

HIGH VOLTAGE DETECTOR

**Model 230HD - 36.5KV /
290HD - 81.5KV**



230HD

290HD

**Carrying
case**

The detector detects high and extra high voltage in AC lines. An elongated insulated rod permits checking of high tension circuits at safe distance for live voltage. Also it is telescopic compact, light-weight, easy to use and handy.

SPECIAL FEATURES :

- Telescopic, Compact, light-weight, Easy to use.
- High-voltage detection in high tension circuits.
- Easy to recognize indications
Intermittent lighting in RED of a high intensity light emitting diode and intermittent audible sound of an electronic buzzer are easy recognizable in full daylight, noisy location.
- Water proof
The detecting head, being tightly enclosed, is free from any trouble due to dust, water.

GENERAL SPECIFICATIONS :

- * **Display :** Light : Flashing red light; Sound : intermittent sound 50dB apart 3m.
- * **Overall length :**
 - Model 230HD :** Retracted : 893 ± 50mm ; Extracted : 1520 ± 50mm.
 - Model 290HD :** Retracted : 1370 ± 50mm ; Extracted : 2450 ± 50mm.
- * **Operating Temperature :** -10°C ~ 50°C
- * **Storage Temperature :** -20°C ~ 60°C
- * **Construction :** Water proof (detecting head impervious to water)
- * **Battery :** 2 button cells Lr44 (1.5V)
- * **Weight :** Model 230HD-Approx. 485g. Model 290HD - Approx. 590g.(including Battery)

SAFETY :

- IEC / EN61243-1, 60068-2-6, 60068-2-32, 60068-2-14
- Water proof (detecting head impervious to water)

ACCESSORIES :

Instruction manual & Carrying Case.

ELECTRICAL SPECIFICATIONS : 230HD / 290HD

Measuring Voltage range	Model 230HD - 6kV ~ 36.5kV Model 290HD - 6kV ~ 81.5kV
Operating start Voltage (to ground)	2.7kV
Frequency	50/60Hz
Withstand Voltage (On insulating rod)	100kV / 300mm : 5 minutes
Insulation Resistance	2000M min by 1kV / DC megger at the same testing location as withstand voltage
Leakage Current	100 A at withstand voltage test

Distance & Voltage Chart for 230HD / 290HD

230HD		290HD	
Distance	Voltage	Distance	Voltage
10 cm	36 KV	48 cm	81.5 KV
5 cm	25 KV	28 cm	60 KV
2 cm	15 KV	8 cm	30 KV
Upto 11KV	By contact method	Upto 11KV	By contact method

All Specifications are subject to change without prior notice

LIST OF PRODUCTS

- * Digital Multimeter
- * Digital AC & AC/DC Clampmeter
- * AC Clamp Adaptor
- * AC/DC Current Adaptor
- * Thermo Anemometer
- * Thermo Hygrometer
- * Distance Meter
- * Digital Lux Meter
- * Network Cable Tester
- * Power Factor Regulator
- * Earth Resistance Tester
- * Digital Panel Meters
- * DC Power Supplies
- * High Voltage Detector
- * Calibrators
- * Gas Analysers
- * Frequency Counter
- * Function Generator
- * Phasing Sticks
- * Battery Tester
- * Waterproof Pen Testers
- * Solar Power Meter
- * EMF Detector
- * Wood, Paper & Grain Moisture Meter
- * Transistorised Electronic Analog & Digital Insulation Resistance Testers(upto 10 KV)
- * Digital Sound Level Meter & Sound Level Calibrator
- * Digital contact & Non-contact Type Tachometer
- * Digital Non-contact (infrared) Thermometer
- * Maximum Demand Controller/Digital Power Meter
- * Digital Hand Held Temperature Indicators

KUSAM-MECO®

**HIGH VOLTAGE
DETECTOR
MODEL - 230HD/290HD**

**OPERATION
MANUAL**

HIGH VOLTAGE DETECTOR

MODEL - 230HD / 290HD



290HD


230HD

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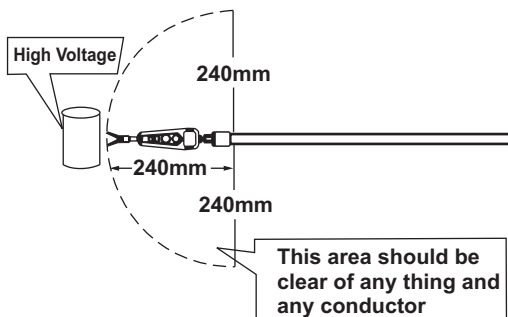
1. CAUTION

- This detector has been designed with your safety in mind. However, no design can completely protect against incorrect use. Electrical circuits can be dangerous and / or lethal when lacking of caution or poor safety practices are used.
- When working under high voltage systems, please wear the insulation gloves and rubber shoes.
- When working, don't touch any portion other than grip, because danger is involved.

 **CAUTION**, risk of electric shock.

 **CAUTION**, refer to the user's manual.

WARNING : When detect high voltage, the detection distance should be more than 240mm



The detector detects a high and extra high voltage in AC lines. An elongate insulation rod permits checking of high voltage circuits at safe distance for voltage. Also it is telescopic, compact, light-weight, easy to use and handle.

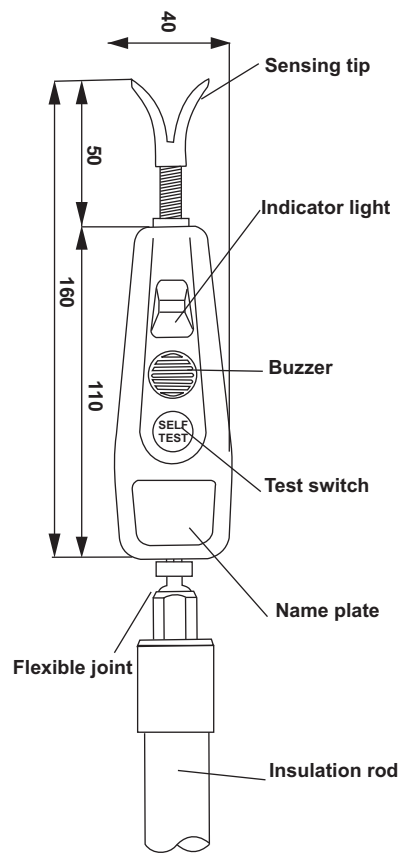
2. FEATURES

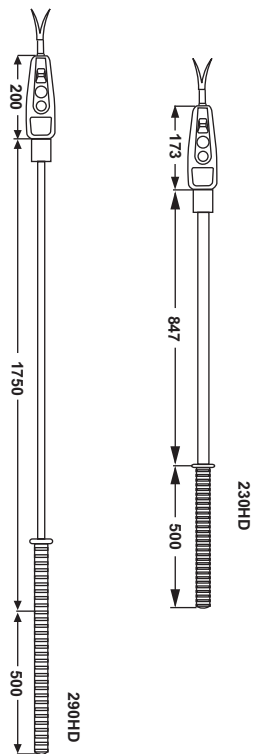
- **Telescopic, compact, light-weight.**
- **Light weight, easy to use and handy.**
- **High-voltage detectable**
The equipment, whether in stretched state is available for high voltage detection
6kV ~ 36.5kV(230HD) / 6kV~81.5kV (290HD).
- **Easy to recognize indication**
Intermittent lighting in red of a high intensity light emitting diode and intermittent audible sound of an electronic buzzer are readily recognizable at a full daylight or a noisy location.
- **Water proof**
The detecting head, being tightly enclosed, is free from any trouble due to dust or water.
- **Meets IEC 61243-1**
IEC 60068-2-6
IEC 60068-2-32
IEC 60068-2-14

3. SPECIFICATIONS AND RATINGS

- **Measuring Voltage Range :**
6kV~36.5kV (230HD); 6kV~81.5kV (290HD)
- **Operation start voltage (To ground) :**
2.7kV
- **Display :**
Light :Flashing red light
Sound : Intermittent sound 50dB apart 3m.
- **Overall length :**
Retracted : 893 ± 50mm (230HD)
1370 ± 50mm (290HD)
Extracted : 1520± 50mm (230HD)
2450 ± 50mm (290HD)
- **Frequency :** 50 / 60 Hz
- **Operating temperature :** -10°C ~ 50°C
- **Power Supply :** 2 button-cells Lr44 (1.5V)
- **Weight :**
485g (battery included) (230HD)
590g (battery included) (290HD)
- **Accessories :**
Instruction Manual & Carrying Case.
- **Withstand Voltage (On insulating rod) :**
100kV / 300mm : 5 minutes
- **Insulation resistance :**
20000M min by 1kV / DC megger at the same testing location as withstand voltage.
- **Leakage Current :**
100 A or less than 100 A at withstand voltage test.
- **Construction :**
Water proof (detecting head impervious to water)

4. CONSTRUCTION





5. HOW TO USE

- Voltage Detection before use
1. Wear the insulation gloves and rubber shoes.
 2. Inspect the appearance and structure of the machine for dirty spots or damages.
 3. Extend the insulating rod to check for cracks or loose parts.
 4. Pushing down the Switch Button to initiate the Self-Test by. Check the internal circuits for proper operation. As a precaution, operate with a known working circuit so you can make sure that the machine functions properly.



5. For the sake of personal safety, do not operate in humid weather or rainy days.

• **Handling and safekeeping**

1. Put the front metal in contact with the subject line to detect voltage, hold the grip portion and identify by sound and flashing red light.
2. When inspecting a high voltage line, don't touch any portion other than the grip, because danger is involved.

6. MAINTENANCE

• Battery Replacement

If lighting is dim or sounding is too low, or if the equipment does not operate, replace the battery by a new one.

1. Use a screwdriver to unscrew the screw on back cover then slide the cover, take out the batteries and replace with new batteries type (button-cell Lr44 1.5V).
2. Place back cover and secure bay screw.

• Clearing and Storage :

1. Avoid heavy blows and placing heavy weights on the machine. Avoid dropping the machine.
2. Please clean the machine after use. Wipe the machine gently with soft cloth and mild detergent to avoid using volatile solvents.
3. Keep the surface of the machine clean and store the machine in dry places. Avoid exposing the machine to direct sunlight. Avoid placing the machine in hot, dry and enclosed indoor areas with insufficient ventilation.
4. Perform insulation Testing every six months to ensure the machine is safe to use.
5. If the machine is not going to be used for a long time, remove the batteries and store them separately. This is to avoid battery liquefaction and corrosion of internal components which will cause loss of performance.

MUMBAI

TEST CERTIFICATE HIGH VOLTAGE DETECTOR

This Test Certificate warrants that the product has been inspected and tested in accordance with the published specifications.

The instrument has been calibrated by using equipment which has already been calibrated to standards traceable to national standards.

MODEL NO. _____

SERIAL NO. _____

DATE: _____

ISO 9001
REGISTERED





WARRANTY

Each "KUSAM-MECO" product is warranted to be free from defects in material and workmanship under normal use & service. The warranty period is one year (12 months) and begins from the date of despatch of goods. In case any defect occurs in functioning of the instrument, under proper use, within the warranty period, the same will be rectified by us free of charges, provided the to and fro freight charges are borne by you.

This warranty extends only to the original buyer or end-user customer of a "KUSAM-MECO" authorized dealer.

This warranty does not apply for damaged Ic's, fuses, burnt PCB's disposable batteries, carrying case, test leads, or to any product which in "KUSAM-MECO's" opinion, has been misused, altered, neglected, contaminated or damaged by accident or abnormal conditions of operation or handling.

"KUSAM-MECO" authorized dealer 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 "KUSAM-MECO".



"KUSAM-MECO's" warranty obligation is limited, at option, free of charge repair, or replacement of a defective product which is returned to a "KUSAM-MECO" authorized service center within the warranty period.

THIS WARRANTY IS BUYER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. "KUSAM-MECO" SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE WHATSOEVER.

All transaction are subject to Mumbai Jurisdiction.



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