



## INDUSTRIAL IMAGING CLAMP METERS

# FLIR CM174™/275™

The FLIR CM174 and CM275 clamp meters combine thermal imaging with electrical measurement into powerful inspection, troubleshooting, and diagnostic tools. Through Infrared Guided Measurement (IGM™), they provide a fast, reliable way to identify hot spots and overloaded circuits from a safe distance. Confirm your findings with the clamp meters' wide range of functions plus temperature readings. The FLIR CM275 is Bluetooth-enabled for wireless transfer of thermal images and data via METERLiNK® to mobile devices running the FLIR Tools® mobile app.

[www.flir.com/IGM-Clamps](http://www.flir.com/IGM-Clamps)



### TROUBLESHOOT FASTER & SAFER

Identify electrical issues quickly with the power of IGM

- Scan entire targets for electrical issues with up to 160 × 120 (CM275) thermal resolution
- Safely check for live connections using non-contact temperature measurement
- Pinpoint exact hot spot locations with laser or crosshairs
- Easily reach difficult, dark locations thanks to narrow jaw and built-in worklights



### DIAGNOSE EFFICIENTLY

Quickly verify problems, check loads, and validate hot spots

- Diagnose complex systems with high and low voltage measurement capabilities
- Use advanced electrical features including VFD mode, True RMS, and LoZ
- Expand measurement capabilities to 3000 A AC with FLIR Flex Clamp accessories
- Rely on the protection of CAT IV-600V, CAT III-1000V safety ratings



### DOCUMENT & SHARE RESULTS

Store data or share wirelessly for improved workflow

- Store electrical measurements and thermal images internally, for later review\*
- Simplify data and thermal imaging collection and produce instant reports by connecting via METERLiNK to a smartphone or tablet running the FLIR Tools app\*

\* FLIR CM275 model only.

## SPECIFICATIONS

| Thermal Imaging                 | CM174   | CM275   | Additional Measurements  | CM174                                    | CM275  |
|---------------------------------|---|---|--|--|--|
| IR Resolution                   | 80 × 60 (4,800 pixels)                                | 160 × 120 (19,200 pixels)                             | Continuity Check   | <30 Ω beeper on,<br>>150 Ω beeper off    | <30 Ω beeper on,<br>>150 Ω beeper off                      |
| Thermal Imaging Detector        | FLIR Lepton® microbolometer                           | FLIR Lepton® microbolometer                           | Measuring Rate   | 3 samples per second                     | 3 samples per second                                       |
| Temperature Sensitivity         | 150 mK  | 150 mK  | Min/Max  | Yes                                      | Yes  |
| Emissivity Settings             | 4 Presets with custom adjustment                      | 4 Presets with custom adjustment                      | <b>General Information</b>   |  |  |
| Temperature Accuracy            | ±5.4°F (±3°C) or ±3% of reading; whichever is greater | ±5.4°F (±3°C) or ±3% of reading; whichever is greater | Connectivity   | –  | Bluetooth®   |
| Temperature Range               | 14°F to 302°F (-10°C to 150°C)                        | 14°F to 302°F (-10°C to 150°C)                        | Data Logging & Storage   | –  | 10 sets of 40k scalar measurements, 100 images             |
| Field of View                   | 50.0° × 38.6°   | 50.0° × 38°   | Jaw Opening  | 35 mm (1.38 in), 1250 MCM                | 35 mm (1.38 in), 1250 MCM                                  |
| Laser Pointer                   | Yes   | Yes   | Auto Power Off   | Yes                                      | Yes  |
| Focus                           | Fixed   | Fixed   | Worklights   | Yes                                      | Yes  |
| Thermal Imaging Palette         | Iron, Rainbow, Grayscale                              | Iron, Rainbow, Grayscale                              | Display Size   | 2.0 in TFT screen                        | 2.4 in TFT screen  |
| <b>Measurements-Both Models</b> |   |   | Battery  | 4 AAA batteries                          | 3 AA batteries; optional TA04 Li-Poly rechargeable battery |
| True RMS                        | Yes   |   | Drop Test  | 2 m                                      | 2 m  |
| Auto-ranging                    | Yes, with manual range option                         |   | Safety Category Rating   | CAT III-1000V, CAT IV-600V               | CAT III-1000V, CAT IV-600V                                 |
|                                 | <b>Range</b>  | <b>Basic Accuracy</b>                                 | Size (H × W × L)   | 43 × 89 × 241 mm<br>(1.7 × 3.5 × 9.5 in) | 48.5 × 97 × 255 mm<br>(1.9 × 3.8 × 10 in)                  |
| AC / DC Voltage                 | 1000 V  | ±1.0%   | Weight   | 426 g (15 oz)                            | 460 g (16 oz)  |
| VFD AC Voltage                  | 1000 V  | ±1.0%   | Warranty   | 10 year on product and detector          | 10 year on product and detector                            |
| AC / DC LoZ V                   | 1000 V  | ±1.0%   | <b>Box Contents</b>  |  |  |
| AC / DC Current                 | 600.0 A   | ±2.0%   | Clamp Meter, batteries, silicone test leads, soft carrying case (CM275 only) |  |  |
| VFD AC Current                  | 600.0 A   | ±2.0%   | <b>Ordering Information</b>  |  |  |
| AC Inrush                       | 600.0 A   | ±3.0%   | <b>Order #</b>   |  |  |
| Resistance                      | 6.000 kΩ  | ±1.0%   | FLIR CM174 Imaging 600A AC/DC Clamp Meter with IGM                           | 793950371749                             |  |
| Capacitance                     | 1000 μF   | ±1.0%   | FLIR CM275 Imaging Clamp Meter with Datalogging, Connectivity and IGM        | 793950372753                             |  |
| Diode Test                      | 1.5 V   | ±1.5%   |  |  |  |
| Flex Input AC A                 | 3000 A  | ±1.0%   |  |  |  |
| Flex Input Frequency Counter    | 10.00 kHz   | ±0.1%   |  |  |  |

Specifications are subject to change without notice.  
For the most up-to-date specs, go to [www.flir.com](http://www.flir.com)

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