

# Capacitance Meters

## Specifications

|                            | 890   | 830  | 810C  |
|----------------------------|---|--|---|
| <b>CAPACITANCE</b>         |   |  |   |
| RANGE<br>(Best Resolution) | 500pF (0.1pF)<br>5nF (1pF)<br>50nF (10pF)<br>500nF (0.1nF)<br>5μF (1nF)<br>50μF (10nF)<br>500μF (0.1μF)<br>5000μF (1μF)<br>50mF (10μF)                                      | 10 automatically<br>selected ranges<br>199.9pF to 19.99μF<br>(0.1pF on lowest range,<br>otherwise 0.05% of FS)<br>20μF to 199.9mF<br>(0.05% of full scale) | 200pF (0.1pF)<br>2nF (1pF)<br>20nF (10pF)<br>200nF (100pF)<br>2μF (1nF)<br>20μF (10nF)<br>200μF (100nF)<br>2000μF (1μF)<br>20mF (10μF)  |
| ACCURACY                   | ±(1%rdg + 10dgt)<br>±(1%rdg + 3dgt)<br>±(1%rdg + 3dgt)<br>±(1%rdg + 3dgt)<br>±(1%rdg + 3dgt)<br>±(1%rdg + 3dgt)<br>±(2%rdg + 3dgt)*<br>±(2%rdg + 3dgt)*<br>±(2%rdg + 3dgt)* | ±(0.2%rdg + 1dgt + 0.5pF)<br>±(1%rdg + 2dgt)   | ±(0.5%rdg + 1dgt + 0.5pF)<br>±(0.5%rdg + 1dgt)<br>±(0.5%rdg + 1dgt)<br>±(0.5%rdg + 1dgt)<br>±(0.5%rdg + 1dgt)<br>±(0.5%rdg + 1dgt)<br>±(0.5%rdg + 1dgt)<br>±(2%rdg + 1dgt)<br>±(4%rdg + 1dgt) |

## POWER SOURCE

|                           |   |   |  |
|---------------------------|---|---|--|
|                           | 9V Battery                                | 4 C Batteries                           | 9V Battery                               |
| BATTERY LIFE              | 200 hours typ. (alkaline)                 | 20 hours typ. (alkaline)                | 200 hours typ. (alkaline)                |
| DISPLAY                   | 4 digit LCD (dual)                        | 3 1/2 digit LCD                         | 3 1/2 digit LCD                          |
| DIGIT HEIGHT              | 0.5/0.3" (13/7.6mm)                       | 0.5" (13mm)                             | 0.56" (14mm)                             |
| OPERATING TEMPERATURE     | 32° to 122°F<br>(0° to 50°C)              | 32° to 122°F**<br>(0° to 50°C)**        | 32° to 104°F<br>(0° to 40°C)             |
| STORAGE TEMPERATURE       | -4° to 140°F<br>(-20° to 60°C)            | -1° to 125°F<br>(-18° to 52°C)          | 14° to 140°F <70% RH<br>(-10° to 60°C)   |
| DIMENSIONS<br>(L x W x D) | 7.56 x 3.54 x 1.46"<br>(192 x 90 x 37 mm) | 6.4 x 4.4 x 2.4"<br>(160 x 110 x 60 mm) | 6.75 x 3.0 x 2.25"<br>(171 x 76 x 57 mm) |
| WEIGHT                    | 17.64 oz. (500g)                          | 1.6 lbs. (725g)                         | 11.3 oz. (200g)                          |

Three Year Warranty

One Year Warranty

## Accessories

|   |                                      |  |                             |
|---|--------------------------------------|--|-----------------------------|
| SUPPLIED:                               | Test Leads, Manual, Battery          | Manual   | Test Leads, Manual, Battery |
| OPTIONAL:                               | TL-8 SMD Probe<br>AK-890 RS-232 Pkg. | TL-8 SMD Probe<br>BC-28 AC adapter/Charger<br>BP-28 Battery Pack | TL-8 SMD Probe              |
| CARRYING CASE: LC-29B<br>(Not included) |                                      | LC-28A   | LC-29B                      |

\* >2mF, NO Spec. \*\* 59° to 95°F (15° to 35°C) for specified accuracy

## Additional Specifications

|                       | model<br>810C                               |
|-----------------------|---|
| EXCITATION VOLTAGE    | <3.5 V Max.(approximate)                    |
| ZERO ADJUSTMENT RANGE | +20 pF typical                              |
| PROTECTION            | Input protected by 0.1A/ 250 V Fast Acting. |
| MEASUREMENT RATE      | 2 per second, nominal.                      |

## Additional Specifications

|                     | model<br>830  |
|---------------------|---|
| HOLD ACCURACY       | all specs between 180 & 1999 counts same as Auto: for all readings between 0 and 179 counts add: 0.1% for full scale to 19.99 mF; 0.5% of full scale from 19.99 mF to 199.9 mF. |
| READING TIME        | 0.4-1.0 sec to 20 mF; increasing to 6 sec at 200 mF.  |
| ZERO CONTROL        | Can compensate up to 25 pF of test lead capacitance.  |
| OVERRANGE INDICATOR | Plus (+) sign with blank display and mF indicates on.   |
| POWER SOURCE        | 4 "C" size cells, nicad, alkaline, or zinc carbon, with provision for AC adapter/charger. (Note: batteries and charger are not supplied.)                                       |

## Model 810C Capacitance Meter

The Model 810C Capacitance Meter is a compact capacitance meter, designed for accurate measurement of capacitive components. It features direct plug-in test sockets and test lead jacks. A zero adjustment knob is also provided to "zero" test lead capacitance.



810C

- Zero adjustment knob
- Capacitor test sockets

- Fuse protected
- Protective rubber boot

## Model 830 Capacitance Meter

The Model 830 Capacitance Meter is a highly accurate capacitance meter. It is fully autoranging and can be powered from a choice of alkaline or NiMH batteries or from AC/DC adapter/charger (sold separately). A selectable range hold feature provides for fast batch testing of large value capacitors.



830

- Auto ranging
- Selectable range hold feature
- Zero adjustment knob
- Capacitor test socket and test lead jacks

## Model 890

The Model 890 Capacitance Meter features a large LCD with dual display, 5,000 counts resolution, and 10 automatically selected ranges with full scale value from 0.1pF to 50mF. Designed to meet the latest international safety standards, the meter's dedicated chip and microprocessor allow programmable high/low limits or pre-programmed standard capacitor tolerances, making it ideal for measuring values, inspection, sorting capacitors and testing capacitors against standard tolerances. Optional software and cabling is available for PC based data logging and monitoring. The 890 is a unique value and is indispensable on the inspection bench.



890

- Dual display simultaneously displays value and deviation from selected tolerance
- Sort on preset tolerance of 1, 5, 10%
- Program unique values to sort for specific circuit applications
- RS-232 interface for data logging software available