

## 8845A/8846A Digital Multimeters accessory guide

### Technical Data

#### Introduction

The 8845A/8846A Digital Multimeters are complemented by a comprehensive range of accessories, all of which are designed to help you get the most from your multimeter. This data sheet explains in more detail the makeup of key accessories and offers technical specifications where required.

#### Test leads, probes, and probe tips

##### TL71 Premium Test Lead Set

- Included with 8845A and 8846A
- One pair (red, black) comfort grip probes with silicone insulated, right-angle test leads
- Probe tip size: 2 mm
- Recommended for  $\mu\text{V}$  measurements
- CAT IV 600 V, CAT III 1000 V, 10 A rating. UL listed.
- One-year warranty



##### TL910 Precision Electronic Probe Set

- Very small 1 mm tips to access hard-to-reach test points
- Probe tip length up to 100 mm, test lead length: 1 m
- Included : 3 sets of spring loaded gold tips and 2 sets of stainless steel tips
- CAT IV 600 V, CAT III 1000 V, 3 A rating
- One-year warranty



##### TL80A Basic Electronic DMM Test Set

- One pair (red, black) each 1 meter long silicone test lead set, alligator clip and probe tip extender
- Probe tip size: 2 mm
- C75 soft carrying case
- CAT II 300 V. UL listed.
- One-year warranty



##### 8845A-TPIT Test Probe IC Tip Set

- One pair (red and black)
- Snaps onto DMM probes with .080 in (2 mm) O.D. Tips
- Designed to IEC 1010 standard
- Pin tip jack at the adapter end is recessed for added insulation protection
- Adapter allows easy access to leads of through-hole IC's
- Insulation at the tip fits between leads to prevent accidental shorting



#### Specifications

|                   |  |
|-------------------|--|
| Materials         | Tip: Stainless steel, nickel plated<br>Body: Polypropylene, fire retardant, UL94 V-2 rated |
| Color             | One red, one black   |
| Safety            | IEC 1010-2-031, Category II, P2 compliant  |
| Operating voltage | 300 V rms/dc   |
| Current           | 3 A  |

**Test leads, probes, and probe tips cont.**

**8845A-EFPT Fine Point Extended Test Probe Adapter Set**

- One pair (red and black)
- Snaps onto DMM probes with .080 in (2 mm) O.D. Tips
- Designed to IEC 1010 standard
- Adapter allows access to hard-to-reach test points
- Tips are insulated to the point to prevent shorting of adjacent components



**Specifications**

|                   |  |
|-------------------|--|
| Materials         | Tip: Stainless steel Tip insulation: Kynar Body: Polypropylene, fire retardant, UL94 V-2 rated |
| Color             | One red, one black   |
| Safety            | IEC 1010-2-031, Category II, P2 compliant  |
| Operating voltage | 300 V rms/dc   |
| Current           | 3 A  |

**TL2x4W-PT 2X4 Wire Ohms Test Lead**

- Perform 4-wire measurements with only two test leads
- Two conductors per lead (one source and one measure)
- Excellent resolution and accuracy



**Specifications**

|  |   |
|--|---|
| Maximum voltage between test lead and ground: 1000 V             |   |
| Maximum transient overvoltage and input voltage combined: 1000 V |   |
| Maximum current: 500 mA  |   |
| Temperature  | Operating: 0 to 55 °C < 90 % relative humidity<br>Storage: -40° C to 170 °C                       |
| Altitude   | 2000 m  |
| Safety   | Complies with EN/IED 61010-031 and CAN/CSA C22.2 No. 61010-1-04 for Measurement Category 1 1000 V |

**4-wire short**

- 4-terminal shorting bar
- 4 mm banana terminals sized and orientated to short DMM input source and sense terminals
- Used to null out front end offsets or as required by the calibration procedure



**100 Ohm RTD Temperature Probe**

- Manufactured using a coil suspension element design for increased shock and vibration resistance
- Mineral-insulated sheath with a minimum bend radius of 19 mm (3/4 in) for flexibility and durability



**Specifications**

|  |   |
|--|---|
| Resistance   | Nominal 100 Ω   |
| Temperature coefficient  | 0.00385 Ω/Ω °C nominal  |
| Temperature range  | -200 °C to 300 °C (transition and cable temperature: 0 °C to 150 °C)  |
| Drift rate   | + 0.13 °C at 0 °C after 1000 hours at 300 °C  |
| Sheath material  | 316 stainless steel   |
| Leads  | Teflon™-insulated, nickel-plated stranded copper, 22 AWG  |
| Termination  | 4-wire banana   |
| Time constant  | Four seconds maximum for 63.2 % response to step change in water moving at 3 fps  |
| Bending radius   | 19 mm (3/4 in) except for 50 mm (2 in) area of sheath near tip  |
| Calibration  | Includes manufacturer's NIST-traceable calibration and table with R vs. T values in 1 °C increments from -196 °C to 300 °C. Callendar – van Dusen coefficients included |
| Immersion  | At least 100 mm (4 in) recommended  |
| Accuracy (includes calibration uncertainty and short-term stability) | ± 0.050 °C at -196 °C<br>± 0.050 °C at 0 °C<br>± 0.051 °C at 200 °C<br>± 0.055 °C at 300 °C   |
| Size   | 9 in L x 3/16 in diameter   |
| Marking  | Each RTD is marked with the Fluke name and part number  |

## Memory

### 884X-512M 12 Mbyte memory

- Used on the 8846A only
- Plugs into USB device host port on the 8846A front panel
- Fully compliant with Universal Serial Bus Specification v2.0
- Dual LED indicates power and busy status



### 884X-1G USBMemory 1 GB

- Used on the 8846A only
- Plugs into USB device host port on the 8846A front panel
- Fully compliant with Universal Serial Bus Specification v2.0
- Dual LED indicates power and busy status

## Interface cables

### 884X-USB USB to RS-232 Cable Adapter

- USB to serial RS-232 interface adapter cable
- Converts from standard DB 9-pin serial to USB 2.0
- Requires an available PC communications port
- 1.65 m cable length
- Includes cable and USB driver disk (CD-ROM)



### 884X-ETH Ethernet Interface Cable

- 8-conductor (4 twisted pair) unshielded cable (48 inches) with an 8-position modular plug (RJ45) on each end, with an overmold boot/strain relief
- Rated working voltage: 100 V rms max.
- Operating temperature range: -40 °C to + 80 °C



### RS43 RS-232 cable

- RS43, 2 m
- DB9-to-DB9 for PC to unit

### Y8021 and Y8022 IEEE-488 cables

- Shielded IEEE 488 one-meter (39.4 inches) and two-meter (78.8 inches) cables, with plug and jack at each end

## Software

### FlukeView Forms

- Document, store and analyze individual readings or series of measurements, then convert them into professional-looking documents
- FlukeView Forms Basic, included with 8845A/8846A, transfers data points from the meter to a PC, displays readings in table or graphical form
- For a larger array of forms, or to use FlukeView® Forms Designer to customize your forms, upgrade to FlukeView® Forms version 3.0 with FVF-UG



| Model Name | Description   |
|------------|---|
| FVF-SC5    | <b>FlukeView Forms, Basic Software Includes:</b> <ul style="list-style-type: none"> <li>• CD for FlukeView Forms Basic</li> <li>• Users manual, registration card, and software license agreement</li> </ul>  |
| FVF-UG     | <b>FlukeView Forms, Software Upgrade – No Cable Includes:</b> <ul style="list-style-type: none"> <li>• CD for FlukeView Forms Version 3.0</li> <li>• Users manual, registration card, and software license agreement</li> </ul>   |
| FVF-SC4    | <b>Extended FlukeView Forms with USB Cable Includes:</b> <ul style="list-style-type: none"> <li>• CD for FlukeView Forms Version 3.0</li> <li>• PC-to-meter serial-to-USB adapter cable</li> <li>• Users manual, registration card, and software license agreement</li> </ul> |

### FlukeView Forms Requirements

|  |  |
|--|--|
| Operating system for FVF-SC2 and FVF-Basic | Windows 98 Second Edition, Windows Me, Windows 2000, or Windows XP   |
| Operating system for FVF-SC1 and FVF-SC3   | Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, or Windows XP                                  |
| Minimum PC Hardware                        | Pentium class or better microprocessor; 32 MB RAM; 70 MB hard disk space (100 MB to install); Serial or USB port |

**Other accessories**

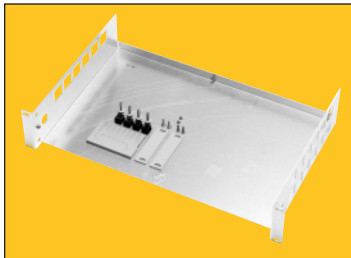
**884x-CASE**

- Tough molded plastic case with die cut foam to hold and protect the 8845A or 8846A meter
- Accessories and manual compartments
- One-year warranty



**Rack Mount Kit**

- Y8846S allows meter to be mounted in a standard 19-inch rack
- Y8846D enables mounting two meters side-by-side in a standard 19-inch rack



**Parts list**

| Quantity |        | Description                           |
|----------|--------|---------------------------------------|
| Y8846S   | Y8846D |                                       |
| 1        | 2      | Small filler plate                    |
| 1        | NA     | Large filler plate                    |
| 1        | NA     | Large filler plate bracket            |
| 1        | 1      | Rack mount tray                       |
| NA       | 1      | Dual center mount                     |
| 2        | 2      | #8-32 x 1/2 in panhead Philips screws |
| 1        | 2      | #6-32 x 1/4 in panhead Philips screws |
| 4        | 4      | #10-32 x 3/4 in Philips rack screws   |
| 1        | 2      | #6-32 x 1/2 in panhead Philips screws |
| 4        | 4      | #10-32 rack nuts                      |

**Calibration and Service**

- Traceable calibration with data
- Traceable calibration without data
- Accredited calibration
- Repair services
- Extended warranty agreements
- Calibration and repair coverage services
- Product upgrades

\*Contact your local Fluke service center for details and availability

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