

# ST61, ST81

Portable infrared thermometers



Non-contact temperature measurement



## Raytek knows temperature, with decades of thermometry experience.

Today, we offer the latest in non-contact IR temperature test tools and application expertise. Here's what the Raytek ST61 and ST81 offer you:

- Laser guided sighting system for easy targeting with 1 % accuracy
- Data logging—12 points for the ST61, 99 points for the ST81
- Advanced optics to measure smaller targets at greater distances
- Adjustable emissivity for more accurate temperature measurements
- Selectable MAX, MIN, DIF and AVG functions that display values instantly with Hi/Lo Alarm
- Expanded measurement range (see specifications on back)
- Optional probe accessory available for dual contact and non-contact temperature measurements

| Comparison chart             | ST61   | ST81   |
|------------------------------|--|--|
| IR temperature range         | -32°C to 600°C (-25°F to 1100°F)   | -32°C to 760°C (-25°F to 1400°F)                         |
| Accuracy                     | < 0°C: $\pm (1^\circ\text{C} + 0.1^\circ/1^\circ\text{C})$ ; $\geq 0^\circ\text{C}$ : $\pm 1\%$ of reading or $\pm 1^\circ\text{C}$ , whichever is greater<br>< 32°F: $\pm (2^\circ\text{F} + 0.1^\circ/1^\circ\text{F})$ ; $\geq 32^\circ\text{F}$ : $\pm 1\%$ of reading or $\pm 2^\circ\text{F}$ , whichever is greater |  |
| Repeatability                | $\pm 0.5\%$ of reading or $\pm 1^\circ\text{C}$ (2°F), whichever is greater  |  |
| Display resolution           | 0.1°C (0.1°F)  |  |
| Spectral response            | 8 $\mu\text{m}$ to 14 $\mu\text{m}$  |  |
| Response time (95 %)         | < 500 ms   |  |
| Distance: spot (90 % energy) | 30:1   | 50:1   |
| Laser sighting               | Single laser, output <1 mW Class II, wavelength 630 nm to 670 nm   |  |
| Emissivity                   | Digitally adjustable from 0.10 to 1.00 by 0.01 or via built-in table of common materials   |  |
| Data storage                 | 20 points  | 99 points  |
| Communication                | none   | none   |
| Relative humidity            | 10 % to 90 % RH non-condensing up to 30°C (86°F)   |  |
| Operating temperature        | 0°C to 50°C (32°F to 122°F)  |  |
| Storage temperature          | -20°C to 60°C (-4°F to 140°F)  |  |
| Power                        | 2-AA/LR6 batteries (alkaline or NiCd)  | 2-AA/LR6 Batteries or USB connection when used with a PC |
| Battery life                 | 12 hours with laser and backlight on;<br>100 hours with laser and backlight off, at 100 % duty cycle (thermometer continuously on)   |  |



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