



Icône®

Icône, the digital cone:

- Cost-effective CPT operation
- High quality data acquisition
- Entirely digital data transfer
- Both on land and offshore

Icône & Icontrol, the intelligent approach to data acquisition

Introduction

Large investments are involved with most infrastructural and civil engineering works. To reduce risks in these type of projects it is essential to acquire detailed and accurate information about the subsoil. Icône was designed to obtain this information reliably and is therefore an important tool for providing geotechnical information.

Description

The system consists of a completely digital cone, called Icône, and a digital control box called Icontrol. The Icône has a built-in AD-conversion and micro-controller and provides an entirely digital path to Icontrol. Thanks to this digital data transfer, the influence of cables or connectors on the measured data is a thing of the past. The connectors are robust and the cable itself flexible, which eases operation. Icône is also compatible with the Optocone system which provides optical, so wireless data transfer (see leaflet S27).

The Icontrol box is placed near the computer on which the data is recorded. Icontrol combines the depth information with the obtained CPT data and provides power to the Icône. Icontrol is connected to a PC or Laptop with an USB-connection. The GOnsite! software package is installed on the PC or Laptop for on-line presentation on screen and recording of the CPT data.

Icône and Icontrol work in conjunction with the usual equipment for depth registration and pushing. So, with a minimal investment, a high quality data acquisition system can be integrated even in existing CPT rigs.

Digital cone

The unique concept of Icône combines strength, reliability and economy. Icône is stronger than other available cones and at the same time more accurate and reliable. Thanks to its clever design maintenance has become easier and can be done by the CPT operator on location. Calibration data is stored in the cone itself so USB sticks or floppy disks are no longer necessary.

Specifications

Resolution: 24 bits
Cone tip area: 10 cm² or 15 cm²
Available parameters: q_c , f_s , U , I_{xy}

Cone tip resistance (q_c):

Nom. range: 50 MPa
Max. range: 150 MPa
Accuracy: 0.05 MPa
Accuracy for class 1: 0.05 MPa

Local friction (f_s):

Nom. range: 1 MPa
Max. range: 1.5 MPa
Accuracy: 0.01 MPa
Accuracy for class 1: 0.005 MPa

Pore-water pressure (U):

Nom. range: 2 / 10 MPa
Accuracy: 0.02 / 0.1 MPa




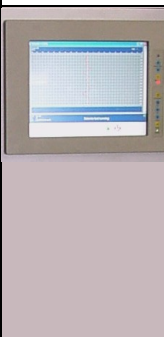
Inclination (I_{xy}):

Nom. range: 20°
Max. range: 25°
Accuracy: 0.5°

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in
every field"*

Optional parameters: seismic response, conductivity
Cone memory: 16 Mbit (≈ 8 hrs. CPT operations)
Calibration: class I
Compatibility: Optocone system, depth encoder

Accessories/Options

<p>Icontrol For providing power to the Icône and transferring the CPT data to a computer Power supply 220 Va.c. Consumption 30 VA</p>	
<p>Measuring cable Universal 4-wire cable for single or extended connection to Icontrol</p>	
<p>Standard depth encoder Depth encoder with wire, which can be mounted on any existing CPT rig Power supply: 10-30 Vd.c. 2000 pulses/metre</p>	
<p>Touch-Screen Touch-Screen function available in combination with e.g. a flat-panel PC System requirements: Industrial design 40 GByte HDD Intel Pentium III (Intel Celeron 848 MHz) 256 MB RAM</p>	

We reserve the right to change specifications without prior notice.

GOnsite!, Icône, Icontrol and Optocone are registered trademarks of A.P. van den Berg, Heerenveen. Patents apply for Icône and Optocone.



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