



15 Kvolt SPARK TESTER

INSTALLATION AND USER MANUAL

Read this User Manual carefully before installing and using it, and keep it in a place where it may be needed in the future.

1. WARNINGS



HIGH VOLTAGE !
THIS DEVICE CONTAINS HIGH VOLTAGE AND CAN DAMAGE
THE HUMAN BODY, DO NOT ATTEMPT TO TURN ON THE APPLIANCE.



DO NOT DROP THE DEVICE!
CARRY CAREFULLY

2. WARRANTY

Provided that it is used under normal conditions, it is guaranteed to be repaired or replaced with a new one at our decision and approval, in case of malfunction that will occur for 2 years after the sale.

However, even within the scope of the warranty period, a repair fee may be charged for the following damages and malfunctions.

1. If the user opens the cover of the device for any reason.
2. In case the device is used without electrical ground connection.
3. After the device is purchased and delivered, in case of damage or dropping by the user during transportation.
4. If the device is damaged by fire, gas, salt or natural disasters, in case of applying unsuitable high voltage to the device.
5. Damage caused by using the device in an open environment, spilling water or any liquid on the device, or immersing it in water or a similar liquid.
6. This device has been produced for the detection of insulation faults in conductors and cannot be used only in factory environment and for any other purpose. Warranty period is void in case of misuse.

This warranty cannot be transferred to another company or person other than the buyer.
This warranty is valid in the country of purchase.

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3. INTRODUCTRION

Spark Tester device is used to find cable electrical insulation faults thanks to the high voltage and low current created in the bead chain region. Electrical insulation fault in the cable causes the device to give an audible and flash light alarm, the counter to increase by one number and the dry contact output to be closed.

It provides service according to the needs with 3 different working modes. It can be used for three different purposes.

- 1- Extrusion during production.
- 2- In transferring or coiling. *
- 3- During the twist entry.*

By making use of the relay contact output on the back of the device, the system can be stopped and necessary action can be taken.

The benefits of the Spark Tester Device are:

- It warns the operator in case of electrical isolation error that will occur during production. In this way, the operator takes the necessary precautions and prevents later insulation errors and loss of raw materials.
- After production, it makes sure that there is no error in the insulated cable thanks to the Counter.
- Knows how many errors are at the end of production and takes the necessary precautions for the next stage.

SAFETY :



This device contains high voltage!

Despite the high voltage in the device, there is a current limitation. The amount of current is a few milli Amperes. If, for any reason, a person is exposed to high voltage in this device. However, even this small current may cause some people to panic. This panic can lead to other mistakes (such as hitting his head on something as a result of a sudden reflex, etc.). In this regard, people who use this device should be trained and warned about it.

This responsibility is the responsibility of the operator using this device.

The insulated conductor passing through the device must be grounded. Failure of the device to detect insulation faults in the cable whose conductive part is not grounded causes the working personnel to be exposed to high voltage and weak current.

There is a high voltage label on the front cover of the device. You have to make sure that it is not dismantled or frayed.



15 KV SPARK TESTER Teknik Özellikleri

Test Voltaj Aralığı	0.5 – 15 KV DC
Voltmetre	3 ½ hane Led Gösterge
Hassasiyeti	± %5 Gösterge değeri
Çıkış Akımı	1.6 mA Max.
Spark algılama Hassaiyeti	At 5 Kv, 600µA
Sayıcı	Resetlenebilir Sayıcı
Çıkış	(2 A) NA ve NK Kontak (Kuru Kontak)
Alarm	Flaş Işıklı ve Sesli
Çalışma Sıcaklığı	0-45° C
Görecel Nem	0-95% yoğunlaşmayan
Besleme Voltajı	85- 285VAC
Boyutları (UxYx E)	325x292x277mm
Güç Harcaması	150 watt



4. INSTALLATION

There are two metric 6 mm screw holes at the bottom of the device. The device must be fixed through these screw slots. This device is a device that requires grounding. 220Volt AC supply plug must be grounded. Also, since the body of the device is aluminum, grounding must be done via the fixing screw. Using it without grounding may not only prevent the device from performing its duty, but may also cause a malfunction.

WORKING MODES and MODE CHANGE:

It has 3 working modes. In case of each MOD isolation error, the following behaves like.

	HIGH VOLTAGE	ALARM
MOD I	High Voltage is cut for a short time and then returns to the set value.	The Alarm works for a short time and then the Alarm goes off.
MOD II	High Voltage is cut off for a short time and then set returns value.	The alarm works for warning. Alarm continues to operate until the RESET button is pressed.
MOD III	High Voltage remains off until the operator presses the RESET button.	The alarm works for warning. Alarm continues to operate until the RESET button is pressed.

In order to understand which MODE the Spark Tester device is set to, it is found by looking at how many times the Red and Green LEDs flash when the device is turned on with the ON/OFF Switch. If it flashes once, it means MOD I. If it flashes twice, it means MOD II and so on.

To change the operating mode, press and hold the RESET Button while the device is turned off, turn the device on with the ON/OFF Switch. The red LED flashes 5 times briefly. In the meantime, you keep pressing the RESET button. Then the two LEDs start flashing together. In the meantime, you can take your finger off the RESET button. You move from previous MOD to next MOD. The MOD change order is as follows. MOD I – MOD II – MOD III and again MOD I and so on. Let's say you want to switch from MOD II to MOD I .

By pressing the RESET Button while the device is off, you will perform the above-mentioned operation and switch to MOD III. You switch to MOD I by turning off the device, pressing the RESET button again and repeating the same process.

MOD change is usually required during initial setup.

5. USAGE

The white body, to which the bead chain region of the device is connected, is made of electrically insulating material. This insulated area must be free from dust and liquid. If it is wet and dirty, it may give incorrect insulation errors or the device cannot function. In case of wetness or contamination in the high voltage switchgear, clean the switchgear area.

A) Usage during production with extrusion:

- 1- The device is turned on with the ON/OFF Switch.
- 2- Adjust the appropriate high voltage by turning the potentiometer to the voltage to be applied, by looking at the indicator.
- 3- Open the front cover by holding the handle. When the cover is in the open position, the high voltage is cut off and pass the insulated cable through the bead chain area.
- 4- Close the cover. The high tension returns to the set value in the chain region.
- 5- Reset the counter with the button on it.
- 6- The device is in use.
- 7- When there is an insulation error in Spark Tester insulated cable;
 - Alarm occurs (strobe light and sound)
 - The counter increases by one.
 - Relay Contact output occurs.
 - High voltage is cut off.

NOTE: High voltage and Relay Contact output states and duration depend on MOD state)

- 8- In case of alarm, the operator takes action in accordance with the requirements of the enterprise.
- 9- At the end of the job, the device can be turned off after looking at the counter value on the display and doing the necessary.

B) Use in Transfer, Coiling or Twisting Entry:

Do the same operations from 1 to 7 in the previous option A.

- 8- In case of alarm, the system is stopped by sending a signal to the transfer, coiling or twisting device using the Relay Contact output of the device, and action is taken according to the needs of the enterprise.

6. RENOVATION

There is no maintenance required by the user in this process. It is necessary for the cell with high voltage to be clean and dry at all times for its correct operation. For training, cooling should be required for water starting from the waterway. (example: air blowing system or similar). It is necessary to control the operation and / or the standards in the form of periodicity.

- The counter increments by one when an insulation fault occurs.
- When the insulation fault occurs, the audible and flash light Alarm works.
- When the cable with bad insulation is passed, it detects the error.
- The number of beaded chains is not missing and the chain area is mechanically smooth and clean.
- Check that the cover safety works (high voltage when the cover is opened must be cut)
- Ensure that the high voltage label is intelligible
- Ensure that electrical grounding is applied to the device.
- Persons who will just start using this device are trained about the device.
- Voltmeter with high internal resistance and high internal resistance (1 Giga OHM)

Using the High Voltage Probe, it should be ensured that the difference between the measured value and the indicator voltmeter is less than 5%. For those who don't, take the necessary precautions.