

# ECG<sup>®</sup>

## DIGITAL INFRARED THERMOMETER

**Pen-style IR thermometer fits easily in a pocket or purse for quick and easy surface temperature measurements.**

***Used by:***

- HVAC Technicians
- Electricians
- Plant Maintenance Technicians
- Hobbyists
- Pool & Spa Technicians
- Mechanics
- Homemakers
- Health Care Workers
- Veterinarians
- Food Preparation Staff
- Pet Shops
- Supermarket Workers
- Livestock Breeding Staff
- Landscapers
- Professional Chefs



### ***FEATURES:***

- Temperature Range: -27° to 428°F (-33° to 220°C)
- Accuracy: ±2% of reading or ±2°C
- 0.1° resolution for accurate readings
- Selectable temperature units F/C
- 1:1 Optics (distance-to-spot size ratio)
- Emissivity preset to 0.95
- LCD display
- Non-contact
- Does not use a laser beam
- Metal alloy case
- Lithium batteries (2 LR44 included typically provide for 180 hours of continuous operation)
- Low battery indication
- Automatic power OFF after 15 seconds
- RoHS Compliant
- 1 Year Warranty
- Durable pocket clip



### Specifications:

<b>Part Number:</b>	DIT-205
<b>Measurement Range:</b>	-27° to 428°F (-33° to 220°C)
<b>Ambient Operating Range:</b>	32° to 122°F (0° to 50°C)
<b>Storage Temperature Range:</b>	-4° to 149°F (-20° to 65°C)
<b>Accuracy:</b>	±2% of reading or ±2°C
<b>Resolution at -9.9°~199.9°C:</b>	0.1° F or °C
<b>Response Time (90%):</b>	1 second
<b>D:S:</b>	1:1
<b>Emissivity:</b>	Fixed 0.95
<b>Update Frequency:</b>	1.4Hz
<b>Dimensions:</b>	3.25 x 0.5 inches
<b>Wave Length Response:</b>	5-14um
<b>Weight (with battery):</b>	2 oz
<b>Batteries:</b>	2 LR44 (included)
<b>Battery Life:</b>	180hr (typical)

### Where can I use an infrared thermometer?:

#### Kitchen:

- Temperatures of all cooking surfaces
- Microwaved foods
- Dishes in microwave heat differently
- Baby formula bottles
- Baby foods
- Teflon fry pans actually become toxic at high temperatures
- Appliance performance: freezer and oven temperature
- Dishwasher water temperatures
- Hot oil temperatures in deep fryers
- Cookie sheet temperature
- Crock pot accuracy
- Melting chocolate
- Candle making
- Home beer brewing
- Fondues: cheese, oil, chocolate
- Serving temperatures of beer and wine
- Pizza ovens

#### Health:

- Foot temperatures for diabetics
- Muscle tears and sprains
- Arthritic areas
- Horses: bad shoe, muscle tear, scar tissue
- Livestock breeding area temperatures
- Food serving quality at buffets
- Damp spots where mold and mildew grow

#### Safety:

- Child car seats
- Bath water: especially children and infants
- Check playground equipment: slides and swings
- Beach sand
- Benches and chair temperatures

#### Around the home:

- Doors and windows for drafts
- Air conditioner air temperature
- Furnace registers
- Flue temperature in heating systems
- Ballasts in florescent lighting
- Dimmer switches for overheating
- Lightbulb before unscrewing
- Wood stoves flue temperature and ducts
- Fireplace logs (gas burn)
- Fuses and breakers for possible shorts
- Room temperatures (scan walls for heat layers)
- Reptile cages and environment
- Aquarium water temperatures
- Air conditioning: supply and return registers
- Surface temperature before painting

#### Outdoor uses:

- Verify BBQ surface temperatures
- Water temperatures in pools, spas and hot tubs
- Lawns for heat stress and areas sprinkler missed
- Outdoor fire pits and tool temperatures
- Small stoke engines: mowers, snow blowers
- Driveway temperature before recoating surfaces

#### Automotive, Hobby, Racing:

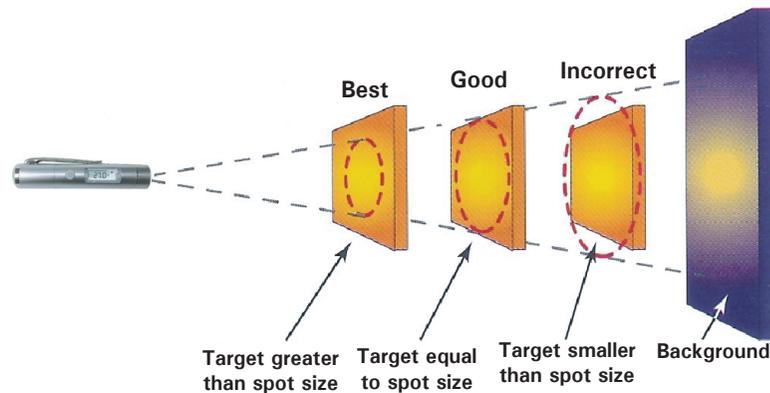
- Engine check - spark plugs - manifold
- Air conditioning and heating
- Radiator blockages
- Brake temperatures overheating
- Catalytic converters blockage
- Tire temperatures - under/over inflated
- Track temperatures match correct tires
- Engine temperatures in remote control vehicles



**NTE Electronics, Inc.,**  
44 Farrand Street,  
Bloomfield, NJ 07003  
www.nteinc.com

# Distance to Spot Ratio Explained

## ECG<sup>®</sup> DIGITAL INFRARED THERMOMETER



For accurate IR temperature measurement, the target should be larger than the instrument's field of view, or spot size. If the spot size is larger than the target, energy emitted from the background or surrounding objects may also be measured and reduce accuracy.

### About Distance Ratios:

- Think of the DIT-205 as a flashlight beam - the beam starts at the lens and as DISTANCE increases, the Target Area increases.
- The Infrared Thermometer MUST HAVE a clear line of sight to the target. If there is an object in the near ground, that object will be included in the average temperature.
- Likewise, IF the DISTANCE exceeds the target area's RATIO - objects in the background will be measured too.

Any Spot Size ( S ) equals Distance away ( D ).

This unit's D to S Ratio is 1 = D to 1 = S.

So at 1 inch away you can measure a 1 inch spot  
at 6 inches away you can measure a 6 inch spot  
at 24 inches away you can measure a 24 inch spot  
at 36 inches away you can measure a 36 inch spot  
at 12 feet away you can measure a 12 foot spot area  
at 24 feet away you can measure a 24 foot spot area  
at 1 mile away you can measure a 1 mile spot area