

CFA VISION

Measurement system for Continuous Flight Auger machines



CFA VISION measurement system is a new generation read-out and sensor device for the drilling and grouting parameters analysed with the technology of continual auger device based on Windows CE unit with a 7" color display.

The system allows to measure and store the following parameters:

PERFORATION PHASE	UPWELLING-JET PHASE
<ul style="list-style-type: none"> • Perforation depth • Propeller advance speed • Pressure of the propeller rotation torque • Propeller rotation speed • X and Y inclination mast • Infeed pressure (Optional) • Torque CSP Pressure (Optional) 	<ul style="list-style-type: none"> • Perforation depth. • Device drawing speed. • Graph of the concrete pile profile • Pumped concrete volume • Consumption snapshot • X and Y inclination mast • Pumped concrete pressure • Graph of concrete pressure • Automatic rising

CFA VISION is installed into robust small-size container; the User Interface includes a 7 inch colors display with high brightness, and a waterproof and scratch-resistant polycarbonate keyboard.

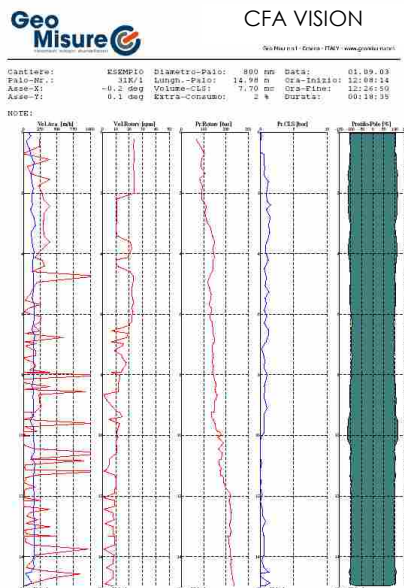
The connection to the in-field sensors is made possible through a multiple connector which allows for a fast disassembly and connection.

Automatic control of the propeller upwelling dependent on the pumped concrete consumption level and on the pressure, including an analog output.

The Central Unit includes a software button to disable the depth measuring when the excavating propeller is elongated or drawn back. The version equipped with built-in **GSM modem** allows for the **remote transfer of stored data**, the programming of work parameters, and for **remote service**.

Data is stored into internal memory and then downloaded to a PC using a standard USB key.





By using an easy-to-use software operating in WINDOWS™ XP,7,8 or VISTA™ operating systems, it is possible to transfer the data from the HD unit to the PC, and subsequently the operator can carry out the statistical analysis of stored data during the operation, as well as other quality controls, including the printing of records with the typical graphs of each concrete pole so realized.

Thanks to the software supplied, it is possible to customize the printing configuration by modifying the display scales, the printing colours, etc.

Besides showing the records of the measurement values previously listed, the report of each drill rod identifies the Building Yard, the Rod Number, the Max. Depth, the Date, the Start and End Time, the Duration, the Total pumped Concrete Volume, and the extra-consumption with respect to the predefined hypothetical volume.

It is also possible to display and print a final report (e.g., for the current day) such as a list of the concrete poles carried out, including the main values for each operation as described above.

The sensors wiring system is composed of two connector blocks. The first block is integrated to the truck; the depth sensor, the couple measurement sensor, the concrete pressure/volume sensor and the propeller rev. number sensor are connected to the first block. A second connector block, which includes the leakage protection circuit, is installed into the cab; the antenna inclination sensor, the central unit and the Power supply are connected to this block too.



Technical features

Power supply	24 V dc (21 - 30 V)
Installed power	30W
Digital output for the automatic upwelling control	24V dc
Analog output for the automatic upwelling control	0-4...20 mA or 0...5 - 10 V
Service temperature	-10° C to 60° C
Protection standard	IP 65 in conformity with DIN 40050 standards
Central unit overall dimensions	295 x 185 x 55 mm