its

SEE INSIDE YOUR PROCESS

LEVEL-ITOMETER SYSTEM

INDUSTRIAL TOMOGRAPHY SYSTEMS PLC

Sunlight House
85 Quay Street
Manchester, M3 3JZ
United Kingdom

T: +44 (0) 161 832 9297
F: +44 (0) 161 839 5195
E: sales.support@itoms.com
www.itoms.com

Registered in England No.04139271

PRODUCT BROCHURE

Detect changes in interface level in real-time...

Interface and level detection are basic measurement requirements for many processes, and whilst traditional level detection techniques are available, certain interfaces present significant measurement challenges.

To overcome this, ITS has developed the LEVEL-ITOMETER package to meet the requirements of the most demanding applications.

Our LEVEL-ITOMETER package works using a dip probe (available in a range of sizes - pictured below left) that fits into your process vessel. The probe contains a set of electrodes distributed across its whole length, and these electrodes measure the electrical conductivity of their surroundings in real time using a small AC current.

Our software then takes these conductivity measurements and produces a volumetric distribution map complete with the location of any observable interfaces between components (see below).

Featuring an auto-calibration function (which responds to changing background conditions), the ITS LEVEL-ITOMETER is a valuable tool for use in process research and optimisation.

Figure 1: Range of LEVEL-ITOMETER Probes

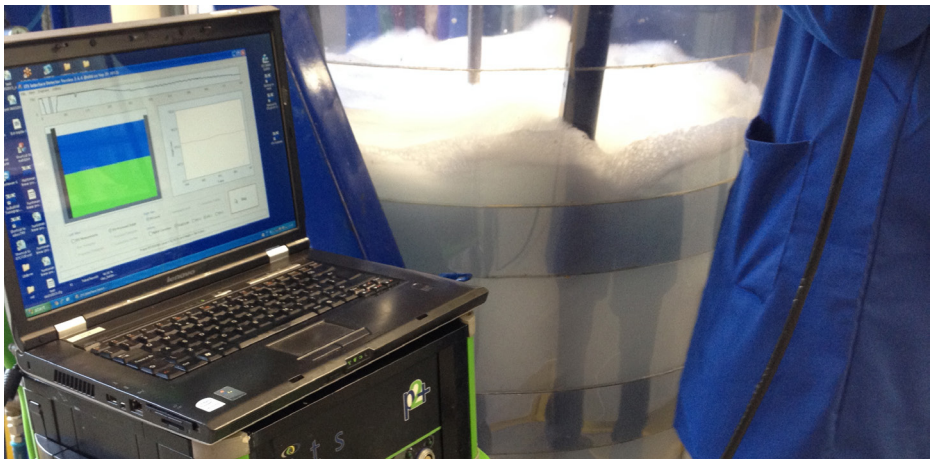


Figure 2: LEVEL-ITOMETER probe installed in flotation tank

INDUSTRIAL TOMOGRAPHY SYSTEMS PLC
Registered in England No.04139271

Sunlight House, 85 Quay Street
Manchester, M3 3JZ, United Kingdom

T: +44 (0) 161 832 9297
F: +44 (0) 161 839 5195

E: sales.support@itoms.com
www.itoms.com

TAILORED TO YOUR REQUIREMENTS

IFD probes can be built from millimetres to meters in scale, making the LEVEL-ITOMETER package suited to application ranging in scale from production and pilot plants, to R&D projects.

What's more, the sensor can be fabricated with materials resistant to chemicals or high radiation fields, with the additional option for intrinsically safe operation (certified to ATEX standard EEx ia IIC T6).

A VERSATILE TOOL

The LEVEL-ITOMETER works with any system where the components have a measurable difference in electrical conductivity: Aqueous/organic separations, mass transfer applications, solid settling, slurry separations, foam detection, fill height monitoring, and more.

As such, the ITS LEVEL-ITOMETER is being used for a range of applications across a wide variety of industries, including:

- Organic–aqueous interfaces, as found in solvent extraction (in mining and nuclear reprocessing), phase split (in pharmaceuticals) and oil / water separation in the petrochemical sector.
- Liquid-foam interfaces, as found in food and drink production and mineral processing flotation tanks.
- Suspended solids, as found in nuclear waste management, dredging, minerals processing and many other sectors.

ITS can provide advice on system suitability for particular processes, commissioning and technical support as required.

KEY BENEFITS

- Generate real-time data
- Scalable for R&D, pilot plants, and production
- Robust sensors: no moving parts, few materials of construction
- Volumetric: rather than point-based measurements
- Works with almost any separation process: liquid/solid/gas

PACKAGE INCLUDES

- Custom-built probe sensor (see example of size range on previous page)
- Data acquisition system
- User-friendly Windows-based tomography software (see below)
- Optional technical support from ITS's team of specialist engineers

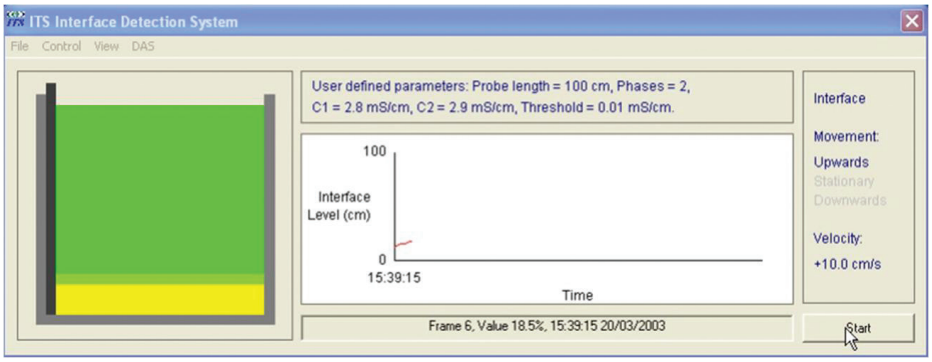
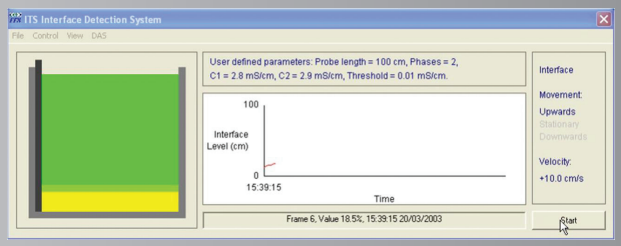


Figure 3: LEVEL-ITOMETER software interface

LEVEL-ITOMETER: SYSTEM SPECIFICATIONS

ITS tomography systems are comprised of a sensor that interfaces with your process, instrumentation, software, and technical support from our dedicated team of engineers.

SOFTWARE



SENSOR

INSTRUMENTATION

p2+ ERT instrument

TECHNICAL SUPPORT

For a detailed technical specification of this system, or to learn more about how it can enhance your processes, please email us, enquire online, or call +44 (0) 161 832 9297

INDUSTRIAL TOMOGRAPHY SYSTEMS PLC
Registered in England No.04139271

Sunlight House, 85 Quay Street
Manchester, M3 3JZ, United Kingdom

T: +44 (0) 161 832 9297
F: +44 (0) 161 839 5195

E: sales.support@itoms.com
www.itoms.com