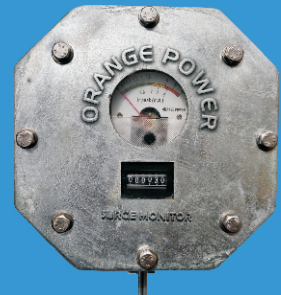




**ORANGE**  
ORANGE POWER TRANSMISSION & DISTRIBUTION  
EQUIPMENTS PVT. LTD.

# SURGE MONITOR



Surge Monitor is a device capable of sensitively registering surges in combination with total leakage current for use in all makes and types of Gapless surge arresters. It is to be fitted in the earth circuit between the arrester and ground.

- Reliability of operation
- In-built leakage current indicating device
- No external source required
- Simplicity of installation /mounting
- Maintenance free
- Sensitive to discharges of minor nature

## DESIGN FEATURES

The Surge Counter is a self-contained device and does not require any external source for its operation. The voltage across the surge counter during normal operation and even at the time of lightning or switching surges during service is very low, leading to added personnel safety. The sensitivity as low as 100A (8/20 $\mu$ s) enables the counter to indicate the discharges of minor nature also, which are seen by the surge arrester. Since no-gaps are used, there is no risk of internal arcing and consequent explosion of the counter in the rare event of arrester failure.

## TYPE TEST

ORANGE POWER Surge Monitor are successfully type tested at CPRI Bangalore for Ip67 Category-1 test in accordance with IEC 60529 (Edition2.2)

## OPERATIONAL TESTS

- 1 Counter: 3 impulses of 10kA (8/20 $\mu$ s) are applied to the counter & counter reading is verified for the same.
- 2 Leakage current meter: Each leakage current meter is calibrated for proper indication before fitting into the Surge Counter.

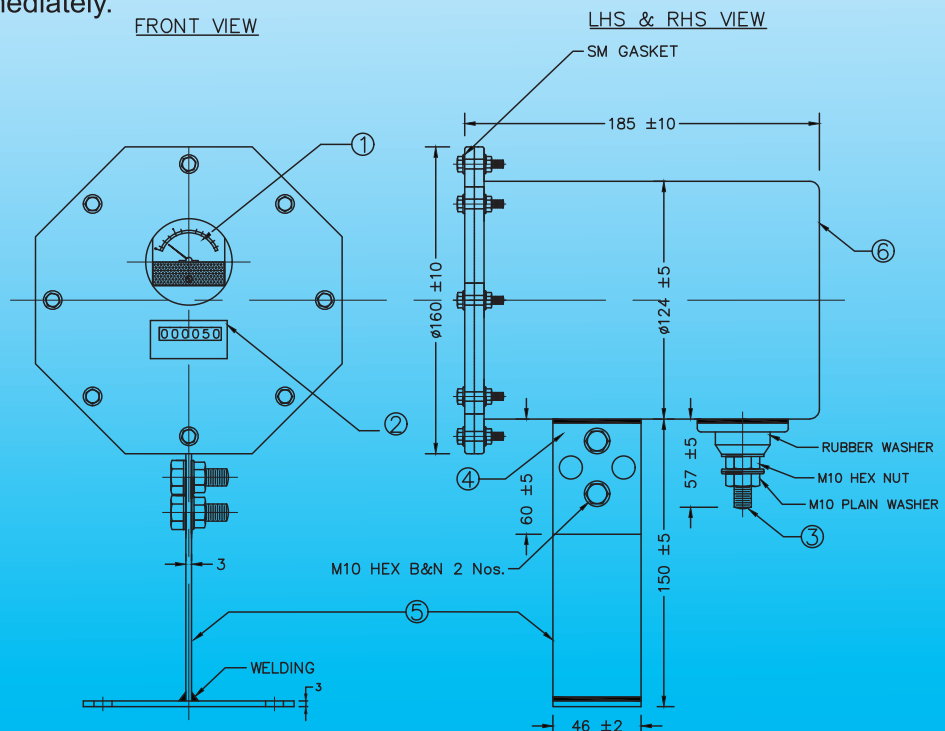
## MOUNTING

1. Surge Monitor shall be connected in series with the Surge arrester.
2. It shall be mounted at a suitable height for easy reading.

## Recommended procedure for inspection of counter & Arrester working condition.

1. Record the reading of the leakage current meter & counter immediately after charging/ installation of the surge Arrester when the arrester surface is dry and clean.
2. Record the readings of counter & current meter on regular basis or as per the schedule of the respective sub-station. It is strongly recommended to maintain all these readings in the log book.
3. In case the pointer of the leakage current meter approaches yellow zone, follow the below mentioned steps  
Clean the arrester surface thoroughly and then check the current meter reading.  
If, still the pointer lies in the yellow zone, it is recommended that the counter be replaced with a new counter for verification of reading of leakage current meter. /  
If the pointer of the new counter also lies in the yellow region, the arrester can be removed from the service at the earliest convenience of the client for inspection.
4. If the pointer of the leakage current meter enters the red zone, the arrester should be removed from the service immediately.

Dimensional  
Drawing



# ORANGE

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