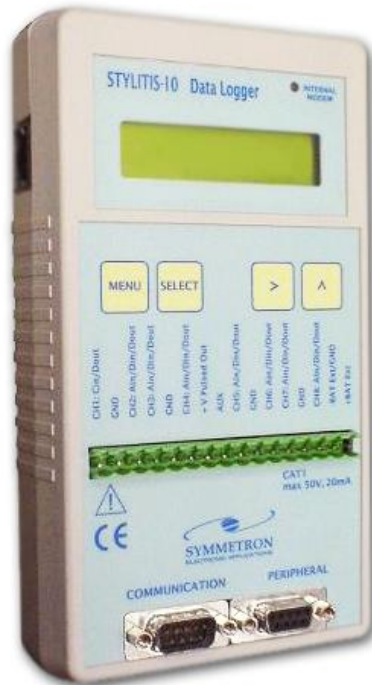


# Stylitis-10 Applications



**Stylitis-10** offers low-cost, high performance data acquisition and control.

For full documentation, click the corresponding links:

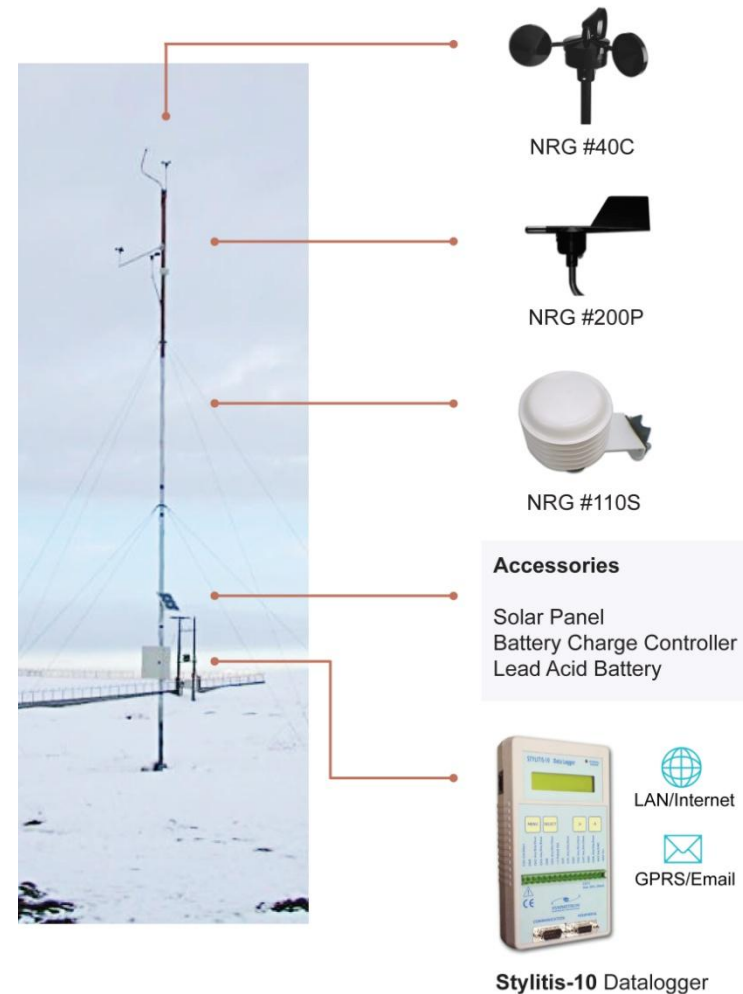
[Brochure](#)  
[User Manual](#)  
[Installation Guide](#)  
[Full presentation](#)

# Wind Energy Assessment

**Stylitis-10** is suitable for wind energy measurements.

- Measure wind speed and direction in one or two heights.
- In the example on the right, a 10m mast appears, with a NRG #40 anemometer, and a NRG #200P wind vane.
- Other analog sensors may be used, such as temperature (e.g. NRG #110S), barometric pressure (e.g. NRG #BR20), humidity (e.g. NRG #RH5), etc.
- If you wish, multiple SDI-12 ultrasonic wind speed and direction sensors, such as Gill **WindSonic** (no moving parts), may be used.

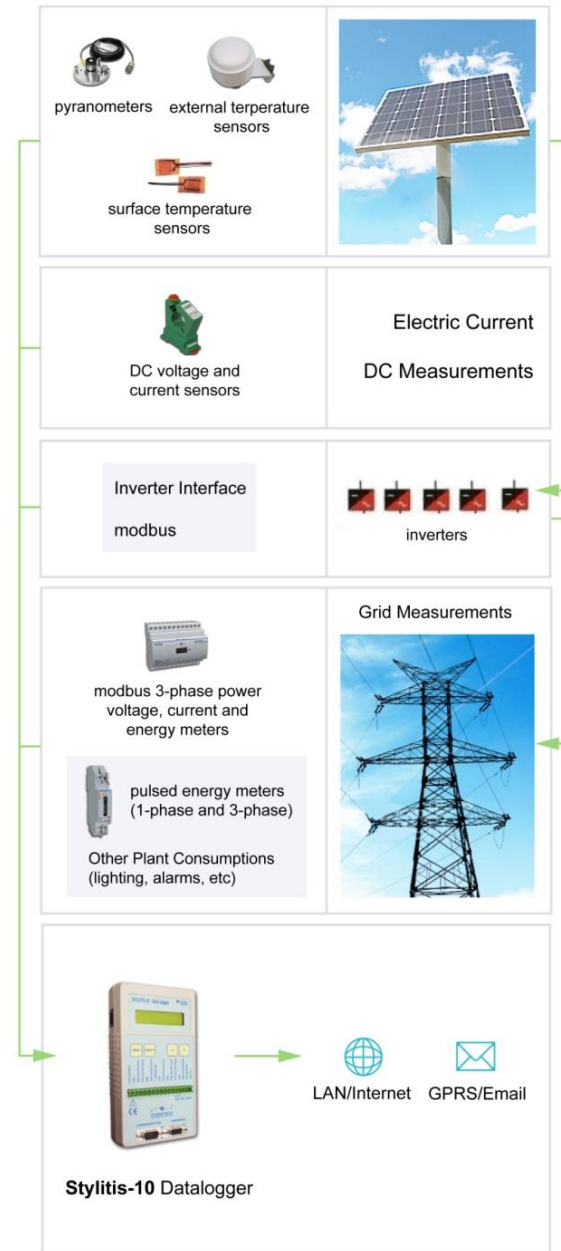
For this application, the **Stylitis-10+GSM** version is most suitable.



# Solar Plant Monitoring

Monitor your solar plant, by making various measurements and record them in **Stylitis-10**.

- Measure surface and external temperature, solar radiation, etc.
- Measure the DC Current produced by your panels.
- Measure the AC power production of your inverters, along with the AC voltage, current and the active energy bought and sold, via MODBUS sensors.
- Communicate with the inverter via the MODBUS RTU interface.
- Measure other plant consumptions, with pulsed 1-phase energy meters.
- Communicate with Stylitis-10 via various methods: Via **LAN/ Internet**, via **GSM/GPRS**, and receive data emails every day.



# Concrete Curing

For critical applications, you may monitor concrete's internal temperature to make sure it does not exceed your limits while it is cured. Correct curing is vital to concrete quality.

- Monitor temperature at up to 6 different points
- Use **PT-100 element** sensors.
- Communicate with Stylitis-10 via various methods: Via **LAN/ Internet**, via **GSM/ GPRS**.
- If you are using the GSM version, receive alarm SMSs if temperature is found off limits.



LAN/Internet



GPRS/Email

# Storage Temperature Monitoring

Similarly as before, measure up to 6 temperature points or areas of one or more containers or storage rooms.

For instance measure temperatures of freezers, ovens or sensitive goods during shipping.

**Stylitis-10**'s portability is useful in some applications, such as monitoring while transporting.

Due to the connecting cables' greater length, it is better to use **PT-1000** sensors than PT-100 ones, to measure temperature, for better accuracy.

Especially in refrigerators, according to European Union's **COMMISSION REGULATION (EC) No 37/2005**, temperature of quick-frozen foodstuffs must be recorded and monitored at frequent and regular intervals during transportation, warehousing and storage.

Besides temperature, you can also conduct various measurements in food installations, according to [HACCP](#) system, such as humidity and energy consumed.

- Measure humidity via suitable sensors
- Measure energy consumed by installing up to 2 pulsed energy meters, such as Revalco **1RCM1** or up to 10 MODBUS power and energy sensors, such as Revalco **1RAEMC485**



# Building Energy Monitoring

Measure multiple consumptions from an electric panel of a building, by installing the appropriate sensors on its DIN rails.

[CRES](#) recommends before replacing equipment or introducing new technologies, that the potential for energy savings be exhausted, so that a rational choice is made, economically and technically.

You can install:

- Multiple MODBUS RS-485 sensors, such as Revalco **RAEMC485**, to measure AC active, reactive and apparent power, AC voltage (phase and polar), current and active energy bought and sold (incoming and outgoing).
- In addition, up to 2 pulsed sensors, such as Revalco **1RCM1**, to measure only the active energy of a 1-phase or a 3-phase line.
- Isolate and measure different types of consumptions, such as air-conditioning, lighting, freezers, ovens, etc, in industries, hotels, etc.
- The Stylitis-10 version with a built-in **Ethernet** module (to communicate with it via a LAN) is most useful in such applications.



Industry



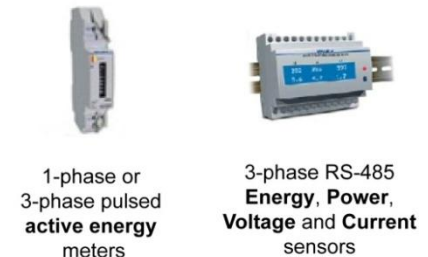
Hotels



Storage/Freezers



Commercial Centers



# Building Structure Monitoring

- Monitor the structural health of high-rise buildings, arenas/stadiums, bridges, historical monuments, etc.
- The inclination of their structure may change when exposed to external phenomena, such as earthquakes, high velocity winds, etc.
- Use up to 3 diff Voltage output Clinometers.



Clinometers



LAN/Internet



GPRS/Email

# Fire Prevention Network

- Monitor the temperature and humidity in a forest or park for fire prevention. Use a thermo-hygrometer, such as Delta Ohm **HD9009TR**.
- Also use 10-Hour Fuel Temperature and Moisture Sensors, such as:
  - Campbell **CS205/107** which uses a temperature probe (107) to measure the temperature of a fuel temperature stick (CS205), which simulates a tree.
  - Campbell **CS505**, which is a sensor which measures the percentage of moisture by weight of the 10824 10-hour Fuel Moisture Stick.
- A mounting stake is needed as an accessory for both sensors and sticks.
- If the external temperature and the stick's temperature are found too high and the external humidity and the stick's humidity is found too low, the fire hazards are greater.
- The Stylitis-10+GSM version is the most suitable one, while if the conditions above are satisfied, it can also be programmed to send you an alarm SMS.

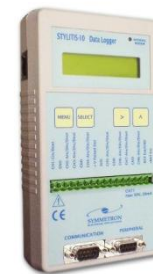


# Soil Water Content

- Measure the soil's moisture and temperature in different points and depths.
- Use multiple SDI-12 dielectric permittivity/temperature sensors, such as Decagon **5TM**.



SDI-12



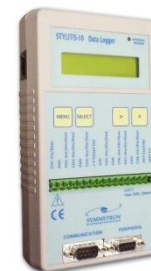
  
LAN/Internet

  
GPRS/Email

# Rivulet Depth and Flow Monitoring

- Monitor water depth and speed in a rivulet and the site's precipitation.
- Via these measurements, the rivulet's flow is calculated.
- Use a precipitation sensor, such as Young **Tipping Bucket**, a water depth one such as Global Water **WL400** or **WL450**, and an SDI-12 ultrasonic water speed sensor, such as Airmar **CS4500**.

For this application, the Stylitis-10+GSM version is the most suitable one.



  
LAN/Internet

  
GPRS/Email

# Tank Level and PH Monitoring

- Monitor the level of one or more tanks and, optionally, the liquid's pH.
- Use depth sensors such as Global Water **WL400** or **WL450**, and optionally pH sensors, such as Global Water **WQ201**.
- Stylitis-10 supports up to 7 sensors (analog, 4~20mA output).



  
LAN/Internet

  
GPRS/Email

# Contact Information

For more information, please contact with Symmetron company.

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