

FLIR DM286™

Industrial Thermal Imaging
Multimeter with IGMTM



Key Features:

- IGM™ (Infrared Guided Measurement) for safer non-contact thermal inspections
- Unrivaled thermal image clarity with MSX® (Multi-Spectral Dynamic Imaging)
- Seamless integration with METERLiNK® App

Main Applications:

- Identifying hot spots in electrical components
- Diagnosing intermittent electrical problems
- Data logging and tracking changes in electrical systems

SPECIFICATIONS

| Static Datalogging and Storage | |
|-------------------------------------|--|
| Data storage interval, configurable | 1 to 99 seconds |
| Readings per memory set | 40,000 |
| Thermal Image Storage | |
| Storage media | eMMC 4 GB |
| Image file format | Radiometric |
| Maximum number of images | Up to 30,000 |
| Video recording | 50 minutes maximum duration 20 seconds max duration for file transmission |
| Connectivity | |
| Wireless technology | Bluetooth BLE |
| Communications protocol | METERLINK |
| Bluetooth range | 10 m (32 ft) |
| Thermal Imaging | |
| Thermal imaging dectector | FLIR Lepton® microbolometer |
| Infrared (IR) imaging resolution | 160 × 120 (19,200 pixels) |
| IR imaging field of view (V × H) | 57° × 44° |
| IR imaging spectral response | 8 μm to 14 μm |
| Thermal sensitivity | 150 mK (0.15°C) |
| IR image capture frequency | 9 Hz |
| IR image color palettes | Iron, rainbow, arctic, white hot, and black hot |
| Laser pointer type | Class I (red) |
| Laser pointer power | ≤0.39 mW |
| Laser wavelength | 640 nm to 660 nm |

| IR temperature measurement range | -5°C to 300°C (23°F to 572°F) |
|-----------------------------------|---|
| Temperature reading stabilization | Dashes are displayed for approximately 30 seconds while the temperature reading stabilizes |
| IR temperature resolution | 0.1°C (0.1°F) |
| IR temperature accuracy | ±3°C (5.4°F) or ±3% of the reading (whichever is greater) for temperatures >25°C (77°F) ±5°C for temperatures -10°C to 25°C (14°F to 77°F) |
| Emissivity adjustment | 0.10 to 1.00 (default is 0.95); select from four presets or set manually |
| Scanning and targeting | Continuous scan. Crosshairs and laser pointer targeting. |
| Data hold | The displayed reading is suspended |
| Image modes | Thermal MSX (Multi Spectral Dynamic Imaging) Thermal Camera only Digital Camera only |
| Worklight | 1×LED |
| Visual Imaging | |
| Resolution | 2 MP (1600 × 1200 pixels) |
| Focus | Fixed |
| Field of view | 71° × 56° |
| Display | 2.8" |
| Surface brightness (cd/m2) | 362 |
| Screen brightness | High/Medium/Low |
| (continued) | |
| | |

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SPECIFICATIONS, CONT.

| Electrical Measurement | |
|----------------------------------|---|
| Display count | 6000 |
| AC/DC V | 1000 V AC RMS ±(1.0% + 3) 1000 V DC ±(0.09%+3) |
| AC/DC mV | AC 600.0 mV ±(1.0% + 3) DC 600.0 mV ±(0.2% + 3) |
| VFD AC V | 1000 V AC RMS, ±(1.3% + 4) at 45Hz to 65Hz |
| AC/DC LoZ V | 1000 V AC RMS or 1000 V DC ±(1.3% + 4) |
| AC/DC A | 10.00 A AC RMS ±(1.5% + 3) 10.00 A DC ±(1.0% + 3) |
| AC/DC mA range | AC 400.0 mA ±(1.5% + 3) DC 400.9mA ±(1.0% + 3) |
| AC/DC μA range | 4000 μA AC RMS ±(1.5% + 3) 4000 μA DC ±(1.0% + 3) |
| Non-contact voltage tester (NCV) | Yes |
| Frequency counter | 100.00 kHz ±(0.1% + 5) |
| Resistance | 6.000 MΩ ±(0.9% + 5), 60.00 MΩ ±(3.0% + 5) |
| Continuity check threshold | 10 Ω to 100 Ω |
| Diode test | 1.500 V ±0.9% |
| Capacitance | 10.00 mF ±(4.0% + 5) |
| Temperature, type K thermocouple | -40°C to 400°C DMM ±(1.0% + 3°C) / IGM ±(1.0% + 5°C) (-40°F to 752°F DMM ±(1.0% + 5.4°F)/IGM ±(1.0% + 9°F) |
| Measuring rate | 3 samples per second |
| Over- and under-range indication | OL |
| Meter Data | |
| Category rating | CAT IV-600 V, CAT III-1000 V |
| IP rating | IP40 |
| Drop test | 2 m (6.6 ft) |
| Warranty | Limited 10-Year Warranty |
| Calibration cycle | Once per year, recommended |
| | |

| Certifications | |
|---|---|
| Certifications | ETL, FCC, CE, RCM, UKCA, FDA, EN60825, EN50689 |
| Safety standards compliance | IEC 61010-1 CAT IV-600 V, CAT III-1000 V |
| Power System | |
| Power requirements | FLIR TA04: rechargeable, lithium-polymer battery (3.7 V, 3050 mAh) |
| Battery life | Approx. 6.5 hours in IGM mode with display brightness set to medium brightness. Approx. 10 hours in Multimeter mode set to medium brightness. |
| Auto power off | For meter: set to OFF, 2, 5, or 10 minutes. For worklight only: set to OFF, 5, 15, or 30 minutes. |
| Environmental Data | |
| Operating ambient temperatures and relative humidity (RH) | -10°C to 30°C (14°F to 86°F), <85% RH 30°C to 40°C (86°F to 104°F), <75% RH 40°C to 50°C (104°F to 122°F), <45% RH |
| Storage temperature and RH | -20°C to 60°C (-4°F to 140°F), 0–80% RH (without batteries) |
| Temperature coefficient | 0.1 × (specified accuracy)/°C, <18°C (64.4°F), >28°C (82.4°F) |
| Operating altitude | 2000 m (6560 ft) |
| Pollution degree | 2 |
| EMC | EN61326-1 |
| Meter Physical Data | |
| Weight | 569 g (1.25 lbs) without battery (approx.) |
| Dimensions (L × W × H) | 20 cm × 9.6 cm × 5.6 cm (7.9 in × 3.8 in × 2.2 in) |
| Included in the box | 1 × DM286 Industrial Thermal Imaging Multimeter 1 set of CATIV 600V Test Lead 1 set of CATIV 600V Alligator Clip 1 × Type-A to Micro-USB Cable 1 × K-type Thermocouple (-30°C to 260°C) 1 × Soft-sided Carrying Case 1 × FLIR Quick Start Guide 1 × FLIR Warranty Card 2 × TA04 Rechargeable Battery Cell |



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