Arrester-protected Measuring System



Strain gauges and a host of other transducers are used in structures for long-term maintenance control as well as for safety control during construction at civil engineering and other sites. These transducers need to be centrally controlled and are normally connected by cables running between the Instrument room and Data Loggers at a site office separated by anywhere from several tens of meters to hundreds of meters. The Data Logger and other connected transducers may be damaged by instantaneous high voltages in cables caused by lightning conduction even if lightning strikes near rather than directly on power or instrument cables laid outdoors.

Our arrester system attaches a special transducer cable arrester (NZ-6B) as well as an arrester unit (NZR-7A/NZ-7B) to the switching box and Data Logger cable to ground lightning strikes in order to minimize damage. An insulated transformer with a small static electricity capacity is used as a power supply cable measure to protect instruments from instantaneous high voltages. The system was developed based on many years of experience and field-proven performance in order to minimize instrument damage.

■Applicable instruments

Data LoggerTDS-303, TDS-530
TDS-602Switching BoxASW-30C, ASW-50C, SSW-50D, SSW-10MC, SSW-10SC

Example of use at an actual measuring site

