

# Application note

## Using a vibrating wire sensor

This note shows the connection of a vibrating wire sensor to SIRA System arresters. The aim is to protect the acquisition and monitoring systems from transient voltages transmitted by the cables of the sensor.

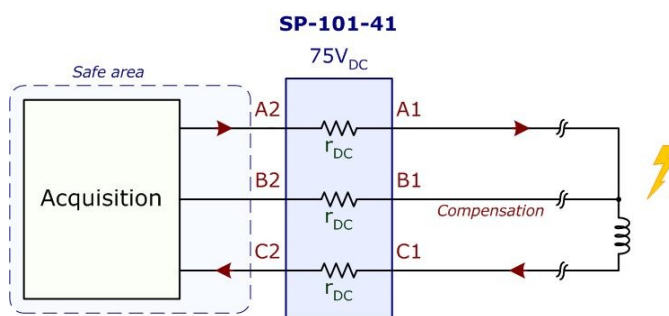
### 1-coil sensor

A single coil is used for exciting and listening the vibrating wire.

Protecting acquisition equipment can be made with 3-lines surge protectors such as SP-101 product family.

The choice of SP-101-41 arrester allows to send 80V pulses for the excitation of the vibrating wire.

The compensation wire is used for the measurement of the coil resistance in order to deduce the temperature.



### 2-coils sensor

A coil is used for exciting the vibrating wire while an other is used for listening it.

Protecting acquisition equipment can be made with 6-lines surge protectors such as SP-102 product family.

The choice of SP-102-11 arrester entails working with low voltages for the excitation of the vibrating wire.

The protection level of the arrester shall be chosen according to the use of the sensor voltage.

The compensation wire is used for the measurement of the coil resistance in order to deduce the temperature.

