

# IR-450-EUR

## **Pocket Infrared Thermometer**

### 3-in-1 Infrared Thermometer, Laser Pointer, and Flashlight

A must have tool for everyday applications, the Amprobe 3-in-1 Pocket Infrared Thermometer, Laser Pointer, and LED Flashlight offers a uniquely small and convenient form factor with professional 8:1 distance to spot ratio, a high-quality laser pointer and LED flashlight. Much more portable than traditional infrared thermometers, the IR-450-EUR can be readily available in your pocket for quick diagnostic checks in a wide variety of applications including: HVAC/R, fire safety and protection, industrial maintenance, automotive and quality control.

#### **Features**

- **IR pocket thermometer** with 8:1 distance to spot ratio
- Selectable °C /°F
- Holds temperature reading for 10 seconds
- · Bright laser pointer
- Built-in LED flashlight to illuminate dark areas





Range:Distance to Spot (D:S)8:1 (calculated at 80% energy)Temperature Range-30°C to 500°C (-22°F to 932°F)-30°C to 0°C (-22°F to 32°F): ±2°C (±4°F)-30°C to 10°C (34°F to 50°F): ±1.5°C (±3°F)11°C to 40°C (52°F to 104°F): ±1°C (±2°F)41°C to 500°C (106°F to 932°F):±1.5°C (±3°F) or ±1.5% of reading, whichever is greater.Best Accuracy±1°C (±2°FBest Display Resolution0.2°C /0.5°FResponse Time500 msEmissivity0.95Laser Wavelength630 nm to 670 nmSpectral Response6.5 μm to 18 μmRepeatability±1°C or ±0.5% of reading, whichever is greaterDisplay Hold10 secondsOperating AltitudeUp to 2000 metersBatteryOne 1.5VAAA batteryBattery Life20 hours (Alkaline typically)Storage Temperature-20°C to 60°C (-40°F to 140°F) (without battery) ≤ 85% RHDimensions (L x W x H)Approximately 50g (0.11b)Safety ComplianceEN 61010-1, EN 60825-1EMC ComplianceEN 61010-1, EN 60825-1EMC ComplianceEN 61326-1Certification€Laser Safety Info100% FDA CompliantLaser Safety ClassClass 2	Specifications	IR-450-EUR
Temperature Range $-30^{\circ}\text{C to }500^{\circ}\text{C }(-22^{\circ}\text{F to }932^{\circ}\text{F})$ $-30^{\circ}\text{C to }0^{\circ}\text{C }(-22^{\circ}\text{F to }32^{\circ}\text{F}): \pm 2^{\circ}\text{C }(\pm 4^{\circ}\text{F})$ $1^{\circ}\text{C to }10^{\circ}\text{C }(34^{\circ}\text{F to }50^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $11^{\circ}\text{C to }40^{\circ}\text{C }(52^{\circ}\text{F to }104^{\circ}\text{F}): \pm 1^{\circ}\text{C }(\pm 2^{\circ}\text{F})$ $11^{\circ}\text{C to }40^{\circ}\text{C }(52^{\circ}\text{F to }104^{\circ}\text{F}): \pm 1^{\circ}\text{C }(\pm 2^{\circ}\text{F})$ $41^{\circ}\text{C to }500^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $11^{\circ}\text{C to }40^{\circ}\text{C }(52^{\circ}\text{F to }104^{\circ}\text{F}): \pm 1^{\circ}\text{C }(\pm 2^{\circ}\text{F})$ $41^{\circ}\text{C to }500^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $11^{\circ}\text{C to }40^{\circ}\text{C }(52^{\circ}\text{F to }104^{\circ}\text{F}): \pm 1^{\circ}\text{C }(\pm 2^{\circ}\text{F})$ $41^{\circ}\text{C to }500^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $11^{\circ}\text{C to }40^{\circ}\text{C }(52^{\circ}\text{F to }104^{\circ}\text{F}): \pm 1^{\circ}\text{C }(\pm 2^{\circ}\text{F})$ $41^{\circ}\text{C to }500^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }500^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }500^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }50^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }50^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }50^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }50^{\circ}\text{C }(106^{\circ}\text{F to }932^{\circ}\text{F}): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }50^{\circ}\text{C }(-50^{\circ}\text{F to }100^{\circ}\text{C }): \pm 1.5^{\circ}\text{C }(\pm 3^{\circ}\text{F})$ $10^{\circ}\text{C to }50^{\circ}\text{C }(-50^{\circ}\text{C }): \pm 1.5^{\circ}\text{C }(-50^{$		Range:
Accuracy at 23°C ±2°C, <80%RH $ \begin{array}{c} -30^{\circ}\text{C to } 0^{\circ}\text{C } (-22^{\circ}\text{F to } 32^{\circ}\text{F}) : \pm 2^{\circ}\text{C } (\pm 4^{\circ}\text{F}) \\ 1^{\circ}\text{C to } 10^{\circ}\text{C } (34^{\circ}\text{F to } 50^{\circ}\text{F}) : \pm 1.5^{\circ}\text{C } (\pm 3^{\circ}\text{F}) \\ 11^{\circ}\text{C to } 40^{\circ}\text{C } (52^{\circ}\text{F to } 104^{\circ}\text{F}) : \pm 1^{\circ}\text{C } (\pm 2^{\circ}\text{F}) \\ 41^{\circ}\text{C to } 500^{\circ}\text{C } (106^{\circ}\text{F to } 932^{\circ}\text{F}) : \\ \pm 1.5^{\circ}\text{C } (\pm 3^{\circ}\text{F}) \text{ or } \pm 1.5^{\circ}\text{O f reading, whichever is greater.} \\ \hline \text{Best Accuracy} \\ \hline \text{Best Display Resolution} \\ \hline \text{Response Time} \\ \hline \text{Bost may be a similar } \\ \hline \text{So0 ms} \\ \hline \text{Emissivity} \\ \hline \text{Laser Wavelength} \\ \hline \text{Spectral Response} \\ \hline \text{Response Time} \\ \hline \text{Repeatability} \\ \hline \text{Display Hold} \\ \hline \text{Operating Altitude} \\ \hline \text{Up to } 2000 \text{ meters} \\ \hline \text{Battery} \\ \hline \text{Battery Life} \\ \hline \text{Storage Temperature} \\ \hline \text{Dimensions } (\text{L x W x H}) \\ \hline \text{Weight} \\ \hline \text{Safety Compliance} \\ \hline \text{EMC Compliance} \\ \hline \text{EMC Compliance} \\ \hline \text{Certification} \\ \hline C$	Distance to Spot (D:S)	8:1 (calculated at 80% energy)
Accuracy at 23°C ±2°C, <80%RH $ \begin{array}{c} 1^{\circ}\text{C to } 10^{\circ}\text{C } (34^{\circ}\text{F to } 50^{\circ}\text{F}) : \pm 1.5^{\circ}\text{C } (\pm 3^{\circ}\text{F}) \\ 11^{\circ}\text{C to } 40^{\circ}\text{C } (52^{\circ}\text{F to } 104^{\circ}\text{F}) : \pm 1^{\circ}\text{C } (\pm 2^{\circ}\text{F}) \\ 41^{\circ}\text{C to } 500^{\circ}\text{C } (106^{\circ}\text{F to } 932^{\circ}\text{F}) : \\ \pm 1.5^{\circ}\text{C } (\pm 3^{\circ}\text{F}) \text{ or } \pm 1.5^{\circ}\text{O } \text{ freading, whichever is greater.} \\ \hline \text{Best Accuracy} \\ \hline \text{Best Display Resolution} \\ \hline \text{Response Time} \\ \hline \text{Bost Mayelength} \\ \hline \text{So0 ms} \\ \hline \text{Emissivity} \\ \hline \text{Laser Wavelength} \\ \hline \text{Spectral Response} \\ \hline \text{Repeatability} \\ \hline \text{Display Hold} \\ \hline \text{Operating Altitude} \\ \hline \text{Battery} \\ \hline \text{Battery} \\ \hline \text{Battery Life} \\ \hline \text{Storage Temperature} \\ \hline \text{Dimensions } (\text{L x W x H}) \\ \hline \text{Weight} \\ \hline \text{Safety Compliance} \\ \hline \text{EMC Compliance} \\ \hline \text{EMC Compliance} \\ \hline \text{Certification} \\ \hline \text{Compliance} \\ \hline \text{Certification} \\ \hline Cert$	Temperature Range	-30°C to 500°C (-22°F to 932°F)
Best Display Resolution Response Time Emissivity  Laser Wavelength Spectral Response  Repeatability  Display Hold Operating Altitude Battery Battery Life Dimensions (L x W x H) Dimensions (L x W x H)  Weight  Set Display Hold  Operating Altitude Battery Battery Life Core ±0.5% of reading, whichever is greater  10 seconds Up to 2000 meters One 1.5VAAA battery Battery Life Storage Temperature Dimensions (L x W x H)  Poince Set Compliance  EMC Compliance  EMC Compliance  EMC Compliance  Laser Safety Info  Cetification  Cetification  10.2°C /0.5°F  500 ms  500 ms  500 ms  630 nm to 670 nm  640 pm  640		1°C to 10°C (34°F to 50°F): ±1.5°C (±3°F) 11°C to 40°C (52°F to 104°F): ±1°C (±2°F) 41°C to 500°C (106°F to 932°F):
Response Time 500 ms Emissivity 0.95  Laser Wavelength 630 nm to 670 nm Spectral Response 6.5 $\mu$ m to 18 $\mu$ m Repeatability ±1°C or ±0.5% of reading, whichever is greater Display Hold 10 seconds Operating Altitude Up to 2000 meters Battery One 1.5VAAA battery Battery Life 20 hours (Alkaline typically) Storage Temperature -20°C to 60°C (-40°F to 140°F) (without battery) ≤ 85% RH Dimensions (L x W x H) 100 x 20 x 29 mm (3.94 x 0.79 x 1.14in) Weight Approximately 50g (0.11lb) Safety Compliance EN 61326-1 EMC Compliance EN 61326-1 Certification (€ € Laser Safety Info	Best Accuracy	± 1°C /±2°F
Emissivity 0.95  Laser Wavelength 630 nm to 670 nm  Spectral Response 6.5 $\mu$ m to 18 $\mu$ m  Repeatability $\pm 1^{\circ}$ C or $\pm 0.5\%$ of reading, whichever is greater  Display Hold 10 seconds  Operating Altitude Up to 2000 meters  Battery One 1.5VAAA battery  Battery Life 20 hours (Alkaline typically)  Storage Temperature $-20^{\circ}$ C to $60^{\circ}$ C ( $-40^{\circ}$ F to $140^{\circ}$ F) (without battery) $\leq 85\%$ RH  Dimensions (L x W x H) $100 \times 20 \times 29 \text{mm}$ ( $3.94 \times 0.79 \times 1.14 \text{in}$ )  Weight Approximately 50g (0.11 lb)  Safety Compliance EN 61010-1, EN 60825-1  EMC Compliance EN 61326-1  Certification $\xi$ Laser Safety Info $100\%$ FDA Compliant	<b>Best Display Resolution</b>	0.2°C /0.5°F
Laser Wavelength630 nm to 670 nmSpectral Response6.5 μm to 18 μmRepeatability±1°C or ±0.5% of reading, whichever is greaterDisplay Hold10 secondsOperating AltitudeUp to 2000 metersBatteryOne 1.5VAAA batteryBattery Life20 hours (Alkaline typically)Storage Temperature-20°C to 60°C (-40°F to 140°F) (without battery) ≤ 85% RHDimensions (L x W x H)100 x 20 x 29mm (3.94 x 0.79 x 1.14in)WeightApproximately 50g (0.11lb)Safety ComplianceEN 61010-1, EN 60825-1EMC ComplianceEN 61326-1Certification€ €Laser Safety Info100% FDA Compliant	Response Time	500 ms
Spectral Response 6.5 $\mu$ m to 18 $\mu$ m  Repeatability ±1°C or ±0.5% of reading, whichever is greater  Display Hold 10 seconds  Operating Altitude Up to 2000 meters  Battery One 1.5VAAA battery  Battery Life 20 hours (Alkaline typically)  Storage Temperature -20°C to 60°C (-40°F to 140°F) (without battery) ≤ 85% RH  Dimensions (L x W x H) 100 x 20 x 29mm (3.94 x 0.79 x 1.14in)  Weight Approximately 50g (0.11lb)  Safety Compliance EN 61010-1, EN 60825-1  EMC Compliance EN 61326-1  Certification (€  Laser Safety Info 100% FDA Compliant	Emissivity	0.95
Repeatability $\pm 1^{\circ}$ C or $\pm 0.5\%$ of reading, whichever is greaterDisplay Hold10 secondsOperating AltitudeUp to 2000 metersBatteryOne 1.5VAAA batteryBattery Life20 hours (Alkaline typically)Storage Temperature $-20^{\circ}$ C to $60^{\circ}$ C ( $-40^{\circ}$ F to $140^{\circ}$ F) (without battery) ≤ 85% RHDimensions (L x W x H) $100 \times 20 \times 29 \text{mm}$ ( $3.94 \times 0.79 \times 1.14 \text{in}$ )WeightApproximately 50g (0.11lb)Safety ComplianceEN 61010-1, EN 60825-1EMC ComplianceEN 61326-1Certification€Laser Safety Info100% FDA Compliant	Laser Wavelength	630 nm to 670 nm
Display Hold  Operating Altitude  Battery  Battery  Battery Life  Storage Temperature  Dimensions (L x W x H)  Weight  Safety Compliance  EMC Compliance  EMC Compliance  Laser Safety Info  10 seconds  10 seco	Spectral Response	6.5 µm to 18 µm
Operating AltitudeUp to 2000 metersBatteryOne 1.5VAAA batteryBattery Life20 hours (Alkaline typically)Storage Temperature-20°C to $60$ °C (- $40$ °F to $140$ °F) (without battery) ≤ $85$ % RHDimensions (L x W x H) $100 \times 20 \times 29$ mm ( $3.94 \times 0.79 \times 1.14$ in)WeightApproximately 50g (0.11lb)Safety ComplianceEN 61010-1, EN 60825-1EMC ComplianceEN 61326-1Certification€Laser Safety Info $100$ % FDA Compliant	Repeatability	±1°C or ±0.5% of reading, whichever is greater
Battery One 1.5VAAA battery Battery Life 20 hours (Alkaline typically) Storage Temperature -20°C to $60$ °C (- $40$ °F to $140$ °F) (without battery) $\leq 85$ % RH Dimensions (L x W x H) 100 x 20 x 29mm (3.94 x 0.79 x 1.14in) Weight Approximately 50g (0.11lb) Safety Compliance EN 61010-1, EN 60825-1 EMC Compliance EN 61326-1 Certification C $\in$ Laser Safety Info 100% FDA Compliant	Display Hold	10 seconds
Battery Life20 hours (Alkaline typically)Storage Temperature-20°C to $60$ °C (- $40$ °F to $140$ °F) (without battery) ≤ $85$ % RHDimensions (L x W x H) $100 \times 20 \times 29 mm$ ( $3.94 \times 0.79 \times 1.14in$ )WeightApproximately 50g (0.11lb)Safety ComplianceEN 61010-1, EN 60825-1EMC ComplianceEN 61326-1Certification $\boldsymbol{\xi}$ Laser Safety Info $100$ % FDA Compliant	Operating Altitude	Up to 2000 meters
Storage Temperature-20°C to $60$ °C (-40°F to $140$ °F) (without battery) ≤ $85\%$ RHDimensions (L x W x H) $100 \times 20 \times 29$ mm ( $3.94 \times 0.79 \times 1.14$ in)WeightApproximately 50g (0.11lb)Safety ComplianceEN $61010$ -1, EN $60825$ -1EMC ComplianceEN $61326$ -1CertificationC €Laser Safety Info $100\%$ FDA Compliant	Battery	One 1.5VAAA battery
Dimensions (L x W x H)         100 x 20 x 29mm (3.94 x 0.79 x 1.14in)           Weight         Approximately 50g (0.11lb)           Safety Compliance         EN 61010-1, EN 60825-1           EMC Compliance         EN 61326-1           Certification         € €           Laser Safety Info         100% FDA Compliant	Battery Life	20 hours (Alkaline typically)
Weight       Approximately 50g (0.11lb)         Safety Compliance       EN 61010-1, EN 60825-1         EMC Compliance       EN 61326-1         Certification       C €         Laser Safety Info       100% FDA Compliant	Storage Temperature	-20°C to 60°C (-40°F to 140°F) (without battery) ≤ 85% RH
Safety Compliance         EN 61010-1, EN 60825-1           EMC Compliance         EN 61326-1           Certification         €           Laser Safety Info         100% FDA Compliant	Dimensions (L x W x H)	100 x 20 x 29mm (3.94 x 0.79 x 1.14in)
EMC Compliance EN 61326-1 Certification C € Laser Safety Info 100% FDA Compliant	Weight	Approximately 50g (0.11lb)
Certification ( € Laser Safety Info 100% FDA Compliant	Safety Compliance	EN 61010-1, EN 60825-1
Laser Safety Info 100% FDA Compliant	EMC Compliance	EN 61326-1
	Certification	C€
Laser Safety Class 2	Laser Safety Info	100% FDA Compliant
	Laser Safety Class	Class 2









### **Safety Certification**

**®**: C € △

All Beha-Amprobe tools, including the Beha-Amprobe IR-450-EUR, are rigorously tested for safety, accuracy, reliability, and ruggedness in our state-of-the-art test lab. In addition, Beha-Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Beha-Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.