

33XR

Manual ranging digital multimeter with temperature and capacitance for field service technicians.



- Frequency to 40 MHz, temperature to 1832 °F, capacitance to 4000 µF
- Input warning tone when test leads are in wrong jack
- 1000 V/750 V dc/ac
- 10 Amps ac/dc, fully safety fused
- Resistance to 4 MΩ
- Continuity beeper
- Min/Max, Relative, Peak and Data Hold
- Auto power off to save battery life
- Separate door for easy battery and fuse access
- Magne-Grip™ Holster with magnetic hanging strap
- CAT III 600 V, CAT II 1000 V rated
- UL (cULus) listed
- One-year warranty

33XR Specifications (at 23 °C ± 5 °C, <75 % R.H. non-condensing)

| DC Voltage | |
|------------------------------|--|
| Ranges | 400 mV, 4 V, 40 V, 400 V, 1000 V |
| Accuracy | all ranges: ± (0.7 % rdg + 1 dgt) |
| Resolution | 100 µV |
| Input Impedance | 10 MΩ |
| AC Voltage (45 Hz to 500 Hz) | |
| Ranges | 400 mV, 4 V, 40 V, 400 V, 750 V |
| Accuracy | 4 V Range, 200 Hz to 500 Hz: ± (2.0 % rdg + 4 dgts) All other ranges: ± (1.5 % rdg + 4 dgts) |
| Resolution | 100 µV |
| Input Impedance | 10 MΩ |
| DC Current | |
| Ranges | 400 µA, 4 mA, 40 mA, 300 mA, 10 A |
| Accuracy | 400 µA to 300 mA ranges: ± (1.0 % rdg + 1 dgt) 10 A range: ± (2.0 % rdg + 3 dgts) |
| Resolution | 0.1 µA |
| Voltage Burden | 400 µA range: 1 mV/µA 4 mA range: 100 mV/1 mA 40 mA range: 12 mV/1 mA 300 mA range: 4 mV/1 mA 10 A range: 100 mV/1 A |
| AC Current (45 Hz to 500 Hz) | |
| Ranges | 400 µA, 4 mA, 40 mA, 300 mA, 10 A |
| Accuracy | 400 µA to 300 mA ranges: ± (1.5 % rdg + 4 dgts) 10 A range: ± (2.5 % rdg + 4 dgts) |
| Resolution | 0.1 µA |
| Voltage Burden | See DC Current |
| Resistance | |
| Ranges | 400 Ω, 40 kΩ, 4 MΩ |
| Accuracy | 400 Ω and 40 kΩ ranges: ± (1.0 % rdg + 4 dgts) 4 MΩ range: ± (1.2 % rdg + 4 dgts) |
| Resolution | 100 mΩ |
| Open Circuit Voltage | 400 Ω range: 3.0 V dc All other ranges: 0.5 V dc typical |
| Capacitance | |
| Ranges | 4 µF, 40 µF, 400 µF, 4000 µF |
| Accuracy | 4 µF range: ± (5.0 % rdg + 10 dgts) 40 µF, 400 µF ranges: ± (5.0 % rdg + 5 dgts) 4000 µF range: ± (5.0 % rdg + 15 dgts) |
| Resolution | 0.1 µF |
| Test Voltage | < 3.0 V |
| Test Frequency | 10 Hz |
| Input Protection | µA/mA input: 0.315 A/1000 V fast blow ceramic fuse 6.3 x 32 mm |
| Temperature | |
| Ranges | -20 °C to 1000 °C, -4 °F to 1832 °F |
| Accuracy | -20 °C to 10 °C: ± (2.0 % rdg + 4 °C) 10 °C to 200 °C: ± (1.0 % rdg + 3 °C) 200 °C to 1000 °C: ± (3.0 % rdg + 2 °C) -4 °F to 50 °F: ± (2.0 % rdg + 8 °F) 50 °F to 400 °F: ± (1.0 % rdg + 6 °F) 400 °F to 1832 °F: ± (3.0 % rdg + 4 °F) |
| Resolution | 1 °C, 1 °F |

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Manual ranging digital multimeter with temperature and capacitance for field service technicians.

Digital Multimeter

33XR Specifications (at 23 °C ± 5 °C, <75 % R.H. non-condensing)

| Frequency (autoranging) | |
|-------------------------|--|
| Ranges | 4 kHz, 40 kHz, 400 kHz, 4 MHz, 40 MHz |
| Accuracy | all ranges: ± (0.1 % rdg + 3 dgts) |
| Resolution | 1 Hz |
| Sensitivity | 10 Hz to 4 MHz: > 1.5 V ac rms 4 MHz to 40 MHz: > 2 V ac rms, < 5 V ac rms |
| Min Pulse Width | > 25 ns |
| Duty Cycle Limits | > 30 % and < 70 % |
| Continuity | |
| Audible Indication | < 35 Ω |
| Response Time | 100 ms |
| Diode Test | |
| Test Current | 1.0 mA (approximate) |
| Accuracy | ± (1.5 % rdg + 3 dgts) |
| Resolution | 1 mV |
| Open Circuit Volts | 3.0 V dc typical |
| Peak Hold | |
| AC Volts Accuracy | 40 V to 750 V: ± (3.0 % rdg + 60 dgts) |
| AC Current Accuracy | ± (3.0 % rdg + 60 dgts) |
| Response Time | > 1 ms |
| Overload Protection | |
| AC/DC Voltage | 400 mV range: 1000 V dc or 750 V ac rms 15 sec All other ranges: 1000 V dc or 750 V ac rms |
| AC/DC Current | uA/mA input: 0.315 A /1000 V fast-blow ceramic (6.3 x 32 mm) 10 A input: 10 A /1000 V fast-blow ceramic (10 x 38 mm) (10 A for 4 minutes maximum followed by a 12 minute cooling period) |
| Resistance | 1000 V dc or 750 V ac rms |
| Continuity | 1000 V dc or 750 V ac rms |
| Diode Test | 1000 V dc or 750 V ac rms |
| Capacitance | 0.315 A /1000 V fast-blow ceramic (6.3 x 32 mm) |
| Temperature | 1000 V dc or 750 V ac rms |
| Frequency | 1000 V dc or 750 V ac rms |



General Specifications

Manual Ranging; Display: 3-3/4 digit LCD, 3999 counts with 41-segment analog bar graph; **Display Update Rate:** 2/sec, nominal; **Power Battery:** 9 V NEDA 1604, JIS 006P, IEC 6F22; **Battery Life:** 300 hrs typical (alkaline); **Operating Temperature:** 0 °C to 45 °C at < 70 % R.H.; **Storage Temperature:** -20 °C to 60 °C, 0 to 80 % R.H. with battery removed from meter; **Dimensions:** 7.7" x 3.5" x 2.3" (196 x 92 x 60 mm); **Weight (without holster, including battery):** 0.9 lb (400 gr):

Included Accessories

Test leads with threaded alligator clips (TL36), 9 V battery (installed), Magne-Grip™ Holster with magnetic hanging strap (H2-XR), temperature adapter (XR-TA), Type K thermocouple probe (TP255), spare fuse, operators manual

Features

Input lead warning; analog bar graph; Peak Hold; Data Hold; Min/Max; Relative; auto power off after 30minutes typical; low battery indication; overrange indication; easy access fuse and battery door; one-year warranty

Optional Accessories

VC221A Padded Vinyl Carry Case, DL248C Deluxe Test Lead Kit, DC205B Heavy Duty Case, HV231-10 High Voltage Probe, TP254 High Temperature Probe

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The right tool for the job.™

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