

# True RMS Multimeter

## Model: 87V



### Features:

- 1- ATEX safety rating for use in Ex-zone 1 and zone 2
- 2- CAT IV 600 V electrical safety rating
- 3- Unique function for accurate voltage and frequency measurements on variable speed motor drives (VSD's)
- 4- Large display with bright, two-level backlight makes the 87V Ex easy to read in all lighting environments
- 5- Built-in thermometer (probe included)
- 6- True-rms ac voltage and current for accurate measurements on non-linear signals
- 7- 4-1/2 digit mode for precise measurements (20,000 counts)
- 8- Measure up to 1000 V and 10 A (ac/dc)
- 9- Frequency to 200 kHz and % duty cycle
- 10- Resistance, continuity and diode test
- 11- 10,000  $\mu$ F capacitance range for components and motor caps
- 12- Min/Max-Average and Peak capture to record transients and variations automatically
- 13- Relative mode to remove test lead interference on resistance measurements
- 14- Auto and manual ranging for maximum flexibility
- 15- Analog bargraph for fast changing or unstable signals
- 16- Input Alert provides

### Specifications:

|                                               |                                                                                                                                                |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage AC                                    | Maximum voltage: 1000 V<br>Accuracy: $\pm (0.05 \% + 1)$<br>Maximum resolution: 10 $\mu$ V                                                     |
| Voltage AC                                    | Maximum voltage: 1000 V<br>Accuracy: $\pm (0.7 \% + 2)$ True-rms<br>AC bandwidth: 20 kHz<br>Maximum resolution: 10 $\mu$ V                     |
| Current DC                                    | Maximum amps: 10 A (20 A for 30 seconds max)<br>Amps accuracy: $\pm (0.2 \% + 2)$<br>Maximum resolution: 0.01 $\mu$ A                          |
| Current AC                                    | Maximum amps: 10 A (20 A for 30 seconds max)<br>Amps accuracy: $\pm (1.0 \% + 2)$<br>Maximum resolution: True-rms 0.01 $\mu$ A                 |
| Resistance                                    | Maximum resistance: 50 M $\Omega$<br>Accuracy: $\pm (0.2 \% + 1)$<br>Maximum resolution: 0.01 $\Omega$                                         |
| Capacitance                                   | Maximum capacitance: 9,999 $\mu$ F<br>Accuracy: $\pm (1 \% + 2)$<br>Maximum resolution: 0.001 nF                                               |
| Frequency                                     | Maximum frequency: 200 kHz<br>Accuracy: $\pm (0.005 \% + 1)$<br>Maximum resolution: 0.001 Hz                                                   |
| Duty Cycle                                    | Maximum duty cycle: 99.90 %<br>Accuracy: $\pm (0.2 \% \text{ per kHz} + 0.1 \%)$<br>Maximum resolution: 0.10 %                                 |
| Temperature                                   | Range: -200.0 $^{\circ}$ C to 1090 $^{\circ}$ C (-328 $^{\circ}$ F to 1994 $^{\circ}$ F) excluding probe                                       |
| 80BK Temperature Probe                        | Range: -40.0 $^{\circ}$ C to 260 $^{\circ}$ C (-40 $^{\circ}$ F to 500 $^{\circ}$ F)<br>Accuracy: 2.2 $^{\circ}$ C or 2 % whichever is greater |
| Conductance                                   | Maximum conductance: 60.00 nS<br>Accuracy: $\pm (1.0 \% + 10)$<br>Maximum resolution: 0.001 nS                                                 |
| Diode                                         | Range: 3 V<br>Resolution: 1 mV<br>Accuracy: $\pm (2 \% + 1)$                                                                                   |
| Duty Cycle Range                              | Accuracy: Within $\pm (0.2 \% \text{ per kHz} + 0.1 \%)$                                                                                       |
| Measurements restriction in Ex-hazardous area | Voltage: 65 V<br>Current: 5 A                                                                                                                  |