

Close to
100
years
Since 1925

SIAP+MICROS
Environmental Monitoring Solutions

PROFESSIONAL SCREEN FOR HIGH PRECISION THERMOMETERS

SMarT CELLino



Patented product that guarantees high natural ventilation and complete protection of the sensitive element from rain, dirt, accumulations of snow and ice



Better protection of the sensitive element from solar radiation even in the reflected and diffused components



Immediate response to changes in air temperature

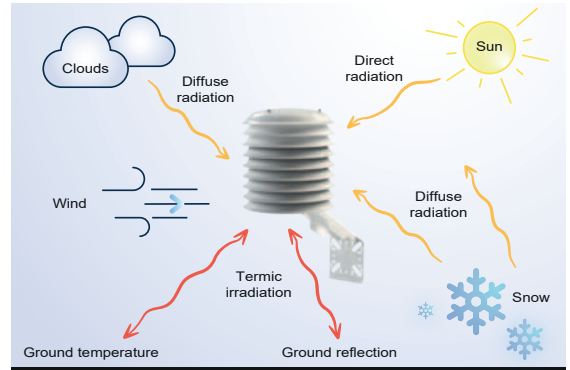
Product Description

The air temperature is indicated by a thermometer exposed to the air in a place sheltered from direct solar radiation (International Meteorological Vocabulary, WMO - No. 182)

The SMarT CELLino professional solar screen is the result of 100 years of experience in achieving the best performances indicated by the WMO (guideline n°8 Annex 1.A) in measuring air temperature, obtained by preserving the sensitive element as much as possible (thermometer) from interferences (errors) connected to solar radiation and ensuring perfect natural ventilation.

The ongoing climate changes impose increasing accuracy targets on companies in the sector in order to eliminate interfering factors in the measurements of meteorological-climatic parameters.

The exceptional relevance of air temperature measurement and the growing interest of the scientific community in the matter have encouraged the development of increasingly accurate products, requiring maximum attention to the improvement of sun screens.



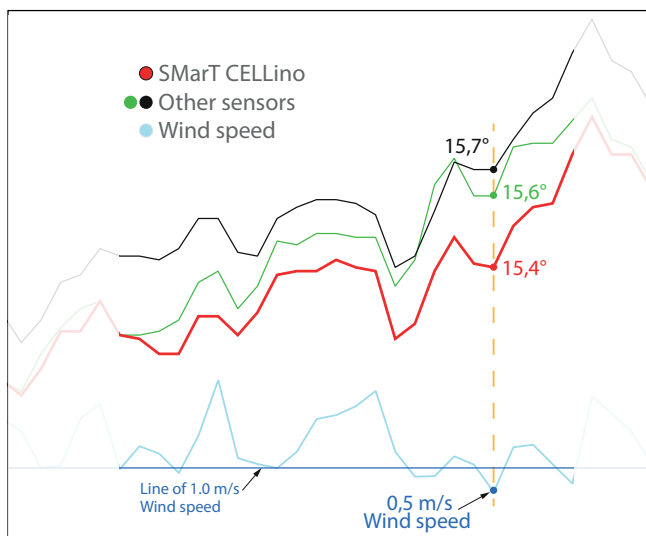
Radiation in the infrared (IR) band is the cause of the thermal effect for both air and ground heating. In this regard, SMarT CELLino was designed by maximizing the protection of the sensitive element from solar radiation by extending the WMO (direct) indications also to the components reflected from the ground (soil, snow, sand,...) and diffused.

SMarT CELLino offers absolute performance in terms of protection from radiation with regard to Stevenson sheds and also sets itself as a reference in comparison to ventilated screens, guaranteeing adequate air flow to the measurement chamber.

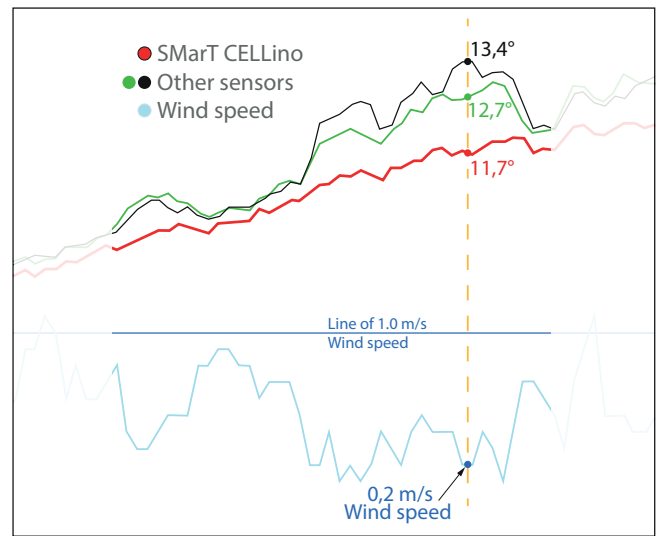
This excellent result, which overcomes the limits of the two aforementioned types of screens, derives from the patented idea of an "S-wing" structure of the plates constituting SMarT CELLino which favors the best natural ventilation obtainable even in calm wind conditions (<1 m/s).

SMarT CELLino: the new reference screen for air temperature and humidity measurements.

Comparative tests with reference solar screens



Excellent reactivity even for high temperature gradients

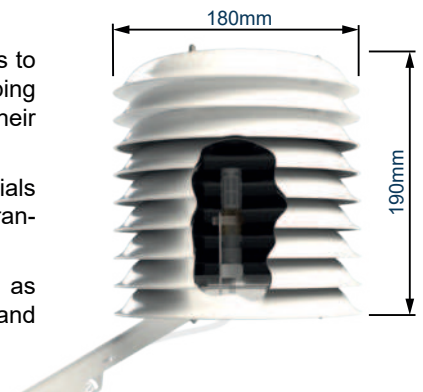


With wind lower than 1 m/s SMarT CELLino guarantees more accurate measurements

The design of SMarT CELLino offers excellent protection to the sensitive element with regards to bad weather and dirt that may occur over long measurement periods. Furthermore, the sloping shape of the plates avoids alterations in size linked to accumulations of snow and dust on their perimeter.

In addition to the design of the shapes, great care was paid to the choice of construction materials (UV stab. ASA) to eliminate measurement interference (reflections), facilitate cleaning and guarantee the mechanical and chemical stability of the screen over time.

SMarT CELLino is supplied complete with a powder-coated stainless steel bracket, as well as support for the correct positioning of cylindrical measuring probes with a diameter between 5 and 25 mm inside the screen. SMarT CELLino weighs only 895 g.



Specification subject to change without notice.