

38XR-A Digital Multimeter

True RMS digital multimeter with optical PC interface for engineers designing and troubleshooting industrial automation and control systems.

Features

- Frequency to 10 MHz, capacitance to 400 uF, temperature to 2372 °F
- Duty cycle, dBm and 4 to 20 mA loop current test
- 1000 V/750 V DC/AC True RMS, AC + DC input
- 10 Amps AC/DC, fully safety fused
- Resistance to 40 MW
- Continuity beeper
- Min/Max, Average, Relative, Peak, and Data Hold
- Bright blue backlight
- Auto power off to save battery life
- Separate door for easy battery and fuse access
- Magne-Grip™ Holster with magnetic hanging strap



38XR-A
Digital Multimeter

Safety Certification



All Amprobe tools, including the Amprobe 38XR-A, are rigorously tested for safety, accuracy, reliability, and ruggedness in our state-of-the-art test lab.

In addition, Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.

Specifications

| General Specifications | | 38XR-A |
|-------------------------|---|--------|
| Display | 4-3/4 digit LCD, 10,000 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 | 150 hrs typical (alkaline) frequent use of backlight will decrease battery life; Operating Temperature: 32 to 113 ° F (0 to 45 ° C) at < 70% R.H. | |
| Storage Temperature | -4 to 140 ° F (-20 to 60 ° C), 0 to 80 % R.H. with battery removed from meter | |
| Temperature Coefficient | 0.1 x (specified accuracy) per ° C (0 ° C to 18 ° C , 28 ° C to 45 ° C) | |
| Altitude | 6562 ft (2000 m) | |
| Dimensions | 7.8 x 3.55 x 2.4 in (196 x 96 x 60 mm) | |
| Weight | 1 lb (0.4 kg) without holster, including battery | |

| Specifications (23 ° C ± 5 ° C, <75 % R.H. non-condensing) | | |
|--|--|--|
| Function | Range | Accuracy |
| DC Voltage | | |
| Ranges | 1000 mV, 10 V, 100 V, 1000 V | ± (0.25 % rdg + 5 dgt) |
| Resolution | 100 µV | |
| AC Voltage (45 Hz to 2 kHz) True RMS | | |
| Ranges | 1000 mV, 10 V, 100 V, 750 V | |
| Accuracy | 750 V range All other ranges, 45 to 500 Hz All other ranges, 500 to 2 kHz | 45 to 1 kHz: ± (2.0 % rdg + 10 dgts) ± (1.2 % rdg + 10 dgts) ± (2.0 % rdg + 10 dgts) |
| AC coupled True RMS specified from 5% to 100 % of range | | |
| AC + DC Voltage (45 Hz to 2 kHz) | | |
| Ranges | 1000 mV, 10 V, 100 V, 750 V | |
| Accuracy | 750 V range: 45 to 1 kHz All other ranges, 45 to 500 Hz All other ranges, 500 to 2 kHz | ± (2.5 % rdg + 10 dgts) ± (1.5 % rdg + 10 dgts) ± (2.5 % rdg + 10 dgts) |
| Resolution | 100 µV | |
| DC coupled True RMS specified from 5 % to 100 % of range | | |
| DC Current | | |
| Ranges | 100 µA, 1000 µA, 10 mA, 100 mA, 400 mA, 10 A | |
| Accuracy | 100 µA range 1000 µA to 400 mA ranges 10 A range | ± (0.5 % rdg + 10 dgt) ± (0.5 % rdg + 5 dgts) ± (1.5 % rdg + 10 dgt) |
| Resolution | 0.01 µA | |
| AC Current (True RMS) (AC + DC) (45 Hz – 1kHz) | | |
| Ranges | 100 µA, 1000 µA, 10 mA, 100 mA, 400 mA, 10 A | |
| Accuracy | 100 µA to 100 mA ranges 400 mA range 10 A range | ± (1.5 % rdg + 20 dgts) ± (2.0 % rdg + 10 dgts) ± (2.5 % rdg + 20 dgts) |
| Resolution | 0.01 µA | |
| AC coupled True RMS specified from 5 % to 100 % of range | | |
| AC + DC Accuracy | 100 µA to 400 mA ranges 10 A range | ± (2.0 % rdg + 20 dgts) ± (3.0 % rdg + 20 dgts) |
| AC + DC: AC coupled True RMS specified from 10 % to 100 % of range | | |
| Resistance | | |
| Ranges | 1000 Ω, 10 kΩ, 100 kΩ, 1000 kΩ, 10 MΩ, 40 MΩ | |
| Accuracy | 1000 Ω to 1000 kΩ ranges 10 MΩ range 40 MΩ range | ± (0.5 % rdg + 8 dgts) ± (1.0 % rdg + 10 dgts) ± (2.0 % rdg + 10 dgts) |
| Resolution | 100 mΩ | |
| Capacitance | | |
| Ranges | 40 nF, 400 nF, 4 µF, 40 µF, 400 µF | |
| Accuracy | Accuracy 40 nF, 400 µF ranges 400 nF to 40 µF ranges | ± (3.0 % rdg + 10 dgts) ± (3.0 % rdg + 5 dgts) |
| Resolution | 0.01 nF | |

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

| Function | Range | Accuracy |
|----------------------------------|---|--|
| Temperature | | |
| Ranges | -20 °C to 1300 °C, -4 °F to 2372 °F | |
| Accuracy | -4 °F to 50 °F 50 °F to 400 °F 400 °F to 2372 °F -20 °C to 10 °C 10 °C to 200 °C 200 °C to 1300 °C | ± (2.0 % rdg + 8 °F) ± (1.0 % rdg + 6 °F) ± (2.0 % rdg + 4 °F) ± (2.0 % rdg + 4 °C) ± (1.0 % rdg + 3 °C) ± (2.0 % rdg + 2 °C) |
| Resolution | 1 °C, 1 °F | |
| Frequency | | |
| Ranges | 100 Hz, 1000 Hz, 10 kHz, 100 kHz, 1000 kHz, 10 MHz | ± (0.1% rdg + 5 dgts) |
| Resolution | 0.01 Hz | |
| Duty Cycle | | |
| Ranges | 0 to 90 % | |
| Accuracy | 5 V logic | ± (2.0% rdg + 10 dgts) |
| Resolution | 0.01 % | |
| Frequency Range | 0 % to 10 %: 40 Hz to 990 Hz 10 % to 90 %: 40 Hz to 20 kHz | |
| 4 - 20 mA DC Current Test | | |
| Ranges | 0 – 100 % | ± (0.5 % + 5 dgts) |
| Resolution | 0.01 % | |
| dBm | | |
| Ranges | -13 dBm to + 50 dBm | |
| Accuracy | 45 Hz to 5 kHz: ± (0.7 dB + 8 dgts) 5 kHz to 10 kHz: ± (2.5 dB + 8 dgts) | |
| Resolution | 0.01 dBm | |
| Continuity | | |
| Audible Indication | < 40 Ω | |
| Diode Test | | |
| Test Current | 0.5 mA (approximate) | |
| Open Circuit Volts | 3.0 V DC typical | |
| Peak | | |
| AC Volts Accuracy | 100 V, 750 V ranges | ± (3.0 + 200 dgts) |
| AC Current | 1000 mV, 10 V ranges: unspecified | ± (3.0 + 200 dgts) |
| Overload Protection | | |
| AC/DC Voltage | 1000 V DC or 750 V AC RMS | |
| AC/DC Current | µA/mA input: F0.5 A /1000 V fast-blow ceramic 6.3 x 32 mm 10A input: F10 A /1000V fast-blow ceramic 10 x 38 mm | |

For complete specifications, please download the product manual on amprobe.com



Included Accessories

Test leads with threaded alligator clips (TL36A), temperature adaptor (TA-1), Type K thermocouple probe (TP255A), 9 V battery (installed), Magne-Grip™ Holster with magnetic hanging strap, spare fuse, user manual

Optional Accessories

VC221B Padded Vinyl Carry Case
DL248D Deluxe Test Lead Kit
DC207C Heavy Duty Case
HV231-10A High Voltage Probe
TP254A High Temperature Probe
38-SWA RS232 Cable and Software