

# VT7 SINGLE POLE VOLTAGE INDICATOR

## Instruction Manual

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**MARTINDALE**  
● ● ● ELECTRIC

*Keeping You Safe*

## **SAFETY INFORMATION**



**REMEMBER: SAFETY IS NO ACCIDENT**

### **WARNING**

These instructions contain both information and warnings that are necessary for the safe operation and maintenance of this product. It is recommended that you read the instructions carefully and ensure that the contents are fully understood. Failure to understand and to comply with the warnings and instructions can result in serious injury, damage or even death.

In order to avoid the danger of electrical shock, it is important that proper safety measures are taken when working with voltages exceeding the extra low voltage 50V (25V) RMS AC or 120V (60V) DC. The values in brackets apply to restricted voltage ranges (for example in the medical or agricultural sector).

This product must only be used by a competent person capable of interpreting the results under the conditions and for the purposes for which it has been constructed. Particular attention should be paid to the Warnings, Precautions and Technical Specifications. Always check the unit is in good working order before use and that there are no signs of damage to it. Do not use if damaged.

Where applicable other safety measures such as use of protective gloves, goggles etc. should be employed.

If the equipment is used in a manner not specified by Martindale Electric, the protection provided by the equipment may be impaired.

Please keep these instructions for future reference. Updated instructions and product information are available at:  
[www.martindale-electric.co.uk](http://www.martindale-electric.co.uk)

## Meaning of Symbols and Markings

 Equipment complies with relevant Directives

 Equipment complies with relevant UK Directives



End of life disposal of this equipment should be in accordance with relevant Directives



Caution - risk of electric shock



Caution - risk of danger & refer to instructions



Equipment protected by double or reinforced insulation (Class II)

 Alternating current (AC)

## 1. INTRODUCTION

### 1.1 Inspection

Examine the shipping carton for any sign of damage. Inspect the unit and any accessories for damage. If there is any damage then consult your distributor immediately.

## 2. PRODUCT SPECIFIC SAFETY INFORMATION

### Measurement Category III (CAT III)

is applicable to test and measuring equipment connected to the distribution part of the building's low-voltage MAINS installation.

### Measurement Category IV (CAT IV)

is applicable to test and measuring equipment connected at the source of the building's low-voltage MAINS installation.

### 2.1 Precautions

This product has been designed with your safety in mind, but please pay attention to the following warnings and cautions before use.

#### **Warning**

The voltage indicator must only be used by a skilled and competent person who is familiar with the relevant regulations, the safety risks involved and the consequent normal safe working practices.

Before each use the voltage indicator should be examined for damage, cracks, cuts or scratches.

If there is any doubt the voltage indicator should **not be used**.

Make sure the voltage indicator is dry, clean and free from dust, grease and moisture while in use to avoid the danger from electric shock due to surface leakage.

Before and after each use, the voltage indicator must be proven using a good known voltage source. **Do not use** the voltage indicator if any expected indication LED's fail to illuminate correctly during proving.

The voltage indicator will not detect DC voltage.

Testing for a voltage that exceeds the specified limits of the voltage indicator may damage the voltage indicator and expose the operator to a shock hazard. Always check the voltage indicator's specified limits before use. The voltage indicator must only be used on CAT IV installations up to 300V to earth, on CAT III installations up to 600V to earth, and within the operating temperature and humidity range specified.

**Do not use** the voltage indicator if the battery cover is not fitted.

Always keep your fingers behind the finger guards. Never touch the exposed metal probe tip.

**Do not use** the voltage indicator during rain or precipitation.

The voltage indicator must not be dismantled or modified in any way by unauthorised persons.

The safety of the voltage indicator cannot be guaranteed under such circumstances and it **must not be used**.

### **Cautions**

Avoid severe mechanical shock or vibration and extreme temperature. To avoid corrosion from a leaking battery, remove the battery when the unit is not in use for an extended period.

### 3. OPERATION

#### 3.1 Self Test

The self test checks the functionality and battery, a proving check should always be performed prior to use.

Press the test button on the voltage indicator.

Two LED's, one in the front cone and one above the test switch, should illuminate and the buzzer should sound.

Do not use the voltage indicator if either of the LED's fails to illuminate or the buzzer fails to sound.

If both LED's and the buzzer do not function, replace the battery (see section 4.1 Battery Replacement) and retest the unit.

#### 3.2 Proving Check

Before and after use, verify the voltage indicator is functioning correctly on a known good voltage source.

Do not use the voltage indicator if either of the LED's fails to illuminate or the buzzer fails to sound during proving.

#### **Warning**

If the voltage source exceeds the specified limits of the voltage indicator the voltage indicator may be damaged and the operator exposed to a shock hazard. Always check the voltage magnitude of the voltage source before proceeding with a proving check.

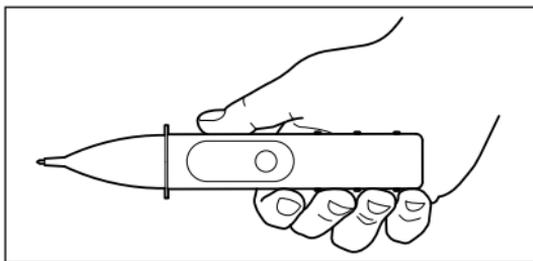
### 3.3 Testing for the Presence of Voltage



Single pole voltage testing is **not** suitable to determine if a circuit is not hazardous live.

A double pole voltage test should always be used for that purpose. If testing at locations with high background noise levels, always determine whether the buzzer is perceptible before relying solely on the buzzer indication.

The VT7 works through capacitive coupling to earth via the person holding the tester. To reduce variability in coupling and indication thresholds, consistent results are best achieved by holding the VT7 firmly by its ridged sides as shown.



While taking all required safety precautions connect the probe tip firmly to the UUT (Unit or location under test).

If a voltage is detected, both LED's will illuminate and the buzzer will sound.

## **4. MAINTENANCE**

### **4.1 Battery Replacement**

 To avoid shock or injury, disconnect the voltage indicator from any external circuits before proceeding.

To gain access to the battery compartment, undo the screw securing the battery compartment cover and lift off the cover.

Fit a new 9V, PP3 alkaline battery (IEC 6LR61, NEDA 1604A).

Replace the battery cover and the screw.

### **4.2 Cleaning**

If contamination is found, clean with a damp soft cloth and if necessary, a mild detergent. Do not use abrasives, abrasive solvents, or detergents which can cause damage to the unit.

If a mild detergent is used, the unit should subsequently be thoroughly cleaned with a water dampened soft cloth. After cleaning, dry and allow to remain in a dry in a dry environment for 2 hours before use.

### **4.3 Repair & Service**

There are no user serviceable parts in this unit other than those that may be described in section 4. Return to Martindale Electric if faulty. Our service department will quote promptly to repair any fault that occurs outside the guarantee period.

### **4.4 Storage Conditions**

The instrument should be kept in warm dry conditions away from direct sources of heat or sunlight, and in such a manner as to preserve the working life of the unit. It is strongly advised that the unit is not kept in a tool box where other tools may damage it.

## **5. WARRANTY AND LIMITATION OF LIABILITY**

This Martindale product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is 2 years and begins on the date of receipt by the end user. This warranty extends only to the original buyer or end-user customer, and does not apply to fuses, disposable batteries, test leads or to any product which, in Martindale's reasonable opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation, handling or storage.

Martindale authorised resellers shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of Martindale.

Martindale's warranty obligation is limited, at Martindale's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to Martindale within the warranty period.

This warranty is the buyer's sole and exclusive remedy and is in lieu of all other warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. Martindale shall not be liable for any special, indirect, incidental or consequential damages or losses, including loss of data, arising from any cause or theory.

Since some jurisdictions do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any part of any provision

of this warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision or other part of that provision.

Nothing in this statement reduces your statutory rights.

Thank you for using one of our products.

Technical support is available from:

+44 (0)1923 441717 and [support@martindale-electric.co.uk](mailto:support@martindale-electric.co.uk).



## Specification

### VT7 Single pole voltage indicator

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#### Electrical

Audible and visual indication

Voltage range: 50V - 600V AC RMS nominal

Frequency range: 50 - 60Hz

Test current:  $<5\mu\text{A}$



#### Environmental

Location: Suitable for indoor use & outdoor use in dry weather conditions only

Temperature: (Operating & Storage):  $-10^{\circ}\text{C}$  to  $55^{\circ}\text{C}$

Humidity: (Operating & Storage):  $\leq 85\%$  R.H.

Altitude: up to 2000m

Pollution Degree: 2

#### General

Power: 9V, PP3 alkaline battery (IEC 6LR61, NEDA 1604A)

Dimensions: 236(L) x 44(W) x 33(D) mm

Weight: 120g (battery included) approx.

Includes: 9V PP3 battery, instructions

#### Safety

Conforms to BS EN 61010-1 CAT IV 300V, CAT III 600V

Class II, Double Insulation

#### EMC

Conforms to BS EN 61326-1

## Check out what else you can get from Martindale:

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- Labels
- Microwave Leakage Detectors
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- PAT Testers & Accessories
- Phase Rotation Testers
- Proving Units
- Safe Isolation Kits
- Socket Testers
- Specialist Drummond Testers
- Thermometers & Probes
- Test Leads
- Voltage Indicators

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### Ver. D1.2

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