

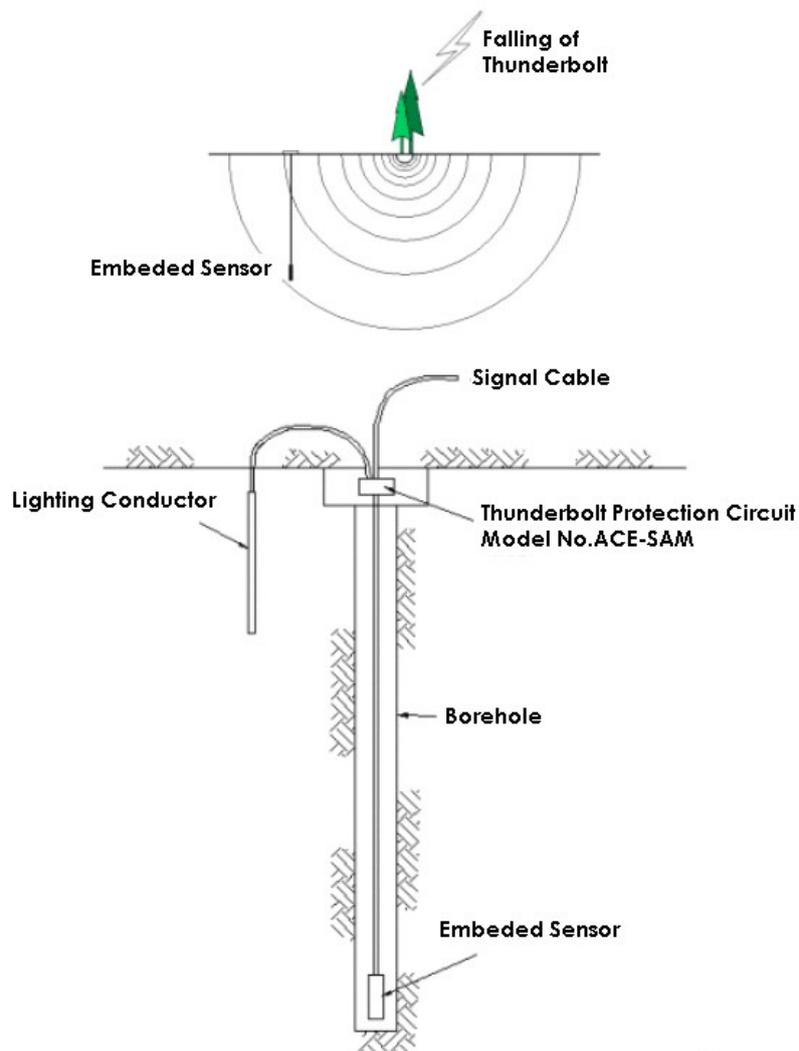
# Countermeasure of lightning protection

## ■ About lightning protection

Instruments buried in the ground are installed in a wide area where soft ground, dams and water exist. Inside the sensor, a small surge arrester is built in to protect the sensor against overvoltage. This compact arrester can protect the sensor from relatively small allowable currents due to electrical leakage accidents.

When the lightning is accompanied by rainy weather such as the rainy summer, the size and power of the thunderstorm is beyond imagination. Even when the lightning strike falls in the adjacent area where the sensor is buried, the surrounding buried instruments become all or almost inoperable.

In order to prevent such accidents, it is necessary to connect the secondary lightning protection device to the end of sensor at the spot where semi-permanent measurement is required and to put the lightning rod (made of copper) connected from the sensor directly to the sensor.



[Composition of lightning protection circuit]

## ■ Lightning protection circuit

ACE INSTRUMENT develops and sells a lightning protection circuit (model ACE-SAM) kit.

It should be installed together with the sensor in the field where the instruments buried in the ground is highly important or where semi-permanent