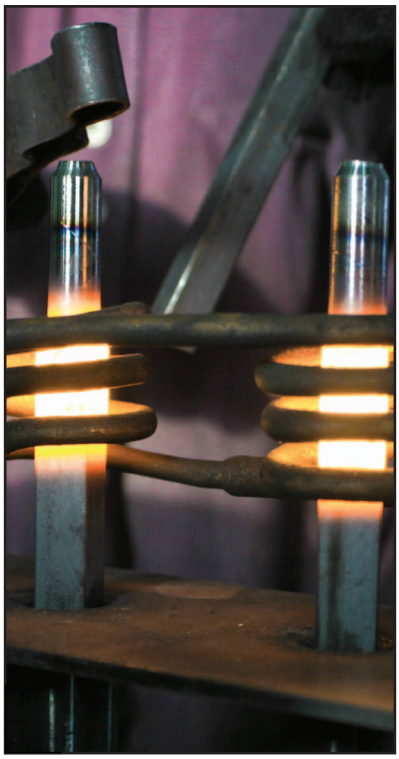
RAYTEK® RAYNGER® SERIES

3i Plus

High Temperature Handheld Infrared Thermometer



Stronger Simpler Safer

Raytek®
A Fluke Company

Raynger® 3i Plus

The Raytek® Raynger 3i Plus infrared thermometer is a new generation of portable products designed in accordance with industry standards to meet process performance requirements in hot environments. It combines high-precision, superior Distance-to-Spot (D:S) ratio with high accuracy and a robust feature set that provides excellent temperature measurement solutions for process temperature detection and fault previewing.

The 3i Plus has been ergonomically designed with comfort grip to ensure firm grasp by the operator. Additional features for enhanced ease-of-use include Red Dot sighting technology for accurate targeting when high temperature targets are not visible using laser sighting alone. DataTemp® Windows PC software supports real-time communication, data storage, graphing and analysis. This innovative thermometer includes a mobile app for quick data transfer and collaboration, and can be used temporarily as an online thermometer.

Need a rugged, durable infrared thermometer?

- Rugged design reduces risk of damage and minimizes service costs – withstands 1m (3.2ft) drop
- More data sampling, ensuring faster processing time
- Longer operational cycle (24 h) - Rechargeable batteries
- Flexible for wide range of applications/temperatures
- Highly accurate temperature measurement

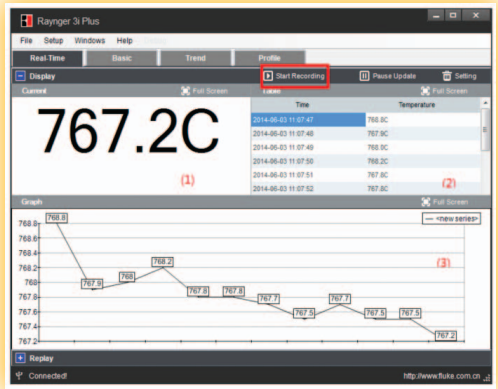
Need an easy to use thermometer?

- Intuitive user interface for easy parameter set-up, enabling ‘on-site’ display of data analysis and trending
- Dual laser for fast and simple data capture and saving
- Fast and easy data transfer to PC or smartphone, using USB or Bluetooth

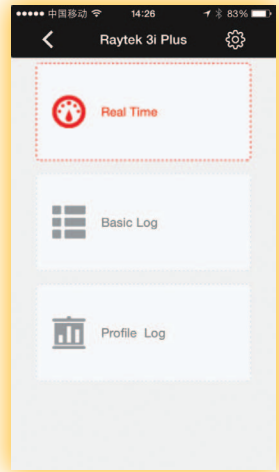
Want a safer work environment?

- High optical resolution ensures accurate temperature readings at longer distances
- "Red Nose" heat resistant warning-detector and alarm ensures operator safety and efficiency
- Dual laser and scope sighting, even against "red hot" backgrounds

3i Plus Software & Mobile App



- Simple to capture and email the temperature report, on site with smart phone app
- View the temperature and trend in real time



- Easy to log the date from portable thermometer
- Clear temperature display with value and trend
- Fast selection for default configuration

3i Plus 1M & 2M are portable thermometers designed for high temperature applications. They cover a temperature range of 400 - 3000°C (752 - 5432°F) (depending on the model). Superior Distance-to-Spot (D:S) ratio allows users to measure high temperature targets from longer distances, ensuring accurate temperature readings and operator safety.

Applications:

- Iron
- Steel
- Metal Refining
- Foundry and Processing Operations
- Ceramics
- Semiconductor
- Chemical Furnaces
- Petrochemical Furnaces

Benefits:

Stronger **– Users will benefit from a rugged design, extended battery life and faster exposure time.**

Simpler **– Increases operator efficiency, minimizing labor and maintenance cost.**

Safer **– Reduces risks of costly accidents and ensures operator safety. Reduces the risk of sensor overheating while minimizing repair costs and risk of process temperature failures.**

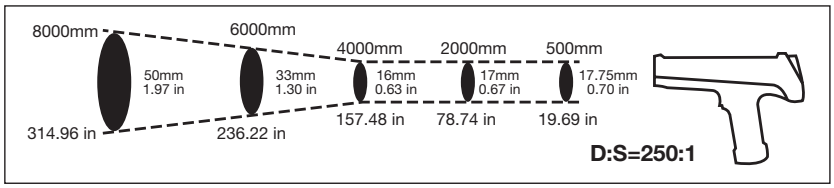
Laser Sighting Options

Dual Laser
For precise measurement of smaller targets, the measurement spot is indicated by the two laser points.

Red Nose
High temperature resistant plastic material nose features temperature sensor inside. If sensor is measuring critical temperature, alarm is given in the LCD of the 3i Plus.

Red Dot Sighting
When the target is bright or red hot, the laser cannot be seen. The Red Dot light in the scope highlights the area with a red light indicating where the temperature is being measured.

Optical Resolution



Specifications and Features

Model	1M	2M
Temperature Range	700 to 3000ºC (1292 to 5432ºF)	400 to 2000ºC (752 to 3632ºF)
Accuracy	±(0.5% of reading +1ºC) (<2700ºC/4892ºF)	
Repeatability	±(0.3% or reading ±1ºC)	
Exposure Time	40 mSec	
Spectral Response	1.0µm	1.6µm
Emissivity*	0.10~1.00	
Operating Temperature	0 to 50ºC (32 to 120ºF)	
Relative Humidity	10 to 90%, RH noncondensing @ 30ºC (86ºF)	
Storage Temperature	-20 to 60ºC (-4 to 140ºF) without batteries	
Dimensions/Weight	Laser Models: 218mm x 172mm x 74mm/700 g (8.5 H x 6.7 L x 2.9 W in /1.5 lb) Scope Models: 218mm x 222mm x 74mm/950 g (8.5 H x 8.7 L x 2.9 W in /2.0 lb)	
Power	Single cell Lithium-ion, 3.6V, 2500mAh or via USB 2.0	
Battery Life (Lithion-Ion)	24 hours	
Laser	Laser beam for targeting (On/Off)	
Reflected Energy Compensation	✓	
Distance to Spot (D:S)	250:1	
MAX, MIN, DIF, AVG Temperatures	✓	
Backlit LCD	✓	
Temperature Display	ºC or ºF (selectable)	
Display Resolution	Below 1000ºC: 0.1ºC	
Locking Trigger	✓	
Tripod Mounting	✓	
Audible Alarms	Target temperature/Ambient temperature/Low battery	
Digital Outputs	USB 2.0 and Bluetooth® 4.0 (USA, EU and Canada)**	
4,900 Point Data Logging	✓	
Spare Accessories	Carrying case • Neck Strap • Spare Lithium-ion rechareable battery, 2.5Ah • Mini USB port adaptor with multi-country power plug (100–240 VAC, 50/60Hz) including SAA, EU, UK, US and CCC • Mini USB-to-DC jack converter for charging battery separately • Computer cable with USB-to-Mini USB, 1.5m (4.9ft)	

* *For more details, visit www.raytek.com/emissivity*

** *The Raynger 3i Plus is certified to the following RF standards:*
(CE) ETSI EN 300328 V1.8.1 (2012-06)
(FCC) 47 CFR Part 15, Subpart C, RSS-GEN/RSS-210

Contact Raytek for a list of other countries where Bluetooth® is available for the 3i Plus

The Worldwide Leader in Noncontact Temperature Measurement

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