

**STProPlus**<sup>™</sup> Portable Infrared Thermometer

### Noncontact Temperature Measurement

## ST ProPlus Thermometer— The Professional's Advantage

Auto mechanics diagnose catalytic converters, HVAC technicians perform room balance checks, and electricians evaluate electrical connections - all with one great tool: the Raytek STProPlus™ noncontact thermometer. Handheld and portable, the Raytek STProPlus IR (infrared) thermometer measures surface temperatures, helping to quickly locate potential blockages or malfunctioning systems.

The Raytek STProPlus thermometer features the enhanced eight-point Laser Guide<sup>™</sup> sighting system for easy targeting, in addition to 12-point data logging, advanced optics to measure smaller targets at greater

distances, and adjustable emissivity for more accurate temperature measurements. Selectable MAX, MIN, DIF and AVG functions display values instantly.

The ST80-IS\* model is available for the noncontact temperature monitoring needs of potentially explosive or flammable environments.

In auto diagnostics, equipment maintenance, electrical work, and heating and ventilation troubleshooting, the professional STProPlus thermometer reduces work time and improves performance.

> FM APPROVED ST80-IS only

1% accuracy

- Laser Guide<sup>™</sup> sighting
- Adjustable emissivity
- Temperatures up to 760°C (1400°F) ST80/ST80IS
- Hi/Lo Alarm
- MAX, MIN, DIF and AVG temperature display
- Intrinsically Safe model available (ST80-IS)\*

\* Rated by Factory Mutual Research for use in hazardous locations

The ST80-IS approval does not apply to atmospheres containing coal dust, grain dust, metal dust, or fibers.



Specifications	ST60	ST80/ST80-IS*
Temperature Range	-32 to 600°C (-25 to 1100°F)	-32 to 760°C (-25 to 1400°F)
Accuracy (Assumes ambient operating temperature of 23°C [73°F])	-32 to -26°C (-25 to -15°F): ±3°C (±5°F) -26 to -18°C (-15 to 0°F): ±2.5°C (±4°F) -18 to 23°C (0 to 73°F): ±2°C (±3°F) For targets above 23 (73°F): ±1% of reading or ±1°C (±2°F), whichever is greater	
Repeatability	$\pm 0.5\%$ or $\leq \pm 1^{\circ}$ C ( $\pm 2^{\circ}$ F), whichever is greater	
Response Time	$\leq 0.5$ second (95% of reading)	
Spectral Response	8-14µm	
Emissivity**	Digitally Adjustable Emissivity (from 0.1 to 1.0 by 0.01)	
Ambient Operating Temp.	0 to 50°C (32 to 120°F)	
Relative Humidity	10-90% RH noncondensing, at <30°C (86°F) ambient	
Storage Temperature	-20 to 60°C (-13 to 158°F) without battery	
Weight/Dimensions	320g (11oz) 200 x 160 x 55mm (8 x 6 x 2 in)	
Power	9V Alkaline or NiCd Battery	
Battery Life (Alkaline)	20 hrs w/laser & backlight on 50% 40 hours w/laser & backlight off	
Laser Sighting (Class II)	Offset 8-point circular Laser Guide	
Typical Distance to Target	5m (15 ft)	8m (25 ft)
Distance to Spot (D:S)	30:1 at focus point	50:1 at focus point
MIN,MAX AVG, DIF Temp. Display	✓	
Data Logging	12 points	
Probe Jack	✓	
Display Hold (7 seconds)	✓	
Hi/Low Alarm	✓	
LCD Backlit	✓	
Temperature Display	°C or °F selectable	
Display Resolution	0.1°C (0.1°F)	
Hard Carrying Case	✓ (a)	
Locking Trigger	✓	
Tripod Mounting	6.35mm (1/4 in) 20 UNC threading	

\* Approved by Factory Mutual Research for use in hazardous locations

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

### Worldwide **Headquarters**

Raytek Corporation 1201 Shaffer Rd. PO Box 1820 Santa Cruz, CA 95061-1820 USA 1 800 866 5478 Tel: 1 831 458 1110 1 831 425 4561 Fax: solutions@raytek.com

#### Raytek China Company Beijing, China Tel: 86 10 6439 2255 86 10 6437 0285 Fax. info@raytek.com.cn

Raytek Japan, Inc. Osaka, Japan Tel: 81 6 4390 5015 81 6 4390 5016 Fax: info@raytekjapan.co.jp

### South American Headquarters Raytek do Brasil Sorocaba, SP Brasil Tel: 55 15 32176046 Fax: 55 15 32175694

raytek@raytek.com.br

### **European Headquarters**

Raytek GmbH Berlin, Germany Tel: 49 30 4 78 00 80 49 30 4 71 02 51 Fax: info@ravtek.de Raytek UK Ltd. Milton Keynes, United Kingdom Tel: 44 1908 630800 44 1908 630900 Fax: ukinfo@raytek.com

### **Raytek France** Palaiseau, France Tel: 33 1 64 53 15 40 Fax: 33 1 64 53 15 44

info@raytek.fr

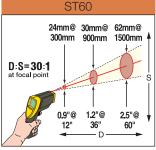
#### Worldwide Service

Raytek offers services including emergency repairs and calibration. For more information, contact your local office or e-mail support@raytek.com

( F



## **Optical Resolution**



Use the ST60 within 5m (15 feet) of the intended target. At greater distances, the measured area will be larger (approximately the distance divided by 30).

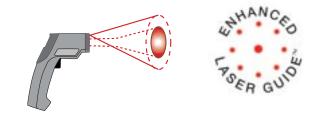


Use the ST80/ST80-IS within 8m (25 feet) of the intended target. At greater distances, the measured area will be larger (approximately the distance divided by 50).

D:S (distance to spot using 90% encircled energy at focal point

## Laser Sighting

The STProPlus thermometer's offset 8-point circular Laser Guides highlight the approximate measurement area.



## **Options/Accessories**

- RTD Temp. Probe (standard w/ST80-IS) -32 to 260°C (-25 to 500°F)
- Nylon Holster
- NIST/DKD Calibration Certificate
- Factory Mutual Research Intrinsically Safe Rated ST80-IS, including probe (Intrinsically Safe, Class I Division 1 Groups A,B,C,D Class I, Zone 0, AEx ia IIC, T4 at 50°C when used with 9V aklaline battery)

# www.raytek.com

for up-to-the-minute features



Raytek is an ISO 9001 certified co © 2003 Raytek Corporation (1-1501/ Rev. F) 5/2003 Raytek and the Raytek logo are registered trademarks, and ST, STProPlus, and Laser Guide are trademarks of Raytek Corp. Specifications subject to change without notice