



Winlog Applications: Dust Pollution Level Monitoring System



The system, based on Winlog Pro software platform and realised in cooperation with Tribotecnica srl, ensures a continuous monitoring of the dust pollution level. Compared to periodical controls, the continuous control offers the advantage of a prompt signalling that gives the possibility to take corrective action before reaching the limit values of dust concentration.

The operation principle of the triboelectric sensor, designed and manufactured by Tribotecnica Srl, is based on the energy produced by the impact of the particles with the probe and on the electrical field generated by the contiguous particles. Values read by the sensors are collected by data acquisition modules that are linked, via a RS485 network with a Modbus protocol, to a supervisory server PC equipped with Winlog Pro software. The system calculates and records, for each sensor, the values of instantaneous and mean concentration and of mass flow. These values are continuously compared with acceptable reference values, in order to recognise and signal any alarm condition. Furthermore collected data is processed and used to produce daily reports that are available on display, print or on a database. A TCP/IP network makes available on one or more Client stations all information produced by the Server.