

SPDT-TFT



# SURGE PROTECTIVE DEVICE TESTER

**SPDT-TFT**

- Varistor Voltage Check
- Zener Voltage Check
- DC Power Supply ( $\leq 1\text{kV}$ )
- DC Current Supply ( $\leq 10\text{mA}$ )

# SURGE PROTECTIVE DEVICE TESTER SPDT-TFT



## MAIN FUNCTION

- Varistor Voltage Check
- Zener Voltage Check
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## SPDT - SURGE PROTECTIVE DEVICE TESTER

The varistor has been used as the main element of the SPD (Surge Protective Device) that has been used for the protection of power equipment due to lightning that emerged recently. However, if it reaches the service life of the varistor, even though not able to protect the power plant more, a system can determine whether the normal operation of the varistor, deficiencies is a situation. SPDT (Surge Protective Device Tester) is a device capable of measuring the voltage of the varistor is a major element of the SPD to determine the presence or absence of abnormality of the function and the deteriorated state of the varistor.

## FEATURE

- Potable Type
- Display TFT LCD
- Simply Control

## APPLICATION AREAS

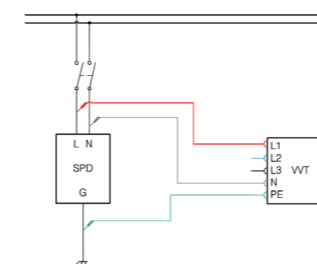
- INDUSTRY
- MEDICAL
- RESIDENTIAL
- TELECOM
- COMPONENTS
- BROADCAST
- RENEWABLE ENERGY

## SPECIFICATION

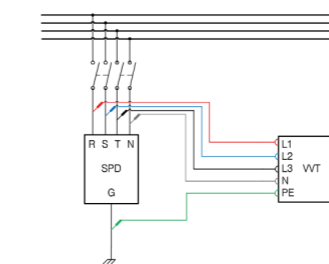
|                             |                       |
|-----------------------------|-----------------------|
| Model                       | SPDT-TFT              |
| Control                     | Touch Type            |
| Display                     | 7" TFT LCD            |
| Target                      | Varistor, Zener Diode |
| Type                        | 1P-2W, 3P-3W, 3P-4W   |
| Output Voltage Range        | 0 ~ 1 kV              |
| Total Measurement Time      | under 10 sec          |
| Measurable Varistor Voltage | 33 ~ 680 V            |
| Maximum Clamping Voltage    | 10mA                  |
| Accuracy                    | $\pm 5\%$             |
| Automatic Shutdown          | Yes                   |
| Operating Temperature       | -10 ~ 60 °C           |
| Size                        | 360 X 270 X 155 [mm]  |
| Weight                      | approx. 4.5 kg        |
| Supply Voltage              | 14.6 VDC $\pm 10\%$   |
| Power                       | approx. 60W           |
| Battery                     | Li-Poly 2200 mAh      |

## METHOD OF USE TO VVT FOR SPD BREAKDOWN

### Connection Diagram of 1P-2W SPD

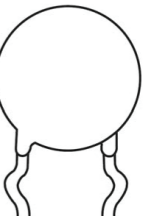


### Connection Diagram of 3P-4W SPD



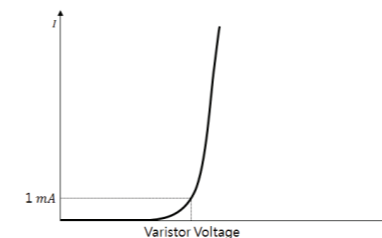
## VARISTOR?

Varistor is also known as variable resistor, depending on the applied voltage, the resistance of the element is changed, indicating non-linear voltage, the current characteristics. Varistors are often, are connected in parallel to the component and the circuit to be protected. If the transient voltage is generated, which is used for the purpose of preventing the rise of the transient voltage form the low-resistance circuit.



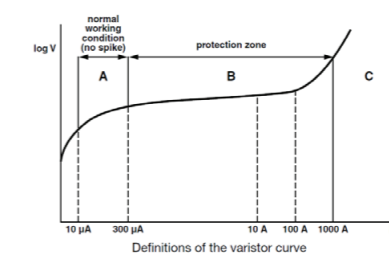
## VARISTOR VOLTAGE

Varistor voltage is the voltage applied to both ends of when 1mA of current flows through the varistor. This means the voltage that is limited by the transient voltage input during the varistor.



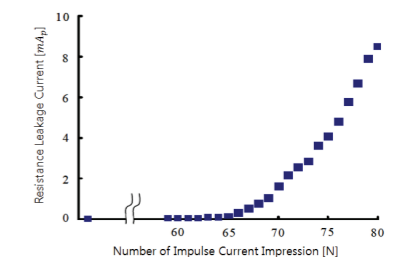
## VARISTOR VOLTAGE/CURRENT CHARACTERISTIC

If the input voltage is lower than the operating voltage of the varistor, resistance is very high, to work with an insulator that almost no current flows. But if the input voltage is greater than the operating voltage, resistance is very low, so that the current of the varistor flows. In this way, the voltage / current characteristic curve of the varistor is a non-linear.



## VARISTOR LIFE

Varistors when exposed to repeated transients, since the molecular bonding of the internal element is destroyed, the varistor voltage is more decreased. According to the IEEE C62.33-5.2, when the varistor voltage is lower than 90%, is described that the determination of the basis of the failure.





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## Function of the product



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