laboratory
- AUTO



Excellent for HACCP



Thermocouple Thermometer

TCT01 SERIES
TCT05 SERIES



IP65
Splash Proof
TCT012



IP65
Splash Proof
TCT013



IP54
Splash Proof
TCT053K/T



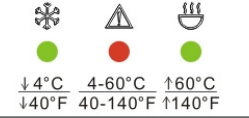
Built-in Socket (TCT013, TCT053K/T)



Attach to metal surface for easy storage



Protection Sleeve (TCT012)



HACCP Check (TCT053)

- HACCP Zone Display (TCT053K/T)
- Splash Proof Classification: IP65(TCT012, TCT013) / IP54(TCT053K/T)
- Compact size K type thermocouple thermometer (TCT012)
- Mini size socket to fit with various TC probes (TCT013, TCT053K/T)
- Optional Magnet Insert in Rear Cover
- °C/°F Switch Mode & Large LCD display

	TCT012	TCT013K/T	TCT053K/T	
Description	Thermocouple Probe			
	IP65		IP54	
Measurement Range	-50-350°C (-58-662°F)	K type, Socket: -64-1400°C (-50-350°C (-83.2-1999°F)	T type, Socket: -50-350°C (-64-1400°C (-83.2-1999°F)	T type, Socket: -50-350°C (-58-662°F)
Full Range Accuracy (Tamb=23°C)	+/-0.8% of reading or 0.8°C (1.5°F) whichever is greater			
Resolution	0.1°C/0.1°F at -9.9-199.9°C, otherwise 1°C/1°F			
Power Supply	CR2032 x 1		CR2032 x 2	

Specifications are subject to change without notice

Applications

- HACCP
- AUTO
- Power
- HVAC
- Laboratory
- AUTO



Excellent for HACCP

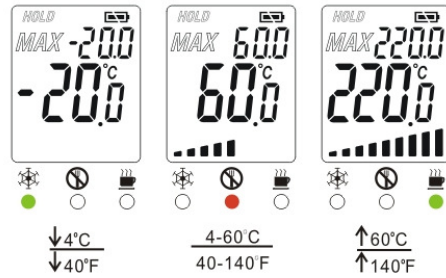


Compact IR Laser Thermometer for Food

TN253 SERIES
TN288 SERIES



TN253LF



Bar Display & HACCP Zone Display

The fixed setting range for bar display is 20–220°C and Center = 120°C

- Bright built-in Laser provides easy aiming (optional)
- HACCP Zone Display
- IP54 Splash Proof (TN288 series)
- Adjustable Emissivity
- LCD Bar Display
- °C/°F Switch Mode & Auto Power Off



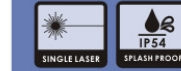
IP54
Splash Proof
TN288LF

	TN253LF	TN288LF
Description	IRT + Laser	IRT + Laser, IP54
Measurement Range	-55–350 °C (-67–662°F)	
Full Range Accuracy (Tamb=23±3 °C)	±2% of reading or 2°C (4°F) whichever is greater	-55–0°C; +/(2+0.05°C) °C; above 0°C, +/2°C or +/2% of reading whichever is greater
Distance:Spot	6:1	
Emissivity Range	0.95 default, adjustable from 0.05 to 1 step 0.1	
Resolution	0.1°C/0.1°F at -9.9–199.9°C, otherwise 1°C/1°F	
Mode	Real Time Max, Bar Display	
Power Supply	AAA x 2	

Specifications are subject to change without notice

Applications

- HACCP
- HVAC
- Laboratory
- Power
- AUTO
- Industry



Compact IR Laser Thermometer for Industry

TN2 SERIES



TN205
TN205L



TN253L



IP54
Splash Proof
TN288L



Bar Display

The fixed setting range for bar display is 20–220°C and Center = 120°C

- Bright built-in Laser provides easy aiming (optional)
- Two separate batteries for Measurement and Laser (TN205L)
- LCD Bar Display (except TN205 series)
- IP54 Splash Proof (TN288 series)
- Adjustable Emissivity
- °C/°F Switch Mode
- Auto Power Off

	TN205/ TN205L	TN253L	TN288L
Description	IRT + Laser (model *L with Laser)		IRT + Laser, IP54
Measurement Range	-55–250°C (-67–482°F)		-55–350 °C (-67–662°F)
Full Range Accuracy (Tamb=23±3 °C)	±2% of reading or 2°C (4°F) whichever is greater		-55–0°C; +/(2+0.05°C) °C; above 0°C, +/2°C or +/2% of reading whichever is greater
Distance:Spot	6:1		
Emissivity Range	0.95 default, adjustable from 0.05 to 1 step 0.1		
Resolution	0.1°C/0.1°F at -9.9–199.9°C, otherwise 1°C/1°F		
Mode	Max, Min, Lock, Laser (optional)	Real Time Max, Bar Display	
Power Supply	CR2032 x 1 (L-CR2032 x 2)	AAA x 2	

Specifications are subject to change without notice

Applications

- AUTO
- HVAC
- Power
- Industry
- HACCP
- Laboratory



Compact Infrared Thermometer

TN1 SERIES



TN102



○ TN103
● TN104



TN105J2
TN105J



TN105C



Clip on rear housing

Red LED Light (TN102/TN102B)

- Capable of measuring small objects in near range
- Competitive price
- Adjustable Emissivity
- Anti-thermal shock

	TN102B	TN102	● TN103 ● TN104
Description	IRT		
Measurement Range	-55~220°C(-67~428°F)		
Full Range Accuracy (Tamb=23±3°C)	±2% of reading or 2°C (4°F) whichever is greater		
Distance:Sopt	1:1		
Emissivity Range	0.95 default, adjustable from 0.05~1.00		
Resolution (-9.9~199.9°C)	0.1°C/0.1°F (for thermometer), 0.01sec (for Stop Watch)	0.1°C / 0.1°F (switchable), otherwise 1°C/1°F	
Mode	Real Time Max, Ambient Display, Stopwatch, Bar Display	Real Time Max/Min, Lock	Max, Min, Lock
Power Supply	CR2032 x 1		
	TN105C	TN105J2	TN105J
Description	IRT		
Measurement Range	-55~220°C(-67~428°F)	-33~220°C(-27~428°F)	
Full Range Accuracy (Tamb=23±3°C)	±2% of reading or 2°C (4°F) whichever is greater		
Distance:Sopt	1:1		
Emissivity Range	0.95 default, adjustable from 0.05~1.00		
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F (for thermometer); 0.01sec (for Stop Watch)	0.1°C / 0.1°F at -9.9~199.9°C (switchable), otherwise 1°C/1°F	
Mode	Max / Min, Lock, Clock, Stopwatch, Foldable Stand, Ambient Display	Max/ Min, Lock, Foldable Stand	Max/ Min, Lock, Clip
Power Supply	CR2032 x 1		

Specifications are subject to change without notice

Applications

- Power
- Household
- HVAC
- HACCP
- AUTO
- Laboratory



Compact Infrared Thermometer

TN1 SERIES
TN602C



● TN168C1
● TN168C2
● TN168Ci



TN185



TN602C



Room Temperature/ Clock

Stopwatch (TN602C)

Backlight (TN602C)

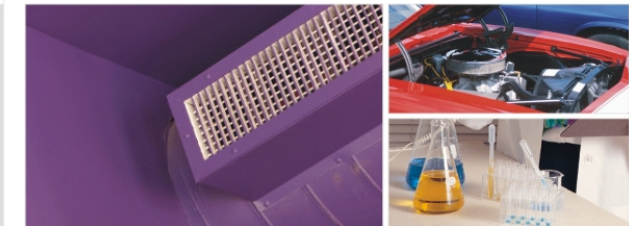
- Auto Real-time clock and Room temperature while power off (TN185)
- Safe and hygienic device for whole family
- °C/°F Switch Mode & Auto Power Off
- Anti-thermal shock

	● TN168C1	● TN168C2	● TN168Ci
Description	IRT		
Measurement Range	-33~110°C(-27~230°F)	-33~180°C(-27~356°F)	-55~220°C(-67~428°F)
Full Range Accuracy (Tamb=23±3°C)	Above 0°C: +/-2.5% or 2.5°C (4.5°F) whichever is greater -33~0°C: +/- (2.5+0.05°C)°C		Above 0°C: +/-2.5% or 2.5°C (4.5°F) whichever is greater -55~0°C: +/- (2.5+0.05°C)°C
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.2°C/0.5°F at -9.9~110°C, otherwise 1°C/1°F (for thermometer); 0.01sec (for Stop Watch)	0.2°C/0.5°F at -9.9~180°C, otherwise 1°C/1°F (for thermometer); 0.01sec (for Stop Watch)	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F (for thermometer); 0.01sec (for Stop Watch)
Mode	Max/ Min, Lock, Clock, Ambient Display		
Power Supply	CR2032 x 1		
	TN185	TN602C	
Description	IRT		
Measurement Range	-55~250°C(-67~482°F)	-55~220°C(-67~428°F)	
Full Range Accuracy (Tamb=23±3°C)	above 0°C: +/-2°C or +/-2% of the reading, whichever is greater; -55~0°C: +/- (2+0.05°C)°C	±2% of reading or 2°C (4°F) whichever is greater	
Distance:Sopt	5:1	1:1	
Emissivity Range	0.95 default, adjustable from 0.05~1.00		
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F (for thermometer); 0.01sec (for Stop Watch)		
Mode	Max/ Min, Lock, Clock, Foldable Stand, Ambient Display	Real Time Max/ Min, Lock, Clock, Stopwatch, Ambient Display	
Power Supply	CR2032 x 1		

Specifications are subject to change without notice

Applications

- Power
- Household
- HVAC
- HACCP
- AUTO
- Laboratory



Compact Infrared Thermometer

TN1 SERIES



TN110



With Rubber Boat (TN110RB)



Clock Function (TN110 Series)



TN15A



TN153



TN159

- Competitive price
- Safe and hygienic device for whole family
- Capable of measuring small objects in near range
- LCD display & Auto Power Off
- Anti-thermal shock

	TN110	TN110RB	
Description	IRT		
Measurement Range	-33~220°C(-27~428°F)		
Full Range Accuracy (Tamb=23±3°C)	±2.5% of reading or 2.5°C (4.5°F) whichever is greater		
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.5°C/0.5°F at -9.9~199.9°C (switchable), otherwise 1°C/1°F		
Mode	Clock		
Power Supply	CR2032 x 1		
	TN15A	TN153	TN159
Description	IRT		
Measurement Range	-55~220°C(-67~428°F)		
Full Range Accuracy (Tamb=23±3°C)	±2% of reading or 2°C (4°F) whichever is greater		
Distance:Sopt	1:1		
Emissivity Range	0.95 default, adjustable 0.05 to 1 step 0.1		
Resolution	0.1°C/0.1°F at -9.9~199.9°C (switchable), otherwise 1°C/1°F		
Mode	Max, Min, Lock		
Power Supply	CR2032 x 1		

Specifications are subject to change without notice

Applications

- HACCP
- Household
- HVAC
- Horticulture
- AUTO
- Laboratory



Ultra Compact Infrared Thermometer

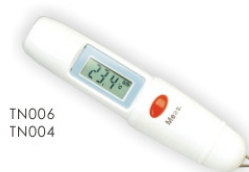
TN00 SERIES



Red LED Light (TN007/ TN005)



Clip on Rear Housing (TN006C)



TN006
TN004



TN007
TN005



TN006C

- Worldwide Smallest infrared thermometer
- Measuring small objects in near range
- °C/°F Switch Mode
- LCD display

	TN004 / TN005	TN006 / TN007
Description	IRT	
Measurement Range	-33~110°C(-27~230°F)	-33~180°C(-27~356°F)
Full Range Accuracy (Tamb=23±3°C)	±2.5% of reading or 2.5°C (4.5°F) whichever is greater	
Distance:Sopt	1:1	
Emissivity Range	0.95 Fixed	
Resolution	0.2°C/0.5°F at -9.9~110°C, otherwise 1°C/1°F	0.2°C/0.5°F at -9.9~180°C, otherwise 1°C/1°F
Mode	°C/°F switchable	
Power Supply	LR44 x 2	
	TN006C	
Description	IRT	
Measurement Range	-33~220°C(-27~428°F)	
Full Range Accuracy (Tamb=23±3°C)	±2% of reading or 2°C (4°F) whichever is greater	
Distance:Sopt	1:1	
Emissivity Range	0.95 Fixed	
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F	
Mode	°C/°F switchable	
Power Supply	LR44 x 2	

Specifications are subject to change without notice

Applications

- HACCP
- Household
- HVAC
- Horticulture
- AUTO
- Laboratory



Ultra Compact Infrared Thermometer

TN00 SERIES

Ultra Compact



- TN008C1
- TN008C2
- TN008CI



TN008/ TN02Ci with Clip



TN002Ki with Key Chain (optional)

- Worldwide Smallest infrared thermometer
- Measuring small objects in near range
- °C/°F Switch Mode
- LCD display



TN002Ci



TN002Ki

	○ TN008C1	○ TN008C2	○ TN008CI
Description	IRT		
Measurement Range	-33~110°C(-27~230°F)	-33~180°C(-27~356°F)	-55~220°C(-67~428°F)
Full Range Accuracy (Tamb=23±3°C)	-33~0°C: ±(2.5+0.05°C)°C, above 0°C: ±2.5% of reading or 2.5°C (4.5°F) whichever is greater	-55~0°C: +/- (2+0.05°C)°C, above 0°C: +/- 2% of reading or 2°C (4°F) whichever is greater	-55~0°C: +/- (2+0.05°C)°C, above 0°C: +/- 2% of reading or 2°C (4°F) whichever is greater
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.2°C/0.5°F at -9.9~110°C, otherwise 1°C/1°F	0.2°C/0.5°F at -9.9~180°C, otherwise 1°C/1°F	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F
Mode	°C/°F switchable		
Power Supply	LR44 x 2		
	TN002KI	TN002CI	
Description	IRT		
Measurement Range	-33~220°C(-27~428°F)		
Full Range Accuracy (Tamb=23±3°C)	±2% of reading or 2°C (4°F) whichever is greater		
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F		
Mode	°C/°F switchable		
Power Supply	LR44 x 2		

Specifications are subject to change without notice

Applications

- HACCP
- Household
- HVAC
- Aquarium
- AUTO
- Laboratory



Ultra Compact Infrared Thermometer

TN00 SERIES

Ultra Compact



TN005K1
TN005K2/TN005CE



TN005C1
TN005C2/ TN005CE



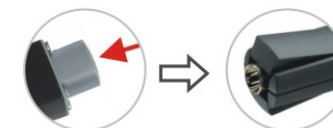
TN00W



≥110°C
Red LED



<110°C
Green LED



TN00SKE/ TN00SCE

Open Top Cover to Measurement (TN00W)

- Worldwide Smallest infrared thermometer
- Measuring small objects in near range
- IP67 Splash Proof (TN00SK/ TN00SC series)
- °C/°F Switch Mode (except TN00SKE/TN00SCE)
- Retractable sensor (TN00W)

	TN005K1/ TN005C1	TN005K2/ TN005C2	TN00SKE/ TN00SCE
Description	IRT, IP67		
Measurement Range	-33~110°C(-27~230°F)	-33~180°C(-27~356°F)	-55~220°C(-67~428°F)
Full Range Accuracy (Tamb=23±3°C)	-33~0°C: ±(2.5+0.05°C)°C, above 0°C: ±2.5% of reading or 2.5°C (4.5°F) whichever is greater	-55~0°C: +/- (2+0.05°C)°C, above 0°C: +/- 2% of reading or 2°C (4°F) whichever is greater	-55~0°C: ±(2+0.05°C)°C, above 0°C: ±2% of reading or 2°C (4°F) whichever is greater
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.2°C/0.5°F at -9.9~110°C, otherwise 1°C/1°F	0.2°C/0.5°F at -9.9~180°C, otherwise 1°C/1°F	0.1°C/0.1°F at -9.9~199.9°C, otherwise 1°C/1°F
Mode	°C/°F switchable		
Power Supply	LR44 x 2		
	TN00W		
Description	IRT		
Measurement Range	-33~110°C(-27~230°F)		
Full Range Accuracy (Tamb=23±3°C)	±2.5% of reading or 2.5°C (4.5°F) whichever is greater		
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.2°C/0.5°F at -9.9~110°C, otherwise 1°C/1°F		
Mode	°C/°F switchable		
Power Supply	LR44 x 2		

Specifications are subject to change without notice

Applications

- Aquarium
- Fishing
- HACCP
- Household
- AUTO
- Laboratory



TN9 SERIES TN0 SERIES

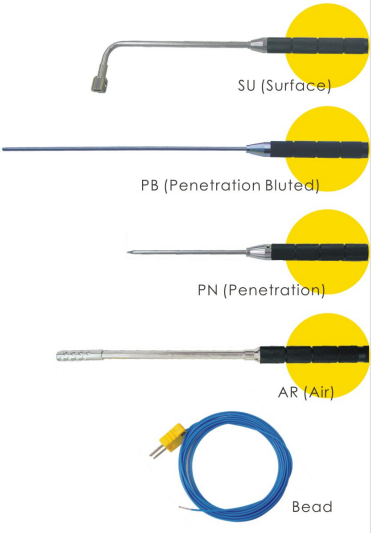


	TN901	TN902	TN903
Description	Compact Digital Thermopile Module	Compact Digital Thermopile Module (With Thinner Mirror)	Compact Digital Thermopile Module (TPI Perpendicular to PBC)
Measurement Range	-33~220°C(-27~428°F)		
Full Range Accuracy (Tamb=23±0.5°C)	±2%, 2°C		
Distance:Sopt	1:1		
Emissivity Range	0.95 default, adjustable from 0.1~1		
Resolution	1/16°C		
TN0pm2			
Description	For Pen Market		
Measurement Range	-33~220°C(-27~428°F)		
Full Range Accuracy (Tamb=23±0.5°C)	±2, 5%, 2.5°C		
Distance:Sopt	1:1		
Emissivity Range	0.95 Fixed		
Resolution	0.2°C/0.5°F		

Specifications are subject to change without notice

Available Probe

K type
T type



Description	SU (Surface)	PB (Penetration Bluted)	PN (Penetration)	AR (Air)	Bead
Measurement Range	-100~400°C(-148~752°F)				-50~250°C (-58~482°F)
Accuracy	0.75%				
Grounded	Yes	No		Yes	-
Response Time (in still water 90%)	NA	5 sec.		NA	2 sec.
Response Time (in still air 90%)	NA				5 sec.
Diameter of the Probe Tip	15±0.1mm	3.2±0.1mm	3.2±0.1mm	10.2±0.1mm	-
Diameter of Probe	6.35±0.1mm	3.2±0.1mm	3.2±0.1mm	8±0.1mm	-
Length of Probe	165±1.0mm	200±1.0mm	100±1.0mm	190±1.0mm	-
Length of Cable/ (from tip of plug)	550±50mm	740±50mm	590±50mm	550±50mm	1000±10mm
Length of Cable/ Max Length (from tip of plug)	1500mm	1740mm	1700mm	1600mm	1000±10mm
Type of Extension Cable	Coiled				Straight
Type of Plugk	Miniature				
Material of Probe	SUS316 or SUS304				
Weight (No Package)	120±10g	85±10g	70±10g	125±10g	30±10g

Specifications are subject to change without notice



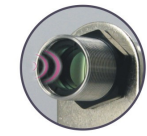
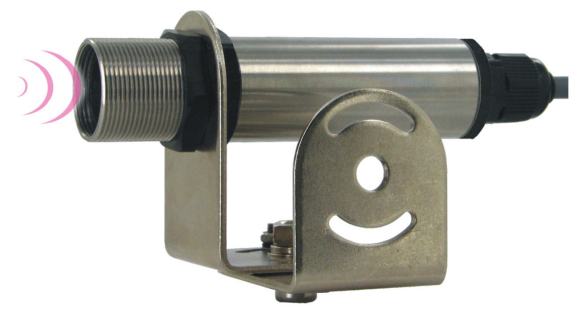
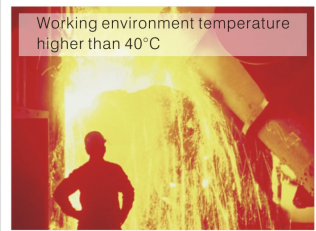
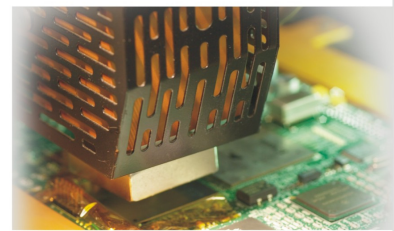
Fixed Infrared Sensors

ZF210C
ZF211C
ZF314

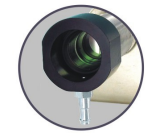
Spectral range	8 - 14 um
Distance:Spot Size	ZF210C/ ZF211C - 12:1 ZF314 - 20:1
Output Temperature range	ZF210C: 0°C ~400°C(0.04mA/°C)/ 32°F~752°F(0.022mA/°F) ZF211C: 0°C ~500°C(0.032mA/°C)/ 32°F~932°F(0.017mA/°F) ZF314: 0°C ~400°C(0.04mA/°C)/ 32°F~752°F(0.022mA/°F)
Analog output	4~20mA ; linear to temperature
Loop impedance	Max. 700 Ohms@24VDC; Min. 100 Ohms recommende Max. 150 Ohms@12VDC; Min. 100 Ohms recommended
Emissivity	Fixed at 0.95
Response time	300 ms
Accuracy	2.0% of reading or 2.0°C/3.6 °F, whichever is greater
Repeatability	1% of measured value or 1°C/ 1.8°F, whichever is greater
Power supply	Isolated Power 12VDC~24VDC@20mA , Ripple< 2.5%
Ambient temperature	0°C ~ 70°C/ 32°F ~ 158°F
Storage temperature	-30°C ~-85°C/ -22°F ~ 185°F
Housing	Stainless Steel Tube Mounting Nut
M22	
Enclosure rating	IP65 (according DIN 40 050)
Vibration	IEC68-2-27 (MIL STD 810D), any axis, 11 to 200 Hz, 3G
Shock	IEC68-2-27 (MIL STD 810D), any axis, 11 ms, 50G

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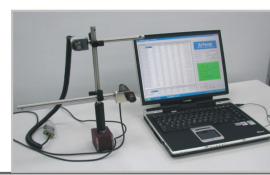
Applications



IP 65
Splash Proof



(Optional)



Analog Output



Digital Output

- Small and robust infrared temperature sensor
- 2-wire installation
- Linear current output
- Easy installation and connection
- IP65 Splash Proof

ZyTemp Family

	TN568LC2	TN568LC1	TN568LC0	TN425LN(E) TN425LB(E)	TN425LA(E)	TN425LM(E)	TN425LC(E)	TN425L(E)	TN423LA(E)	TN423LB(E)	TN423LC(E)
Meas. Range	200–2400°C 392–4352°F	100–1800°C 212–3272°F	-60–1500°C -76–2732°F	-60–1500°C -76–2732°F	-60–1200°C -76–2192°F		-60–1000°C -76–1832°F		-60–1500°C -76–2732°F	-60–1000°C -76–1832°F	-60–860°C -76–1580°F
Full Rang Accuracy	±2% of reading		Tobj = -33–1500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -33–1500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -33–1200°C: ±2% of reading or 2°C(4°F) whichever is greater		Tobj = -33–1000°C: ±2% of reading or 2°C(4°F) whichever is greater		Tobj = -33–1500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -33–1000°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -33–860°C: ±2% of reading or 2°C(4°F) whichever is greater
D:S	100:1			50:1				35:1		30:1	
	TN498LB(E) TN498LBY(E)	TN499LB(E)	TN498LD(E)	TN498LC(E) TN498LCY(E)	TN498L1(E) TN498L1Y(E)	TN419LB(E)	TN419LC(E)	TN419LD(E)	TN430LC	TN430L2	TN430L1
Meas. Range	-60–760°C -76–1400°F		-60–625°C -76–1157°F	-60–550°C -76–1022°F		-60–760°C -76–1400°F	-60–550°C -76–1022°F	-60–625°C -76–1157°F	-60–550°C -76–1022°F		-50–460°C -58–860°F
Full Rang Accuracy	Tobj = -60–0°C: ±2% of reading or 2.5°C(4.5°F) whichever is greater		Tobj = -60–0°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -60–0°C: ±2% of reading or 2°C(4°F) whichever is greater		Tobj = -60–0°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -60–0°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -60–0°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -60–0°C: ±2% of reading or 2°C(4°F) whichever is greater		Tobj = -50–460°C: ±2% of reading or 2.5°C(4.5°F) whichever is greater
D:S	30:1		16:1	12:1	30:1	12:1	16:1	12:1			
	TN430L0	TN436L2	TN436L1	TN436L0	TN438L0 TN439L0	TN418LA(E)	TN418LB(E)	TN418L9(E)	TN418LC(E)	TN418LD(E) TN418LDZ(E)	TN418L3(E)
Meas. Range	-38–365°C -36.4–689°F	-60–550°C -76–1022°F	-50–460°C -58–860°F	-38–365°C -36.4–689°F	-38–365°C -36.4–689°F		-60–760°C -76–1400°F		-60–500°C -76–932°F	-60–625°C -76–1157°F	-60–500°C -76–932°F
Full Rang Accuracy	Tobj = 0–365°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater	Tobj = 0–550°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–460°C: ±2% of reading or 2.5°C(4.5°F) whichever is greater	Tobj = 0–365°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater	Tobj = 0–365°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater		Tobj = 0–760°C: ±2% of reading or 2°C(4°F) whichever is greater		Tobj = -33–500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–625°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = -33–500°C: ±2% of reading or 2°C(4°F) whichever is greater
D:S	12:1			8:1		20:1	30:1	12:1	12:1	16:1	12:1
	TN418L0Z(E)	TN418L2(E)	TN418L1(E) TN418L1OY(E)	TN418L0(E)	TN418LR	TN418(L)H(E)	TN410LA(E)	TN410LB(E)	TN410L9(E)	TN410LC(E)	TN410LD(E)
Meas. Range	-60–550°C -76–1022°F	-60–625°C -76–1157°F	-60–500°C -76–932°F	-50–400°C -58–752°F	-60–500°C -76–932°F	20–80°C 68–176°F		-60–760°C -76–1400°F		-60–500°C -76–932°F	-60–625°C -76–1157°F
Full Rang Accuracy	Tobj = 0–550°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–625°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–400°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–500°C: ±2% of reading or 2°C(4°F) whichever is greater	±0.5°C(0.9°F) from 30–45°C, ±5°C otherwise		Tobj = 0–760°C: ±2% of reading or 2°C(4°F) whichever is greater		Tobj = -33–500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–625°C: ±2% of reading or 2°C(4°F) whichever is greater
D:S	16:1		12:1	9:1	12:1	12:1	20:1	30:1	12:1	12:1	16:1
	TN410L3(E)	TN410L2(E)	TN410L1(E)	TN410L0(E)	TN410(L)H(E)	TN40ALC	TN409LC	TN408LC	TN403L	TN400L1	TN400L
Meas. Range	-60–500°C -76–932°F	-60–625°C -76–1157°F	-60–500°C -76–932°F	-50–400°C -58–752°F	20–80°C 68–176°F		-60–760°C -76–1400°F	-60–500°C -76–932°F	-60–500°C -76–932°F	-60–500°C -76–932°F	-50–400°C -58–750°F
Full Rang Accuracy	Tobj = -33–500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–625°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–500°C: ±2% of reading or 2°C(4°F) whichever is greater	Tobj = 0–400°C: ±2% of reading or 2°C(4°F) whichever is greater	±0.5°C(0.9°F) from 30–45°C, ±5°C otherwise		±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater
D:S	12:1	16:1	12:1	9:1	12:1	20:1	12:1	12:1	12:1	12:1	9:1

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ZyTemp Family

	TN458LC TN468LC(E)	TCT103	TCT103F	TCT23N	TCT303	TCT303F					
Meas. Range	-55–250°C -67–482°F	Infrared Range -33–220°C -27–428°F	Thermocouple Range -55–330°C -67–626°F	Infrared Range -33–220°C -27–428°F	Thermocouple Range -55–330°C -67–626°F	IR & Probe: -33–220°C -27–428°F					
Full Rang Accuracy	Tobj = -33–0°C: ±1°C + 0.1°C(°C) Tobj = 0–65°C: ±1°C; Tobj = 65–250°C: ±1.5% of reading	Infrared Accuracy ±2% of reading or 2°C(4°F) whichever is greater	Thermocouple Accuracy ±1% of reading or 0.8°C(1.4°F) whichever is greater	Infrared Accuracy (Tobj = 0–65°C): ±1.5°C, else ±2% of reading or 0.8°C(1.4°F) whichever is greater	Thermocouple Accuracy ±1% of reading or 0.8°C(1.4°F) whichever is greater	IR & Probe Accuracy ±1% of reading or 0.8°C(1.4°F) whichever is greater					
D:S	12:1	1:1		1:1	2.5:1	2.5:1					
	TCT012	TCT013K/T	TCT053K/T	TN253LF	TN288LF	TN288L	TN205 TN205L	TN253L			
Meas. Range	-50–350°C -58–662°F	K type, Socket -64–1400°C -83.2–1999°F	T type, Socket -50–350°C -58–662°F	K type, Socket -64–1400°C -83.2–1999°F	T type, Socket -50–350°C -58–662°F						
Full Rang Accuracy	±0.8% of reading or 0.8°C(1.5°F) whichever is greater	±1% of reading or 1°C(1.8°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±1% of reading or 1°C(1.8°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater						
D:S	-	-	-	6:1	6:1	6:1	6:1	6:1			
	TN102 TN102B	TN103 TN104	TN105I2	TN105J	TN105C	TN110 TN110RB	TN15A TN153 TN159	TN168C1	TN168C2	TN168CI	
Meas. Range	-55–220°C -67–428°F	-55–220°C -67–428°F	-33–220°C -27–428°F	-33–220°C -27–428°F	-55–220°C -67–428°F	-33–220°C -27–428°F	-55–220°C -67–428°F	-33–110°C -27–230°F	-33–180°C -27–356°F	-55–220°C -67–428°F	
Full Rang Accuracy	±2% of reading or 2°C(4°F) whichever is greater		±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater		±2% of reading or 2°C(4°F) whichever is greater	Above 0°C: ±2.5% or 2.5°C(4.5°F) whichever is greater -33–0°C: ±(2.5+0.05°C)°C	±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	Above 0°C: ±2.5% or 2.5°C(4.5°F) whichever is greater -55–0°C: ±(2.5+0.05°C)°C	
D:S	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	
	TN185	TN602C	TN004	TN005	TN006	TN007	TN006C	TN008C1	TN008C2	TN008CI	
Meas. Range	-55–250°C -67–482°F	-55–220°C -67–428°F	-33–110°C -27–230°F	-33–110°C -27–230°F	-33–180°C -27–356°F	-33–180°C -27–356°F	-33–220°C -27–428°F	-33–110°C -27–230°F	-33–180°C -27–356°F	-55–220°C -67–428°F	
Full Rang Accuracy	Above 0°C: ±2°C or ±2% of reading whichever is greater; -55–0°C: ±(2+0.05°C)°C	±2% of reading or 2°C(4°F) whichever is greater	±2.5% of reading or 2.5°C(4.5°F) whichever is greater	±2.5% of reading or 2.5°C(4.5°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	-33–0°C: ±(2.5+0.05°C)°C, above 0°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	-55–0°C: ±(2+0.05°C)°C, above 0°C: ±2% of reading or 2°C(4°F) whichever is greater	
D:S	5:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	
	TN002CI TN002KI	TN00SC1 TN00SK1	TN00SC2 TN00SK2	TN00SCE TN00SKE	TN00W	TN901	TN902	TN903	TN0pm2	ZF210C ZF314	ZF211C
Meas. Range	-33–220°C -27–428°F	-33–110°C -27–230°F	-33–180°C -27–356°F	-55–220°C -67–428°F	-33–110°C -27–230°F	-33–220°C -27–428°F	-33–220°C -27–428°F	-33–220°C -27–428°F	-33–220°C -27–428°F	Output Temp. Range: 0°C–400°C (0.04mA/°C)	Output Temp. Range: 0°C–500°C (0.032mA/°C) (0.022mA/°F)
Full Rang Accuracy	±2% of reading or 2°C(4°F) whichever is greater	-33–0°C: ±(2.5+0.05°C)°C, above 0°C: ±2.5% of reading or 2.5°C(4.5°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	-55–0°C: ±(2+0.05°C)°C, above 0°C: ±2% of reading or 2°C(4°F) whichever is greater	±2.5% of reading or 2.5°C(4.5°F) whichever is greater	±2% of reading or 2°C(4°F) whichever is greater	±2%, 2°C	±2%, 2°C	±2%, 2°C	±2.5%, 2.5°C	Accuracy: 2.0% of reading or 2.0°C/3.6°F, whichever is greater
D:S	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	ZF210C/ZF211C - 12:1 ZF314 - 20:1	

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