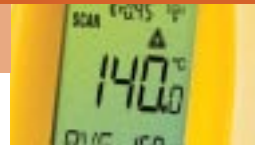# STProPlus™ XB
Portable Infrared Thermometer

Noncontact Temperature Measurement

ST ProPlus Thermometer— The Professional's Advantage

HVAC technicians perform room balance checks, electricians evaluate electrical connections, and maintenance professionals monitor equipment performance—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 Extra Bright Laser Point sighting guide making the center point of the measurement area more visible in all conditions, especially outdoors. It also features 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 XB-IS* model is available for the noncontact temperature monitoring needs of potentially explosive or flammable environments.

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

- 1% accuracy
- Extra Bright Laser Point sighting
- Adjustable emissivity
- Temperatures up to 760ºC (1400ºF) ST80 XB/ST80 XB-IS
- Hi/Lo Alarm
- MAX, MIN, DIF and AVG temperature display
- Intrinsically Safe model available (ST80 XB-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.
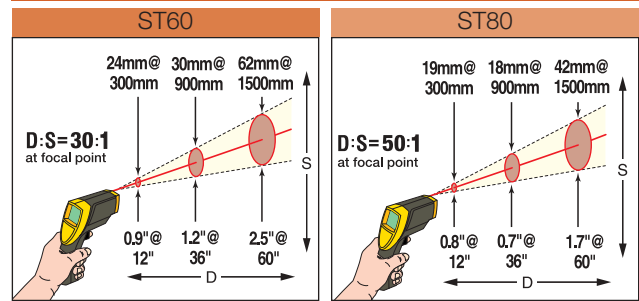
FM APPROVED
ST80 XB–IS only

Raytek®

Specifications	ST60 XB	ST80 XB/ ST80 XB–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 23ºC [73ºF])	-32 to -26°C (-25 to -15°F): ±3°C (±5ºF) -26 to -18°C (-15 to 0°F): ±2.5°C (±4ºF) -18 to 23°C (0 to 73°F): ±2°C (±3ºF) For targets above 23 (73°F): ±1% of reading or ±1°C (±2ºF), whichever is greater	
Repeatability	±0.5% or ≤ ±1°C (±2ºF), whichever is greater	
Response Time	≤ 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 50ºC (32 to 120ºF)	
Relative Humidity	10-90% RH noncondensing, at <30°C (86°F) ambient	
Storage Temperature	-20 to 60ºC (-13 to 158ºF) 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)	Extra Bright Laser Point	
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	✓	
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
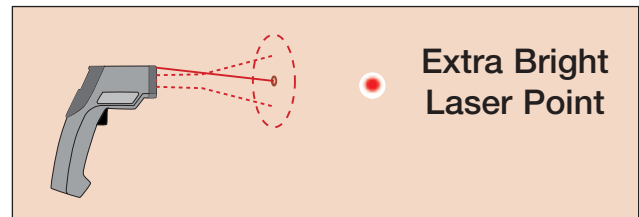
Optical Resolution

Use the ST60 XB 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 XB/ST80 XB-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 single-point laser guide highlights the approximate center of the measurement area.

Extra Bright Laser Point

Options/Accessories

- RTD Temp. Probe (standard w/ST80-IS) -32 to 260ºC (-25 to 500ºF)
- 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 50ºC when used with 9V alkaline battery)

www.raytek.com
for up-to-the-minute features

Raytek is an ISO 9001 certified company