

# VALTEST



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# Automotive Battery Testers

AB70A, AB70B

**VALTEST**



AB70A / AB70B

- User can get the battery parameters, such as voltage, internal resistance, cold cranking amp and AH capacity, battery health and charge status, by using ONE Equipment;
- Allow users to test batteries in-vehicle and out-of-vehicle, and even dead cells;
- Can test alternator's charging and starter's cranking conditions;
- Able to check 12V and 24V batteries.



## Specifications

|                               |                                      | AB70A     | AB70B              |
|-------------------------------|--------------------------------------|-----------|--------------------|
| Battery Type                  | 12V / 24V                            | ✓         | ✓                  |
| Battery Standard              | STD / AGM / GEL / EFB / SAE          | ✓         | ✓                  |
| CCA Range                     | 50 ~ 1999                            | ✓         | ✓                  |
| EN Range                      | 50 ~ 1999                            | ✓         | ✓                  |
| IEC Range                     | 50 ~ 1200                            | ✓         | ✓                  |
| DIN Range                     | 50 ~ 1200                            | ✓         | ✓                  |
| Capacity Range                | 3AH ~ 250AH                          | ±5%       | ±(5%)              |
| Internal Resistance           | 2 ~ 200mΩ                            | ±(5%+5)   | ±(5%+5)            |
| Discharge Current             | 50 ~ 1999A                           | ±(5%+5)   | ±(5%+5)            |
| Battery Life                  | 0 ~ 100%                             | ✓         | ✓                  |
| Battery Level Detection       | 0 ~ 100%                             | ✓         | ✓                  |
| Start Capability              |                                      | ✓         | ✓                  |
| Battery Quality               |                                      | ✓         | ✓                  |
| Lighting / Flashlight         |                                      | ✓         | ✓                  |
| Temperature Measurement       | 0 ~ 400°C<br>'32 ~ 752°F             |           | ±(3%+3)<br>±(3%+3) |
| Car Starting Test             |                                      | ✓         | ✓                  |
| Car Charging Capability       |                                      |           | ✓                  |
| Car Load Measurement          |                                      | ✓         | ✓                  |
| Resistance measurement method | Four (4) terminal Kelvin connections | ✓         | ✓                  |
| Display Mode                  |                                      | Color LCD |                    |
| Powered by                    | Type-C from the battery being tested | ✓         | ✓                  |

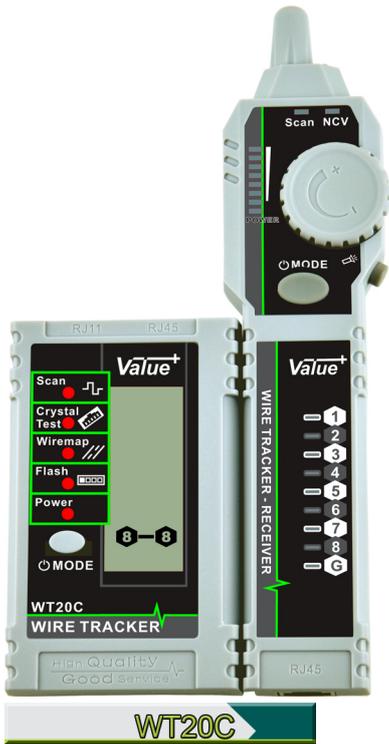


- Designed for test and measure a stationary battery system;
- Measure the battery internal resistance and voltages
- Can be used to determine the overall condition of battery system
- Measure electrical parameters for battery system maintenance
- Able to measure
  - Lead-acid batteries
  - Lithium batteries
  - Nickel-cadmium battery
  - Alkaline battery



## Specifications

|                               |                                      | AB70C                    |
|-------------------------------|--------------------------------------|--------------------------|
| Battery Internal Resistance   | 19.99mΩ/199.9mΩ/1.999Ω/19.99Ω/199.9Ω | ±(0.8%+10)               |
| Vdc                           | 99.99V/109.9V                        | ±(0.5%+5)                |
| Vac Output                    | 50mA/5mA/500mA/50mA                  | ✓                        |
| Measuring Frequency           | 1kHz                                 | ✓                        |
| Auto / Manual Ranging         |                                      | ✓                        |
| Low Battery Indication        |                                      | ✓                        |
| Auto Power Off                |                                      | ✓                        |
| Display Backlight             |                                      | ✓                        |
| Flashlight                    |                                      | ✓                        |
| Resistance measurement method | Four (4) terminal Kelvin connections | ✓                        |
| Display Mode                  |                                      | Color LCD                |
| Max Display                   |                                      | 9999                     |
| Power By                      |                                      | 3.7V Lithium Ion Battery |



**WT20C**

- With Crimping Crystal Test;
- Cable Checking (WT20B and WT20C);
- PoE Voltage Test;
- Port Blink Test;
- Able to check network cable (4P4C and 8P8C), phone line and coaxial line;
- With low power consumption;
- Auto Power Off to save battery power.



**WT20B**



**WT20A**

### Specifications

|   | WT20A                            | WT20B   | WT20C |
|---|----------------------------------|---------|-------|
| Digitalized Cable Tracing                                 |                                  | ✓       | ✓     |
| Tracing cables connected to ethernet hub with POE support |                                  | ✓       | ✓     |
| Signal Level indication                                   |                                  | ✓       | ✓     |
| Port Blink Test   | 100W                             | ✓       | ✓     |
|   | 1000W                            |         | ✓     |
| Display POE Power Pinouts                                 | ✓                                | ✓       | ✓     |
| 60V POE Hipot Protection                                  | ✓                                | ✓       | ✓     |
| Crimping Crystal Test                                     | ✓                                | ✓       | ✓     |
| Cable Testing   |                                  |         |       |
| Shorts  | ✓                                | ✓       | ✓     |
| Open  | ✓                                | ✓       | ✓     |
| Split pair  | ✓                                | ✓       | ✓     |
| NCV   |                                  | ✓       | ✓     |
| Tracing signal transmission distance                      |                                  | 3km     |       |
| Output signal level                                       |                                  | ~15Vp-p |       |
| Vibration induction                                       |                                  |         | ✓     |
| Flashlight  |                                  | ✓       | ✓     |
| Signal Level Indication                                   |                                  | ✓       | ✓     |
| Tracing Sensitivity Adjustable                            |                                  | ✓       | ✓     |
| NCV Sensitivity Adjustable                                |                                  | ✓       | ✓     |
| Low Battery Indication                                    | ✓                                | ✓       | ✓     |
| Auto Power Off  | ✓                                | ✓       | ✓     |
| Input Jack Indicators                                     |                                  | ✓       |       |
| Power by Transmitter :                                    | 9V (6F22)                        | ✓       |       |
|   | 3.7V, 800mAH Lithium Ion Battery |         | ✓     |
| Receiver :  | 3.7V, 800mAH Lithium Ion Battery | ✓       | ✓     |
| Working Current   | 30~40mA                          |         |       |



- With Intuitive Operation by displaying all results on one screen;
- Network (RJ45) / Phone (RJ11) Cable Connection Test;
- Able to measure PoE and battery Voltage;
- All test results are displayed on the screen for easy reading;
- Able to test UTP and STP cables;
- Suitable for CAT 3, 4, 5, 5e, 6, 6A, 7, 7A, 8/8.1 and 8.2 cable;
- Identify / Trace the target wire among plenty of wires (suitable for network cable, phone line and coaxial line);
- Short-circuit, breaking circuit, open circuit and crossing checking;
- Auto scan mode rapidly test corresponding LAN cable connectivity (1,2,3,4,5,6,7,8) to judge wrong connection or short/open circuit;
- Tracing cables connected to ethernet hub with POE support;
- Have Remote Identification Function;
- Intelligent wiremap (Shorts, Split Pairs, and Breakpoint Checking);
- Audio and visual indication;
- Vibrating indication (WT52B and WT52D);
- With digitalized signal to minimize the noise;
- Sound level adjustable to suit for working in different environments;
- With Non-contact Voltage Detection;
- Bright white LED flashlight for dark environments;
- Auto Power Off to save battery power;
- Trendy Look;
- Help to increase users efficiency.

**WT52A / WT52C**

### Specifications

|   |               | WT52A                                      | WT52B     | WT52C    | WT52D     |
|---|---------------|--|-----------|----------|-----------|
| Analogue Cable Tracing                                      |               | ✓  | ✓         | ✓        | ✓         |
| Digitalized Cable Tracing                                   |               | ✓  | ✓         | ✓        | ✓         |
| Tracing cables connected to ethernet hub with POE support   |               | ✓  | ✓         | ✓        | ✓         |
| Port Blink Test   |               | ✓  | ✓         | ✓        | ✓         |
| Identify wire pairs and quality of wire connections         |               | ✓  | ✓         | ✓        | ✓         |
| Voltage Measurement (via network cable jack for reference)  |               | ✓  | ✓         | ✓        | ✓         |
| POE (Standard) Voltage Polarity Checking                    |               | ✓  | ✓         |          |           |
| POE (Non Standard) Voltage Polarity Checking                |               | ✓  | ✓         | ✓        | ✓         |
| POE (Standard) Voltage measurement (for reference only)     |               | ✓  | ✓         |          |           |
| POE (Non-standard) Voltage measurement (for reference only) |               | ✓  | ✓         | ✓        | ✓         |
| Crimping Crystal Test                                       |               | ✓  | ✓         | ✓        | ✓         |
| Continuity (via network cable jack)                         |               | ✓  | ✓         | ✓        | ✓         |
| Intelligent Wiremap   |               | ✓  | ✓         | ✓        | ✓         |
| Shorts  |               | ✓  | ✓         | ✓        | ✓         |
| Split pair  |               | ✓  | ✓         | ✓        | ✓         |
| Continuity Test   |               | ✓  | ✓         | ✓        | ✓         |
| NCV   |               | ✓  | ✓         | ✓        | ✓         |
| Analogue Bargraph   |               | ✓  | ✓         | ✓        | ✓         |
| Tracing signal transmission distance                        |               |  | 3km       |          |           |
| Output signal level   |               |  | ~15Vp-p   |          |           |
| Vibration induction   |               |  | ✓         |          | ✓         |
| Flashlight (both main body & transmitter)                   |               | ✓  | ✓         | ✓        | ✓         |
| Loudness Adjustable   |               | ✓  | ✓         | ✓        | ✓         |
| Sensitivity Adjustable                                      |               | ✓  | ✓         | ✓        | ✓         |
| White Display Backlight                                     |               | ✓  | ✓         | ✓        | ✓         |
| Low Battery Indication                                      |               | ✓  | ✓         | ✓        | ✓         |
| Auto Power Off  |               | ✓  | ✓         | ✓        | ✓         |
| Working on  |               | ✓  | ✓         | ✓        | ✓         |
| Network Cable (8P8C, 4P4C), Phone Line and Coaxial Cable    |               |  |           |          |           |
| Cable Length Measurement                                    |               |  |           |          |           |
|   | Length        |  |           | 2-120m   | 2-500m    |
|   | Resolution    |  |           | 0.1m     | 0.1m      |
|   | Best Accuracy |  |           | ±(1%+2m) | ±(1%+2m)  |
| User Calibration  |               |  |           | ✓        | ✓         |
| Multimeter  |               |  |           |          |           |
| DC Voltage  | 400mV~250V    |  | ±(0.8%+3) |          | ±(0.8%+3) |
| AC Voltage  | 4V~250V       |  | ±(1.5%+5) |          | ±(1.5%+5) |
| DC Current  | 1A~10A        |  | ±(1.2%+4) |          | ±(1.2%+4) |
| AC Current  | 1A~10A        |  | ±(2%+5)   |          | ±(2%+5)   |
| Resistance  | 200Ω~20MΩ     |  | ±(2%+6)   |          | ±(2%+6)   |
| Diode   |               |  | ✓         |          | ✓         |
| Temperature   | -20~1000°C    |  | ±(2%+15)  |          | ±(2%+15)  |
| Input Jack Indicators                                       |               |  | ✓         |          | ✓         |
| Power by  | Transmitter : | 3.7V, 1250mAH Rechargeable Lithium Battery |           |          |           |
|   | Receiver :    | 9V (6F22)                                  |           |          |           |



**WT52B / WT52D**



WT22A

- With Intuitive Operation by displaying all results on one screen;
- Network (RJ45) / Phone (RJ11) Cable Connection Test;
- Able to measure PoE and battery Voltage;
- All test results are displayed on the screen for easy reading;
- Able to test UTP and STP cables;
- Suitable for CAT 3, 4, 5, 5e, 6, 6A, 7, 7A, 8/8.1 and 8.2 cable;
- Identify / Trace the target wire among plenty of wires (suitable for network cable, phone line and coaxial line);
- Short-circuit, breaking circuit, open circuit and crossing checking;
- Auto scan mode rapidly test corresponding LAN cable connectivity (1,2,3,4,5,6,7,8) to judge wrong connection or short/open circuit;
- Tracing cables connected to ethernet hub with POE support;
- Have Remote Identification Function;
- Intelligent wiremap (Shorts, Split Pairs, and Breakpoint Checking);
- Audio and visual indication;
- Vibrating indication (WT22P);
- With digitalized signal to minimize the noise;
- Sound level adjustable to suit for working in different environments;
- With Non-contact Voltage Detection;
- Bright white LED flashlight for dark environments;
- Auto Power Off to save battery power;
- Trendy Look;
- Help to increase users efficiency.



WT22A



WT22C



WT22D



WT22E

### Specifications

|  | WT22A | WT22B   | WT22C | WT22D         | WT22E   | WT22F |
|--|-------|---------|-------|---------------|---------|-------|
| Analogue Cable Tracing   | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Digitalized Cable Tracing  |       |         |       | ✓             | ✓       | ✓     |
| Tracing cables connected to ethernet hub with POE support        |       |         |       | ✓             | ✓       | ✓     |
| Identify wire pairs and quality of wire connections              | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Voltage Polarity Checking  |       | ✓       | ✓     | ✓             | ✓       |       |
| Continuity Test  |       | ✓       |       | ✓             | ✓       |       |
| Tracing signal transmission distance                             |       | 1km     |       |               | 3km     |       |
| Output signal level  |       | ~15Vp-p |       |               | ~23Vp-p |       |
| Vibration induction  |       |         |       |               | ✓       |       |
| Flashlight   | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Loudness Adjustable  | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Headset available (for working in noisy area)                    | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Change of buzzer tone for identification of buzzer sound         | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Low Battery Indication (Transmitter)                             | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Laser Beam (for visual identifying the optical fibre continuity) |       |         | ~1km  |               |         |       |
| Auto Power Off (Transmitter)                                     | ✓     | ✓       | ✓     | ✓             | ✓       | ✓     |
| Power by Transmitter :   |       |         |       | 1.5V (AA) x 3 |         |       |
| Receiver :   |       |         |       | 9V (6F22)     |         |       |



WT22F



WT22N / WT22P

- With Intuitive Operation by displaying all results on one screen;
- Network (RJ45) / Phone (RJ11) Cable Connection Test;
- Able to measure PoE and battery Voltage;
- All test results are displayed on the screen for easy reading;
- Able to test UTP and STP cables;
- Suitable for CAT 3, 4, 5, 5e, 6, 6A, 7, 7A, 8/8.1 and 8.2 cable;
- Identify / Trace the target wire among plenty of wires (suitable for network cable, phone line and coaxial line);
- Short-circuit, breaking circuit, open circuit and crossing checking;
- Auto scan mode rapidly test corresponding LAN cable connectivity (1,2,3,4,5,6,7,8) to judge wrong connection or short/open circuit;
- Tracing cables connected to ethernet hub with PoE support;
- Have Remote Identification Function (WT22P);
- Intelligent wiremap (Shorts, Split Pairs, and Breakpoint Checking);
- Audio and visual indication;
- Vibrating indication (WT22P);
- With digitalized signal to minimize the noise;
- Sound level adjustable to suit for working in different environments;
- Bright white LED flashlight for dark environments;
- Auto Power Off to save battery power;
- Trendy Look;
- Help to increase users efficiency.

### Specifications

|   | WT22N         | WT22P |
|---|---------------|-------|
| Analogue Cable Tracing  | ✓             | ✓     |
| Digitalized Cable Tracing   | ✓             | ✓     |
| Tracing cables connected to ethernet hub with POE support           | ✓             | ✓     |
| Identify wire pairs and quality of wire connections                 | ✓             | ✓     |
| POE Voltage Polarity Checking                                       | ✓             | ✓     |
| POE Voltage measurement (for reference only)                        | ✓             | ✓     |
| Battery Voltage Polarity Checking                                   | ✓             | ✓     |
| Battery Voltage measurement (for reference only)                    | ✓             | ✓     |
| Intelligent Wiremap   |               |       |
| Shorts  | ✓             | ✓     |
| Split pair  | ✓             | ✓     |
| Breakpoint checking   | ✓             | ✓     |
| Continuity Test   | ✓             | ✓     |
| Tracing signal transmission distance                                | 3km           |       |
| Output signal level   | ~15Vp-p       |       |
| Vibration induction   |               | ✓     |
| Flashlight  | ✓             | ✓     |
| Loudness Adjustable   | ✓             | ✓     |
| Low Battery Indication (Transmitter)                                | ✓             | ✓     |
| Auto Power Off (Transmitter)  | ✓             | ✓     |
| Working on Network Cable (8P8C, 4P4C), Phone Line and Coaxial Cable | ✓             | ✓     |
| Power by Transmitter :  | 1.5V (AA) x 3 |       |
| Receiver :  | 9V (6F22)     |       |



WT25D / WT25E

- Design to check Lan Cables, Phone Lines and Coaxial Cables;
- Easy to use;
- Help to increase users efficiency;
- Help to determine where a cable is and whether the cable is broken or not;
- Identify a cable from a bundle of cables;
- By using digitalized signal to increase the accuracy;
- Tracing cables connected to ethernet hub with PoE support;
- Suitable for CAT 3, 4, 5, 5e, 6, 6A, 7, 7A, 8/8.1 and 8.2 cable;
- Trendy look;
- Buzzer tone is changeable;
- Buzzer loudness adjustable;
- Flashlight for working in dark environments;
- Receiver can be stored in the transmitter for tidy up the tools and for easy carrying.



Receiver stored in the transmitter



WT25C

### Specifications

|   | WT25C | WT25D        | WT25E   |
|---|-------|--------------|---------|
| Analogue Cable Tracing                                    | ✓     | ✓            | ✓       |
| Digitalized Cable Tracing                                 | ✓     | ✓            | ✓       |
| Tracing cables connected to ethernet hub with POE support | ✓     | ✓            | ✓       |
| Checking the correctness and quality of wire connections  |       | ✓            | ✓       |
| Voltage Polarity Checking                                 | ✓     | ✓            | ✓       |
| Continuity Test   | ✓     | ✓            | ✓       |
| Tracing signal transmission distance                      |       | 3Km          | 3Km     |
| Output signal level                                       |       | ~23Vp-p      | ~23Vp-p |
| Vibration indication                                      |       |              | ✓       |
| Flashlight  | ✓     | ✓            | ✓       |
| Adjustable loudness of buzzer                             | ✓     | ✓            | ✓       |
| Change of buzzer tone for identification of buzzer sound  | ✓     | ✓            | ✓       |
| Low battery indication                                    | ✓     | ✓            | ✓       |
| Auto power off  | ✓     | ✓            | ✓       |
| Powered by Transmitter:                                   |       | 1.5V (AA) x3 |         |
| Receiver:   |       | 9V (6F22) x1 |         |

# Cable Length Meters

WT26 series



**WT26E / WT26G**

- No Calibration is needed for general measurement;
- Allow User Calibration for precise measurement;
- Able to measure cable made of different material;
- Only need to connect the cable at one side;
- Measure up to 400 meters;
- Able to measure LAN cable (both 4P4C & 8P8C), Phone wire and BNC cable;
- Intelligent wiremap Shorts, Split Pairs, and Breakpoint Checking);
- Tracing cables connected to ethernet hub with PoE support;
- Have Remote Identification Function (Optional);
- Auto power off;
- With display backlight and flashlight;
- Sensitivity adjustable;
- With Red Visible Laser (WT26F).



## Specifications

|                          |   | WT26E   | WT26F                          | WT26G            |
|--------------------------|---|---|--------------------------------|------------------|
| Cable Length Measurement | 2-100m  | Resolution<br>0.1m<br>Best Accuracy<br>±(1%+5m) |                                |                  |
|                          | 2-400m  | Resolution<br>Best Accuracy                     | 0.1m<br>±(1%+5m)               | 0.1m<br>±(1%+5m) |
| Intelligent Wiremap      |   |   |                                |                  |
|                          | Shorts  | ✓   | ✓                              | ✓                |
|                          | Split pair  | ✓   | ✓                              | ✓                |
|                          | Breakpoint checking   | ✓   | ✓                              | ✓                |
|                          | Length of Network Cable (8P8C)                              | ✓   | ✓                              | ✓                |
|                          | Length of Network Cable (4P4C)                              | ✓   | ✓                              | ✓                |
|                          | Length of Phone Cable                                       | ✓   | ✓                              | ✓                |
|                          | Length of BNC Cable   | ✓   | ✓                              | ✓                |
|                          | Analogue Cable Tracing                                      | ✓   | ✓                              | ✓                |
|                          | Digitalized Cable Tracing                                   | ✓   | ✓                              | ✓                |
|                          | Port Blink Test   | ✓   | ✓                              | ✓                |
|                          | Voltage Measurement (via network cable jack for reference)  | ✓   | ✓                              | ✓                |
|                          | POE (Standard) Voltage Polarity Checking                    |   | ✓                              | ✓                |
|                          | POE (Non Standard) Voltage Polarity Checking                | ✓   | ✓                              | ✓                |
|                          | POE (Standard) Voltage measurement (for reference only)     |   | ✓                              | ✓                |
|                          | POE (Non-standard) Voltage measurement (for reference only) | ✓   | ✓                              | ✓                |
|                          | Continuity (via network cable jack)                         | ✓   | ✓                              | ✓                |
|                          | Vibration induction   |   |                                | ✓                |
|                          | PoE Voltage Protection                                      | ✓   | ✓                              | ✓                |
|                          | Remote Identification (Optional)                            | 7   | 7                              | 7                |
|                          | User Calibratable   | ✓   | ✓                              | ✓                |
|                          | User Calibration Result Storage                             | ✓   | ✓                              | ✓                |
|                          | Red Visible Laser   |   | ✓                              |                  |
|                          | Max Display   | 9999  | 9999                           | 9999             |
|                          | User Calibratable   | ✓   | ✓                              | ✓                |
|                          | User Calibration Result Storage                             | ✓   | ✓                              | ✓                |
|                          | Display Backlight   | ✓   | ✓                              | ✓                |
|                          | Flashlight  | ✓   | ✓                              | ✓                |
|                          | Sensitivity adjustable                                      | ✓   | ✓                              | ✓                |
|                          | Low power indication  | ✓   | ✓                              | ✓                |
|                          | Auto power off  | ✓   | ✓                              | ✓                |
|                          | Power By : Transmitter                                      |   | 3.7V 1360mAH Li-ion Battery x1 |                  |
|                          | Receiver  |   | 9V 6F22 Battery x1             |                  |



**WT26F**

# Cable Length Meters w/ DMM

WT36 series

**VALTEST**



**WT36D / WT36E**

- No Calibration is needed for general measurement;
- Allow User Calibration for precise measurement;
- Able to measure cable made of different material;
- Only need to connect the cable at one side;
- Measure up to 600 meters;
- Able to measure LAN cable (both 4P4C & 8P8C), Phone wire and BNC cable;
- Intelligent wiremap Shorts, Split Pairs, and Breakpoint Checking);
- Tracing cables connected to ethernet hub with PoE support;
- Have Remote Identification Function (Optional);
- Auto power off;
- With display backlight and flashlight;
- Sensitivity adjustable;
- With Built-in Multimeter Functions.

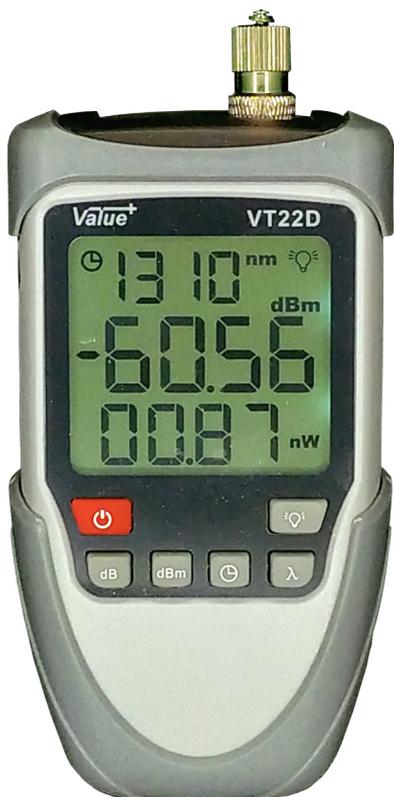


## Specifications

|  |                         | WT36D  | WT36E     |
|--|-------------------------|--|-----------|
| Cable Length Measurement                                   |                         |  |           |
| 2-400m   | Resolution              | 0.1m   |           |
|  | Best Accuracy           | ±(1%+5)  |           |
| 2-600m   | Resolution              |  | 0.1m      |
|  | Best Accuracy           |  | ±(1%+5)   |
| Intelligent Wiremap  |                         |  |           |
| Shorts   |                         | ✓  | ✓         |
| Split pair   |                         | ✓  | ✓         |
| Breakpoint checking  |                         | ✓  | ✓         |
| Length of Network Cable                                    | (8P8C)                  | ✓  | ✓         |
| Length of Network Cable                                    | (4P4C)                  | ✓  | ✓         |
| Length of Phone Cable                                      |                         | ✓  | ✓         |
| Length of BNC Cable  |                         | ✓  | ✓         |
| Analogue Cable Tracing                                     |                         | ✓  | ✓         |
| Digitalized Cable Tracing                                  |                         |  | ✓         |
| Port Blink Test  |                         | ✓  | ✓         |
| Voltage Measurement (via network cable jack for reference) |                         | ✓  | ✓         |
| PoE Voltage Polarity Checking                              |                         | ✓  | ✓         |
| POE Voltage measurement (for reference only)               |                         | ✓  | ✓         |
| Continuity (via network cable jack)                        |                         | ✓  | ✓         |
| PoE Voltage Protection                                     |                         | ✓  | ✓         |
| Vibration induction  |                         |  | ✓         |
| Remote Identification (Optional)                           |                         | 7  | 7         |
| User Calibratable  |                         | ✓  | ✓         |
| User Calibration Result Storage                            |                         | ✓  | ✓         |
| Multimeter   |                         |  |           |
| DC Voltage   | 400mV-600V              | ±(0.8%+3)                                      | ±(0.8%+3) |
| AC Voltage   | 4V-400V                 | ±(1.5%+5)                                      | ±(1.5%+5) |
| DC Current   | 1A-10A                  | ±(1.2%+4)                                      | ±(1.2%+4) |
| AC Current   | 1A-10A                  | ±(2%+5)  | ±(2%+5)   |
| Resistance   | 200Ω-20MΩ               | ±(2%+6)  | ±(2%+6)   |
| Diode  |                         | ✓  | ✓         |
| Continuity   |                         | ✓  | ✓         |
| Temperature  |                         | ±(2%+15)                                       | ±(2%+15)  |
| Max Display  |                         | 9999   | 9999      |
| Display Backlight  |                         | ✓  | ✓         |
| Flashlight   |                         | ✓  | ✓         |
| Sensitivity adjustable                                     |                         | ✓  | ✓         |
| Low power indication                                       |                         | ✓  | ✓         |
| Auto power off   |                         | ✓  | ✓         |
| Power By   | Main Body:<br>Receiver: | 3.7V, 1250mAH Lithium Ion Battery<br>9V (6F22) |           |

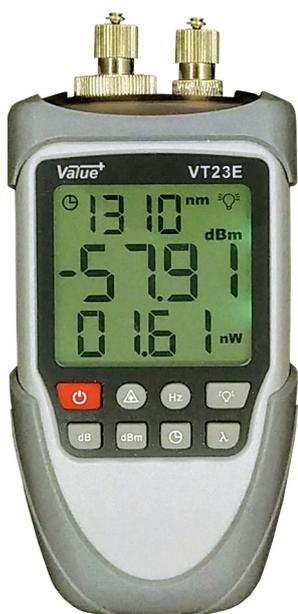
# Optical Power Meters

VT22D, VT22E, VT22F, VT23D, VT23E, VT23F



VT22D / VT23D

- Inspect optical fibre capabilities;
- Able to calculate relative power loss;
- Locate the fault and trouble shooting;
- Linear indicators (mW) and non-linear indicators (dBm) display in one screen;
- Large display for easy reading;
- Able to connect to SC, FC and ST type plug (with optional adaptors);
- High Performance Meter for precise measurement;
- With Visible Laser Beam, to have visual fault checking of optical fibre (VT22E, VT22F, VT23E and VT23F);
- Compact and Trendy Look;
- Easy to Use and Carry;
- Auto Power Off to save battery power;
- Eco Friendly by using Rechargeable Batteries (VT23D, VT23E and VT23F)



VT22E / VT22F

VT23E / VT23F



## Specifications

|                            | VT22D                                  | VT22E | VT22F | VT23D                                | VT23E | VT23F |
|----------------------------|--|-------|-------|--------------------------------------|-------|-------|
| Wavelength (nm)            | 850, 980, 1300, 1310, 1490, 1550, 1620 |       |       |                                      |       |       |
| Detector type              | InGaAs                                 |       |       |                                      |       |       |
| Power measurement range    | -70 ~ 6 dBm                            |       |       |                                      |       |       |
| Power measurement accuracy | ±0.3 (5%)                              |       |       |                                      |       |       |
| Resolution                 | 0.01                                   |       |       |                                      |       |       |
| Optical output connector   | 2.5mm ST, SC, FC                       |       |       |                                      |       |       |
| Red visible laser          |  | ✓     | ✓     |                                      | ✓     | ✓     |
| Laser output               |  | >10mW | >1mW  |                                      | >10mW | >1mW  |
| Low battery display        | ✓                                      | ✓     | ✓     | ✓                                    | ✓     | ✓     |
| Auto power off             | ✓                                      | ✓     | ✓     | ✓                                    | ✓     | ✓     |
| Powered by                 | 1.5V (AA) x3                           |       |       | 3.7V Rechargeable Battery (14500) x3 |       |       |



VT24D

VT24E / VT24F

- Inspect optical fibre capabilities;
- Able to calculate relative power loss;
- Linear indicators (mW) and non-linear indicators (dBm) display in one screen;
- Large display for easy reading;
- Able to connect to SC, FC and ST type plug (with optional adaptors);
- With Visible Laser Beam, to have visual fault checking of optical fibre (VT24E and VT24F);
- Network (RJ45) / Phone (RJ11) Cable Connection Test.;
- Identify / Trace the target wire among plenty of wires;
- Trace wire in unpowered electrical system;
- Auto scan mode rapidly test corresponding LAN cable connectivity (1,2,3,4,5,6,7,8) to judge wrong connection or short/open circuit;
- Tracing cables connected to ethernet hub with POE support;
- Sound level adjustable to suit for working in different environments;
- Bright white LED flashlight for dark environments;
- Auto Power Off to save battery power;
- Eco Friendly by using Rechargeable Batteries;
- Easy to use;
- Help to increase users efficiency.

### Specifications

|   | VT24D                                  | VT24E | VT24F |
|---|--|-------|-------|
| Wavelength (nm)   | 850, 980, 1300, 1310, 1490, 1550, 1620 |       |       |
| Detector type   | InGaAs                                 |       |       |
| Power measurement range                                   | -70 ~ 6 dBm                            |       |       |
| Power measurement accuracy                                | ±0.3 (5%)                              |       |       |
| Resolution  | 0.01                                   |       |       |
| Optical output connector                                  | 2.5mm ST, SC, FC                       |       |       |
| Red visible laser   |  | ✓     | ✓     |
| Laser output  |  | >10mW | >1mW  |
| Tracing network or phone cable in bundle of wires         | ✓                                      | ✓     | ✓     |
| Checking the correctness and quantity of wire connections | ✓                                      | ✓     | ✓     |
| Low battery display                                       | ✓                                      | ✓     | ✓     |
| Auto power off  | ✓                                      | ✓     | ✓     |
| Powered by  | 3.7V Rechargeable Battery (14500) x3   |       |       |
| Transmitter:  | 9V (6F22) x1                           |       |       |
| Receiver:   |  |       |       |



MM62A / MM62B

- Input Jack indicators;
- Display Backlight;
- Auto power off;
- Low battery indication;
- Auto range;
- k-type temperature measurement (MM62B);
- Non-contact Voltage Detection;
- Live wire checking;
- Installed with anti-burn fuse.



### Specifications

|                        |   | MM62A           | MM62B                                  |
|------------------------|---|-----------------|--|
| DC Voltage             | 600mV/6V/60V/250V                       | ±(0.8%+5)       | ±(0.8%+5)                              |
| AC Voltage             | 600mV/6V/60V/250V                       | ±(1.5%+5)       | ±(1.5%+5)                              |
| DC Current             | 600µA/60mA/600mA/10A                    | ±(1%+5)         | ±(1%+5)                                |
| AC Current             | 60mA/600mA/10A                          | ±(1.5%+5)       | ±(1.5%+5)                              |
| Resistance             | 600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ            | ±(0.8%+3)       | ±(0.8%+3)                              |
| Temperature            | -20~400°C                               |                 | ±(3%+15)                               |
| Frequency              | 10Hz/100Hz/1kHz/10kHz/100kHz/1MHz/10MHz | ±(1.5%+5)       | ±(1.5%+5)                              |
| Capacitance            | 6nF/60nF/600nF/6mF/60mF/600mF/6mF/60mF  | ±(4%+5)         | ±(4%+5)                                |
| Live                   |   | ✓               | ✓                                      |
| NCV                    |   | ✓               | ✓                                      |
| Auto Ranging           |   | ✓               | ✓                                      |
| Diode                  |   | ✓               | ✓                                      |
| Continuity Buzzer      |   | ✓               | ✓                                      |
| Data Hold              |   | ✓               | ✓                                      |
| Low Battery Indication |   | ✓               | ✓                                      |
| Auto Power Off         |   | ✓               | ✓                                      |
| Display Mode           |   | Twisted Nematic |  |
| Display Backlight      |   | ✓               | ✓                                      |
| Flashlight             |   | ✓               | ✓                                      |
| Max Display            |   | 5999            | 5999                                   |
| Power By               |   | 1.5V AA x2      | 14500 Lithium Ion Rechargeable Battery |
| USB Charging           |   |                 | ✓                                      |



MM65E

- True RMS;
- REL mode;
- Input Jack indicators;
- Display Backlight;
- Auto power off;
- Low battery indication;
- Auto range (MM65E);
- Auto and manual ranges selectable (MM65E);
- k-type temperature measurement (MM65C and MM65E);
- Non-contact Voltage Detection;
- Live wire checking;
- Battery test (MM65B and MM65C);
- CAT III 1000V / CAT IV 600V.



MM65B



MM65C

### Specifications

|                   |   | MM65B           | MM65C              | MM65E              |
|-------------------|---|-----------------|--------------------|--------------------|
| DC Voltage        | 200mV/2V/20V/200V/1000V<br>600mV/6V/60V/600V/1000V                            | ±(0.5%+3)       | ±(0.5%+3)          | ±(0.5%+5)          |
| AC Voltage        | 2V/20V/200V/750V<br>600mV/6V/60V/600V/1000V                                   | ±(0.8%+5)       | ±(0.8%+5)          | ±(1.2%+5)          |
| DC Current        | 200µA/20mA/200mA/10A<br>600µA/6000µA/60mA/600mA/10A                           | ±(0.8%+3)       | ±(0.8%+3)          | ±(1.2%+5)          |
| AC Current        | 20mA/200mA/10A<br>600µA/6000µA/60mA/600mA/10A                                 | ±(2%+5)         | ±(2%+5)            | ±(1.5%+5)          |
| Resistance        | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ<br>600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ                  | ±(0.8%+3)       | ±(0.8%+3)          | ±(0.8%+5)          |
| Temperature       | -20~1000°C<br>0~1832°F  |                 | ±(1%+4)<br>±(1%+5) | ±(1%+3)<br>±(1%+5) |
| Frequency         | 10Hz/100Hz/1kHz/10kHz/100kHz/1MHz/10MHz                                       |                 |                    | ±(1.5%+5)          |
| Capacitance       | 20nF/200nF/2mF/20mF/200mF/2mF/20mF<br>6nF/60nF/ 600nF/6mF/60mF/600mF/6mF/60mF | ±(5%+5)         | ±(5%+5)            | ±(4%+5)            |
| Live              |   | ✓               | ✓                  | ✓                  |
| NCV               |   | ✓               | ✓                  | ✓                  |
| Auto Ranging      |   |                 |                    | ✓                  |
| Battery Test      | 1.5V/9V   | ✓               | ✓                  |                    |
| Diode             |   |                 | ✓                  | ✓                  |
| Continuity Buzzer |   | ✓               | ✓                  | ✓                  |
| True RMS          |   | ✓               | ✓                  | ✓                  |
| Data Hold         |   | ✓               | ✓                  | ✓                  |
| Auto Power Off    |   | ✓               | ✓                  | ✓                  |
| Display Mode      |   | Twisted Nematic |                    |                    |
| Display Backlight |   | ✓               | ✓                  | ✓                  |
| Max Display       |   | 1999            | 1999               | 5999               |
| Power By          |   | 1.5V (R6) x 2   |                    |                    |



MM66E

- True RMS;
- REL mode;
- Input Jack indicators;
- Display Backlight;
- Auto power off;
- Low battery indication;
- Auto range (MM66E);
- Auto and manual ranges selectable (MM66E);
- k-type temperature measurement (MM66C and MM66E);
- Non-contact Voltage Detection;
- Live wire checking;
- Battery test (MM66B and MM66C);
- CAT III 1000V / CAT IV 600V;
- Eco-friendly (no disposable batteries are needed);
- With inductive charging which is safe and convenience;
- Using Vertical Alignment Display allows:
  - larger viewing angles;
  - faster response;
  - sharper contrast;
  - easier read under strong light.

With inductive (without any metallic contact) charger for **safe and easy charging**



MM66B



MM66C

### Specifications

|                    |   | MM66B              | MM66C              | MM66E              |
|--------------------|---|--------------------|--------------------|--------------------|
| DC Voltage         | 200mV/2V/20V/200V/1000V<br>600mV/6V/60V/600V/1000V                            | ±(0.5%+3)          | ±(0.5%+3)          | ±(0.5%+5)          |
| AC Voltage         | 2V/20V/200V/750V<br>600mV/6V/60V/600V/1000V                                   | ±(0.8%+5)          | ±(0.8%+5)          | ±(1.2%+5)          |
| DC Current         | 200µA/20mA/200mA/10A<br>600µA/6000µA/60mA/600mA/10A                           | ±(0.8%+3)          | ±(0.8%+3)          | ±(1.2%+5)          |
| AC Current         | 20mA/200mA/10A<br>600µA/6000µA/60mA/600mA/10A                                 | ±(2%+5)            | ±(2%+5)            | ±(1.5%+5)          |
| Resistance         | 200Ω/2kΩ/20kΩ/200kΩ/2MΩ/20MΩ<br>600Ω/6kΩ/60kΩ/600kΩ/6MΩ/60MΩ                  | ±(0.8%+3)          | ±(0.8%+3)          | ±(0.8%+5)          |
| Temperature        | -20~1000°C<br>0~1832°F  |                    | ±(1%+4)<br>±(1%+5) | ±(1%+3)<br>±(1%+5) |
| Frequency          | 10Hz/100Hz/1kHz/10kHz/100kHz/1MHz/10MHz                                       |                    |                    | ±(1.5%+5)          |
| Capacitance        | 20nF/200nF/2mF/20mF/200mF/2mF/20mF<br>6nF/60nF/ 600nF/6mF/60mF/600mF/6mF/60mF | ±(5%+5)            | ±(5%+5)            | ±(4%+5)            |
| Live               |   | ✓                  | ✓                  | ✓                  |
| NCV                |   | ✓                  | ✓                  | ✓                  |
| Auto Ranging       |   |                    |                    | ✓                  |
| Battery Test       | 1.5V/9V   | ✓                  | ✓                  |                    |
| Diode              |   |                    | ✓                  | ✓                  |
| Continuity Buzzer  |   | ✓                  | ✓                  | ✓                  |
| True RMS           |   | ✓                  | ✓                  | ✓                  |
| Data Hold          |   | ✓                  | ✓                  | ✓                  |
| Auto Power Off     |   | ✓                  | ✓                  | ✓                  |
| Display Mode       |   | Vertical Alignment |                    |                    |
| Display Backlight  |   | ✓                  | ✓                  | ✓                  |
| Max Display        |   | 1999               | 1999               | 5999               |
| Power By           |   | 3.7V (14500) x 1   |                    |                    |
| Inductive Charging |   | ✓                  | ✓                  | ✓                  |



NF11A / NF11B

NF11C

- Safe (Detects voltage without contact);
- Easy to use;
- Available with different indicating methods (flashing, sound and vibration);
- Measuring from 90V to 1000V (CAT IV), suitable for a wide range of residential, commercial and industrial needs;
- Built-in white torch at the front end for helping to search the testing point in dark (some models);
- Integrated clip design, optimized for pocket storage;
- Nice sharp;
- Auto Power off to enhance the battery life.



NF11F

### Specifications

|                                | NF11A          | NF11B    | NF11C    | NF11F    |
|--------------------------------|----------------|----------|----------|----------|
| AC Voltage                     | 90-1000V       | 90-1000V | 90-1000V | 90-1000V |
| Frequency                      | 40-400Hz       | 40-400Hz | 40-400Hz | 40-400Hz |
| Indicated by                   |                |          |          |          |
| LED Flashing                   | ✓              | ✓        | ✓        | ✓        |
| Beep Sound (Non-Switchable)    |                | ✓        |          |          |
| Beep Sound (Switchable)        |                |          | ✓        | ✓        |
| Vibrating (Switchable)         |                |          |          | ✓        |
| On / Off Button                |                | ✓        | ✓        | ✓        |
| Switch on Indication           |                | ✓        | ✓        | ✓        |
| Auto / Manual Detection Select |                | ✓        | ✓        | ✓        |
| Standby Indication             | ✓              | ✓        | ✓        | ✓        |
| Flashlight                     |                | ✓        |          | ✓        |
| Low Battery Indicator          | ✓              | ✓        | ✓        | ✓        |
| Auto Power Off                 | ✓              | ✓        | ✓        | ✓        |
| Overload Protection            | CAT IV 1000V   |          |          |          |
| Power by                       | 1.5V (AAA) x 2 |          |          |          |

# Non-contact Voltage Detectors

NF12, NF13 series



NF13B

- 5 segments bargraph indicators for easy interpretation;
- With audio indication; Measuring from 90V to 1000V (CAT IV);
- Suitable for a wide range of residential;
- Built-in white torch at front end for helping to search the testing point in dark;
- Integrated clip design;
- Optimized for pocket storage;
- Auto power off;
- Safe and easy to use.

## Specifications

|                             | NF13A          | NF13B    |
|-----------------------------|----------------|----------|
| AC Voltage                  | 42-1000V       | 42-1000V |
| Frequency                   | 50-400Hz       | 50-400Hz |
| Indicated by                |                |          |
| LED Flashing (5 Segments)   | ✓              |          |
| LCD Indicating (5 Segments) |                | ✓        |
| Beep Sound (Switchable)     | ✓              | ✓        |
| On / Off Button             | ✓              | ✓        |
| Switch on Indication        | ✓              | ✓        |
| Standby Indication          | ✓              | ✓        |
| Flashlight                  | ✓              | ✓        |
| Low Battery Indicator       | ✓              | ✓        |
| Auto Power Off              | ✓              | ✓        |
| Overload Protection         | CAT IV 1000V   |          |
| Power by                    | 1.5V (AAA) x 2 |          |



NF13A

- Multi-propose detector for voltage detection and magnetic field detection;
- Detect the presence and polarity (North & South pole) of magnetic fields;
- Detect the presence of AC voltage from 90V to 1000V suitable for a wide range of residential, commercial and industrial needs;
- Non-contact voltage detection which is safe to user;
- Built-in white torch at the front end for helping to search the testing point in dark;
- With selectable sound / vibration for using in different environment (NF12D);
- Have auto power off to enhance the battery life
- CAT IV 1000V.

## Specifications

|  | NF12A          | NF12D         |
|--|----------------|---------------|
| AC Voltage   | 90-1000V       | 90-1000V      |
| Frequency  | 40-400Hz       | 40-400Hz      |
| Sensitivity  | 20mm @ 240VAC  | 20mm @ 240VAC |
| Indicated by   |                |               |
| LED Flashing   | ✓              | ✓             |
| Beep Sound (Switchable)                              |                | ✓             |
| Vibrating (Switchable)                               |                | ✓             |
| On / Off Button                                      | ✓              | ✓             |
| Switch on Indication                                 | ✓              | ✓             |
| Standby Indication                                   | ✓              | ✓             |
| Flashlight   |                | ✓             |
| Low Battery Indicator                                | ✓              | ✓             |
| Auto Power Off                                       | ✓              | ✓             |
| Overload Protection                                  | CAT IV 1000V   |               |
| Magnetic Field Detectors                             |                |               |
| Sensitivity  | ±10mT          | ±10mT         |
| Detection Area                                       | 10mm           | 10mm          |
| Indicated by   |                |               |
| South / North Pole Indicator (by green / yellow LED) | ✓              | ✓             |
| Beep Sound (present of Magnetic Field)               |                | ✓             |
| Power by   | 1.5V (AAA) x 2 |               |



NF12A / NF12D



VM32T / VM32U

- Able to test Analogue, AHD, TVI, CVI and IP camera;
- PTZ Control and Scan available;
- Get IP Camera address and control;
- Monitoring RS-485 signals;
- Available with color bar output to check the monitors that the users can bring fewer instruments;
- Various power output selections help users to work in the environment which do not have power supply;
- Available with some additional functions;
- Builtin flashlight can help users to work in dark environments.



VM32Q



### Specifications

|  | VM32Q           | VM32T | VM32U |
|--|-----------------|-------|-------|
| Display  |                 |       |       |
| Type   | TFT             |       |       |
| Size   | 3.5"            |       |       |
| Resolution   | 960(H) x 240(W) |       |       |
| Power Output (DC12V 2A)                                  | ✓               | ✓     | ✓     |
| Power Bank (DC5V 1A)                                     | ✓               | ✓     | ✓     |
| Video Signal Input                                       |                 |       |       |
| Type   | NTSC / PAL      |       |       |
| Automatically identifying                                | ✓               | ✓     | ✓     |
| OSD Menu   | ✓               | ✓     | ✓     |
| PTZ Control  | ✓               | ✓     |       |
| PTZ Address Scanning                                     | ✓               | ✓     |       |
| PTZ Address Preset                                       | ✓               | ✓     |       |
| RS-485 Signal Monitoring                                 | ✓               | ✓     | ✓     |
| Color Bar Output   | ✓               | ✓     | ✓     |
| UTP Cable Test   | ✓               | ✓     | ✓     |
| IP Camera Address Scan                                   | ✓               |       | ✓     |
| IP Camera Test   | ✓               |       | ✓     |
| AHD  | ✓               | ✓     |       |
| Resolution Support (720p/1080p)                          | ✓               | ✓     |       |
| Frame Rate Support (25/30/50/60 fps)                     | ✓               | ✓     |       |
| TVI  | ✓               | ✓     |       |
| Resolution Support (720p/1080p)                          | ✓               | ✓     |       |
| Frame Rate Support (25/30/50/60 fps)                     | ✓               | ✓     |       |
| CVI  | ✓               | ✓     |       |
| Resolution Support (720p/1080p)                          | ✓               | ✓     |       |
| Frame Rate Support (25/30/50/60 fps)                     | ✓               | ✓     |       |
| Tracking network or TV cable in bundle of wires          | ✓               |       |       |
| Checking the correctness and quality of wire connections | ✓               |       |       |
| Tracking signal transmission distance                    | 1km             |       |       |
| Low Voltage Indicator                                    | ✓               | ✓     | ✓     |
| Charging Indicator                                       | ✓               | ✓     | ✓     |
| Charging Protection                                      | ✓               | ✓     | ✓     |
| Sound on/off selectable (Volume adjustment)              | ✓               | ✓     | ✓     |
| Phone cable tracing                                      | ✓               |       |       |
| Flashlight   | ✓               | ✓     | ✓     |
| Auto Power Off   | ✓               | ✓     | ✓     |
| Transmitter Powered By :                                 |                 |       |       |
| 3.7V 1800mA.h 18650 Li-ion Battery x3                    | ✓               | ✓     | ✓     |
| Receiver Powered By 9V (6F22) x1                         | ✓               |       |       |

# Contact Type Thermometers

VT55 series



VT55A / VT55B

- Large Display shows :
  - T1, T2 together (VT55A); and
  - T1, T2, T3, T4 together (VT55B);
- Electronic offset function allows compensation of thermocouple errors to maximise overall accuracy;
- Measures J, K, T, E, R, S and N type thermocouples;
- Readout in °C, °F or Kelvin (K);
- Data logging up to 5000 records (VT55B) or 100 records (VT55A);
- With Hi / Lo Alarm to keep inform user when Hi or Low temperature is recorded;
- User friendly front panel is easy to set up and operate
- Auto Power Off to increase battery life.

## Specifications

|                          |            |                                    | VT55A                   | VT55B                  |
|--------------------------|------------|------------------------------------|-------------------------|------------------------|
| No of Input              |            |                                    | 2                       | 4                      |
| Temperature              | Type K     | -200°C ~ 1300°C<br>-328°F ~ 2372°F | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Type J     | -200°C ~ 1200°C<br>-346°F ~ 2192°F | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Type T     | -200°C ~ 400°C<br>-346°F ~ 752°F   | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Type E     | -150°C ~ 1000°C<br>-238°F ~ 1832°F | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Type R     | 0°C ~ 1760°C<br>32°F ~ 3200°F      | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Type S     | 0°C ~ 1760°C<br>32°F ~ 3200°F      | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Type N     | -200°C ~ 1300°C<br>-328°F ~ 2372°F | ±(2%+2°C)<br>±(2%+4°F)  | ±(1%+1°C)<br>±(1%+2°F) |
|                          | Resolution | ≤999.9<br>>999.9                   | 0.1<br>1                | 0.1<br>1               |
| °C/°F/K Selection        |            |                                    | ✓                       | ✓                      |
| Max Mode                 |            |                                    | ✓                       | ✓                      |
| Min Mode                 |            |                                    | ✓                       | ✓                      |
| AVG Mode                 |            |                                    | ✓                       | ✓                      |
| T2-T1                    |            |                                    | ✓                       | ✓                      |
| T4-T3                    |            |                                    |                         | ✓                      |
| Hi/Low Alarm             |            |                                    |                         | ✓                      |
| Data Hold                |            |                                    | ✓                       | ✓                      |
| Data Lodding             |            |                                    | 100                     | 5000                   |
| Probe Temp Compensation  |            |                                    | ✓                       | ✓                      |
| Auto Calibration         |            |                                    | ✓                       | ✓                      |
| Blue Tooth Interface     |            |                                    |                         | ✓                      |
| Backlight Flashing Alarm |            |                                    | ✓                       | ✓                      |
| Auto Power Off           |            |                                    | ✓                       | ✓                      |
| Display Backlight        |            |                                    | ✓                       | ✓                      |
| Display Mode             |            |                                    | Color LCD               |                        |
| Max Display              |            |                                    | 9999                    | 9999                   |
| Power By                 |            |                                    | 1250mAH Lithium Battery |                        |

# Forehead IR Thermometers

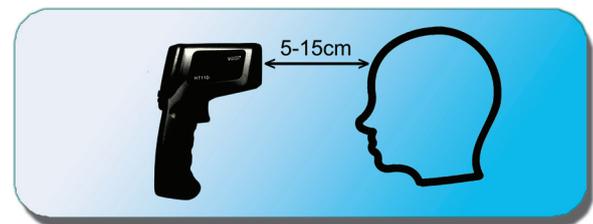
HT11 series



- Screen out the person who has a fever;
- Fast and easy measurement;
- Best Accuracy up to 0.2°C;
- Response time : 500ms;
- °C / °F selectable;
- Max / Min record;
- Fever alarm (HT11E only);
- With display backlight;
- Auto power off.

HT11A / HT11D

HT11E



## Specifications

|                             | HT11A                             | HT11D                             | HT11E                             |
|-----------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Body Temperature Range      | 32°C - 42.5°C<br>89.6°F - 108.5°F | 32°C - 42.5°C<br>89.6°F - 108.5°F | 32°C - 42.5°C<br>89.6°F - 108.5°F |
| Surface Temperature Range   | 0°C - 60°C<br>-32°F - 140°F       | 0°C - 60°C<br>-32°F - 140°F       | 0°C - 60°C<br>-32°F - 140°F       |
| Best Accuracy               | ±0.4°C or ±0.7°F                  | ±0.2°C or ±0.4°F                  | ±0.2°C or ±0.4°F                  |
| Display Resolution          | 0.1                               |                                   |                                   |
| Distance                    | 5 - 15cm                          |                                   |                                   |
| Response Time (95% reading) | 500ms                             |                                   |                                   |
| Display Hold                | 7 seconds                         |                                   |                                   |
| °C / °F Selection           | ✓                                 | ✓                                 | ✓                                 |
| Temperature Data Hold       | ✓                                 | ✓                                 | ✓                                 |
| Audible Indication          |                                   |                                   | ✓                                 |
| Display Backlight           |                                   | ✓                                 | ✓                                 |
| Sleep Mode                  |                                   | ✓                                 | ✓                                 |
| Power By                    | 9V (6F22) x 1                     |                                   |                                   |

# Infrared Thermometers

## VT10 series



**VT10C**

- Adjustable emissivity (from 0.10 to 0.95);
- Wide Range (largest range from -50°C to 1350°C / -58°F to 2462°F);
- Min / Max / Alarm;
- Able to store 20 measured values (for VT10B and VT10C);
- Able to measure room temperature;
- With Circular Laser Pointer (for VT10B and VT10C);
- White Backlight With 5 buttons for easy and fast operate;
- With Sleep mode to enhance battery life.



**VT10A**



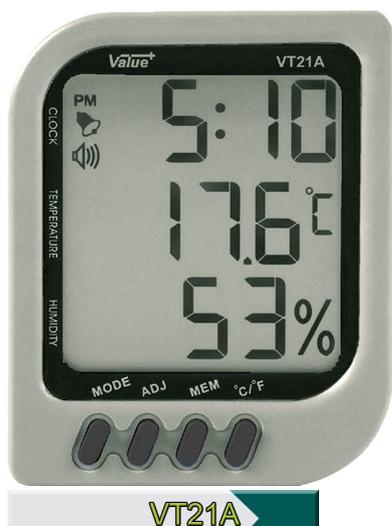
Circular Laser Sighting  
(VT10B and VT10C)



**VT10B**

### Specifications

|                              | VT10A  | VT10B                           | VT10C                            |
|------------------------------|--|---------------------------------|----------------------------------|
| Temperature Range            | -50°C - 550°C<br>-58°F - 1022°F                            | -50°C - 850°C<br>-58°F - 1562°F | -50°C - 1350°C<br>-58°F - 2462°F |
| Best Accuracy                | ±1.5%, ±1.5°C or ±1.5°F                                    |                                 |                                  |
| Repeatability                | ±0.5%, ±0.5°C or ±1°F                                      |                                 |                                  |
| Display Resolution           | 0.1  |                                 |                                  |
| Distance to Spot Size Ratio  | 12:1   |                                 | 30:1                             |
| Response Time (95% reading)  | 500ms  |                                 |                                  |
| Spectral Response            | 8mm - 14mm   |                                 |                                  |
| Laser Power                  | Class 2 (II) operation; Output < 1mW, wavelength 630-670nm |                                 |                                  |
| Laser Switch                 | ✓  | ✓                               | ✓                                |
| Laser Sighting               | Single Point   | Circular                        | Circular                         |
| Display Hold                 | 7 seconds  |                                 |                                  |
| Emissivity                   | 0.10 to 0.95   |                                 |                                  |
| °C / °F Selection            | ✓  | ✓                               | ✓                                |
| Temperature Data Hold        | ✓  | ✓                               | ✓                                |
| Data Logging                 |  | 20                              | 20                               |
| Search                       | ✓  | ✓                               | ✓                                |
| MAX / MIN / Room Temperature | ✓  | ✓                               | ✓                                |
| Hi / Lo alarm                |  | ✓                               | ✓                                |
| Display Backlight            | ✓  | ✓                               | ✓                                |
| Sleep Mode                   | ✓  | ✓                               | ✓                                |
| Power By                     | 9V (6F22) x 1  |                                 |                                  |



### Hygrothermometer

- Precise;
- Able to monitor indoor temperature and humidity;
- Suitable for Home and Industrial Users;
- Celsius and Fahrenheit Selectable;
- Build-in Clock and Calendar;
- Comfortability Display;
- With Min/Max Display;
- With Alarm;
- Easy to operate.

### Specifications

|                    | VT21A         |
|--------------------|---------------|
| Temperature Range  | 0°C ~ 60°C    |
| Best Accuracy      | ±1.5°C        |
| Display Resolution | 0.1           |
| Humidity Range     | 20% ~ 90% RH  |
| Best Accuracy      | ±5% @ 23°C    |
| Display Resolution | 1%            |
| °C / °F Selection  | ✓             |
| Time               | ✓             |
| Calendar           | ✓             |
| Comfortability     | ✓             |
| Min / Max          | ✓             |
| Alarm              | ✓             |
| Power By           | 1.5V (AAA) x1 |



### PM<sub>2.5</sub> Meter

- Precise;
- Able to monitor indoor temperature and humidity;
- Suitable for Home and Industrial Users;
- Celsius and Fahrenheit Selectable;
- Build-in Clock and Calendar;
- Comfortability Display;
- With Min/Max Display;
- With Alarm;
- Easy to operate.

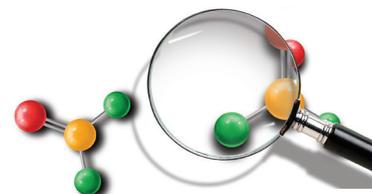
### Specifications

|                      |           | VT50A                         |
|----------------------|-----------|-------------------------------|
| PM <sub>2.5</sub>    | 0-999µg/m | ±10 digit or ±10%             |
| Detection Technology |           | Dynamic Light Scattering      |
| Response Time        |           | 3s                            |
| Auto Power Off       |           | ✓                             |
| Power by             |           | 3.7V Lithium Battery (450mAh) |



VT22H / VT22J  
VT22K

- Employ the latest technologies to ensure the accuracy;
- Easy to use;
- Nice shape;
- For continuous monitoring formaldehyde level, especially after redeclaration and / or installing new furniture;
- Suitable for household use;
- Large display for easy reading;
- With Display Backlight for working in dark environments;
- Available for hanging on wall;
- Available with Temperature and Humidity Measurement for fully monitoring the environment;
- Unit (mg / ppm) selectable.



## Specifications

|  | VT22H          | VT22J      | VT22K      |
|--|----------------|------------|------------|
| Formaldehyde Measurement               |                |            |            |
| Range                                  | 0-5mg/m3       | 0-5mg/m3   | 0-5mg/m3   |
| Resolution                             | 0.01mg/m3      | 0.01mg/m3  | 0.01mg/m3  |
| Accuracy                               | ±5%            | ±5%        | ±5%        |
| Temperature Measurement                |                |            |            |
| Range                                  | 0°C-50°C       | -10°C-99°C | -10°C-99°C |
| Accuracy                               | ±1°C           | ±0.5°C     | ±0.5°C     |
| Humidity Measurement                   |                |            |            |
| Range                                  |                | 0%-100%RH  | 0%-100%RH  |
| Accuracy                               |                | ±4.5%      | ±3%        |
| °C / °F Selection                      | ✓              | ✓          | ✓          |
| Measurement Unit (mg / ppm) Selectable | ✓              | ✓          | ✓          |
| Repeatability                          | 1% of signal   |            |            |
| Display Backlight                      | ✓              | ✓          | ✓          |
| Low Battery Indicator                  | ✓              | ✓          | ✓          |
| Auto Power Off                         | ✓              | ✓          | ✓          |
| Power by                               | 1.5V (AAA) x 2 |            |            |



PL33C / PL33D

PL33E / PL33F

- Locating the pipe / drain blocking position;
- Tracing the hidden pipe / drain route;
- Able to identify the designated pipe / drain;
- Able to trace both PVC, metallic and concrete pipe / drain;
- Adjustable sensitive to fit for different environments;
- Compact size for easy carrying;
- Cost effective equipment for pipe / drain locating;
- Indicating by sound or vibration;
- Autopower off to enhance the batteries life.

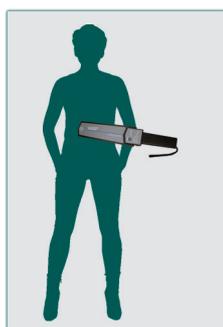
### Specifications

|                                     | PL33C | PL33D        | PL33E | PL33F |
|-------------------------------------|-------|--------------|-------|-------|
| Scan PVC / concrete pipe            | ✓     | ✓            | ✓     | ✓     |
| Scan metallic pipe                  | ✓     | ✓            | ✓     | ✓     |
| Transmission signal adjustable      | ✓     | ✓            | ✓     | ✓     |
| Transmission cable length           | 20m   |              |       |       |
| Scanning indicator                  |       |              |       |       |
| Sound                               | ✓     | ✓            | ✓     | ✓     |
| Vibration                           |       |              | ✓     | ✓     |
| Auto power off                      | ✓     | ✓            | ✓     | ✓     |
| Flashlight                          | ✓     | ✓            | ✓     | ✓     |
| Adjustable sensitivity              | ✓     | ✓            | ✓     | ✓     |
| Low battery indicator (Transmitter) | ✓     | ✓            | ✓     | ✓     |
| Powered by (Transmitter)            |       |              |       |       |
| 9V (6F22) x41                       | ✓     |              | ✓     |       |
| 3.7V 1800mAh Li-ion Rechargeable x1 |       | ✓            |       | ✓     |
| Powered by (Receiver)               |       | 9V (6F22) x1 |       |       |



MD28A / MD28B

- To detect metals, weapons and metallic objects;
- For security screening;
- To search for discard or lost;
- Screening the metallic contaminant during production;
- For Beachcombing;
- High sensitivity
- Able to detect tiny metal pieces
- With sound, LED and vibrating indicator
- With low battery indicator.



### Specifications

|                       | MD28A        | MD28B |
|-----------------------|--------------|-------|
| Indicators            |              |       |
| Audio Alarm           | ✓            | ✓     |
| LED                   | ✓            | ✓     |
| Vibrating             |              | ✓     |
| Operating Frequency   | 22kHz        | 22kHz |
| Power Consumption     | 270mW        | 270mW |
| Low Battery Indicator | ✓            | ✓     |
| Power by              | 9V (6F22) x1 |       |

Remote ID Unit  
for Cable Length Meter



Inductive Charger



Carrying Bag VM



Testleads



Carrying Bag WT



k-type Temperature Probe



Carrying Bag VT



Alligator Clip for  
wire tracing

