



## IMAGING TRMS MULTIMETER

# FLIR DM166™

The FLIR DM166 is the most affordable multimeter with built-in thermal imaging – a must-have tool for commercial electricians, automation, electronics, and HVAC technicians. Featuring Infrared Guided Measurement (IGM™) powered by an 80 x 60 FLIR thermal imager, the DM166 visually guides you to the precise location of temperature anomalies and potential problems faster, more safely, and efficiently. The feature-packed multimeter is an ideal tool for troubleshooting and diagnosing complex issues in both high-voltage and low-voltage applications.



### TROUBLESHOOT FASTER

One tool gets the job done

- Quickly scan for overheating components with IGM
- Diagnose faults with broad DMM test functions
- Troubleshoot easier with the unique combination of onboard thermal imaging and traditional DMM test functions



### WORK SAFER

Identify energized and potentially faulty equipment from a safe distance

- Safely check for live connections using non-contact temperature measurement
- Carefully measure voltage with integrated non-contact voltage detection
- Work with peace of mind knowing your meter has a CAT III-600V, CAT IV-300V safety rating



### DIAGNOSE PROBLEMS MORE EFFICIENTLY

Rich feature set covers both high-voltage and low-voltage applications

- Reliably take 600 V AC/DC voltage measurements and 10 A AC/DC current measurements
- Remove high-frequency noise that affects readings with the Variable Frequency Drive (VFD) measurement function
- Precisely measure resistance up to 60 MΩ, frequency up to 50 KHz, and capacitance up to 10,000 μF

## SPECIFICATIONS

Thermal Imaging	DM166
IR Resolution	80 x 60 pixels (4,800 pixels)
Thermal Imaging Detector	FLIR Lepton® microbolometer
Temperature Sensitivity	≤ 150 mK
Emissivity Settings	4 presets with custom adjustment
Temperature Accuracy	3°C or 3%
Temperature Range	14° F to 302°F (-10C to 150° C)
Field of View	50° x 38°
Laser Pointer	Yes
Focus	Fixed
Thermal Imaging Palette	Iron, Rainbow, Grayscale
Level & Span	Auto

Measurements		
	Range	Basic Accuracy
True RMS	Yes	
AC / DC Volts	600.0 V	±0.7% / 0.5%
AC / DC mVolt	600.0 mV	±1% / 0.3%
VFD AC Volts	600.0 V	±1.0%
AC / DC Amps	10.00 A	±1.0% / 0.7%
AC / DC mAmps	600.0 mA	±1.0% / 0.7%
AC / DC μAmps	6000 μA	±1.5% / 1.0%
Resistance	6.000 MΩ 60.00 MΩ	±0.9% ±1.5%
Capacitance	2.000 mF 10.00 mF	±2.0% ±5.0%
Diode Test	3.000 V	±0.9%
Frequency Counter	50.00 kHz	±0.3%
Temperature, Type-K Thermocouple	-40°F to 752.0°F -40°C to 400°C	±1.0% + 3°F ±1.0% + 1.5°C

Additional Measurements	DM166
Continuity Check	30 Ω and 480 Ω
Measuring rate	5 samples per second

General Information	
Auto Power Off	Yes
Display Size	2.4 in TFT screen
Battery	3 AA batteries; optional TA04 Li-Poly rechargeable battery
Drop Test	3 m
IP Rating	IP40
Safety Category Rating	CAT III-600V, CAT IV-300V
Size (L x W x H)	190 × 86.4 × 48.3 mm (7.5 × 3.4 × 1.9 in)
Weight	428.3 g (15.1 oz)
Warranty	10 year on product and detector

Box Contents
DM166, L91 lithium batteries, silicone test leads, soft carrying case

Ordering Information
FLIR DM166 Thermal Imaging TRMS Multimeter with IGM