



# FLIR DM286™

Industrial Thermal Imaging  
Multimeter with IGM™



### 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

[www.flir.com/DM286](http://www.flir.com/DM286)

## 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 detector	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/m <sup>2</sup> )	362
Screen brightness	High/Medium/Low
<b>(continued)</b>	

Specifications subject to change. For the most up-to-date specifications, please visit [flir.com](http://flir.com).

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or to find your local support number, visit: [flir.com/contactsupport](http://flir.com/contactsupport)  
[www.teledyneflir.com](http://www.teledyneflir.com)

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## SPECIFICATIONS, CONT.

Electrical Measurement	
Display count	6000
AC/DC V	1000 V AC RMS $\pm(1.0\% + 3)$ 1000 V DC $\pm(0.09\% + 3)$
AC/DC mV	AC 600.0 mV $\pm(1.0\% + 3)$ DC 600.0 mV $\pm(0.2\% + 3)$
VFD AC V	1000 V AC RMS, $\pm(1.3\% + 4)$ at 45Hz to 65Hz
AC/DC LoZ V	1000 V AC RMS or 1000 V DC $\pm(1.3\% + 4)$
AC/DC A	10.00 A AC RMS $\pm(1.5\% + 3)$ 10.00 A DC $\pm(1.0\% + 3)$
AC/DC mA range	AC 400.0 mA $\pm(1.5\% + 3)$ DC 400.0 mA $\pm(1.0\% + 3)$
AC/DC $\mu$ A range	4000 $\mu$ A AC RMS $\pm(1.5\% + 3)$ 4000 $\mu$ A DC $\pm(1.0\% + 3)$
Non-contact voltage tester (NCV)	Yes
Frequency counter	100.00 kHz $\pm(0.1\% + 5)$
Resistance	6.000 M $\Omega$ $\pm(0.9\% + 5)$ , 60.00 M $\Omega$ $\pm(3.0\% + 5)$
Continuity check threshold	10 $\Omega$ to 100 $\Omega$
Diode test	1.500 V $\pm 0.9\%$
Capacitance	10.00 mF $\pm(4.0\% + 5)$
Temperature, type K thermocouple	-40°C to 400°C DMM $\pm(1.0\% + 3^\circ\text{C})$ / IGM $\pm(1.0\% + 5^\circ\text{C})$ (-40°F to 752°F DMM $\pm(1.0\% + 5.4^\circ\text{F})$ /IGM $\pm(1.0\% + 9^\circ\text{F})$ )
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 <a href="https://www.flir.com/testwarranty">https://www.flir.com/testwarranty</a>
Calibration cycle	Once per year, recommended

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For more information contact: [Sales@TeledyneFLIR.com](mailto:Sales@TeledyneFLIR.com)  
or to find your local support number, visit: [flir.com/contactsupport](http://flir.com/contactsupport)  
[www.teledyneflir.com](http://www.teledyneflir.com)

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 $\times$ (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 $\times$ W $\times$ H)	20 cm $\times$ 9.6 cm $\times$ 5.6 cm (7.9 in $\times$ 3.8 in $\times$ 2.2 in)
Included in the box	1 $\times$ DM286 Industrial Thermal Imaging Multimeter 1 set of CATIV 600V Test Lead 1 set of CATIV 600V Alligator Clip 1 $\times$ Type-A to Micro-USB Cable 1 $\times$ K-type Thermocouple (-30°C to 260°C) 1 $\times$ Soft-sided Carrying Case 1 $\times$ FLIR Quick Start Guide 1 $\times$ FLIR Warranty Card 2 $\times$ TA04 Rechargeable Battery Cell
Technical Support	
Website	<a href="http://support.flir.com">http://support.flir.com</a>

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