### **\$FLIR**



#### INDUSTRIAL TRMS MULTIMETERS

# FLIR DM90/91™

The FLIR DM90 and DM91 are affordable, safe, and reliable digital multimeters for a wide range of electrical and electronic system applications. With durable design, intuitive user interfaces, and comprehensive features covering high and low voltage applications, the DM90 and DM91 are uniquely positioned to help you trouble-shoot electrical, electronic and HVAC/R systems. The DM91 is also enhanced with Bluetooth® technology, so you can connect via METERLiNK® to FLIR infrared cameras, or to mobile devices running FLIR Tools™ or the FLIR InSite™ workflow management system.

www.flir.com/test



## FAST & EFFECTIVE TROUBLESHOOTING

Rich feature set ensures safe and accurate operations

- Diagnose complex systems with high and low voltage measurement capabilities
- Measure True RMS, LoZ, and VFD, as well as microamp and milliamp current
- Assess temperatures up to 400°C (752°F) with Type-K thermocouple
- Work safely with built-in, non-contact AC voltage



#### **WORK EFFICIENTLY**

Designed and built to make your job easier

- User-friendly design with an intuitive interface and enhanced ergonomics
- Work longer with flexible battery options, powerful LED worklights, and rugged, drop-tested design
- Detect and document intermittent trends using the datalogging mode with on-board storage of 40k measurements\*
- Rely on the protection of CAT IV-600V, CAT III-1000V safety ratings



#### **DOCUMENT & SHARE RESULTS**

View and share wirelesssly for improved workflow

- Send readings via METERLINK to compatible FLIR infrared cameras to embed data into live or saved thermal images\*
- Wirelessly connect to FLIR Tools or the FLIR InSite workflow management application, for efficient troubleshooting and streamlined inspections\*
- \* FLIR DM91 model only.

#### **SPECIFICATIONS**

| Features by Meter                     | DM90                               | DM91                              |  |
|---------------------------------------|------------------------------------|-----------------------------------|--|
| Connectivity                          | _                                  | Bluetooth®                        |  |
| Data Logging & Storage                | _                                  | 1 file of 40k scalar measurements |  |
| Measurements-Both Models              |                                    |                                   |  |
| True RMS                              | Yes                                | Yes                               |  |
|                                       | Range                              | Basic Accuracy                    |  |
| AC / DC Volts                         | 1000 V                             | ±1.0% / 0.09%                     |  |
| AC / DC mVolt                         | 600.0 mV                           | ±1.0% / 0.5%                      |  |
| VFD AC Volts                          | 1000 V                             | ±1.0%                             |  |
| AC / DC LoZ V                         | 1000 V                             | ±2.0%                             |  |
| AC / DC Amps                          | 10.00 A                            | ±1.5% / 1.0%                      |  |
| AC / DC mAmps                         | 400.0 mA                           | ±1.5% / 1.0%                      |  |
| AC / DC µAmps                         | 4,000 μΑ                           | ±1.0%                             |  |
| Resistance                            | 6.000 MΩ<br>50.00 MΩ               | ±0.9%<br>±3.0%                    |  |
| Capacitance                           | 10.00 mF                           | ±1.9%                             |  |
| Diode Test                            | 1.500 V                            | ±0.9%                             |  |
| Frequency Counter                     | 100.00 kHz                         | ±0.1%                             |  |
| Temperature, Type-K Thermo-<br>couple | -40°F to 752.0°F<br>-40°C to 400°C | ±1.0% + 5.4°F<br>±1.0% + 3°C      |  |

| Additional Measurements | DM90  | DM91   |  |  |
|-------------------------|---|--|--|--|
| Continuity Check        | 600 Ω   | 20 Ω and 200 Ω   |  |  |
| Measuring Rate          | 3 samples per second  | 3 samples per second   |  |  |
| General Information     |   |  |  |  |
| Auto Power Off          | Yes   | Yes  |  |  |
| Worklights              | Yes   | Yes  |  |  |
| Battery                 | 4 AAA batteries; optional<br>TA04 Li-Poly rechargeable<br>battery   | 3 AA batteries; optional<br>TA04 Li-Poly rechargeable<br>battery |  |  |
| Drop Test               | 3 m   | 3 m  |  |  |
| IP Rating               | IP54  | IP40   |  |  |
| Safety Category Rating  | CAT IV-600V, CAT III-1000V  | CAT IV-600V, CAT III-1000V                                       |  |  |
| Size (L x W x H)        | 200 × 95 × 49 mm<br>(7.9 × 3.7 × 1.9 in)  | 200 × 95 × 49 mm<br>(7.9 × 3.7 × 1.9 in)                         |  |  |
| Weight                  | 536 g (18.9 oz)   | 535 g (18.8 oz)  |  |  |
| Warranty                | Limited lifetime warranty   | Limited lifetime warranty  |  |  |
| Box Contents            |   |  |  |  |
|                         | FLIR digital multimeter, batteries, silicone test leads, alliqator clips, test lead storage/holder attachment, Type-K |  |  |  |

| Ordering Information  | Order#       |
|---|--------------|
| FLIR DM90 True RMS Industrial Multimeter                            | 793950370841 |
| FLIR DM91 Industrial TRMS Multimeter with Datalogging, Connectivity | 793950370919 |

thermocouple, soft carrying case

For a complete list of available accessories, go to: flir.com/store/instruments/testaccessories

Specifications are subject to change without notice. For the most up-to-date specs, go to www.flir.com  $\,$ 

#### CORPORATE HEADQUARTERS

FLIR Systems, Inc. 27700 SW Parkway Ave. Wilsonville, OR 97070 PH: +1 877.773.3547

#### NASHUA

FLIR Systems, Inc. 9 Townsend West Nashua, NH 03063 USA PH: +1 866.477.3687

#### EUROPE

FLIR Systems Luxemburgstraat 2 2321 Meer Belgium PH: +32 (0) 3665 5100

#### UNITED KINGDOM

FLIR Systems UK 2 Kings Hill Av. - Kings Hill West Malling - Kent ME19 4AQ United Kingdom Tel.: +44 (0)1732 220 011

TIPE TAME TO THE T



The World's Sixth Sense®

www.flir.com NASDAQ: FLIR

Equipment described herein is subject to US export regulations and may require a license prior to export. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2017 FLIR Systems, Inc. All rights reserved. 09/28/17