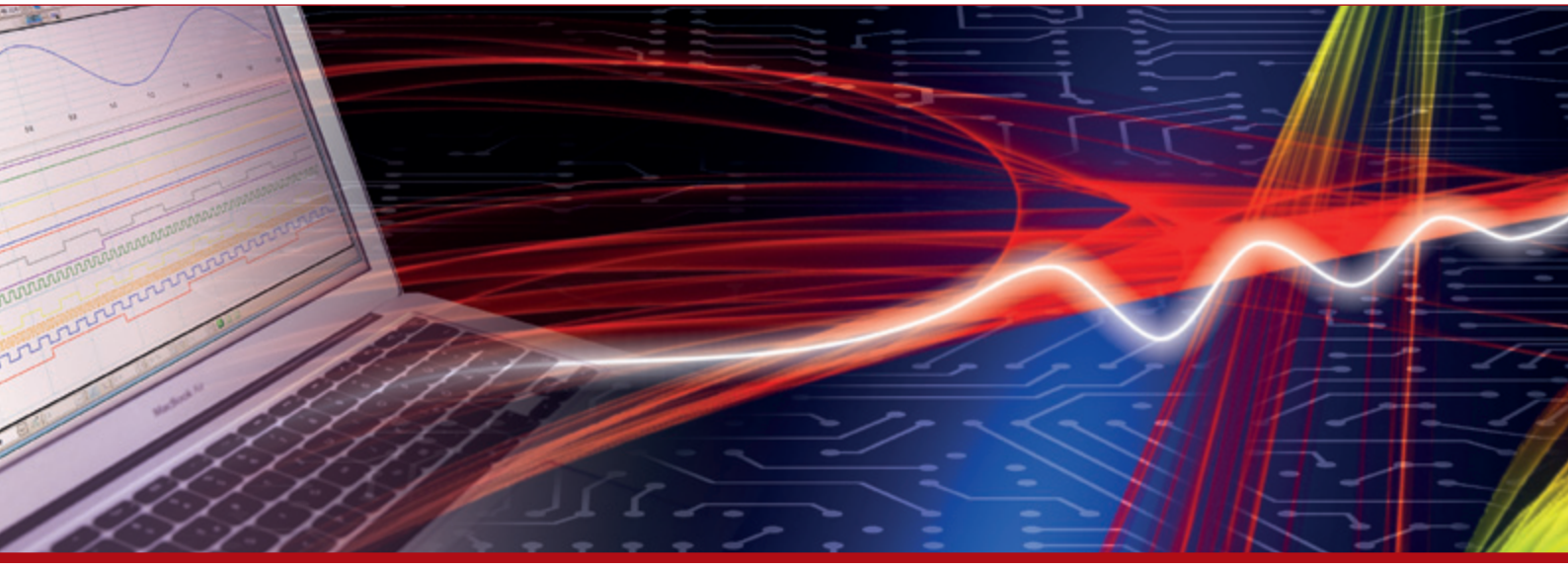
# Product Datasheet - Technical Specifications



More information in our Web-Shop at ▸ **www.meilhaus.com**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# FLIR DM93

## P/N: DM93



**Document identity**

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**Website**

http://www.flir.com

**Customer support**

http://support.flir.com

**Disclaimer**

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.


The FLIR DM93 is a world-class digital multimeter with advanced variable-frequency drive (VFD) filtering to help you accurately analyze non-traditional sine waves and noisy signals found in VFD-controlled equipment.

- VFD mode filters VFD signals and provides accurate voltage and frequency measurements during maintenance and troubleshooting.
- LoZ mode eliminates ghost voltage readings associated with long-run applications.
- Powerful work lights eliminate the need for a flashlight while performing tests in dim lighting.
- The data record feature captures electrical measurements and provides wireless data transfer.
- Integrated Bluetooth technology connects the FLIR DM93 to the FLIR Tools Mobile app on your compatible mobile device.
- METERLiNK technology wirelessly integrates electrical readings on your infrared image with FLIR thermal cameras.

Features:

Voltage and current, bright white LED backlight, analog bargraph, auto AC/DC voltage, minimum, maximum, average recording, auto power off, hold, relative, peak hold, store, recall.

| **Measurement** | |
|---|---|
| DC voltage | 1000.0 V ± 0.05% |
| AC voltage | 1000.0 V ± 0.5% |
| VFD voltage | 1000.0 V ± 0.5% |
| DC current | 10.000 A ± 0.2% |
| AC current | 10.000 A ± 1.0% |
| Resistance | 40.00 MΩ ± 0.2% |
| Continuity threshold | 30 Ω ± 0.2% |
| Frequency | 100.00 kHz ± 5 digits |
| Capacitance | 40.00 mF ± 0.9% |
| Temperature | –200 to 1200°C (–328 to 2192°F) ± 1.0% |
| Diode test | 2V ±1.5% |
| Maximum voltage applied to any terminal | 1000 V DC or 1000 V AC RMS |
| ACV Bandwidth | 20 kHz |
| ACA Bandwidth | 10 kHz |
| Measuring rate: | 10 samples per second |

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#DM93; r. 80055;

| **Meter data** | |
|---|---|
| Bluetooth range (maximum) | 10 m (32′) |
| Display counts | 40 000 |
| Category rating | CAT IV-600 V, CAT III-1000 V |
| Data recording | 20 000 points (125 days maximum) |
| Warranty | https://www.flir.com/testwarranty |
| Calibration cycle | Once per year (suggested) |

| **Certifications** | |
|---|---|
| Certifications | UL, CE, FCC, CB |
| Complies with safety standards | IEC 61010-1 CAT IV-600 V and CAT III-1000 V, IEC 61010-2-33 |

| **Power system** | |
|---|---|
| Power requirements | 6 × 1.5 V AAA alkaline batteries |
| Battery life | ~100 hours with alkaline batteries (backlight, work light, and Bluetooth off) |
| Low battery voltage | ~7.0 V |
| Auto power off | Default: 10 minutes |

| **Environmental data** | |
|---|---|
| Drop test | 3 m (9.8 ft.) |
| IP rating | IP54 dust-protected and splash-resistant |
| Operating ambient temperatures and relative humidity (RH) | • –10 to 30°C (14–86°F), <85% RH<br>• 30–40°C (86–104°F), <75% RH<br>• 40–50°C (104–122°F), <45% RH |
| Storage temperature and RH | –30 to 60°C (–22 to 140°F), 0–80% RH (batteries not fitted) |
| Temperature coefficient | 0.1 × (specified accuracy)/°C, <18°C, >28°C |
| Operating altitude | 2000 m (6550′) |
| Pollution degree | 2 |
| Electromagnetic compatibility | EN 61326-1 |
| Shock vibration | Random vibration per MIL-PRF-28800f Class 2 (5–55 Hz, 3*g* maximum) |

| **Meter physical data** | |
|---|---|
| Weight | 465 g (1 lb.) including batteries |
| Dimensions (H × W × L) | 52 mm × 83 mm × 188 mm (2.0″ × 3.2″ × 7.4″) |
| Material | • Polycarbonate andacrylonitrile butadiene styrene (PC-ABS)<br>• Thermoplastic elastomer (TPE) |
| Color | Gray, black |

| **Shipping information** | |
|---|---|
| Packaging type | Color box with view of product in clamshell |
| Packaging contents | • DM93 FLIR meter<br>• TA80 premium test leads<br>• Type K temperature probe (400°F, 204°C)<br>• Magnetic hanging strap<br>• 6 × AAA Energizer batteries<br>• User manual/CD |
| Packaging weight | 1.04 kg (2.29 lb.) |

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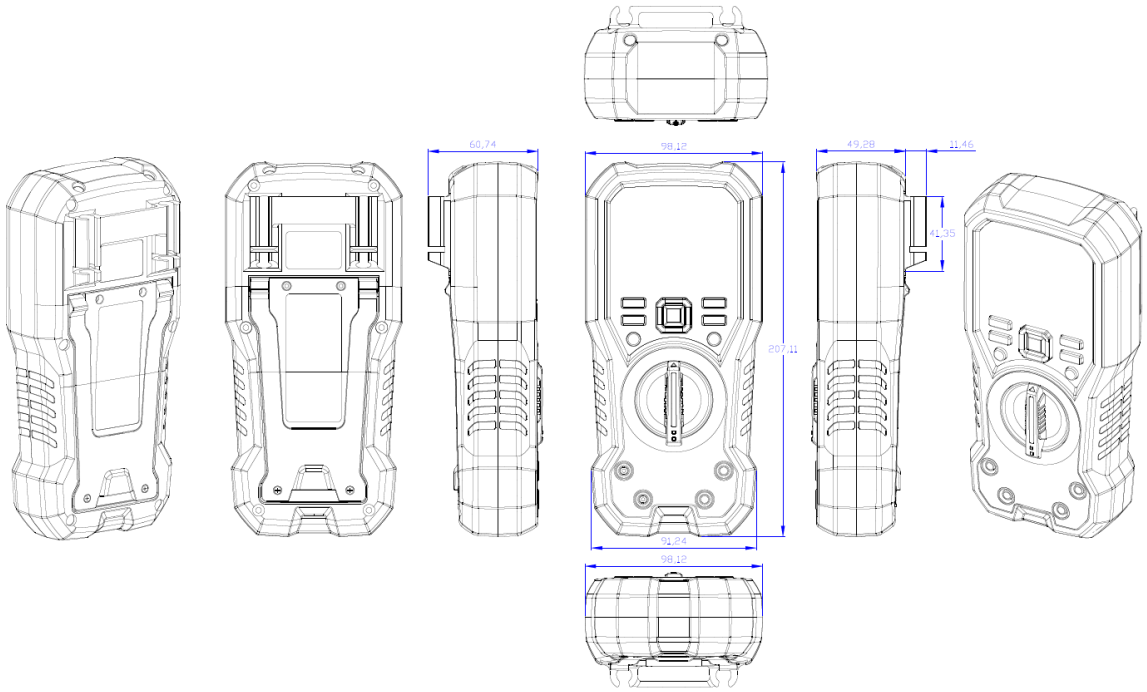
| Shipping information | |
|---|---|
| Packaging dimensions (H × W × L) | 11 cm × 14 cm × 32 cm (4.3″ × 5.5″ × 12.6″) |
| Carton weight | 20.8 kg (45.9 lb.) |
| Carton dimensions (H × W × L) | 65 cm × 30 cm × 56 cm (25.6″ × 11.8″ × 22.0″) |
| Carton quantity | 20 |
| EAN-13 | 0793950370933 |
| UPC-12 | 793950370933 |
| Country of origin | Taiwan |
| Tariff code | 9030310000 |

| Technical support | |
|---|---|
| Website | http://support.flir.com |

### 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




| Modified Date | Modified By |
|---|---|
| Monday, March 17, 2014 | T&M Engineering |
| **Description** | |
| FLIR DM93, Units in mm | |