

HT32 - HT37 - HT39

TRMS CAT IV PROFESSIONAL DIGITAL MULTIMETER

The models HT32, HT37 and HT39 are a family of professional TRMS multimeters able to perform AC/DC voltage, AC/DC current in complete Autorange. Each model has also the MIN/MAX, Data HOLD and AutoPowerOFF features. The HT39 model is also equipped with RS-232 serial interface for connection to a PC and use of dedicated software, more than a backlight function for comfortable reading even in poorly lit environments.

FUNCTIONS	HT32	HT37	HT39
TRMS measurements	•	•	•
DC/AC Voltage	•	•	•
DC/AC Current	•	•	•
Resistance and Continuity test	•	•	•
Frequency	•	•	•
Capacitance	•	•	•
Diode test	•	•	•
Data HOLD	•	•	•
MAX/MIN	•	•	•
PEAK		•	•
Relative measurement		•	•
Bargraph		•	•
Backlight			•
AutoPowerOFF	•	•	•
Real-time recording from PC			•
RS-232 interface			•

GENERAL SPECIFICATIONS	
Display:	LCD, 4 dgt, 6000 points (HT32) LCD, 4 dgt, 4000 points (HT37-HT39)
Power supply:	1x9V battery type IEC6F22
AutoPowerOFF:	after 30 min of idleness
Safety:	IEC/EN 61010-1
Category of measurement:	CAT IV 600V – CAT III 1000V
Insulation:	double insulation
Pollution degree:	2
RS-232 interface:	optical/serial (only HT39)
Dimensions (LxWxH):	164x82x44mm
Weight (batteries included):	400g

TECHNICAL SPECIFICATIONS	HT32	HT37 - HT39
DC Voltage		
Measurement range:	0.1mV ÷ 1000V	0.1mV ÷ 1000V
Basic accuracy:	±(0.5%rdg + 2dgt)	±(0.5%rdg + 2dgt)
AC Voltage		
Measurement range:	0.1mV ÷ 750V	0.1mV ÷ 750V
Basic accuracy:	±(0.9%rdg + 5dgt)	±(1.2%rdg + 5dgt)
DC Current		
Measurement range:	0.1µA ÷ 10A	0.1µA ÷ 10A
Basic accuracy:	±(1.0%rdg + 2dgt)	±(1.0%rdg + 2dgt)
AC Current		
Measurement range:	0.1mA ÷ 10A	10mA ÷ 10A
Basic accuracy:	±(1.5%rdg + 5dgt)	±(1.5%rdg + 5dgt)
Resistance and continuity test		
Measurement range:	0.1Ω ÷ 60MΩ	0.1Ω ÷ 40MΩ
Basic accuracy:	±(0.7%rdg + 2dgt)	±(0.7%rdg + 2dgt)
Buzzer:	<500Ω	<450Ω
Frequency		
Measurement range:	1Hz ÷ 60MHz	1Hz ÷ 40MHz
Basic accuracy:	±(0.1%rdg + 1dgt)	±(0.1%rdg + 1dgt)
Capacitance		
Measurement range:	0.001nF ÷ 6mF	0.001nF ÷ 40mF
Basic accuracy:	±(1.9%rdg + 8dgt)	±(2.0%rdg + 8dgt)

ACCESSORIES	Code
Standard	
Couple of test leads	4413-2
Rubber protection holster	
Battery	
User manual	
Optional	
Carrying bag	B80
Windows software + serial cable (only HT39)	SW39





1. ELECTRICAL SPECIFICATIONS

Accuracy is given as \pm (% of reading + no. of least significant digits) at $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$, with relative humidity Less than 80% R.H.

DC VOLTAGE

Range	Resolution	Accuracy	Overload protection
400.0mV	0.1mV	$\pm(0.5\%rdg+2dgt)$	1000VDC 750Vrms
4.000V	0.001V		
40.00V	0.01V		
400.0V	0.1V		
1000V	1V		

Input impedance: $10\text{M}\Omega // \text{less } 100\text{pF}$

AC VOLTAGE (TRMS)

Range	Resolution	Accuracy (50~500Hz)	Overload protection
400.0mV	0.1mV	Not specified	1000VDC 750Vrms
4.000V	0.001V	$\pm(1.3\%rdg+5dgt)$	
40.00V	0.01V	(50 ÷ 300Hz)	
400.0V	0.1V	$\pm(1.2\%rdg+5dgt)$	
750V	1V	(50 ÷ 500Hz)	

Input impedance: $10\text{M}\Omega // \text{less } 100\text{pF}$

DC CURRENT

Range	Resolution	Accuracy	Output voltage	Overload protection
400.0 μA	0.1 μA	$\pm(1.0\%rdg+2dgt)$	<4mV/ μA	600Vrms
4000 μA	1 μA			
10A	10mA		2V max	Fast fuse 10A / 1000V

AC CURRENT (TRMS)

Range	Resolution	Accuracy 50 ~ 500Hz	Output voltage	Overload protection
10A	10mA	$\pm(1.5\%rdg+5dgt)$	2V max	Fast fuse 10A / 1000V

RESISTANCE

Range	Resolution	Accuracy	Open voltage	Overload protection
400.0 Ω	0.1 Ω	$\pm(1.0\%rdg+5dgt)$	1.3V	600Vrms
4.000k Ω	0.001k Ω	$\pm(0.7\%rdg+2dgt)$		
40.00k Ω	0.01k Ω			
400.0k Ω	0.1k Ω	$\pm(1.0\%rdg+2dgt)$		
4.000M Ω	0.001M Ω	$\pm(1.5\%rdg+2dgt)$		
40.00M Ω	0.01M Ω			





HT39

Rel. 1.00 of 05/05/05

TRMS digital multimeter up to 4000 counts with RS232 interface Page 2 of 3

FREQUENCY

Range	Resolution	Accuracy	Sensitivity	Overload protection
4000Hz	1Hz	$\pm(0.01\%rdg+1dgt)$	>1.5VACrms <5VACrms	600Vrms
40.00kHz	0.01kHz			
400.0kHz	0.1kHz			
4.000MHz	0.001MHz		>2VACrms <5VACrms	
40.00MHz	0.01MHz			

CAPACITANCE

Range	Resolution	Accuracy	Overload protection
4.000nF	0.001nF	$\pm(3.0\%rdg+10dgt)$	600Vrms
40.00nF	0.01nF	$\pm(2.0\%rdg+8dgt)$	
400.0nF	0.1nF		
4.000 μ F	0.001 μ F		
40.00 μ F	0.01 μ F		
400.0 μ F	0.1 μ F	$\pm(5.0\%rdg+2dgt)$	
4.000mF	0.001mF		
40.00mF	0.01mF		

DIODE TEST

Range	Resolution	Accuracy	Test current	Open Voltage
	10mV	$\pm(1.5\%rdg+5dgt)$	1.5mA	<3V

Overload protection: 600Vrms

TEST CONTINUITY

Range	Buzzer	Overload protection
	R<450 Ω	600Vrms



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2. GENERAL SPECIFICATIONS

Display:

- LCD display, 4 digit with maximum reading 4000 counts with analogical bargraph
- Automatic polarity indication.
- "OL" over range indication


Features:

- MAX and MIN
- HOLD
- Manual Range selection
- PEAK
- REL
- Backlight
- RS-232 interface
- AutoPowerOFF after 30 minutes

Measuring rate:

- 1.5 times per second.

Low battery indicator:

- The "  " appears when the battery voltage is low

Operating temperature:

- 0°C to 30 °C, <80%RH

Storage temperature:

- -20°C to 60°C, <80%RH

General informations:

- Altitude up to 2000m
- Pollution degree: 2
- Insulation: class 2 (double insulation)

Power supply:

- Single 9V alkaline battery type NEDA1604, JIS006P, IEC6F22

Dimension(with holster):

- 164(L)x82(W)x44(H) mm.

Weight (included battery):

- 400g

Applied standards:

- LVD: EN 61010-1 CAT IV 600V – CAT III 1000V
- EMC: EN60326

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

