

# sanwa®

## TOKYO JAPAN

### DIGITAL MULTIMETER

# PC7000

### APPLICATIONS AND FEATURES

This instrument is a portable multimeter designed for the measurement of low-voltage circuit.

This is used at small communications equipments, home electric appliances, voltage of lump line, various types of batteries, and circuit analyses with additional functions.

- AC True RMS / 50000 count(500000 count for DCV)
- 0.03% best accuracy
- Dual display capability with Backlight to simultaneously display voltage/current/frequency and AC/DC components of voltage/current
- High speed bar graph
- Low Pass Filter(LPF) useful for measurement of Variable Frequency Drive(VFD)
- Current(mA/μA)% 4-20mA measurement
- Conductance measurement / Capacitance measurement
- Temperature measurement(with K type thermocouple sensor : -50°C~1000°C)
- Frequency measurement(AC sine wave only)
- Logic frequency measurement
- Duty cycle measurement
- MAX, MIN, AVE value hold / Data hold / Range hold
- Relative value
- Auto power save(17min after the last operation)(cancelable)
- Backlight
- Protective holster with wall hanger and lead holder / Tilt stand
- PC Link system with optical Link USB cable (KB-USB7) and software(PC Link7)

\*KB-USB7 and PC Link7 are optional accessories



### SPECIFICATIONS

|                 | Measuring range                                                  | Best accuracy | Resolution | Input impedance |
|-----------------|------------------------------------------------------------------|---------------|------------|-----------------|
| DCV             | 500m/5/50/500/1000V                                              | ±(0.03%+2)    | 0.01mV     | 10MΩ            |
| ACV             | 500m/5/50/500/1000V                                              | ±(0.5%+40)    | 0.01mV     |                 |
| DCA             | 500μ/5000μ/50m/500m/5/10A                                        | ±(0.1%+20)    | 0.01μA     |                 |
| ACA             | 500μ/5000μ/50m/500m/5/10A                                        | ±(0.6%+40)    | 0.01μA     |                 |
| Resistance      | 500/5k/50k/500k/5M/50MΩ/99.99nS *1                               | ±(0.2%+6)     | 0.01Ω      |                 |
| Capacitance     | 50n/500n/5μ/50μ/500μ/5m/25mF                                     | ±(0.8%+3)*2   | 0.01nF     |                 |
| Temperature     | -50°C~1000°C(thermocouple K type)                                | ±(0.3%+2)     | 0.1°C      |                 |
| Frequency       | 10Hz~200kHz                                                      | ±(0.02%+4)    | 0.001Hz    |                 |
| Logic frequency | 5Hz~2MHz                                                         | ±(0.002%+4)   | 0.001Hz    |                 |
| Duty cycle      | 0.1%~99.99%                                                      | ±(3d/kHz+2)   | 0.01%      |                 |
| dBm             | -29.83dBm~54.25dBm                                               | ±(0.25dB+2)   | 0.01dB     |                 |
| Continuity      | Buzzer sounds at between 20Ω and 200Ω Open voltage: approx. 1.3V |               |            |                 |
| Diode test      | Open voltage: approx. 3V                                         |               |            |                 |

\*1 nS(Conductance): High-value resistance of Giga-Ohms for leakage measurements. Conductance is the inverse of Resistance, that is S=1/Ω or nS=1/GΩ

\*2 Accuracy of film capacitor or equivalent with low leakage.

A battery for monitoring has been installed prior to shipment from the factory. It may be discharged before the expiration of the described battery life. This battery is used to check the functions and performance of the product. Specifications and external appearance of the product described above may be revised for modification without prior notice.

|                               |                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------|
| Operation method              | Δ-Σ                                                                                  |
| AC measuring method           | True RMS                                                                             |
| Display                       | 50000 count and 500000 count                                                         |
| Range selection               | Auto and manual ranges                                                               |
| Overload                      | "O.L." is displayed                                                                  |
| Polarity                      | Automatic selection(only "-" is displayed when negative voltage is inputted.)        |
| Battery low warning           | Battery ( ) mark lights when the internal battery's power is below approx. 7V        |
| Sampling rate                 | Numeric part : 5 times/sec(50,000 count mode), 1.25 times/sec(500,000 count mode)    |
| Power consumption             | Bar graph part : 60 times/sec                                                        |
| Bandwidth                     | Approx. 48mW Approx. 0.45mW(Auto power save)                                         |
|                               | V : 40Hz~3kHz, 3kHz~20kHz(below 99.99V)                                              |
|                               | A : 40Hz~1kHz                                                                        |
| EN61010-1 CAT.II              | 1000V                                                                                |
| EN61010-1 CAT.III             | 600V                                                                                 |
| Fuse / Battery                | 11A/1000V IR20kA Φ10x38mm 6LR61(9V) x 1                                              |
|                               | 0.4A/1000V IR30kA Φ6.3x32mm                                                          |
| Size / Mass                   | H184 x W86 x D52mm / 430g                                                            |
| Standard accessories included | Test Lead(TL-23a), Holster(H-700), Thermocouple K type (K-250PC), Instruction Manual |

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