



## 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 $\Omega$	1000VDC/ACrms
6.000V	0.001V			
60.00V	0.01V			
600.0V	0.1V			
1000V	1V			

### AC TRMS Voltage (Autorange)

Range	Resolution	Accuracy	Input impedance	Bandwidth	Overload protection
6.000V	0.001V	$\pm(1.0\%rdg + 10dgt)$ (50 ÷ 60Hz) $\pm(3.5\%rdg + 5dgt)$ (61 ÷ 400Hz)	10M $\Omega$	50 ÷ 400Hz	1000VDC/ACrms
60.00V	0.01V	$\pm(1.0\%rdg + 4dgt)$ (50 ÷ 60Hz)			
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 $\Omega$	0.1 $\Omega$	$\pm(1.0\%rdg + 5dgt)$	$\leq 60\Omega$	600VDC/ACrms
6.000k $\Omega$	0.001k $\Omega$			
60.00k $\Omega$	0.01k $\Omega$			
600.0k $\Omega$	0.1k $\Omega$			
6.000M $\Omega$	0.001M $\Omega$			
60.00M $\Omega$	0.01M $\Omega$	$\pm(2.0\%rdg + 10dgt)$		

Test current of continuity test: < 0.35mA

### DC Current

Range	Resolution	Accuracy	Overload protection
60.00A	0.01A	$\pm(2.2\%rdg + 10dgt)$	600AACrms
600.0A	0.1A	$\pm(2.0\%rdg + 8dgt)$	

### AC TRMS Current

Range	Resolution	Accuracy	Bandwidth	Overload protection
60.00A	0.01A	$\pm(2.2\%rdg + 12dgt)$	50 ÷ 60Hz	600Arms
600.0A	0.1A	$\pm(2.2\%rdg + 8dgt)$		
60.00A	0.01A	$\pm(3.5\%rdg + 12dgt)$	61 ÷ 400Hz	
600.0A	0.1A	$\pm(3.5\%rdg + 8dgt)$		

PEAK features: response time <10ms



### Capacitance (Aurorange)

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 $\mu$ F	0.001 $\mu$ F		
40.00 $\mu$ F	0.01 $\mu$ F		
400.0 $\mu$ F	0.1 $\mu$ F		
4000 $\mu$ F	1 $\mu$ F	$\pm(5.0\%rdg + 5dgt)$	

### Diode test

Feature	Test current	Open voltage
	0.9mA typical	2.8VDC

### Frequency with test leads (Aurorange)

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 (Aurorange)

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 (Aurorange)

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

### Temperature with type K probe (Aurorange)

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

(\*) 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 the ground

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

**optec**  
energie ist messbar

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