



1. ELECTRICAL SPECIFICATIONS

Accuracy is calculated as [% rdg + number of dgt] x resolution]. It is referred to 18°C ÷ 28°C with 75%RH

DC Voltage (Autorange)

| Range | Resolution | Accuracy | Input impedance | Overload protection |
|---------|------------|------------------------|-----------------|---------------------|
| 600.0mV | 0.01mV | $\pm(1.0\%rdg + 3dgt)$ | 10M Ω | 1000VDC/ACrms |
| 6.000V | 0.001V | | | |
| 60.00V | 0.01V | | | |
| 600.0V | 0.1V | | | |
| 1000V | 1V | | | |

AC Voltage TRMS (Autorange)

| Range | Resolution | Accuracy | Input impedance | Bandwidth | Overload protection |
|--------|------------|--|-----------------|------------|---------------------|
| 6.000V | 0.001V | $\pm(1.0\%rdg + 10dgt)$ (50 ÷ 60Hz) | 10M Ω | 50 ÷ 400Hz | 1000VDC/ACrms |
| 60.00V | 0.01V | | | | |
| 600.0V | 0.1V | $\pm(3.5\%rdg + 5dgt)$ (61 ÷ 400Hz) | | | |
| 1000V | 1V | | | | |

Integrated sensor for AC voltage detection: LED turn on for phase-earth voltage > 100V, 50/60Hz

Resistance and Continuity test (Autorange)

| Range | Resolution | Accuracy | Buzzer | Overload protection |
|-----------------|-----------------|-------------------------|-----------------|---------------------|
| 600.0 Ω | 0.1 Ω | $\pm(1.0\%rdg + 5dgt)$ | $\leq 60\Omega$ | 600VDC/ACrms |
| 6.000k Ω | 0.001k Ω | | | |
| 60.00k Ω | 0.01k Ω | | | |
| 600.0k Ω | 0.1k Ω | | | |
| 6.000M Ω | 0.001M Ω | | | |
| 60.00M Ω | 0.01M Ω | $\pm(2.0\%rdg + 10dgt)$ | | |

Test current of continuity test: < 0.35mA

AC TRMS Current

| Range | Resolution | Accuracy | Bandwidth | Overload protection |
|--------|------------|-------------------------|------------|---------------------|
| 60.00A | 0.01A | $\pm(2.8\%rdg + 12dgt)$ | 50 ÷ 60Hz | 600Arms |
| 600.0A | 0.1A | $\pm(2.8\%rdg + 8dgt)$ | | |
| 60.00A | 0.01A | $\pm(4.5\%rdg + 10dgt)$ | 61 ÷ 400Hz | |
| 600.0A | 0.1A | $\pm(5.0\%rdg + 10dgt)$ | | |

PEAK features: response time <10ms

Capacitance (Autorange)

| Range | Resolution | Accuracy | Overload protection |
|---------------|---------------|-------------------------|---------------------|
| 40.00nF | 0.01nF | $\pm(3.5\%rdg + 40dgt)$ | 600VACrms |
| 400.0nF | 0.1nF | $\pm(2.5\%rdg + 5dgt)$ | |
| 4.000 μ F | 0.001 μ F | | |
| 40.00 μ F | 0.01 μ F | | |
| 400.0 μ F | 0.1 μ F | | |
| 4000 μ F | 1 μ F | $\pm(5.0\%rdg + 5dgt)$ | |

**Diode test**

| Feature | Test current | Open voltage |
|---------|---------------|--------------|
| | 0.9mA typical | 2.8VDC |

Frequency with test leads (Autorange)

| Range | Resolution | Accuracy | Sensitivity | Overload protection |
|----------|------------|------------------------|-------------|---------------------|
| 99.99Hz | 0.01Hz | $\pm(1.0\%rdg + 5dgt)$ | > 15Vrms | 600VDC/ACrms |
| 999.9Hz | 0.1Hz | | | |
| 9.999kHz | 0.001kHz | | | |
| 60.00kHz | 0.01kHz | | | |

Frequency with jaws (Autorange)

| Range | Resolution | Accuracy | Sensitivity | Overload protection |
|----------|------------|------------------------|---------------------------------|---------------------|
| 99.99Hz | 0.01Hz | $\pm(1.0\%rdg + 5dgt)$ | >10Arms (60A) >50Arms (600A) | 600AACrms |
| 999.9Hz | 0.1Hz | | | |
| 9.999kHz | 0.001kHz | | | |

Duty Cycle (Autorange)

| Range | Resolution | Sensitivity | Accuracy |
|--------------|------------|-------------|------------------------|
| 0.5% ÷ 99.0% | 0.1% | > 15Vrms | $\pm(1.2\%rdg + 2dgt)$ |

Temperature with type K probe (Autorange)

| Range | Resolution | Accuracy (*) | Overload protection |
|----------------|------------|------------------------------|---------------------|
| -20.0÷400.0°C | 0.1°C | $\pm(2.0\%rdg + 3^{\circ}C)$ | 600VDC/ACrms |
| 400 ÷ 760°C | 1°C | $\pm(2.0\%rdg + 5^{\circ}C)$ | |
| -4.0 ÷ 752.0°F | 0.1°F | $\pm(2.0\%rdg + 6^{\circ}F)$ | |
| 752 ÷ 1400°F | 1°F | $\pm(2.0\%rdg + 9^{\circ}F)$ | |

(*) Accuracy of type K probe not considered



2. GENERAL SPECIFICATIONS

Mechanical characteristics

| | |
|-----------------------------|---------------------------|
| Size: | 215(L) x 74(La) x 43(H)mm |
| Weight (including battery): | 285g |
| Max conductor size: | 30mm |

Supply

| | |
|-------------------------|---|
| Battery type: | 1 battery 9V NEDA 1604 IEC 6F22 JIS 006P. |
| Low battery indication: | “+ III” is displayed when the battery level is too low. |
| Battery life: | about 200 hours |
| AutoPowerOff: | about 15 minutes of idleness |

Display

| | |
|------------------|--|
| Characteristics: | 4 LCD (max 6000 counts), decimal point, unit symbol indication, bargraph and backlight |
| Sample rate: | 2 times/sec |
| Conversion mode: | TRMS |

Climatic conditions

| | |
|------------------------|-------------|
| Reference temperature: | 18°C ÷ 28°C |
| Operating temperature: | 5 ÷ 40 °C |
| Operating humidity: | <80%RH |
| Storage temperature: | -20 ÷ 60 °C |
| Storage humidity: | <80%RH |

Reference standards

| | |
|-----------------------------|--------------------------------------|
| Comply with: | IEC/EN 61010-1 |
| Insulation: | double insulation |
| Pollution: | Level 2 |
| For inside use, max height: | 2000m |
| Installation category: | CAT IV 600V, CAT III 1000V to ground |

This product conforms to the prescriptions of the European directive on low voltage 2006/95/EEC and to EMC directive 2004/108/EEC