

STANDARD

Models : **276 HD**
276SHD

HIGH VOLTAGE DETECTOR

This Model 276HD detects the presence of voltage in AC lines. An elongate insulation rod permits checking of high tension circuits at safe distance for voltage. The equipment is compact, light weight, and easy to handle, and is also available for voltage detection in low-tension circuits.

FEATURES

1. Telescopic, compact, light-weight

The length is elastic from 354mm to 1005mm, The equipment is light-weight (180g), easy to handle, and handy to carry.

2. High-voltage detectable

The equipment, whether in stretched state is available for voltage detection in high-tension circuits (3.3kV, 6.6kV and 24kV) whether the wires involved are naked or insulated.

3. Low-voltage detectable

The equipment can be used for voltage detection in low-tension circuits (80V ~ 600V) by holding the nameplate portion of the detecting head. Before-use check can easily be done by plugging in an AC 100V plug socket, without using a tester.

4. Easy to recognize indication

Intermittent lighting in red of a high intensity light-emitting diode and intermittent audible sound of an electronic buzzer are readily recognizable at a full daylight, noisy location.

5. Waterproof

The detecting head, being tightly enclosed, is free from any trouble due to dust, dirt, water or the like.

RATINGS AND SPECIFICATIONS

Working voltage range :

H.V.: 3kV~24kV AC..... Hold grip portion to detect.

L.V.: 80V~600V AC..... Hold nameplate portion to detect.

Frequency : 50Hz / 60Hz

Operation Test : (Initial voltage)

(a) When stretched, hold the grip portion.

Put the sensing tip in contact with the voltage : 250V AC 50V
The LED and buzzer should work.

(b) When retracted, hold the nameplate portion.

Put the sensing tip in contact with the voltage : 80V AC or below
The LED and buzzer should work.



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Operation start distance : Distance at which operation starts when sensing tip is brought near 5mm O.C. wire with grip portion held by hand.

Where 24kV / mm (voltage to ground)abt 20cm

Where 6.6kV / mm (voltage to ground)abt 3cm

Where 3.3kV / mm (voltage to ground)abt 1cm

Dielectric strength : (a) Between Sensing tip ~ Grip portion : 50kV AC, 1 min
(The detector has to be stretched)

(b) Between Sensing tip ~ Nameplate portion : 4kV AC, 1min

Construction : Waterproof (detecting head impervious to water)

Insulation resistance : Measure the insulation resistance with the high voltage insulation tester.

The areas we measure are the same as Dielectric strength test.

(a) Between Sensing tip ~ Grip portion : 1kV

(The detector has to be stretched)

The insulation resistance has to be more than 2000 M

(b) Between Sensing tip ~ Nameplate portion : 1kV

The insulation resistance has to be more than 2000 M

Leakage current Test : Put high voltage on the parts listed below.

(a) Between Sensing tip ~ Grip portion : 50kV AC, 1 min (The detector has to be stretched)

The leakage current has to be 100 uA or less than 100 uA

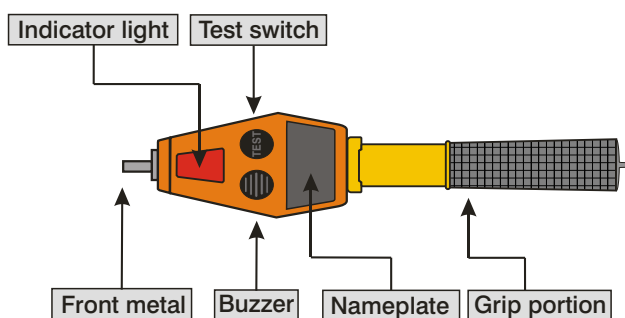
(b) Between Sensing tip ~ Nameplate portion : 4kV AC, 1min

The leakage current has to be 100 uA or less than 100 uA

Working temperature range : -10 C ~ +50 C

Battery : 3 button-cells LR44(1.5V)

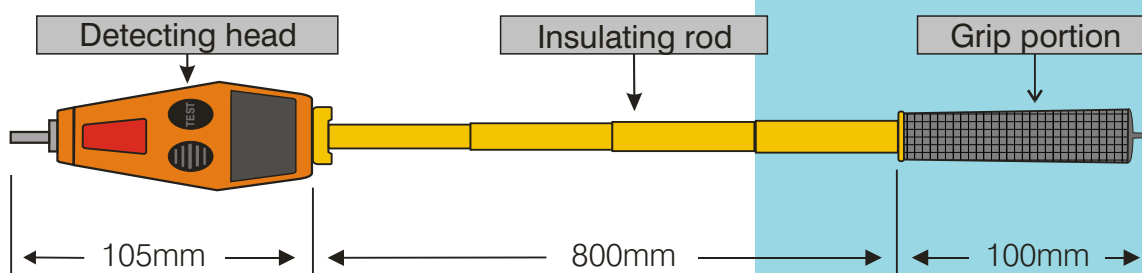
CONSTRUCTION



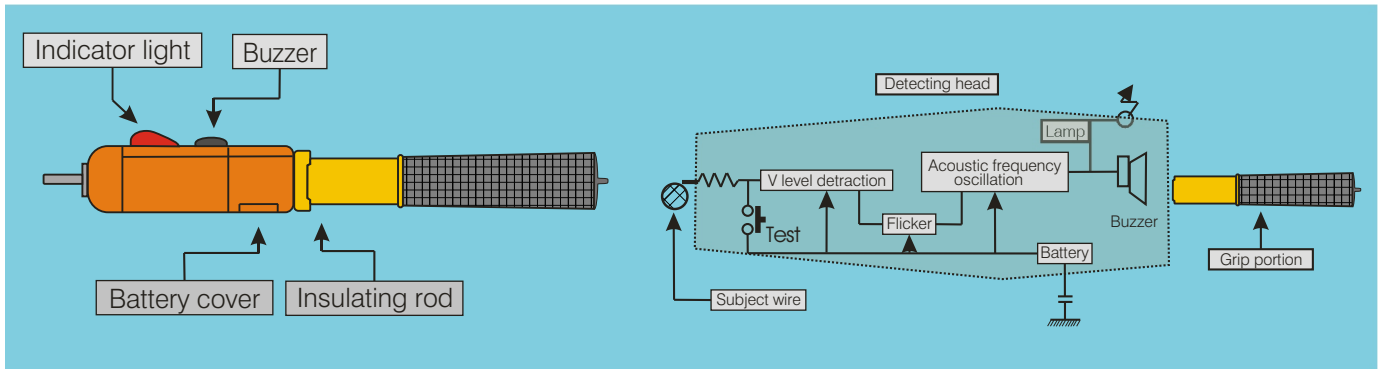
Front metal : To be put in contact with wires, etc for voltage detection.

Test switch : For checking to see that internal electronic circuit is in order.

Grip portion : Don't touch any portion other than this during H.V. detection.



STANDARD



HOW TO USE

Subject	High Voltage Detection (in stretched state)	Low Voltage Detection
	Naked/Insulated wires 3.3kV 6.6kV 24kV AC	Naked live part 80 ~ 600VAC
Method	Put the front metal in contact with the subject line to detect voltage, holding the grip portion. IMPORTANT ! <i>Don't touch any portion other than grip.!</i> <i>Please keep in your mind to wear high insulating gloves when you measure high voltage between 600V~24KV AC</i>	Put the front metal in contact with the subject line, holding the nameplate portion.

HANDLING AND MAINTENANCE

Before use for Voltage detection

1. Check to see that nothing is wrong with the equipment in appearance and construction.
2. Switch on test switch to check for working of the internal circuit for cautions sake try with a known line for operation.
3. When inspecting a high tension line, hold the grip portion during detecting operation.
Do not touch any portion other than the grip because danger is involved.
4. When using the equipment in constructed state for inspecting a high voltage line wear insulating rubber gloves.
5. For voltage detection in a low tension line hold the nameplate portion.
6. If it is necessary at all to carry out voltage detection during rainfall, pay constant attention to the wet condition of the equipment surface; if water drops in continuous form are present stop using the equipment.

Handling and Safekeeping

7. Do not subject the equipment to any hard shock by dropping or placing under something.
Do not wipe it with a chemical or the like.
8. Do not leave it on a road site in summer or place it in a hot location in a car or the like.
9. Be sure to keep it clean at all times, and choose a dry location kept away from direct sunlight for safe keeping.
10. If lighting is dim, or sounding is too low, or if the equipment does not operate, replat the battery with a new one.
11. Remove battery cover and replace the battery making sure polarity is correct, if (+) () polarities are reverse, the equipment does not operate.
12. The battery consists of 3 button shaped alkaline cells LR44, if a battery of poor quality is used, the equipment may be damaged by liquid leak from the battery.

Testing and Maintenance

13. Insulating performance (withstand voltage) test .. Should be conducted periodically, Maintenance i.e., once in every six months.
14. Checking of voltage detecting performance (operation)... should be made before use of the equipment for the day.