

Gas Hold-up Tool (GHT)

The Gas Hold-up Tool provides a reliable full bore measurement of gas volume fraction, independent of flow regime or well deviation. The tool response is representative of the entire cross section of the well-bore within the casing and is almost completely independent of salinity, water hold-up, oil/water densities and material outside the casing.

Description

The GHT emits low energy gamma rays from a small 3 milliCurie Cobalt-57 source inside the tool, the gamma rays undergo a variety of interactions with well-bore fluids surrounding the tool; these include backscattering, photo-electron absorption and Compton Scattering. A sodium-iodide scintillation detector in the tool is positioned a short distance away from the source such that it will detect back scattered gamma rays. Less dense fluids, such as gas, produce less backscatter, hence detailed count rate is low in gas and high in liquids.

The short source-detector spacing reduces statistical errors associated with gamma ray detection as a result of Compton Scattering or photo-electron absorption. Calibration checks are carried out in air and water to ensure the tool is reading correctly before running in hole.

The tool is supplied with a shielded carrying case which alleviates the need for source insertion/removal.

Features

- Multi-phase flow profiling.
- Fluid Identification.
- Bubble Point Determination.
- Gas Entry Detection.
- Combinable with other Ultrawire™ PL tools.
- Surface read-out or memory operation.

Optional Accessories

- Calibration jig (part number 07416).
- Wellsite Verifier (part number 07415).

Specification

Temperature rating	350°F (177°C)
Pressure rating	15000psi (103MPa)
Tool diameter	1 11/16in (43mm)
Tool length	23.5in (597mm)
Tool weight	8.1lb (3.7kg)
Toolbus	Ultrawire™
Current consumption	24mA
Sensor measure point (from the bottom of the tool)	4in (102mm)
Accuracy	+/- 3%
Resolution	1%
Range	0-100% gas hold-up within 2.9 - 9.9in pipe internal diameter
Vertical resolution	2.5in (64mm)
Source (not supplied with GHT)	GSR005: Cobalt 57, 3mCi (111MBq)
Materials	Corrosion resistant throughout

Gas Hold-up Tool (GHT)



SONDEX WIRELINE
www.sondex.com