An ISO 9001:2008 Company

HIGH VOLTAGE PROXIMITY DETECTOR

Model 275 HP (Upto 275KV) / 500 HP (Upto 500KV)

The 275HP / 500HP is a HIGH VOLTAGE proximity detector. 275HP has eight voltage detection settings from 240Vac to 275KVac. & 500HP has 10 Voltage detection settings from 240V to 500KV. The 275HP / 500HP consists of an internal pickup sensor plate, a sensitivity selector, a visual and a sound annunciator. With the 275HP / 500HP physical contact with electrical conductors is not necessary when testing for live lines. This tester works by proximity.

Its sensor senses the radiated field which surrounds live conductors. Radiated field strength increases with voltage & decreases quickly with distance or earth shielding. The radiated field from a cable of closely bunched conductors supplied by three phase power tends to cancel (See "Limitations of use" paragraph). Detecting distance of a 250Vac single live wire is approximately 10cm. With a bunched neutral and earth cable, as in a flexible cable, the distance is reduced to 5cm.

Some of the typical users are : identify and check live cables; find fault in flexible cables; check earth equipment; service neon lightning; trace live wires; check high frequency radiation ; detect residual or induced voltages. For example, faults in damaged flexible cables are found by applying low voltage to each conductor. Earthing the remainder and moving the tester along the cable until the change in condition is obtained. (Flexible cables which are used in mining and building industries, are readily repairable when the break in the cable is located.)

When using for high voltage, the rotary switch (attenuator) is used to identify and differentiate various HV live cables. The tester must be used in conjunction with a long and insulating rod when measuring high voltage (KV). However, the 275 HP / 500HP is a non contact tester and it is advised that the tester should never come in to contact with cables (KV) as this tester is merely a non-contact AC proximity tester.

Checking or proofing the tester is easy. Switch the sensitivity to 240V AC and place the dome against a low voltage live conductor or rub the dome with a cloth or against an item of clothing as this generates a static DC which triggers the detection of circuit. The light and beeper should go "on" as if a live wire is being approached. Approaching the dome near a computer screen or a TV screen (not liquid crystal display type) should also trigger the tester while on 240V selection.

FEATURES :

- **8 Voltage Settings :** 240V , 2KV, 6KV, 11KV, 22KV, 33KV, 132KV and 275KV AC (Model 275HP).
- **10 Voltage Settings :** 240V, 3.3KV, 11KV, 22KV, 33KV, 66KV,110KV, 220KV, 330KV, 500KV (Model 500HP).
- Self test selection.
- High bright LEDs visual indication.
- Sound indication.
- Non-contact work by proximity.
- Detect low voltage on any systems.
- Compatible with most link sticks.
- Use 3 x 1.5V "C" batteries
- Easy access to batteries.
- High impact nylon casing.
- Sealed by "0" rings
- Suitable for indoor and outdoor use.
- Light weight, robust, & compact.
- Weight : Approx. 500g.

SAFETY:

- Meets EN61000-3-2; EN61000-3-3; EN61326-1; EN55011 EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-11.

Typical observation of test results made in the fields

Range	MinDetection Voltage (MDV)	MDV as % of Line Voltage
11KV	1KV	9.1%
22KV	2KV	9.1%
33KV	3.1KV	9.4%
132KV	12.5KV	9.5%
275KV	22.5KV	8.2%

Expected test results (laboratory testing):

Range	Operated From
240V	Variable from 80V or depending on the type of source
2KV	250V
6KV	500V
11KV	1000V
22KV	1500V
33KV	4000V
132KV	8000V

The distance for detection of the voltage depends upon the range selected & actual Voltage of the conductor.

e.g. If the range selected is PC11KV, the minimum distance for detection of the PC11KV voltage is 22cm. But if the range selected is PC22KV, you need to be closer (14cm) to detect the PC11KV conductor.

LIMITATIONS OF USE :

It is recommended that the 275HP / 500HP is not used in HV yards of mixed voltages. In the presence of mixed voltages, the tester can become unreliable.

Problems can arise when the tertiary circuit of a 275/133/11KV transformer is tested. The electric field of the HV and MV bus bars can trigger the detector when it is above 3m above the ground. This is common with most of the electric field voltage detectors, and the users should be aware of it. The tester can pick up adjacent circuit to the one being tested and indicate the wrong information to the user.

HOT STICK Model HSR - 120 / 120A / 120B / 120C / 121 / 122

"KUSAM-MECO" Hot Stick is suitable for use with Non Contact High Voltage Detector Model 275HP & 500HP. It's construction is Telescopic. It is constructed from highly insulating reinforced Fibre Glass rod. The reinforcement gives high mechanical strength. It has a rubber gripper for holding it firmly when making measurements of H.T. Lines. It is supplied with carry bag.

Model	Length	
HSR 120	1 x 1.2m Orange stick & 3 x 1.8m Black stick.	Combination of 3 Models Sticks HSR 120A, 120B & 120C
HSR 120A	1 x 1.2m Orange stick	
HSR 120B	1 x 1.8m Black stick	
HSR 120C	1 x 1.8m Black stick with handle	
HSR 121	1 x 3.0m Retractable stick.	
HSR 122	1 x 5.0m Retractable stick.	

All Specifications are subject to change without prior notice

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