

# Контрольно-измерительные приборы Nagman, NCFL Технические характеристики

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## PRECISION RTD THERMOMETER (0.01°C)

**201**

### Features :

- Precision Platinum Temperature Sensor
- High Accuracy With 0.01°C Resolution
- Automatic Locked Push-pull Connector For Easy Connection
- Large Back Light LCD
- Dual Display
- Max/Min Function
- °C/°F Scale Selectable
- Data Hold Function
- Relative Function
- 16,000 Records Data Logger
- Record Temperature, Time And Date Of Measurement
- With Windows Software
- PC Interface
- Auto Power Off
- User Offset Adjustable
- Tilt Stand

### Specifications :

|               |   |                                                                                   |
|---------------|---|-----------------------------------------------------------------------------------|
| Range         | : | -100 ~ 400°C; -148 ~ 752°F                                                        |
| Accuracy      | : | ±0.05% rdg ±0.1°C                                                                 |
| Resolution    | : | 0.01°C; 0.02°F                                                                    |
| Sampling Rate | : | 2 time/sec.                                                                       |
| Battery       | : | 9V battery                                                                        |
| Dimensions    | : | 185 x 65 x 36 mm                                                                  |
| Weight        | : | Approx.360 g                                                                      |
| Sensor Type   | : | Platinum Resistance Thermometer Sensor (Pt100/4 line type)                        |
|               |   | Measurement Range : -100°C to 400°C; -148°F to 752°F; Accuracy : IEC 751, Class A |
|               |   | Temperature Sensor Dimension : Approx. 0.2"                                       |
|               |   | Temperature Sensor Length : Approx. 9.05"                                         |



### Standard Delivery :

- Basic Instrument with Battery
- Precision Pt 100 Probe - 1 No.
- Carrying Case
- Software
- USB Cable
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- AC Adaptor
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## TYPE K THERMOMETER

### 202

#### Features :

- Compact Size, Economy
- Mini Size
- Auto Power OFF
- Resolution 0.1°C, 0.1°F (upto 200°C/200°F)  
1°C, 1°F (200°C to 1370°C / 200°F to 2498°F)

#### Specifications :

|                |                                                                                                                                   |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Range          | -200 ~ 1370°C; -328 ~ 2498°F                                                                                                      |
| Accuracy       | ±0.5% rdg + 1°C; ±0.5% rdg + 2°F                                                                                                  |
| Resolution     | 0.1°C; 0.1°F                                                                                                                      |
| Operation Temp | 0°C ~ 50°C (<80% RH)                                                                                                              |
| Storage Temp   | -10°C ~ 60°C (<80% RH)                                                                                                            |
| Battery        | 9V battery                                                                                                                        |
| Dimensions     | 164 x 54 x 34 mm                                                                                                                  |
| Weight         | Approx. 200 g                                                                                                                     |
| Sensor Type    | K Type General Purpose Bead Probe – NTS-K01<br>Measurement Range : -50°C to 200°C; -58°F to 392°F;<br>Tolerance : ±2.2°C (±3.9°F) |



#### Standard Delivery :

- Basic Instrument with Battery
- T/C Probe - 1 No.
- Traceable Calibration Certificate
- Instruction Manual

#### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## DUAL INPUT HUMIDITY TEMPERATURE METER

**203**

### Features :

- Dual Input
- Triple Display
- PC Interface
- REL Function
- Auto Power Off
- Hold Function
- Max/Min Function
- Resolution 0.1°C, 0.1°F, 0.1% RH (upto 200°C 1°C, 1°F above 200°C)

### Specifications :

|                  |                                                                                                                         |
|------------------|-------------------------------------------------------------------------------------------------------------------------|
| Range & Accuracy | -20 ~ 60°C.....±0.7°C; -4 ~ 140°F .....±1.4°F                                                                           |
| Temperature      | -200 ~ 1370°C.....±0.3% rdg + 1°C/0.5°                                                                                  |
| (K-Type)         | -328 ~ 2498°F.....±0.3% rdg + 2°F/0.5°                                                                                  |
| Humidity         | 10 ~ 90% RH.....±2.5% RH/0.5°                                                                                           |
| Resolution       | 0.1°C -200 ~ 200°C; 1° = 200 ~ 1370°;<br>0.1°F = 200 ~ 200°F; 1°F = Else                                                |
| Input Protection | 60V DC or 24Vrms AC Maximum                                                                                             |
| Battery          | 9V battery                                                                                                              |
| Dimensions       | Meter : 186 x 64 x 30 mm<br>Probe : 190 (L) x 15 (Dia) mm                                                               |
| Weight           | Approx. 320 g                                                                                                           |
| Sensor Type      | K Type General Purpose Bead Probe<br>Measurement Range : -50°C to 200°C; -58°F to 392°F;<br>Tolerance : ±2.2°C (±3.9°F) |



### Standard Delivery :

- Basic Instrument with Battery
- T/C Probe - 1 No.
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- USB Cable
- RS-232 Cable
- Software
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## DATALOGGER DUAL INPUT HUMIDITY TEMPERATURE METER

**204**

### Features :

- Dual Input
- Triple Display
- PC Interface
- 16,000 Records Data Logger Per Channel
- Auto Power Off
- Clock Function
- Hold Function
- Max/Min Function
- Resolution 0.1°C, 0.1°F (upto 20°C/°F), 0.1%RH (1°/1°F above 20°C)

### Specifications :

|                  |                                                                                                                         |
|------------------|-------------------------------------------------------------------------------------------------------------------------|
| Range & Accuracy | -20 ~ 60°C.....±0.7°C; -4 ~ 140°F .....±1.4°F                                                                           |
| Temperature      | -200 ~ 1370°C.....±0.3% rdg + 1°C/0.5°                                                                                  |
| (K-Type)         | -328 ~ 2498°F.....±0.3% rdg + 2°F/0.5°                                                                                  |
| Humidity         | 10 ~ 90% RH.....±2.5% RH/0.5°                                                                                           |
| Resolution       | 0.1°C; 0.1°F; 0.1%RH                                                                                                    |
| Input Protection | 60V DC or 24Vrms AC Maximum                                                                                             |
| Battery          | 9V battery                                                                                                              |
| Dimensions       | Meter : 186 x 64 x 30 mm<br>Probe : 190 (L) x 15 (Dia) mm                                                               |
| Weight           | Approx. 320 g                                                                                                           |
| Sensor Type      | K Type General Purpose Bead Probe<br>Measurement Range : -50°C to 200°C; -58°F to 392°F;<br>Tolerance : ±2.2°C (±3.9°F) |



### Standard Delivery :

- Basic Instrument with Battery
- T/C Probe - 1 No.
- Carrying Case
- RS-232 Cable
- Software
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- AC Adaptor
- USB Connection Cable
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## 4 CHANNELS DATA LOGGER THERMOMETER 205

### Features :

- Supports K, J, E, T Thermocouple Probe
- Data Hold Function
- Temperature Alarm Function
- Adjustable Auto Power Off Timer
- Fast Response With High Accuracy
- Measures K, J, E, T Type Thermocouples
- Min/Max/Avg Recording of All Channels
- USB Interface, PC Software Included
- Large Backlit LCD Shows All Channels On Display
- Datalogging Up to 16,000 Points Each Channel
- Recall Function to Instantly Read-out Up to 100 Sets Manually Saved Data



### Specifications :

|                |                                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------|
| Range          | -200 ~ 1370°C; -328 ~ 2498°F below -100°C (-148°C)                                                                      |
| Accuracy       | ±0.1% rdg + 0.7°C, ±0.1% + 1.4°F below 100, 0.4% of reading + 0.7°C; ±0.4% of reading + 1.4°F                           |
| Resolution     | 0.1°C < 600°C / 0.1°F < 1000°F<br>1°C ≥ 600°C / 1°F ≥ 1000°F                                                            |
| Operation Temp | 0°C ~ 50°C (<80% RH)                                                                                                    |
| Storage Temp   | -20°C ~ 60°C (<70% RH)                                                                                                  |
| Battery        | 1.5V, Size AAA battery x 4                                                                                              |
| Dimensions     | 187 x 75 x 29 mm                                                                                                        |
| Weight         | Approx.290g                                                                                                             |
| Sensor Type    | K Type General Purpose Bead Probe<br>Measurement Range : -50°C to 200°C; -58°F to 392°F;<br>Tolerance : ±2.2°C (±3.9°F) |

### Standard Delivery :

- Basic Instrument with Battery
- K Type Probe x 2 Nos.
- Carrying Case
- Micro USB Cable
- Software
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## Humidity Temperature Meter (Dew Point, Web Bulb)

**207**

### Features :

- Dew Point And Wet Bulb Temperature Measurement
- Fast Response
- Auto Shut Off For Battery Saving
- Max/Min Function
- Dual Displays :
  - Primary Display For Humidity
  - Secondary Displays For Temperature

### Specifications :

|                       |                                                     |
|-----------------------|-----------------------------------------------------|
| Range                 | -20 ~ 60°C ; -4 ~ 140°F                             |
| Humidity              | 0 ~ 99% RH                                          |
| Dew Point Temperature | -20°C ~ 60°C; -4 ~ 140°F                            |
| Accuracy              | ±0.8°C, 1.6°F ±2.5% RH                              |
| Resolution            | 0.1°C; 0.1°F; 0.1% RH                               |
| Operation Temperature | Temperature : -20°C ~ 60°C<br>Humidity : 0°C ~ 55°C |
| Storage Temp          | -10°C ~ 60°C (<70%RH)                               |
| Battery               | 1.5V, size AA battery x 4                           |
| Dimensions            | 210 x 65 x 43 mm                                    |
| Weight                | Approx. 265g                                        |

### Standard Delivery :

Basic Instrument with Battery  
Carry Case  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance with our  
Scope as granted by NABL per ISO/IEC 17025:2017  
Standards



## Datalogger Temperature Humidity Recorder

**209**

### Features :

- LCD With Back Light
- Battery Status Display
- Memory Status Display
- Shipped With Wall Hanging Tag
- 32,000 Records Datalogger Per Channel
- PC Interface
- With Windows Software



### Specifications :

|                         |                           |                      |
|-------------------------|---------------------------|----------------------|
| Measurement Temperature | -30 ~ 70°C, -22 ~ 158°F   |                      |
| Measurement Humidity    | 5% ~ 98% RH               |                      |
| Accuracy                | ±0.7°C; ±3% RH            |                      |
| Resolution              | 0.1°C ; 0.1°F ; 0.1% RH   |                      |
| Battery                 | 1.5V size AAA battery x 2 |                      |
| Dimensions:             | Recorder                  | 92 x 55 x 22 mm      |
|                         | Hanger                    | 106.5 x 59 x 25.5 mm |
|                         | Communication Base        | 107.5 x 62 x 28 mm   |

### Standard Delivery :

- Basic Instrument with Battery
- Carry Case
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



## SOUND LEVEL METER

### 221

#### Features :

- 60 dB Dynamic Space In Each Range
- Time Weighting Fast/Slow
- Frequency Weighting A/C
- Max./Min. Function
- Complies With IEC 61672-1 Class 2 Standard



#### Specifications :

|                     |                                      |
|---------------------|--------------------------------------|
| Measurement Range   | 32 ~ 130 dB                          |
| Level Range         | 30 ~ 90 dB, 50 ~ 110 dB, 70 ~ 130 dB |
| Accuracy            | ±1.4 dB (ref. 94 dB @ 1 KHz)         |
| Frequency Weighting | A / C                                |
| Time Weighting      | Fast, Slow                           |
| Frequency Range     | 20 Hz to 8 KHz                       |
| Microphone          | ½" Electret condenser microphone     |
| Auxiliary Outputs   | AC/DC Output                         |
| Battery             | 9V battery                           |
| Dimensions          | 258 x 55 x 25 mm                     |
| Weight              | Approx. 185 g                        |



#### Standard Delivery :

- Basic Instrument with Battery
- Carrying Case
- Windscreen
- Traceable Calibration Certificate
- Instruction Manual

#### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## SOUND LEVEL CALIBRATOR (1 kHz)

**222**

### Features :

- 94dB And 114dB Sound Calibrator At 1KHz
- Accurate And Simple To Use
- Fits 1" & ½" Microphones
- Low Battery Indicator
- IEC 60942(2003) Class 2, Ans1.40-1984



### Specifications :

|                                  |                                                                  |
|----------------------------------|------------------------------------------------------------------|
| Output Sound Pressure Levels     | 114dB and 94dB re 20uPa under reference Conditions               |
| Output Frequency                 | 1000Hz $\pm 2\%$                                                 |
| Total Harmonic Distortion        | < 4%                                                             |
| Reference Condition              | Temperature 23°C(73°F)                                           |
| Static press                     | 103hpa Relative humidity 50%                                     |
| Accuracy of sound pressure level | Understated reference environment conditions $\pm 0.5\text{Db}$  |
| Battery test                     | Operate : Green LED indicator<br>Low battery : Red LED indicator |
| Battery                          | 9V battery                                                       |
| Dimensions                       | 113x63x44 mm                                                     |
| Weight                           | Approx.170g                                                      |

### Standard Delivery :

- Basic Instrument with Battery
- Instruction Manual

## Datalogger Sound Level Meter

**223**

### Features :

- 64,000 Records Datalogger
- 60dB Dynamic Space In Each Range
- Real Time Clock With Calendar
- Time Weighting Fast/Slow
- Frequency Weighting A/C
- Max/Min Function
- USB Interface
- With Windows software
- Complies With IEC 61672-1 Class 2 Standard



### Specifications :

|                     |                                      |
|---------------------|--------------------------------------|
| Measurement Range   | 30 ~ 130 dB                          |
| Level Range         | 30 ~ 90 dB, 50 ~ 110 dB, 70 ~ 130 dB |
| Accuracy            | ±1.4 dB (ref. 94 dB @ 1 KHz)         |
| Frequency Weighting | A / C                                |
| Time Weighting      | Fast, Slow                           |
| Frequency Range     | 20 Hz to 8 KHz                       |
| Microphone          | ½" Electret condenser microphone     |
| Auxiliary Outputs   | AC/DC Output                         |
| Battery             | 1.5V AA size battery x 4             |
| Dimensions          | 264 x 63 x 29 mm                     |
| Weight              | Approx. 245 g                        |

### Standard Delivery :

- Basic Instrument with Battery
- Carrying Case
- Windscreen
- Traceable Calibration Certificate
- Instruction Manual
- 3.5 dia Plug, Software , USB Cable

### Optional :

- Microphone Extension Cable (5/10 mtr length)
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## Grain Moisture Meter

**224**

### Features :

- 14 kinds of grain varieties selection
- Grain moisture test
- Setting of grain moisture standard
- Moisture limit setting & voice prompt
- Deviation adjustment
- 4 kinds of voice reminders
- Double rod sensor (metal probe)
- LCD backlight display
- Low battery power prompt
- Automatic shutdown function

### Specifications :

Various types of codes and moisture measurement ranges :

|                                            |          |             |           |                      |           |         |             |
|--------------------------------------------|----------|-------------|-----------|----------------------|-----------|---------|-------------|
| Variety                                    | Paddy    | Wheat       | Corn      | Barley               | Rice      | Sorghum | Pellet feed |
| Code                                       | P0       | P1          | P2        | P3                   | P4        | P5      | P6          |
| Range (%)                                  | 11 - 55  | 11 - 55     | 11.5 - 50 | 11 - 50              | 11 - 50   | 11 - 50 | 11.5 - 50   |
| Variety                                    | Rapeseed | Melan seeds | Sesame    | Soyabean Meal        | Soyabeans | Peanut  | Seed Cotton |
| Code                                       | P7       | P8          | P9        | P10                  | P11       | P12     | P13         |
| Range (%)                                  | 7.5 - 44 | 11 - 55     | 7.5 - 44  | 7.5 - 44             | 10 - 50   | 10 - 50 | 7.5 - 44    |
| Water content numerical display resolution |          |             |           | 0.1%                 |           |         |             |
| Measuring principle                        |          |             |           | Resistance method    |           |         |             |
| Sampling method                            |          |             |           | Continuous sampling  |           |         |             |
| Probe length                               |          |             |           | 23 cm                |           |         |             |
| Power supply                               |          |             |           | 4 x 1.5 V AA battery |           |         |             |

### Standard Delivery :

- Basic Instrument with Battery
- Carry Case
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



## Ultrasonic Thickness Gauge

225

The thickness of any good conductor for Ultrasonic Waves with top & bottom surfaces parallel to each other, like metal, plastic, ceramic & glass, can be measured with the instrument (ex.: Aluminium, Copper, Gold, Resin, Water, Glycerin etc.). The internal particles of cast iron are too big for this instrument.

### SALIENT FEATURES

Menu Operation  
Color Screen HD Display  
Storage Function  
Screen Brightness Selection  
Automatic Shutdown Selection Function

### SPECIFICATIONS

|                                 |                                                     |
|---------------------------------|-----------------------------------------------------|
| Measuring range                 | 1.00 ~ 225.0 mm                                     |
| Data storage                    | 500                                                 |
| Operation frequency             | 5MHz                                                |
| Measurement error               | $\pm(0.5\% H + 0.05) \text{ mm}$                    |
| Resolution                      | 0.01 mm (1.00 to 99.99mm);<br>0.1mm (100 to 225 mm) |
| Lower limit of pipe measurement | $\Phi 20 \times 3 \text{ mm}$ (steel)               |
| Adjustment range of sound speed | 1000 ~ 9999m/s                                      |
| Temperature range of operation  | 0 ~ 40°C                                            |
| Battery                         | 3 Nos. Ni-MH rechargeable batteries of 1.2V         |
| USB charging                    | 5V 1A                                               |
| Dimensions (LxHxD)              | 65 x 146 x 30 mm                                    |
| Weight                          | 130 G                                               |

  

|        |                        |
|--------|------------------------|
| Probe  | Measurement parameters |
| 5M-d10 | 1.0 ~ 225.0mm          |

### STANDARD INCLUSIONS

- Color Box
- PP Box
- Host
- USB Cable
- Coupling Agent
- Plug
- Ni-MH rechargeable battery - 3 Nos.
- Probe
- Instruction Manual

### OPTIONAL ITEMS (ADD ONS)

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



## LIGHT METER

**231**

### Features:

- 3½ Digits Display
- Auto Ranging
- Automatic Power Off
- Fc / lx Function Selectable
- Hold Function
- Range Display
- Automatic Zero when Power On

### Specifications:

|                |                                   |
|----------------|-----------------------------------|
| Light Range    | 0.000 ~ 4000 fc ; 0.00 ~ 40000 lx |
| Resolution     | 0.01~10 lx; 0.001~1 fc            |
| Accuracy       | ±3% Rdg., ±5 digits               |
| Sample Rate    | 2 times/sec                       |
| Auto Power Off | 30 minutes                        |
| Battery        | 9V battery                        |
| Dimensions     | 196 x 54 x 34 mm                  |
| Weight         | Approx.180 g                      |



### Standard Delivery :

- Basic Instrument with Battery
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## LED LIGHT METER

**233**

### Features:

- User Adjustable Parameter For Special Light Source
- Measure Most Popular Light Sources In Lux or Fc
- Removable Probe For Easy Access To The Source
- Cosine And Color Corrected Measurements
- Built-in Sensor With Protective Cover
- Min/Max Average And Auto Power Off
- Large LCD Display For Easy Reading
- Max/Min Function



### Specifications:

|                             |                                                                          |
|-----------------------------|--------------------------------------------------------------------------|
| Measuring Range             | 0.0 to 199.9/1999/19990/199900 lx<br>Automatic/manual selection of range |
| Resolution                  | 0.1 Lx; 0.1 fc                                                           |
| Accuracy                    | ±3% rdg, ±5 dgts (standard A light source)                               |
| Response Time               | 0.5 sec                                                                  |
| Temperature characteristics | ± 0.1% / °C (away from 25°C)                                             |
| Battery                     | Size AA battery x 2                                                      |
| Dimensions                  | 169x63x37 mm                                                             |
| Weight                      | Approx.210g                                                              |

### Standard Delivery :

- Basic Instrument with Battery
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## TRMS INRUSH CLAMP METER

**241**

### Features :

- With 0.01A High Resolution 0.01 – 66A; 0.1 – 660A
- Measuring Frequency From Current Clamp & Test Terminal
- Inrush Function
- Back Light Function
- Data Hold Function
- Auto Power Off
- Auto ranging

### Specifications :

| Function    | Range                     | Resolution   | Accuracy                 |
|-------------|---------------------------|--------------|--------------------------|
| ACA         | 66A / 660A                | 0.01A / 0.1A | ±1.9% reading + 5 digits |
| DCA         | 60A / 600A                | 0.01A / 0.1A | ±2% reading + 5 digits   |
| DCuA        | 600uA                     | 0.1uA        | ±1% reading +5 digits    |
| ACV         | 600V                      | 0.1V         | ±1.2% reading + 5 digits |
| DCV         | 600V                      | 0.1V         | ±1% reading + 2 digits   |
| Ohms        | 660Ω                      | 0.1Ω         | ±1% reading + 2 digits   |
| Capacitance | 400uF~4000uF              | 0.1uF ~ 1uF  | ±2.5% reading + 5 digits |
| Temp.       | -50.0°C ~ 600.0°C         | 0.1°C        | ±1% reading + 1.5°C      |
| Hz(A)       | 660Hz ~ 30KHz             | 0.001 – 0.1  | ±0.2% reading + 1 digits |
| Hz(v)       | 660Hz ~ 100KHz            | 0.0001 – 0.1 | ±0.2% reading + 1 digits |
| •)))        | Active Sound Level: < 40Ω |              |                          |

Display : 4 digit Liquid display, Maximum reading 6600  
 Sampling Rate : 3 times/sec  
 Battery : 1.5V size AAA battery x 2  
 Dimensions : 210 x 62 x 36 mm  
 Weight : 273 g  
 Maximum Jaw Opening : ø25 mm

### Standard Delivery :

- Basic Instrument with Battery
- Test Lead
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards





## TRMS AC/DC CLAMP METER

**242**

### Features :

- With 0.01A High Resolution / 0.1A 60 – 0.01; 600 – 0.1
- 1 ms Peak Hold Function
- Back Light Function
- Data Hold Function
- Zero Function
- Auto Power Off
- Auto ranging

### Specifications :

| Function | Range                     | Resolution   | Accuracy                |
|----------|---------------------------|--------------|-------------------------|
| ACA      | 60A / 600A                | 0.01A / 0.1A | ±1.9% reading + 5digits |
| DCA      | 60A / 600A                | 0.01A / 0.1A | ±2% reading + 5digits   |
| ACV      | 600V                      | 0.1V         | ±1.2% reading + 5digits |
| DCV      | 600V                      | 0.1V         | ±1% reading + 2digits   |
| Ohms     | 1000Ω                     | 0.1Ω         | ±1% reading + 2digits   |
| •)))     | Active Sound Level: < 40Ω |              |                         |

|                     |   |                                              |
|---------------------|---|----------------------------------------------|
| Display             | : | 4 digit Liquid display, Maximum reading 6600 |
| Sampling Rate       | : | 3 times/sec                                  |
| Battery             | : | 1.5V size AAA battery x 2                    |
| Dimensions          | : | 210 x 62 x 36 mm                             |
| Weight              | : | 273 g                                        |
| Maximum Jaw Opening | : | ø23 mm                                       |

### Standard Delivery :

- Basic Instrument with Battery
- Test Lead
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

### Optional :

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



**TRMS AC/DC LOW CURRENT CLAMP METER (1mA)****243****Features :**

- 1 mA Current Resolution
- True-RMS Measurement For All Applications
- AC+DC True RMS Measurements
- Built-in LED Work Light
- Backlight Function
- Data Hold Function
- Zero Function
- Auto Power Off/ Auto ranging

**Specifications :**

| Function                | Range                                | Resolution  | Accuracy                                    |
|-------------------------|--------------------------------------|-------------|---------------------------------------------|
| DC/AC mA                | 4000mA                               | 1mA         | ± 2.0% reading ± 5 digits                   |
| DC/AC A                 | 40.00 / 100.0 / 200.0A               | 0.01A~0.1A  | ± 2.0% / ± 4.0% / ± 8.0% reading ± 5 digits |
| AC+DC mA/A              | 4000mA / 200.0A                      | 1mA~0.1A    | ± 2.5% reading ± 5 digits                   |
| DCV/ACV                 | 6.000V / 60.00V / 600.0V             | 0.001V~0.1V | ± 1.0% reading ± 2 digits                   |
| AC+DC V (True RMS)      | 6.000V / 60.00V / 600.0V             | 0.001V~0.1V | ± 1.2% reading ± 5 digits                   |
| Capacitance             | 1.000uF / 10.00uF / 100.0uF / 1000uF | 0.001uF~1uF | ± 3% reading ± 8 digits                     |
| Diode                   | 2.000V                               | 0.001V      | ± 2% reading ± 5 digits                     |
| Ohms                    | 600.0Ω / 6.000KΩ / 60.00KΩ / 600.0KΩ | 0.1Ω~0.1KΩ  | ±1% reading ± 3 digits                      |
| •)))_Active Sound Level | < 100Ω                               |             |                                             |

Display : 4 digital Liquid display  
 Sampling Rate : 2 times/sec  
 Battery : 1.5V size AAA battery x 2  
 Dimensions : 232 x 72 x 35 mm  
 Weight : 230 g  
 Maximum Jaw Opening : ø 20 mm

**Standard Delivery :**

- Basic Instrument with Battery
- Test Lead
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

**Optional :**

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

**TRMS MILLI-AMP AC/DC CLAMP METER (0.1mA)****244****Features :**

- 0.1 mA Current Resolution @ 300 mA
- True RMS Measurement For All Applications
- Backlight Function
- MAX MIN Measurement Function
- Data Hold Function
- Zero Function
- Auto Power Off
- Autoranging

**Specifications :**

| Function                | Range                                                     | Resolution                                             | Accuracy                                                                 |
|-------------------------|-----------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------|
| DCA                     | 3.00.0 mA / 300.0 mA / 3 A / 10.00 A                      | 0.1mA / 1mA / 0.01A                                    | $\pm 1\% \text{ rdg} \pm 10 \text{ dgts}$<br>$/ 3.0\% + 10 \text{ dgts}$ |
| ACA                     | 3.00.0 mA / 300.0 mA / 3 A / 20.00 A                      | 0.1mA / 1mA / 0.01A                                    | $\pm 1\% \text{ rdg} \pm 5 \text{ dgts}$                                 |
| DCV                     | 50V / 300V                                                | 0.01V / 0.1V                                           | $\pm 1\% \text{ rdg} \pm 2 \text{ dgts}$                                 |
| ACV                     | 50V / 300V                                                | 0.01V / 0.1V                                           | $\pm 1\% \text{ rdg} \pm 5 \text{ dgts}$                                 |
| Ohms                    | 500 $\Omega$ / 5K $\Omega$ / 50K $\Omega$ / 500K $\Omega$ | 0.1 $\Omega$ / 1 $\Omega$ / 10 $\Omega$ / 100 $\Omega$ | $\pm 1\% \text{ rdg} \pm 2 \text{ dgts}$                                 |
| •)))_Active Sound Level | < 100 $\Omega$                                            |                                                        |                                                                          |

Display : 4 digital Liquid display  
 Sampling Rate : 2 times/sec  
 Battery : 1.5V size AAA battery x 2  
 Dimensions : 206 x 76 x 33.5 mm  
 Weight : 270 g  
 Maximum Jaw Opening :  $\varnothing$  23 mm

**Standard Delivery :**

- Basic Instrument with Battery
- Test Lead
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

**Optional :**

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



## TRMS AC DC Clamp Meter

**245**

### Features :

- True RMS
- Autoranging
- Auto Power Off
- High Speed Bargraph available
- Data Hold Function
- Peak Hold Function

### Specifications :



| Function | Range        | Resolution | Accuracy                 |
|----------|--------------|------------|--------------------------|
| ACA      | 40A ~ 1000A  | 0.01A ~ 1A | ±1.9% reading + 5 digits |
| DCA      | 40A ~ 1000A  | 0.01A ~ 1A | ±2% reading + 10 digits  |
| ACV      | 400V ~ 750V  | 0.1V ~ 1V  | ±1.5% reading + 5 digits |
| DCV      | 400V ~ 1000V | 0.1V ~ 1V  | ±1% reading + 2 digits   |
| Ohms     | 400Ω ~ 4000Ω | 0.1Ω ~ 1Ω  | ±1% reading + 3 digits   |
| Hz(A)    | 4KHz ~ 10KHz | 1Hz        | ±0.1% reading + 1 digits |
| Hz(v)    | 4KHz ~ 10KHz | 1Hz        | ±0.1% reading + 1 digits |

|                     |   |                                                                     |
|---------------------|---|---------------------------------------------------------------------|
| •)))                | : | Active Sound Level : $\leq 100\Omega$                               |
| Display             | : | 3-3/4 digital Liquid display, Maximum reading 3999                  |
| Sampling Rate       | : | 2 times/sec (digital reading); 20 times/sec (analog bar indication) |
| Battery             | : | 9V battery                                                          |
| Dimensions          | : | 242 x 66 x 36 mm                                                    |
| Weight              | : | 400g                                                                |
| Maximum Jaw Opening | : | 40 mm                                                               |

### Standard Delivery :

Basic Instrument with Battery  
Test Lead  
Carrying Case  
Traceable Calibration Certificate  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance  
with our Scope as granted by NABL per ISO/IEC  
17025:2017 Standards

## TRMS AC Leakage Clamp Meter (0.001mA)

246

### Features :

- mA Current Resolution
- True RMS Measurement for all Applications
- Low Pass Filter Function
- Backlight Function
- Peak Hold Function
- Data Hold Function
- Zero Function
- Auto Power Off



### Specifications :

| Function | Range                       | Resolution              | Accuracy        |
|----------|-----------------------------|-------------------------|-----------------|
| ACmA     | 6.000mA / 60.00mA / 600.0mA | 0.001mA / 0.01mA / 0.1A | ±1% rdg ±3 dgts |
| ACA      | 6.000A / 60.00A             | 0.001A / 0.01A          | ±1% rdg ±3 dgts |
| DCV      | 60V / 600V                  | 0.01V / 0.1V            | ±1% rdg ±2 dgts |
| ACV      | 60V / 600V                  | 0.01V / 0.1V            | ±1% rdg ±3 dgts |
| Ohms     | 600Ω / 6KΩ / 60KΩ / 600KΩ   | 0.1Ω / 1Ω / 10Ω / 100Ω  | ±1% rdg ±2 dgts |

- ))\_Active Sound Level : < 60Ω
- Display : 4 digital Liquid display, Maximum reading 6000
- Sampling Rate : 2 times/sec
- Battery : 1.5V size AAA battery x 2
- Dimensions : 206 x 76 x 33.5 mm
- Weight : 270g
- Maximum Jaw Opening : ø 23 mm

### Standard Delivery :

Basic Instrument with Battery  
Test Lead  
Carrying Case  
Traceable Calibration Certificate  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance  
with our Scope as granted by NABL per ISO/IEC  
17025:2017 Standards

## Flexible True RMS Current Clamp, 3000A AC

18" Long Probe

**248**

### Features :

- Measurement Ranges: 30A/300A/3000A AC
- Output Resolution (LCD Display): 0.01A/0.1A/1A
- 8.5mm coil diameter allows measurement in tight spaces (Double insulated)
- 10" flexible sensor fit around conductors up to 3.2" in diameter
- 18" flexible sensor fit around conductors up to 5.8" in diameter
- TRMS Reading



### Specifications :

|                      |                                                |
|----------------------|------------------------------------------------|
| Range                | 30A / 300A / 3000A                             |
| Resolution           | 0.01A / 0.1A / 1A                              |
| Accuracy             | 3% rdg $\pm$ 5dgt                              |
| Frequency Range      | 45 ~ 500 Hz                                    |
| Phase Error          | $< \pm 1^\circ$                                |
| Position Sensitivity | $\pm 3\%$                                      |
| Display              | 4 digital Liquid display, Maximum reading 3150 |
| Sampling Rate        | 2 times/sec                                    |
| Battery              | 1.5V, size AAA battery x 2                     |
| Probe Cable Length   | 10" - 254 mm; 18" - 458mm                      |
| Dimensions(Meter)    | 120 X 70 X 26 mm                               |
| Weight               | approx. 286g                                   |

### Standard Delivery :

Basic Instrument with Battery  
Carry Case  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance with our  
Scope as granted by NABL per ISO/IEC 17025:2017  
Standards

# INSULATION TESTER

**261**

## Features :

- Insulation test range up to 20GΩ.
- Test voltages of 50V, 100V, 250V, 500V and 1000V for insulation test.
- Live circuit detection.
- Open Circuit Test Voltage > 4V and Short-Circuit current > 200mA for LoΩ test.
- Power Source: size AA batteries (IEC LR6) X 4pcs
- Auto Power Off: Approx. 10 minutes.
- Approvals : EN61010 600V CAT IV
- Electromagnetic Compatibility: EN61326-1
- Dimensions / Weight: 206(L) x 90(W) x 51(H) mm / Approx. 510g (with holster & battery)



## Insulation Resistance Measurement :

| Insulation Test Voltage | Range                                    | Accuracy                             |
|-------------------------|------------------------------------------|--------------------------------------|
| 50V                     | 300KΩ / 3.00MΩ / 30.0MΩ / 300MΩ / 1.00GΩ | ± (3% rdg + 5dgts) (30KΩ ~ 1.00GΩ)   |
| 100V                    | 600KΩ / 6.00MΩ / 60.0MΩ / 600MΩ / 2.00GΩ | ± (3% rdg + 5dgts) (60KΩ ~ 2.00GΩ)   |
| 250V                    | 1.50MΩ / 15.0MΩ / 150MΩ / 1.50GΩ         | ± (3% rdg + 5dgts) (0.15MΩ ~ 1.50GΩ) |
|                         | 5.0GΩ                                    | ± (10% rdg + 3dgts)                  |
| 500V                    | 3.00MΩ / 30.0MΩ / 300MΩ / 3.00GΩ         | ± (3% rdg + 5dgts) (0.30MΩ ~ 3.00GΩ) |
|                         | 10.0GΩ                                   | ±(10% rdg + 3dgts)                   |
| 1000V                   | 6.00MΩ / 60.0MΩ / 600MΩ / 6.00GΩ         | ± (3% rdg + 5dgts) (0.60MΩ ~ 6.00GΩ) |
|                         | 20.0GΩ                                   | ± (10% rdg + 3dgts)                  |

## AC/DC Voltage

| Range         | Resolution | Accuracy (AC: 45~500Hz) | Protection |
|---------------|------------|-------------------------|------------|
| 60.00V/600.0V | 0.01V/0.1V | ±2% rdg + 5 dgts        | 600Vrms    |

## Resistance

| Range                          | Resolution                | Accuracy | Protection |
|--------------------------------|---------------------------|----------|------------|
| 600.0Ω/6.000KΩ/60.00KΩ/600.0KΩ | 0.1Ω/0.001KΩ/0.01KΩ/0.1KΩ | 2% rdg + | 600Vrms    |

## Continuity

| Range  | Resolution | Beeper    | Protection |
|--------|------------|-----------|------------|
| 600.0Ω | 0.1Ω       | ≅ 7Ω ± 1Ω | 600Vrms    |

## LoΩ

| Range       | Resolution | Accuracy        |
|-------------|------------|-----------------|
| 6.00Ω/60.0Ω | 0.01Ω/0.1Ω | 2% rdg + 3 dgts |

Contd... /2

**Standard Delivery :**

- Basic Instrument with Battery
- Test Lead
- Carrying Case
- Large Jaw Alligator Clips
- Holster
- Traceable Calibration Certificate
- Instruction Manual

**Optional :**

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



## INSULATION TESTER

**262**

### Features :

#### 1. Basic measurement functions

- DC voltage DCV  
Measurement range: 0 ~  $\pm 1000V$ .  
Measurement basic accuracy: 2%
- AC true RMS voltage ACV  
Measurement range: 30 ~ 750V (50/60Hz)  
Measurement basic accuracy: 2%



#### 2. Insulation resistance test

- 4 insulation test voltage ranges: 100V, 250V, 500V, 1000V
- Basic accuracy: 0 ~ +20%
- Insulation test range: 0.00 M $\Omega$  ~ 19.99 G $\Omega$
- Measurement basic accuracy: 5%
- Short circuit current is about 1.3 mA

#### 3. Insulation testing other features

- Insulation test operating modes, including:  
Single, continuous test  
Insulation timed test  
Insulation PI (polarization index) test: the ratio of the resistance value measured when the insulation excitation voltage is applied for 10 minutes to that of 1 minute  
Insulation DAR (absorption ratio) test: the ratio of the resistance value measured when the insulation excitation voltage is applied for 60 seconds to that of 15 seconds
- Insulation resistance and voltage monitoring test display
- Insulation resistance test automatic range
- Test voltage automatic discharge function
- Voltage detection and alarm of the measured object
- The TEST switch with lock function
- Insulation comparison test, the measurement result can be evaluated by the preset "pass/fail" ( $\checkmark$  /  $\times$ ) limit and be given audio alarms accordingly.

#### 4. Data recording / viewing function: manual recording, internal memory can independently store 100 (groups) measurement data, recorded data can be viewed on the instrument.

#### 5. Product calibration

By connecting with the standard instrument, calibrating panel according to the procedures and saving the appropriate calibration data, the periodic calibration is completed and the due accuracy and performance of the product are guaranteed.

#### 6. Segment code LCD screen display, white backlight.

#### 7. Easy man-machine operation, portable, solid and suitable for field use.

**Specifications :****Insulation Resistance Measurement (RISO)**

| Rated voltage        | 100V                                 | 250V                                                  | 500V                                                  | 1000V                                                                      |
|----------------------|--------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------|
| Measurement range    | 0.00MΩ ~ 19.99MΩ<br>20.0MΩ ~ 199.9MΩ | 0.00MΩ ~ 19.99MΩ<br>20.0MΩ ~ 199.9MΩ<br>200MΩ ~ 499MΩ | 0.00MΩ ~ 19.99MΩ<br>20.0MΩ ~ 199.9MΩ<br>200MΩ ~ 999MΩ | 0.00MΩ ~ 19.99MΩ<br>20.0MΩ ~ 199.9MΩ<br>200MΩ ~ 1999MΩ<br>2.00GΩ ~ 19.99GΩ |
| Open circuit voltage | DC 100V<br>+ 20%, -0%                | DC 250V<br>+ 20%, -0%                                 | DC 500V<br>+ 20%, -0%                                 | DC 1000V<br>+ 20%, -0%                                                     |
| Drop resistance      | 80KΩ                                 | 200kΩ                                                 | 450kΩ                                                 | 1MΩ                                                                        |
| Short circuit        | 1.3 mA nominal value                 |                                                       |                                                       |                                                                            |
| Accuracy             | 5%+5                                 |                                                       |                                                       |                                                                            |

*Insulation test automatic discharge time: when capacitor C = 1μF or less, discharge time <1 second.*

*Insulation test alive circuit test: if the terminal voltage is greater than 30 V before the test is initialized, the alarm will be activated to prohibits the test.*

*Insulation test maximum capacitive load : operative below 1μF.*

**Voltage Monitoring Display (Insulation Resistance Measurement)**

| Measurement function | Measurement range | Resolution | Accuracy |
|----------------------|-------------------|------------|----------|
| DC Voltage DCV       | 0 ~ 1000V         | 1V         | 2% + 3   |

**Voltage test**

| Measurement function | DC voltage<br>DCV | AC RMS voltage<br>ACV                    |
|----------------------|-------------------|------------------------------------------|
| Measurement range    | 0 ~ ±1000V        | 30 ~ 750V<br>Frequency band:45Hz ~ 200Hz |
| Resolution           | 1V                |                                          |
| Accuracy             | 2%+3              |                                          |

**General Specifications :**

|                                    |                                                                    |
|------------------------------------|--------------------------------------------------------------------|
| Operating temperature and humidity | 0 to 40°C (non-condensing ≤10°C), ≤85%RH                           |
| Storage temperature and humidity   | -20°C to 60°C, ≤90%RH                                              |
| Working altitude                   | ≤2000m (Indoor use)                                                |
| Rated transient overvoltage        | 6K (1.2*50us) I, II, III measurement peak value                    |
| Withstand voltage                  | AC8320V(50/60Hz)/5 seconds (between the circuit and the outer box) |
| Insulation impedance               | 1000MΩ or greater/DC1000V (between the circuit and the outer box)  |
| Vibration and shock                | Randomness 2g, 5 to 500Hz; 1m drop test                            |
| Power supply                       | 8 x 1.5 V AA alkaline batteries.                                   |
| Automatic shutdown operation       | automatic shutdown time 0 ~ 90 minutes can be set                  |
| Size and weight                    | 178 × 110 × 59 (mm), about 600g (including batteries)              |

**Standard Delivery :**

- Test meter probe (including alligator clip) -1
- 1.5V Alkaline Battery - 8 Nos.
- Handle Rope
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

**Optional :**

- 15V Power Adaptor
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

# EARTH RESISTANCE TESTER

**263**

## Features :

- Basic measurement functions
  - Earth resistance measurement (RE)  
Measurement method: 3-pole method, 4-pole method  
Measuring range:  $0.02\Omega \sim 1999\Omega$   
Minimum resolution:  $0.01\Omega$   
Basic accuracy: 5%
  - Soil resistivity measurement ( $\rho$ )  
Measurement range:  $0.01\Omega \cdot m \sim 376.8K\Omega \cdot m$   
Interval of auxiliary earth rods, setting range:  $1.0m \sim 30.0m$ .
  - AC true RMS voltage E.V  
Measurement range:  $0 \sim 50V$   
AC bandwidth:  $40Hz \sim 200Hz$   
Measurement basic accuracy : 2%
- Earth test other features
  - Earth resistance measurement adopts square wave excitation test, the maximum open-circuit voltage is  $50Vp-p$ , and the short-circuit current is  $<3mA$ .
  - Automatic range detection in earth resistance measurement.
  - RK resistance test, the line resistance effect can be removed.
  - Earth comparison test, the measurement result can be evaluated by the preset "pass/fail ( $\checkmark$  /  $\times$ )" limit and be given audio alarms accordingly.
- Product calibration  
By connecting with the standard instrument, calibrating panel according to the procedures and saving the appropriate calibration data, the periodic calibration is completed and the due accuracy and performance of the product are guaranteed.
- Large LCD display with white LED backlight.
- Easy man-machine operation, portable, solid and suitable for field use.



## Specifications :

### AC Voltage E.V

| Measurement range                                                  | Resolution | Frequency range      | Precision |
|--------------------------------------------------------------------|------------|----------------------|-----------|
| $0.00V \sim 50.00V$                                                | $0.01V$    | $45 \sim 200Hz$ sine | $2\%+5$   |
| Input resistance: about $1M\Omega$<br>Measurement rate: 2 times/s. |            |                      |           |

### Earth Resistance RE (RG when testing $\rho$ )

| Range        | Measurement range             | Resolution   | Precision | Remarks                                                                                                                 |
|--------------|-------------------------------|--------------|-----------|-------------------------------------------------------------------------------------------------------------------------|
| $20\Omega$   | $0.10\Omega \sim 19.99\Omega$ | $0.01\Omega$ | $5\%+5$   | $0.2\Omega$ error is added when the resistance is less than $2\Omega$ .<br>RH and RS are $500\Omega Rk$ corrected data. |
| $200\Omega$  | $20.0\Omega \sim 199.9\Omega$ | $0.1\Omega$  |           |                                                                                                                         |
| $2000\Omega$ | $200\Omega \sim 1999\Omega$   | $1\Omega$    |           |                                                                                                                         |

Output features: test open circuit voltage  $U_M$ , the maximum is around 50Vpp, square wave

Test the short circuit current  $I_M$ , the maximum is around 3mA<sub>pp</sub>, but  $I_M \times (R_H + R_E) < U_M$

Measurement time: typical 2 seconds.

$R_H$  MAX: (4K  $\Omega$ +100RE) or 50K $\Omega$  (whichever is lower).

$R_S$  MAX: (4K  $\Omega$ +100RE) or 50K $\Omega$  (whichever is lower).

Additional error at  $R_H$  MAX or  $R_S$  MAX: 3%+10.

Series interference voltage: 16-2/3Hz, 50Hz, 60Hz, 400Hz and DC 3V (20 $\Omega$  range does not include DC).

Additional error at 3V series interference voltage: 5%+10.

#### Soil Resistivity ( $\rho$ ) Measurement

| Range                                                 | Measurement range    | Resolution | Precision                   |
|-------------------------------------------------------|----------------------|------------|-----------------------------|
| 20Ω·m                                                 | 0Ω·m ~ 19.99Ω·m      | 0.01Ω·m    | Depends on RG<br>ρ=2×π×a×RG |
| 200Ω·m                                                | 20.0Ω·m ~ 199.9Ω·m   | 0.1Ω·m     |                             |
| 2000Ω·m                                               | 200Ω·m ~ 1999Ω·m     | 1Ω·m       |                             |
| 20KΩ·m                                                | 2.00KΩ·m ~ 19.99KΩ·m | 0.01KΩ·m   |                             |
| 200KΩ·m                                               | 20.0KΩ·m ~ 376.8KΩ·m | 0.1KΩ·m    |                             |
| The distance between the earth rods: a=1.0 m ~ 30.0 m |                      |            |                             |

#### General Specifications :

|                                    |                                                                           |
|------------------------------------|---------------------------------------------------------------------------|
| Operating temperature and humidity | 0 to 40°C (non-condensing $\leq 10^\circ\text{C}$ ), $\leq 85\%RH$        |
| Storage temperature and humidity   | -20°C to 60°C, $\leq 90\%RH$                                              |
| Working altitude                   | $\leq 2000\text{m}$ . (Indoor use)                                        |
| Rated transient overvoltage        | 6K (1.2*50us) I, II, III measurement peak value                           |
| Withstand voltage                  | AC8320V(50/60Hz)/5 seconds (between the circuit and the outer box)        |
| Insulation impedance               | 1000M $\Omega$ or greater/DC1000V (between the circuit and the outer box) |
| Vibration and shock                | Randomness 2g, 5 to 500Hz; 1m drop test                                   |
| Power supply                       | 8 x 1.5 V (AA) alkaline batteries                                         |
| Automatic shutdown operation       | Automatic shutdown time 0 ~ 90 minutes can be set                         |
| Size and weight                    | 178 x 110 x 59 (mm), about 600g (including batteries)                     |

#### Standard Delivery :

- Test kit (Red : 15 m; black/green : 5 m; yellow : 10 m) - 1 set
- Earth steel chisel - 4
- 1.5V Alkaline Battery - 8 Nos.
- Handle Rope
- Cloth Bag
- Traceable Calibration Certificate
- Instruction Manual

#### Optional :

- 15V Power Adaptor
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## **HYDROGEN (H<sub>2</sub>) GAS LEAK DETECTOR**

**271**

### **Features :**

This can detect mixture 5% Hydrogen (H<sub>2</sub>) + 95% Nitrogen (N) with extreme sensitivity. The unit is built in newly developed heated semi-conductor sensor & microprocessor control to provide reliable digital signal processing. Adjustable leak sensitivity level and 7 LED visual indicators also offer the users the ease & convenience of operations. It can detect less than 5 ppm Hydrogen concentration.

### **Specifications :**

- Detectable Gases: mixture 5% Hydrogen (H<sub>2</sub>) + 95% Nitrogen(N)
- Sensitivity: Less than 5 ppm ; 2g/year
- Sensor life: approx. 1 year
- Response Time: Instantaneous
- Warm up time: 45 seconds
- DC brushless fan
- High-medium Low leak sensitivity selector
- 15.5" (40 CM) flexible stainless probe
- Ambient concentration reset
- Automatic zero and background compensation
- Carrying case included
- Operating Temperature & Humidity: 0 ~40 °C, < 80% RH
- Dimension / Weight: 213 x 65.5 x 53.5 mm ( approx. 400g )
- Power Source: 4 AA (6V DC) size Alkaline Batteries
- Battery Life: Approx. 12 hours normal use



### **Standard Delivery :**

- Basic Instrument with Battery
- Carrying Case
- Traceable Calibration Certificate
- Instruction Manual

### **Optional :**

- AC adaptor
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## Carbon Monoxide (CO) Meter

**272**

### Features :

- Large LCD dual displays for CO and TEMP measurement
- Backlight for easy screen viewing under dim lighting conditions
- Adjustable alarm limits
- CO level beeper can be silenced if desired
- Automatic Zero point adjustment
- MAX Hold / Data Hold / Auto Power Off
- Easy to replace battery
- Replaceable CO sensor extends tool life

### Specifications :

|                |   |                                                                                                                                       |
|----------------|---|---------------------------------------------------------------------------------------------------------------------------------------|
| Range/Accuracy | : | CO : 0 to 1000 ppm; $\pm 5\%$ reading or $\pm 5$ ppm<br>Temp: -20 to 70°C, -4 to 158°F; $\pm 0.8^\circ\text{C}/\pm 1.5^\circ\text{F}$ |
| Resolution     | : | 1 ppm, 0.1°C, 0.1°F                                                                                                                   |
| Sensor Type    | : | Stabilized electrochemical<br>CO specific sensor;<br>Thermistor temp sensor                                                           |
| Alarm limits   | : | Adjustable                                                                                                                            |
| Sensor Life    | : | 3 years (typical)                                                                                                                     |
| Battery        | : | 9V battery                                                                                                                            |
| Dimensions     | : | 190 x 65 x 45 mm                                                                                                                      |
| Weight         | : | Approx. 235 g                                                                                                                         |

### Standard Delivery :

- Basic Instrument with Battery
- Carrying Case
- Instruction Manual

### Optional :

- AC adaptor
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



## Combustible Gas Detector

**Nagman 274**  
Handheld Model

### SALIENT FEATURES

This Detector uses a hi-tech Semi-Conductor Sensor which is extremely sensitive to variety of Combustible Gases.

Microprocessor Control with Advanced Digital Signal Processing.

### SPECIFICATIONS

Heated Semiconductor Gas Sensor

High-Low Leak Sensitivity Selector

7 LED Tri-colored Visual Leak Level Indicator

Variable Intensity Audible Alarm

Ambient Concentration Reset

15.5"(40CM) Flexible Stainless Probe

Detection of METHANE / HYDROCARBON.... Combustible Gases

Sensitivity as Low 5 ppm

Low Battery Indication

Reference Leak Source

Warm-up Time: 90 Seconds

Operating Temperature: 0 to 40°C (32 to 104°F)

Dimension / Weight: 173 x 66 x 56 mm / 400g

Power Source: 4 AA Size Alkaline Batteries

Battery Life: Approx. 40hrs



### STANDARD INCLUSIONS

- Basic Instrument
- Carrying Case
- Leak Check Bottle
- Conformance Certificate
- Instruction Manual



## Digital Multimeter

**281**

### Features :

- 3½ Digits Display
- Autoranging
- High Speed Bargraph
- Max/Min Function
- REL Function
- AC/DC 10A Test

### Specifications :

| Function | Range         | Resolution    | Accuracy                                   |
|----------|---------------|---------------|--------------------------------------------|
| DCV      | 400mV ~ 1000V | 0.1mV ~ 1V    | ±0.5% rdg + 2 digits / 0.8% rdg + 2 digits |
| ACV      | 400mV ~ 750V  | 0.1mV ~ 1V    | 1% rdg + 4 digits                          |
| DCA      | 400uA ~ 10A   | 0.1uA ~ 0.01A | ±1.2% + 2 digits                           |
| ACA      | 400uA ~ 10A   | 0.1uA ~ 0.01A | ±1.5% rdg + 5 digits                       |
| Ohms     | 400Ω ~ 40MΩ   | 0.1Ω ~ 10KΩ   | ±0.75% + 2 digits / 1.2% + 3 digits        |
| Hz       | 4KHz ~ 40MHz  | 1Hz ~ 10KHz   | ±0.1% rdg + 1 digit                        |



—►|— : 1mA

•)))\_Active Sound Level :  $\leq 40\Omega$

Sampling Rate : 2 times/sec for digital reading; 20 times/sec for analog bar indication

Battery : 1.5V size AAA battery x 2

Dimensions : 150 x 72 x 35 mm

Weight (with holster) : 220g

### Standard Delivery :

Basic Instrument with Battery  
Test Lead  
Traceable Calibration Certificate  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance  
with our Scope as granted by NABL per ISO/IEC  
17025:2017 Standards

## Technical Datasheet

### High Precision Digital Multimeter High Quality Professional True RMS

**Nagman 283**  
Handheld Model

#### SALIENT FEATURES

|                  | Measuring Range                                                        | Resolution                                                               | Accuracy                 |
|------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------|
| DC Voltage       | 600 mV                                                                 | 0.1mV                                                                    | ±0.5% reading + 3 digits |
|                  | 6V                                                                     | 1mV                                                                      | ±0.5% reading + 3 digits |
|                  | 60V                                                                    | 10mV                                                                     | ±0.5% reading + 3 digits |
|                  | 600V                                                                   | 100mV                                                                    | ±0.5% reading + 3 digits |
|                  | 1000V                                                                  | 1V                                                                       | ±0.5% reading + 3 digits |
| AC Voltage       | 6V                                                                     | 1mV                                                                      | ±0.8% reading + 3 digits |
|                  | 60V                                                                    | 10mV                                                                     | ±0.8% reading + 3 digits |
|                  | 600V                                                                   | 100mV                                                                    | ±1% reading + 10 digits  |
|                  | 750V                                                                   | 1V                                                                       | ±1% reading + 10 digits  |
| DC Current       | 60µA                                                                   | 0.01µA                                                                   | ±0.8% reading + 3 digits |
|                  | 60mA                                                                   | 0.01mA                                                                   | ±0.8% reading + 3 digits |
|                  | 600mA                                                                  | 0.1mA                                                                    | ±0.8% reading + 3 digits |
|                  | 20A                                                                    | 10mA                                                                     | ±1.2% reading + 3 digits |
| AC Current       | 60mA                                                                   | 0.01mA                                                                   | ±1% reading + 3 digits   |
|                  | 600mA                                                                  | 0.1mA                                                                    | ±1% reading + 3 digits   |
|                  | 20A                                                                    | 10mA                                                                     | ±1.5% reading + 3 digits |
| Resistance       | 600 Ω / 6KΩ / 60KΩ / 600KΩ / 6MΩ                                       | 0.1 / 1 / 10 / 100 / 1K                                                  | ±0.8% reading + 3 digits |
|                  | 60MΩ                                                                   | 10 KΩ                                                                    | ±1.2% reading + 3 digits |
| Capacitance      | 6nF                                                                    | 0.001nF                                                                  | ±4.0% reading + 3 digits |
|                  | 60nF / 600nF                                                           | 0.01nF / 0.1nF                                                           | ±4.0% reading + 3 digits |
|                  | 6 µF / 60 µF / 600 µF                                                  | 1nF / 10nF / 100nF                                                       | ±4.0% reading + 3 digits |
|                  | 6mF                                                                    | 1µF                                                                      | ±4.0% reading + 3 digits |
|                  | 100mF                                                                  | 0.01mF                                                                   | ±5.0% reading + 3 digits |
| Frequency        | 9.9 Hz / 99.9 Hz / 999.9 Hz / 9.9 KHz / 99.9 KHz / 999.9 KHz / 9.9 MHz | 0.001 Hz / 0.01 Hz / 0.1 Hz / 0.001 KHz / 0.01 KHz / 0.1 KHz / 0.001 MHz | ±1.0% reading + 3 digits |
| Duty             | 5% ~ 95%                                                               |                                                                          | ±(2.0% + 3)              |
| Temperature      | -20°C ~ 1000°C / -4°F ~ 1832°F                                         | 1°C / 1°F                                                                | ±(1.0% + 3)              |
| Transistor (HFE) | 0 ~ 1000                                                               |                                                                          |                          |

#### SPECIFICATIONS

|                       |                                                               |
|-----------------------|---------------------------------------------------------------|
| Display               | 6000 counts                                                   |
| True RMS              | ✓                                                             |
| AC Voltage Bandwidth  | 1 Hz                                                          |
| °C / °F               | ✓                                                             |
| Continuity            | ✓ Sound & LED Alarm                                           |
| Diode Test            | ✓                                                             |
| Transistor            | ✓                                                             |
| Live Wire             | ✓ Sound & LED Alarm                                           |
| Low Battery Indicator | ✓                                                             |
| Auto Power Off        | ✓                                                             |
| Back Light            | ✓                                                             |
| NCV                   | ✓                                                             |
| <b>General</b>        |                                                               |
| Power Supply          | 4 x 1.5V Battery                                              |
| Weight                | 380 g approx.                                                 |
| Size                  | 190 x 89 x 50 mm                                              |
| Safety Rating         | EN61010-1, 2-030, EN61010-2-033<br>CAT.III 1000V CAT. IV 600V |



P.T.O.

#### **STANDARD INCLUSIONS**

- Basic Instrument
- K Type Thermocouple
- Test Leads
- Conformance Certificate
- Instruction Manual



## Digital Smart Multimeter

**284**

### Features :

- Measuring Current Range : 600mA ~ 10A
- Measuring Voltage Range : 6V ~ 600V
- Measuring Resistance Range : 600Ω ~ 60MΩ
- Measuring Capacitance Range : 60 mF
- Measuring Frequency Range : 10MHz

### Specifications :

|                       |                             |
|-----------------------|-----------------------------|
| Operating Temperature | 0°C ~ 45°C                  |
| DC Voltage Accuracy   | ±(0.5%+3)                   |
| AC Voltage Accuracy   | ±(0.5%+3)                   |
| AC Current Accuracy   | ±(2% + 3)                   |
| DC Current Accuracy   | ±(0.5%+3)                   |
| Display Count         | 6000 Counts                 |
| Display               | LCD + backlight             |
| Work Environment      | 0 – 40°C                    |
| Live test             | Yes (sound and light alarm) |
| NCV                   | Yes (sound and light alarm) |
| Diode test            | Yes (sound alarm)           |
| Flashlight            | Yes                         |
| Color                 | Grey + Red                  |
| Power supply          | USB rechargeable battery    |
| Dimensions            | 75 x 25 x 147 mm            |
| Weight                | 120g                        |



### Standard Delivery :

- Basic Instrument with Battery
- Test Leads
- USB Charge Cable
- Carrying Case
- Instruction Manual

### Optional

- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## Tachometer

**286**

### Features :

Ideal for use in Motor, Electric Fan, Paper Making, Plastic, Chemical Fiber, Washing Machines and Cars Field.

### Specifications :

|                                                               |                  |                |
|---------------------------------------------------------------|------------------|----------------|
| Measurement                                                   | Contact          | 2 ~ 20000      |
|                                                               | Non-Contact      | 2 ~ 99999      |
|                                                               | 999999 Counts    | 999999 Counts  |
| Display                                                       | Contact          |                |
| Target Distance                                               | Non-Contact      | 50 mm ~ 600 mm |
| Best Accuracy                                                 | 0.02% ± 2 dgt    |                |
| Auto Power Off                                                | 15s              |                |
| Max / Min / road / M / min / s feet / minute feet / sec / min |                  |                |
| Size                                                          | 236 x 72 x 35 mm |                |
| Weight                                                        | 218 g            |                |



### Standard Delivery :

Basic Instrument with Battery  
Traceable Calibration Certificate  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## Hot Wire Anemometer

**291**

### Features :

- Air Velocity Measurement : m/s, km/hr, ft/min, MPH, Knots & built in temperature °C/°F, Humidity %RH
- Air Velocity compensation in atmospheric Pressure
- Air Flow Measure : CMM, CFM
- Telescoping Hot Wire Probe
- Fast response
- Large LCD Display with Backlight
- Min/Max/Avg & 2/3/Vmax function
- With USB Interface supply power
- Adjustable Auto Power Off Timer
- Data Hold Function
- Battery life Indicator
- Tilt Stand



### Specifications :

|                         |                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------|
| Measurement Range       |                                                                                             |
| Air Velocity            | 0 ~ 25 m/s (0 ~ 5000 ft/min)                                                                |
| Air Flow                | 0 ~ 999900 m <sup>3</sup> /min (ft <sup>3</sup> /min)                                       |
| Temperature             | -20°C ~ 60°C (-4°F ~ 140°F)                                                                 |
| Humidity                | 0 ~ 100%RH                                                                                  |
| Accuracy                |                                                                                             |
| Air Velocity / Flow     | ±3% reading ±1% FS (upto 20/s)                                                              |
| Temperature             | ±0.8°C (±1.5°F)                                                                             |
| Humidity                | ±3.5%RH                                                                                     |
| Resolution              | 0.01m/s (1 ft/min); 0.001 m <sup>3</sup> /min (ft <sup>3</sup> /min); 0.1°C; 0.1°F; 0.1% RH |
| Sampling Rate           | 2 time/sec                                                                                  |
| Telescopic Probe Length | 330 to 870 mm (4 sections)                                                                  |
| Cable Length            | 1890 mm                                                                                     |
| Max. Extension Length   | 2220 mm                                                                                     |
| Power Source            | 9V Alkaline Battery                                                                         |
| Operation Condition     | 0 ~ 50°C (<80%RH)                                                                           |
| Storage Condition       | -20 ~ 60°C (<70%RH)                                                                         |
| Dimensions (L x W x H)  | 185 x 65 x 36 mm                                                                            |
| Weight (approx.)        | 410 g                                                                                       |

### Standard Delivery :

Basic Instrument with Battery  
Carry Case  
Instruction Manual

### Optional :

Calibration Certificates are issued in Accordance with our  
Scope as granted by NABL per ISO/IEC 17025:2017  
Standards

## Vane Anemometer

**292**

### Features :

- Measure current wind speed, temperature & humidity
- Measurement of current air volume, temperature & humidity
- Measure wind speed/MAX wind flow / min wind flow
- 2/3 wind flow value/average value
- Wind speed/flow units and temperature units selection
- Measure wind direction angle
- Real time measurement with connection USB with computer software
- Backlight & data holding (HOLD)
- Low battery indication
- Automatic shutdown setting



### Specifications :

#### 1. Wind Velocity Range

| Unit   | Wind Velocity Range | Resolution | Lowest Point of start value | Accuracy |
|--------|---------------------|------------|-----------------------------|----------|
| m/s    | 0.0 to 45.0         | 0.01       | 0.3                         | ±3%±0.1  |
| Ft/min | 0.0 to 8800         | 0.01/0.1/1 | 60                          | ±3%±20   |
| Knots  | 0.0 to 88.0         | 0.01       | 0.6                         | ±3%±0.2  |
| Km/h   | 0.0 to 140.0        | 0.01       | 1                           | ±3%±0.4  |
| Mph    | 0.0 to 100          | 0.01       | 0.7                         | ±3%±0.2  |

#### 2. Wind flow range

CFM : 0 to 999900 ft<sup>3</sup>/min

CMM : 0 to 999900 m<sup>3</sup>/min

| Unit                       | Range       | Resolution   | Area                          |
|----------------------------|-------------|--------------|-------------------------------|
| CFM (FT <sup>3</sup> /MIN) | 0 to 999900 | 0.001 to 100 | 0.001 to 9999 ft <sup>2</sup> |
| CMM (M <sup>3</sup> /MIN)  | 0 to 999900 | 0.001 to 100 | 0.001 to 9999 m <sup>2</sup>  |

#### 3. Unit Conversion

|          | m/s     | Ft/min | Knots   | Km/h    | Mph     |
|----------|---------|--------|---------|---------|---------|
| 1 m/s    | 1       | 196.87 | 1.944   | 3.60    | 2.24    |
| 1 ft/min | 0.00508 | 1      | 0.00987 | 0.01829 | 0.01138 |
| 1 knots  | 0.5144  | 101.27 | 1       | 1.8519  | 1.1523  |
| 1 km/h   | 0.2778  | 54.69  | 0.54    | 1       | 0.6222  |
| 1 mph    | 0.4464  | 87.89  | 0.8679  | 1.6071  | 1       |

-: 2 :-

**4. Wind Temperature****(a). Temperature Range**

| Unit | Scale     | Resolution | Accuracy |
|------|-----------|------------|----------|
| °C   | 0 to 45   | 0.1        | ±1.0°C   |
| °F   | 32 to 113 | 0.18       | ±1.8°F   |

**(b). Humidity Range**

| Unit | Min/Max  | Resolution | Accuracy | Test Conditions         |
|------|----------|------------|----------|-------------------------|
| %RH  | 10 to 90 | 0.1        | ±5%      | 90% RH (non-condensing) |

**5. Operating Current**

| Unit | Description            | Min/Max    | TYP | Test Conditions  |
|------|------------------------|------------|-----|------------------|
| mA   | Operating Current 1    | 15 to 20   | 18  | Backlight is OFF |
| mA   | Operating Current 2    | 20 to 25   | 23  | Backlight is ON  |
| V    | Low battery indication | 3.5 to 4.5 | 4   |                  |
| µA   | Stand by current       | 0 to 8     | 5   |                  |

**6. Operation Conditions**

|             |                         |
|-------------|-------------------------|
| Temperature | 0 to 50°C (32 to 122°F) |
| Humidity    | 40 to 80% RH            |

**7. Storage Conditions**

|             |                           |
|-------------|---------------------------|
| Temperature | -40 to 60°C (-40 to 140°) |
| Humidity    | ≤80% RH                   |

8. **Power Supply** : AAA 1.5V alkaline battery x 4 Nos.9. **Dimensions** : 73 x 38 x 194 mm; 74 x 35 x 2100 mm (after lengthening)10. **Weight** 212.9 g (without battery)**Standard Delivery :**

Basic Instrument in Hard Case  
 Battery – 1.5V AAA x 4 Nos.  
 Auxiliary Fan  
 USB Cable  
 Instruction Manual

**Optional :**

Calibration Certificates are issued in Accordance with our  
 Scope as granted by NABL per ISO/IEC 17025:2017  
 Standards



## Multifunction LCR Tester

Portable / Handheld

Nagman 294

Nagman Multifunction LCR Tester has digital double-display intelligent measurement high-precision digital bridge, and there are series and parallel modes to choose from. Selecting the appropriate mode can measure data more accurately. LCR meter has three frequency test points, which are 100Hz/1kHz/10kHz. It can be used to measure inductance, capacitance, impedance, which is an ideal multi-function LCR tester.

High definition 6000 count display, automatic display of unit symbols according to the measurement function, with backlight, clear reading even in dark environments.

Simple key design with text introduction, you can quickly understand key functions and usage. The keys are concentrated in one area, allowing users to complete function selection with one hand.

The shielded ground jack simplifies multiple jacks for easy identification and portability. The design of the watch clip makes it easier for users to connect the object under test and is more stable.

Function : Resistance / Capacitance / Inductance / Frequency Measurement

Typical Photo. Final Product may vary.



### SALIENT FEATURES

Measuring Resistance Range : 20MΩ

Measuring Capacitance Range: 6mF

Measuring Inductance Range: 200H

Operating Temperature : 0 ~ 40°C

Display : LCD Display

Back Light : Yes

### SPECIFICATIONS

| Specifications                   | Range                                                                          | Accuracy    |
|----------------------------------|--------------------------------------------------------------------------------|-------------|
| Resistance                       | 60 Ω / 600 Ω / 6 KΩ / 60 KΩ / 600 KΩ / 6M Ω / 20M Ω                            | ±(1.0% + 5) |
| Capacitance                      | 600nF / 6nF / 60nF / 600nF / 6μF / 60μF / 600μF / 6mF                          | ±(1.0% + 5) |
| Inductance                       | 600μH / 6000μH / 60mH / 600mH / 6H / 60H / 200H                                | ±(1.0% + 5) |
| Duty                             | 5% - 95%                                                                       | ±(3.0%)     |
| Measuring Frequency              | 100 Hz / 1 kHz / 10 kHz                                                        |             |
| Parameters                       | L / C / R / DCR / Q / D / θ / ESR                                              |             |
| Measuring Voltage                | 0.5Vrms                                                                        |             |
| <b>Features</b>                  |                                                                                |             |
| Display                          | 6000 Counts                                                                    |             |
| Measuring Mode                   | SER/PAL                                                                        |             |
| Dual Display                     | √                                                                              |             |
| Auto Range                       | √                                                                              |             |
| Display Test Frequency           | √                                                                              |             |
| Auto Power Off                   | √                                                                              |             |
| Data Hold                        | √                                                                              |             |
| Relative Measurement             | √                                                                              |             |
| Back Light                       | √                                                                              |             |
| Auto LCR Smart Check & Measuring | √                                                                              |             |
| <b>General</b>                   |                                                                                |             |
| Power Supply                     | 1.5 AA Batteries x 4 Nos.                                                      |             |
| Weight Net                       | 350 grams approx.. (Batteries not included) / Gross Weight 700 grams (approx.) |             |
| Dimensions                       | 195 mm x 93 mm x 56 mm                                                         |             |
| Safety Rating                    | EN61010-1, EN61010-2-033, EN61326, CAT. III 1000V                              |             |

**STANDARD INCLUSIONS**

- Basic Instrument with Battery
- Test Clip
- Test Certificate
- Instruction Manual
- Carrying Case

**OPTIONAL (ADD-ON) ITEMS**

- Computer Interface
- Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards

## 2 Channel Vibration Meter (Recording)

**296**

### Application

This meter measures the vibrations of the rotating and reciprocating machines, as well as bearing damage, measurement items are acceleration, speed, displacement, which can check if the machine is to be repaired or upgrade.

### Electrical Specifications

The environmental temperature range of measurement:  $23 \pm 3^{\circ}\text{C}$

**Acceleration (RMS, PEAK, MAX HOLD)  $1g=9.81\text{m/S}^2$**

|                   |                                   |                                   |                                   |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Range             | 0.5 ~ 199.9 m/S <sup>2</sup>      | 0.05 ~ 20.39g                     | 2 ~ 656 ft/S <sup>2</sup>         |
| Resolution        | 0.1 m/s <sup>2</sup>              | 0.01g                             | 1 ft/S <sup>2</sup>               |
| Accuracy          | $\pm(5\% + 5d)$ @79.4Hz and 158Hz | $\pm(5\% + 5d)$ @79.4Hz and 158Hz | $\pm(5\% + 5d)$ @79.4Hz and 158Hz |
| Calibration point | 50m/S <sup>2</sup> (158Hz)        | 50m/S <sup>2</sup> (158Hz)        | 50m/S <sup>2</sup> (158Hz)        |

**Velocity VEL (RMS, PEAK, MAX HOLD)**

|                   |                                    |                                    |                                    |
|-------------------|------------------------------------|------------------------------------|------------------------------------|
| Range             | 0.5 ~ 199.9mm/s                    | 0.05 ~ 19.99 cm/s                  | 0.02 ~ 7.87 inch/s                 |
| Resolution        | 0.1 mm/s                           | 0.01cm/s                           | 0.01 inch/s                        |
| Accuracy          | $\pm (5\% + 5d)$ @79.4Hz and 158Hz | $\pm (5\% + 5d)$ @79.4Hz and 158Hz | $\pm (5\% + 5d)$ @79.4Hz and 158Hz |
| Calibration point | 50m/s (158Hz)                      | 50m/s (158Hz)                      | 50m/s (158Hz)                      |

**Displacement DISP (P-P, MAX HOLD P-P)**

| Unit              | mm                                 | inch                              |
|-------------------|------------------------------------|-----------------------------------|
| Range             | 0.005 ~ 1.999 mm                   | 0.002 ~ 0.078 inch                |
| Resolution        | 0.001 mm                           | 0.001 inch                        |
| Tolerance         | $\pm (5\% + 5d)$ @79.4Hz and 158Hz | $\pm(5\% + 5d)$ @79.4Hz and 158Hz |
| Calibration point | 0.141mm (158Hz)                    | 0.141mm (158Hz)                   |

Dimensions : 240 x 100 x 45 mm (LxWxH).

Weight : Approx. 730 grams. (including Holster & Accelerometer)

### Standard Delivery

Basic Instrument  
Accelerometer 2 Nos.  
Low Noise Cable 2 Nos.  
Magnetic Base 2 Nos.  
Carrying Case  
9V AC-DC Adaptor

USB Cable  
Handheld Probe + Round Probe  
+ Pointed Probe  
1.5V AA Battery 6 Nos.  
Traceable Calibration Certificate  
Instruction Manual

### Optional

Calibration Certificates are issued in Accordance with our Scope as granted by NABL per ISO/IEC 17025:2017 Standards



# Nagman 6½ Digit Precision Digital Multimeter

**Model : N6579**
*Widely used in Electronic Testing*

**Front Panel**

**Rear Panel**

## SALIENT FEATURES

- 6½ Resolution
- Equipped with a 3.5" Color Display Screen
- Resolution Ratio 320\*480
- Customizable Display Interface
- Bi-parameter Display
- Conduct Remote Operation thro' Interfaces of IEEE 488, RS-232, LAN & USB Device.
- With functions of trigger Input & Output of Measuring completion
- The front-panel menu is with USB port for data storage, procedure updating and configuration.
- Customers can update host software by themselves.
- 2 & 4 wire measurement for Resistance, 10Ω and 1GΩ Measurement Range for extension.
- Measurement of Period & Frequency, Frequency can reach to 300 kHz.
- Capacitance Measurement.
- User settable Sensor Measurement
- Maximum Current Measurement Capacity upto 12A
- Math Functions: (Maximum Value, Minimum Value And Average Value), Zero Elimination, dB, dBm & limit
- Graphic Display: Tendency Chart, Histogram, History Curve, Listing & Other Display Methods.
- Support SCPI programming language & many command sets (Agilent 34401A and Fluke 45).
- With Internal & External Calibration Functions.

## GENERAL TECHNICAL SPECIFICATIONS :

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Power Supply      | 220V AC ±10%, 45~66Hz, or 2110V AC ±10%, 45 ~ 440Hz |
| Function          | < 20 W                                              |
| Display           | 3.5-inch TFT LCD, resolution 48x320, color 16M      |
| Temperature range | - 5°C ~ + 45°C                                      |
| Humidity range    | 5% ~ 85% relative humidity                          |
| Interface         | RS232, USB Host, USB Device, LAN, GPIB              |
| Dimensions        | 102mm X 265 mm x 335mm (H x W x D)                  |
| Weight            | 2.7kg                                               |

... contd../2

## TECHNICAL SPECIFICATIONS

| Model                     |                    | N6579                                                                                                      |
|---------------------------|--------------------|------------------------------------------------------------------------------------------------------------|
| Display                   |                    | 3.5" color display (resolution 320*480)                                                                    |
| Digits                    |                    | 6½                                                                                                         |
| Signal Terminal           |                    | On Front Panel                                                                                             |
| Maximum Measurement Speed |                    | 2500 readings per second                                                                                   |
| Function Items            |                    | Uncertainty, ±(% measurement + % range)                                                                    |
| DCV                       | Uncertainty        | 0.0035+ 0.0005                                                                                             |
|                           | Measuring Range    | 0 mV~1000 V                                                                                                |
|                           | Maximum Resolution | 100nV                                                                                                      |
| ACV                       | Uncertainty        | 0.06 + 0.03                                                                                                |
|                           | Measuring Range    | 1 mV~750 V                                                                                                 |
|                           | Maximum Resolution | 100nV                                                                                                      |
|                           | Frequency Range    | 3 Hz ~ 300 kHz                                                                                             |
| DCI                       | Uncertainty        | 0.05 + 0.006                                                                                               |
|                           | Measuring Range    | 0 uA ~ 12 A                                                                                                |
|                           | Maximum Resolution | 10 pA                                                                                                      |
| ACI                       | Uncertainty        | 0.10 + 0.04                                                                                                |
|                           | Measuring Range    | 1 uA ~ 12 A                                                                                                |
|                           | Maximum Resolution | 100 pA                                                                                                     |
|                           | Frequency Range    | 3 Hz ~ 10 kHz                                                                                              |
| Resistance                | Uncertainty        | 0.01 + 0.001                                                                                               |
|                           | Measuring Range    | 0Ω ~ 1 GΩ                                                                                                  |
|                           | Maximum Resolution | 10 uΩ                                                                                                      |
| Frequency/Period          | Uncertainty        | 0.01%                                                                                                      |
|                           | Measuring Range    | 3 Hz ~ 1 MHz                                                                                               |
|                           | Maximum Resolution | 1 uHz                                                                                                      |
| Capacitance               | Uncertainty        | 1 + 0.3                                                                                                    |
|                           | Measuring Range    | 0 nF ~ 100 mF                                                                                              |
|                           | Maximum Resolution | 1 pF                                                                                                       |
| On- Off/Diode             |                    | Yes                                                                                                        |
| Proportion (DC : DC)      | Reference Range    | 100mV ~ 10 V                                                                                               |
|                           | Input Range        | 100mV ~ 1000 V                                                                                             |
| Temperature               | Type               | Platinum Resistance, Thermistor, Custom Sensor                                                             |
|                           | Maximum Resolution | 0.001°C                                                                                                    |
| Mathematical Functions    |                    | Relative to (ax + b), Maximum / Minimum / Average, Standard Deviation, dB, dBm, Read Retention, Limit Test |
| Graphics                  |                    | Histogram, Trend Graph                                                                                     |
| Interface                 |                    | RS-232, IEEE 488, LAN, USB Device, SB Host, Trig IN/OUT                                                    |
| Programming Language      |                    | SCPI Compatible with Agilent 34401A, 34410 & Fluke 45                                                      |
| Data Storage Capacity     |                    | 512K                                                                                                       |

### STANDARD INCLUSIONS

- Digital Multimeter
- Test Leads
- Instruction Manual
- Calibration Certificate from NABL Accredited – as per ISO/IEC 17025 Laboratory

# Nagman 6½ Digit Precision Digital Multimeter

**Model : N6581**

*Widely used in Electronic Testing*



*Front Panel*



*Rear Panel*

## SALIENT FEATURES

- 6½ Resolution
- Equipped with a 3.5" Color Display Screen
- Resolution Ratio 320\*480
- Customizable Display Interface
- Bi-parameter Display
- Conduct Remote Operation thro' Interfaces of IEEE 488, RS-232, LAN & USB Device.
- With functions of trigger Input & Output of Measuring completion
- The front-panel menu is with USB port for data storage, procedure updating and configuration.
- Customers can update host software by themselves.
- 2 & 4 wire measurement for Resistance, 10Ω and 1GΩ Measurement Range for extension.
- Measurement of Period & Frequency, Frequency can reach to 300 kHz.
- Capacitance Measurement.
- User settable Sensor Measurement
- Maximum Current Measurement Capacity upto 12A
- Math Functions: (Maximum Value, Minimum Value And Average Value), Zero Elimination, dB, dBm & limit
- Graphic Display: Tendency Chart, Histogram, History Curve, Listing & Other Display Methods.
- Support SCPI programming language & many command sets (Agilent 34401A and Fluke 45).
- With Internal & External Calibration Functions.

## GENERAL TECHNICAL SPECIFICATIONS :

|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Power Supply      | 220V AC ±10%, 45~66Hz, or 2110V AC ±10%, 45 ~ 440Hz |
| Function          | < 20 W                                              |
| Display           | 3.5-inch TFT LCD, resolution 48x320, color 16M      |
| Temperature range | - 5°C ~ + 45°C                                      |
| Humidity range    | 5% ~ 85% relative humidity                          |
| Interface         | RS232, USB Host, USB Device, LAN, GPIB              |
| Dimensions        | 102mm X 265 mm x 335mm (H x W x D)                  |
| Weight            | 2.7kg                                               |

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## TECHNICAL SPECIFICATIONS

| Model                     |                    | N6581                                                                                                      |
|---------------------------|--------------------|------------------------------------------------------------------------------------------------------------|
| Display                   |                    | 3.5" color display (resolution 320*480)                                                                    |
| Digits                    |                    | 6½                                                                                                         |
| Signal Terminal           |                    | In both Front & Rear Panels                                                                                |
| Maximum Measurement Speed |                    | 2500 readings per second                                                                                   |
| Function Items            |                    | Uncertainty, ±(% measurement + % range)                                                                    |
| DCV                       | Uncertainty        | 0.0035+ 0.0005                                                                                             |
|                           | Measuring Range    | 0 mV~1000 V                                                                                                |
|                           | Maximum Resolution | 100nV                                                                                                      |
| ACV                       | Uncertainty        | 0.06 + 0.03                                                                                                |
|                           | Measuring Range    | 1 mV~750 V                                                                                                 |
|                           | Maximum Resolution | 100nV                                                                                                      |
|                           | Frequency Range    | 3 Hz ~ 300 kHz                                                                                             |
| DCI                       | Uncertainty        | 0.05 + 0.006                                                                                               |
|                           | Measuring Range    | 0 uA ~ 12 A                                                                                                |
|                           | Maximum Resolution | 10 pA                                                                                                      |
| ACI                       | Uncertainty        | 0.10 + 0.04                                                                                                |
|                           | Measuring Range    | 1 uA ~ 12 A                                                                                                |
|                           | Maximum Resolution | 100 pA                                                                                                     |
|                           | Frequency Range    | 3 Hz ~ 10 kHz                                                                                              |
| Resistance                | Uncertainty        | 0.01 + 0.001                                                                                               |
|                           | Measuring Range    | 0Ω ~ 1 GΩ                                                                                                  |
|                           | Maximum Resolution | 10 uΩ                                                                                                      |
| Frequency/Period          | Uncertainty        | 0.01%                                                                                                      |
|                           | Measuring Range    | 3 Hz ~ 1 MHz                                                                                               |
|                           | Maximum Resolution | 1 uHz                                                                                                      |
| Capacitance               | Uncertainty        | 1 + 0.3                                                                                                    |
|                           | Measuring Range    | 0 nF ~ 100 mF                                                                                              |
|                           | Maximum Resolution | 1 pF                                                                                                       |
| On- Off/Diode             |                    | Yes                                                                                                        |
| Proportion (DC : DC)      | Reference Range    | 100mV ~ 10 V                                                                                               |
|                           | Input Range        | 100mV ~ 1000 V                                                                                             |
| Temperature               | Type               | Platinum Resistance, Thermistor, Custom Sensor                                                             |
|                           | Maximum Resolution | 0.001°C                                                                                                    |
| Mathematical Functions    |                    | Relative to (ax + b), Maximum / Minimum / Average, Standard Deviation, dB, dBm, Read Retention, Limit Test |
| Graphics                  |                    | Histogram, Trend Graph                                                                                     |
| Interface                 |                    | RS-232, IEEE 488, LAN, USB Device, SB Host, Trig IN/OUT                                                    |
| Programming Language      |                    | SCPI Compatible with Agilent 34401A, 34410 & Fluke 45                                                      |
| Data Storage Capacity     |                    | 512K                                                                                                       |

## STANDARD INCLUSIONS

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## Cable Fault Locator

### NCFL 21

*This Cable Fault Locator is designed for ease of use & combines time domain Reflectometer (TDR, Pulse Reflection Testing ) and intelligent bridge testing (Bridge) for measuring the exact fault location such as the broken line, cross faults, earthing, poor insulation and poor contact of the lead covered cables as well as plastic cables.*

*It can test almost all the telecom cables. Distance, VOP, Gain and Range are automatically selected and adjusted as you scan the cable. Just move the cursor to the fault to pinpoint its location.*

*Reduces troubleshooting time, improves work efficiency and reduces labor intensity of line maintenance staff. It also can be used in line projects acceptance and inspection of electrical cables.*

#### Features :

- Large color LCD Display (480 x 280 dot); humanized operation interface; six function keys and simple operation.
- Both pulse reflection testing (TDR) and intelligent bridge testing (Bridge) can test broken lines, crossing lines, poor insulation and other types of faults.
- Manual testing function is preserved.
- Menu is easy to master and use.
- With Megameter & Ohmmeter, it enables to test insulation resistance and loop resistance.
- Rechargeable lithium battery, intelligent charging without duty.
- Small dimension, light weight and portable design.

#### Specifications :

- 1) Pulse Reflection Testing (TDR)  
Max range : 8 km Dead Zone: 0 m Testing Accuracy: 1m  
Pulse width : 40ns - 10 $\mu$ s with automatic adjustment  
Automatic impedance balance adjustment  
Automatic and manual gain adjustment
- 2) Intelligent bridge testing(Bridge)  
Max poor insulation resistance : 100 M $\Omega$ .  
Testing accuracy:  $\pm 1\%$   $\times$  cable length  
The max length of testing cable : 9999m  
Charging time : 4 hours  
Continued operating time: 8 hours  
Dimension : 220 $\times$ 160 $\times$ 90 (mm3); Weight : 1Kg

#### Standard Delivery :

- Basic Instrument
- Battery with Charger
- Carrying Case
- Test Line
- Traceable Certificate
- Instruction Manual





**По вопросам продаж и поддержки обращайтесь:**

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