



# FLIR DM66: Electrical and Field Service TRMS Multimeter with VFD Mode

## P/N: DM66

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### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

### Disclaimer

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Part number	DM66
Part name	Electrical and Field Service TRMS Multimeter with VFD Mode
<p>The FLIR DM66 digital multimeter combines a rich feature set, precise measurements, and quality for exceptional value. The meter is easy to use and built to last, providing long-term stability for everyday use. The FLIR DM66 has a low impedance (LoZ) mode to prevent ghost voltage from delivering false readings. It measures frequency, diode, capacitance, and temperature, for a comprehensive feature set ideal for commercial electricians and automation field, service or electronics technicians.</p>	
<p>All the features you need in one tool:</p> <ul style="list-style-type: none"> <li>Rich feature set ideal for various electrical applications.</li> <li>Safely check voltage with non-contact voltage detection.</li> <li>Measure both AC/DC voltage and current (A, mA, <math>\mu</math>A).</li> <li>Diagnose faults with broad DMM test functions, including variable-frequency drive (low-pass filter), a voltage measurement range up to 600 V, LoZ mode, frequency, resistance/continuity, diode, capacitance, and temperature (type K thermocouple).</li> </ul>	
<p>Fast, efficient troubleshooting and testing:</p> <ul style="list-style-type: none"> <li>Intuitive and simple user interface for more effective and efficient troubleshooting and testing of electrical and electronic systems.</li> <li>One-handed operation—compact and ergonomic design with easy-to-access buttons.</li> <li>Simplify the task of checking wiring connections and switch operation in noisy work environments with a flashing backlight and audible indication.</li> <li>Easy-to-navigate on-screen menu system.</li> </ul>	
<p>Tough, reliable, high quality:</p> <ul style="list-style-type: none"> <li>High-quality measurements with long-term stability and reliability ensure many years of safe, accurate, and trouble-free operation.</li> <li>Take the meter with you anywhere: 2 m drop tested and IP40 rated.</li> <li>Work with peace of mind knowing your meter has a CAT IV—300 V, CAT III—600 V safety category rating.</li> <li>Make your job easier with helpful features including auto power off, a display backlight, Min/Max/Avg, relative mode, and data hold.</li> </ul>	
<b>Electrical measurement</b>	
Display count	6000
AC/DC V	600.0 V AC RMS or 600.0 V DC $\pm$ 1%/0.4%
AC/DC mV	600.0 mV $\pm$ 1%/0.4%
VFD AC V	600.0 V AC RMS, 10–100 Hz, $\pm$ 1%
AC/DC LoZ V	600.0 V AC RMS or 600.0 V DC $\pm$ 2.0%
AC/DC A	10.00 A AC RMS or 10.00 A DC $\pm$ 1.5%/1.0%



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<b>Electrical measurement</b>	
AC/DC mA range	600.0 mA $\pm$ 1.0%/0.7%
AC/DC $\mu$ A range	6000 $\mu$ A AC RMS or 6000 $\mu$ A DC $\pm$ 1.5%/1.0%
Frequency counter, voltage	50.00 kHz $\pm$ 0.1%
Frequency counter, current	5.00 kHz $\pm$ 0.1%
Resistance	60.00 M $\Omega$ $\pm$ 0.9%
Continuity check threshold	30–480 $\Omega$
Diode test	3.000 V $\pm$ 0.9%
Capacitance	2000 $\mu$ F $\pm$ 1.5%, 10.00 mF $\pm$ 4.5%
Temperature, type K thermocouple	–40 to 400°C DMM $\pm$ (1.0% + 1°C) (–40 to 752°F DMM $\pm$ (1.0% + 2°F))
Measuring rate	5 samples per second
<i>Accuracy is given as <math>\pm</math> % of reading)</i>	
<b>Meter data</b>	
Category rating	CAT IV—300 V, CAT III—600 V
IP rating	IP40
Drop test	2 m (6.6 ft.)
Warranty	<a href="https://www.flir.com/testwarranty">https://www.flir.com/testwarranty</a>
Calibration cycle	Once per year, recommended
<b>Certifications</b>	
Certifications	C-UL-US, CE, RCM
Safety standards compliance	IEC 61010-1 CAT IV—300 V, CAT III—600 V
<b>Power system</b>	
Power requirements	2 $\times$ AAA batteries
Battery life	400 hours without backlight (alkaline batteries)
Auto power off	32 minutes
<b>Environmental data</b>	
Operating temperature	–10 to 50°C (14–122°F)
Operating humidity	80% to 31°C; decreasing linearly to 50% at 31–50°C
Storage temperature and relative humidity (RH)	–20 to 60°C (–4 to 140°F), 0–80% RH (without batteries)
Temperature coefficient	Nominal 0.15 $\times$ (specified accuracy)/°C at –10 to 18°C (14–64.4°F) or 28–50°C (82.4–122°F), or as otherwise specified
Operating altitude	2000 m (6560 ft.)
Pollution degree	2
EMC	EN61326-1
<b>Meter physical data</b>	
Weight	334g (11.8 oz.)
Dimensions (L $\times$ W $\times$ H)	161 mm $\times$ 80 mm $\times$ 50 mm (6.3 in. $\times$ 3.2 in. $\times$ 2.0 in.)
Material	Polycarbonate/ABS
Color	Gray, black, and blue



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Shipping information	
Packaging type	Color box with view of product in clamshell
Packaging contents	DM66 with integral probe holder, 2 × alkaline batteries (AAA), high-quality silicone test leads, alligator clips, soft carrying case
Packaging weight	1.3 kg (2.9 lb.)
Packaging dimensions (H × W × L)	33 cm × 14 cm × 11 cm (13.0 in. × 5.5 in. × 4.3 in.)
Carton weight	16.5 kg (36.4 lb.)
Carton dimensions (H × W × L)	65 cm × 30 cm × 56 cm (25.6 in. × 11.8 in. × 22.0 in.)
Carton quantity	12
EAN-13	0793950381663
UPC-12	793950381663
Country of origin	Taiwan
Tariff code	9030310000

Technical support	
Website	<a href="http://support.flir.com">http://support.flir.com</a>

Included in the box	
DM66 Electrical and Field Service TRMS Multimeter with VFD Mode	
TA80 Premium Silicone Test Leads	
TA70 Alligator Clips	
Soft carrying case	

**Supplies & accessories:**

- TA03-KIT; NiMH Rechargeable Battery Kit
- TA15; Universal Soft Sided Case
- TA16; Pouch for FLIR Multimeters
- TA50; Magnetic Hanging Strap for DM9x, IM7x Series
- TA60; Thermocouple probe with adapter
- TA70; CAT IV Insulated Alligator Probes
- TA80; CAT IV Silicone Test Leads

**Teledyne FLIR LLC**

9 Townsend West, Nashua NH 03063 / Phone: 603.324.7800 / Fax: 603.324.7864

## **Declaration of Conformity**

**Extech Model: DM66**

**Description: Multimeter**

**Date of Issue: 12-Jul-21**

We, Teledyne FLIR LLC, 9 Townsend West, Nashua, NH 03063 declare that a sample of the product listed above has been tested by a third party for CE marking

**EMC Directive: 2014/30/EU**

**Report Number: R12069017-EMC**

**Report Date of Issue: 12/19/2017**

**Standards:**

EN 61326-1:2013

**LVD Directive: 2014/35/EU**

**Report Number: E201687-D1011-1/A0/C0-CB**

**Report Date of Issue: 2/14/2018**


**Standards:**

IEC 61010-1 (Ed. 3)

IEC 61010-2-033 (Ed. 1)

**RoHS Directive: EU Directive 2015/863/EU (RoHS 3)**

The test reports show that the product fulfills the requirement in the EC Low Voltage Directive and EMC Directive and RoHS Directive for CE Marking. On this basis, together with the manufacturer's own documented production control, the manufacturer (or his European authorized representative) can in his EC Declaration of Conformity verify compliance with the EC Low Voltage Directive and EC EMC Directive and RoHS Directive.



Mark Sultzbach / QA Manager

Taipei, Taiwan July 13, 2021

## UK Declaration of Conformity

**Product:** FLIR DM66

**Name and address of the manufacturer:** Teledyne FLIR LLC,  
9 Townsend West,  
Nashua, NH 03063

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration: FLIR DM66.

The object of the declaration described above is in conformity with the relevant statutory requirements applicable to the specific product:

### Standards review between UK and EU

UK legislation refr.	UK designated standard*	EU regulation refr.	EU harmonised standard
<b>EMC</b>			
S.I. 2016 No. 1091	EN 61326-1:2013	2014/30/EU	EN 61326-1:2013
<b>LVD Directive</b>			
S.I. 2016 No. 1101	IEC 61010-1 (Ed. 3)	2014/35/EU	IEC 61010-1 (Ed. 3)
S.I. 2016 No. 1101	IEC 61010-2-033 (Ed. 1)	2014/35/EU	IEC 61010-2-033 (Ed. 1)
<b>RoHS</b>			
S.I. 2012 No. 3032	EN 50581:2012	2015/65/EU (RoHS)	EN 50581:2012

\* <https://www.gov.uk/guidance/designated-standards-2021-03-19>

Designated standards: EMC – consolidated list, version 1, 1 January 2021

Designated standards: RoHS – consolidated list, version 1, 1 January 2021

Referenced standards: general product safety – consolidated list, version 1, 1 January 2021

### FLIR Commercial Systems

Quality Assurance



Hank Tsai  
Quality Manager