

P/N: DM90

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Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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| Part number | DM90 |
| Part name | True RMS Industrial Multimeter |
| <p>The FLIR DM90 is an affordable true RMS digital multimeter with a type-K thermocouple—an ideal tool for electricians, service technicians and HVAC professionals to have on the job. Equipped with rich features, including LoZ, VFD mode, and μA current measurement capability, the FLIR DM90 gives you trusted readings to troubleshoot and repair a wide range of electrical and electronic systems. The FLIR DM90 is shipped fully tested and calibrated, and with proper use will provide years of reliable service.</p> | |
| <p>Design and functionality vital to professionals:</p> <ul style="list-style-type: none"> • Built-in worklight to help you access difficult locations with lighting issues. • Non-contact voltage detector. • Intuitive and simple-to-operate user interface. • Durable and drop tested to 3 m (9.8 ft.). • IP54 splash-proof rated. • 18 functions, including DC voltage, AC voltage, DC current (including μA), AC current (including μA), resistance, type-K thermocouple contact temperature, capacitance, frequency, diode, continuity. | |
| <p>Features: minimum, maximum, average, auto power off, hold, relative, peak hold.</p> | |
| Electrical measurement | |
| Maximum voltage | 1000 V DC or 1000 V AC RMS |
| Display count | 6000 |
| Frequency counter | <ul style="list-style-type: none"> • 100.00 Hz \pm (0.1% + 2D) • 1000.0 Hz \pm (0.1% + 2D) • 10.000 kHz \pm (0.1% + 2D) • 100.00 kHz \pm (0.1% + 2D) |
| Resistance | <ul style="list-style-type: none"> • 600.0 Ω \pm (0.9% + 5D) • 6.000 kΩ \pm (0.9% + 2D) • 60.00 kΩ \pm (0.9% + 2D) • 600.0 kΩ \pm (0.9% + 2D) • 6.000 MΩ \pm (0.9% + 2D) • 50.00 MΩ \pm (3.0% + 5D) |
| Continuity check | 600.0 Ω \pm (0.9% + 5D) |
| Diode test | 1.500 \pm (0.9% + 2D) |



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| Electrical measurement | |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Capacitance | <ul style="list-style-type: none"> • 1000 nF ± (1.9% + 5D) • 10.00 µF ± (1.9% + 2 digits) • 100.0 µF ± (0.9% + 2 digits) • 1.000 mF ± (0.9% + 2 digits) • 10.00 mF ± (0.9% + 2 digits) • 40.00 mF ± (2.0% + 20 digits) |
| Temperature, type-K thermocouple | <ul style="list-style-type: none"> • -40 to +752.0°F DMM ± (1.0% + 5.4°F)/ IGM ± (1.0% + 9°F) • -40 to +400°C DMM ± (1.0% + 3°C)/ IGM ± (1.0% + 5°C) |
| Measuring rate | 3 samples per second |
| Meter data | |
| Category rating | CAT IV—600 V, CAT III—1000 V |
| IP rating | IP54 |
| Drop test | 3 m (9.8 ft.) |
| Warranty | https://www.flir.com/testwarranty |
| Calibration cycle | Once per year, recommended |
| Certifications | |
| Certifications | UL, CE, FCC, CB |
| Safety standards compliance | IEC 61010-1 CAT IV—600 V, CAT III—1000 V |
| Power system | |
| Power requirements | 4 × 1.5 V AAA alkaline batteries or optional FLIR TA03 lithium polymer rechargeable battery system |
| Battery life, alkaline batteries | Approximately 110 hours with backlight and worklight off |
| Battery life, lithium polymer battery (optional) | Approximately 500 hours with backlight and worklight off |
| Auto power off | Default: 20 minutes |
| Environmental data | |
| Operating ambient temperatures and relative humidity (RH) | <ul style="list-style-type: none"> • -10 to +30°C (14–86°F), <85% RH • 30 to +40°C (86–104°F), <75% RH • 40–50°C (104–122°F), <45% RH |
| Storage temperature and RH | -20 to +60°C (-4 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 |
| Shock vibration | Per MIL-PRF-28800F Class 2 |
| Meter physical data | |
| Weight | 536 g (18.9 oz.) |
| Dimensions (L × W × H) | 200 mm × 95 mm × 49 mm (7.9 in. × 3.7 in. × 1.9 in.) |
| Material | PC/ABS |
| Color | Gray, black, and blue |



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| Shipping information | |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging type | Color box with view of product in clamshell |
| Packaging contents | DM90 FLIR meter, TA82 premium test leads, TA70 alligator clips, TA60 thermocouple probe with adapter, TA84 test lead holder storage/tripod accessory, 4 × AAA Energizer batteries, English-only quick start guide |
| Packaging weight | 1.2 kg (2.6 lb.) |
| Packaging dimensions (H × W × L) | 32 cm × 14 cm × 11 cm (12.6 in. × 5.5 in. × 4.3 in.) |
| Carton weight | 15 kg |
| 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 | 0793950370841 |
| UPC-12 | 793950370841 |
| Country of origin | Taiwan |
| Tariff code | 9030310000 |
| Technical support | |
| Website | http://support.flir.com |
| Accessories (included in the box) | |
| TA82 | Premium Silicone Test Leads |
| TA84 | Test Lead Storage/Tripod Accessory |
| TA70 | CAT IV Insulated Alligator Probes (Slip On) |
| TA60 | Thermocouple Adapter with Type K Probe |

Supplies & accessories:

- TA03-KIT; NiMH Rechargeable Battery Kit
- TA10; Protective case for DM9x and IM7x Series
- TA10-F; Protective Case for DM9x and TA72/74 Series
- TA15; Universal Soft Sided Case
- TA16; Pouch for FLIR Multimeters
- TA42; TA42 Belt Clip
- TA50; Magnetic Hanging Strap for DM9x, IM7x Series
- TA52; TA52 Magnetic Meter Mount
- TA60; Thermocouple probe with adapter
- TA70; CAT IV Insulated Alligator Probes
- TA72; Large Universal Flex Current Probe Accessory (25 cm)
- TA74; Large Universal Flex Current Probe Accessory (45 cm)
- TA80; CAT IV Silicone Test Leads